

ADB

# KEY INDICATORS

for Asia and the Pacific

# 2013

44th Edition

SPECIAL CHAPTER

## Asia's Economic Transformation: Where to, How, and How Fast?



Asian Development Bank





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## **Asia's Economic Transformation: Where to, How, and How Fast?**

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## Foreword

The *Key Indicators for Asia and the Pacific 2013 (Key Indicators)*, the 44th edition of this series, includes the latest available economic, financial, social, environmental, and Millennium Development Goal (MDG) indicators for the 48 regional members of the Asian Development Bank (ADB). This publication presents the latest key statistics on development issues concerning the economies of Asia and the Pacific to a wide audience, including policymakers, development practitioners, government officials, researchers, students, and the general public.

Part I of this issue is a special chapter on “Asia’s Economic Transformation: Where to, How, and How Fast?” The special chapter reviews the direction and pace of Asia’s transformation during recent decades and sketches the main contours of economic transformation that can be expected in coming decades. During the last 4 decades, Asia has grown faster than any other developing region, and a few of its economies have undergone a rapid and remarkable transformation. However, the pace of economic transformation of other economies has been slow. In many of them, agriculture is still the largest employer and workers are moving from agriculture into low-productivity services, bypassing industrialization. The chapter highlights facts and insights that are important for developing Asia to consider in moving ahead: (i) agriculture needs to be modernized by deploying infrastructure, introducing technological improvements, developing agribusiness, and increasing linkages to global value chains; (ii) industrialization is a step that, in general, is difficult to bypass on the path to becoming a high-income economy; (iii) the service sector is already the largest source of employment and this trend will continue. However, evidence indicates that many workers are moving into low-productivity services; (iv) basic education of high quality matters for industrial upgrading and, in general, for the development of new industries that can compete internationally; and (v) although it is important for countries to exploit their comparative advantages, some form of government intervention may be necessary, particularly where there are market or coordination failures (for education, infrastructure, etc.).

Part II contains the MDG indicators and short commentaries on progress toward achieving the specified targets. Two years before the MDG deadline in 2015, the region continues to make progress toward achieving the MDGs, although unevenly across the goals and economies. While most of the region has achieved significant progress in reducing poverty, improving access to universal primary education, and promoting gender equality and women’s empowerment, the progress in reducing child mortality and malnourishment and improving maternal health will probably not suffice to meet the 2015 targets.

Regional Tables in Part III present indicators in seven themes: People; Economy and Output; Money, Finance, and Prices; Globalization; Transport, Electricity, and Communications; Energy and Environment; and Government and Governance. Although economic growth in the region was subdued in 2012, the message all the regional tables reinforce is that of Asia’s growing importance in the world. The Asia and Pacific region now accounts for over half of the global population, more than one-third of global GDP (in purchasing power parity terms), and about a third of world exports. However, this growing importance brings with it growing concerns. The region now consumes two-fifths of world energy, continues to increase its emissions of greenhouse gases and other pollutants, and faces increasing traffic congestion and rising consumption of scarce resources.

The information and data in this publication are complemented by a suite of online tables and visualization tools that we hope will permit users to look in more detail at the development issues concerning the economies of Asia and the Pacific.

This year's *Key Indicators* is also supplemented by the third edition of the *Framework of Inclusive Growth Indicators*, which contains a set of 35 indicators that measure income and non-income outcomes of inclusive growth; the processes and inputs that are important to improve access to opportunities, social inclusion, and social safety nets; and good governance and institutions.

We appreciate the continuing cooperation of the governments and international agencies in providing data to ADB. We hope that *Key Indicators* will continue to be a valuable resource for monitoring the progress and addressing the development challenges in the region. Finally, we welcome feedback from our users on both the content and structure of the publication, which can be e-mailed to [keyindicators@adb.org](mailto:keyindicators@adb.org).



Takehiko Nakao  
President

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Changyong Rhee  
Chief Economist



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## Statistical Partners

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### REGIONAL MEMBERS

Afghanistan	Central Statistics Organization Da Afghanistan Bank
Armenia	Central Bank of Armenia National Statistical Service of the Republic of Armenia
Australia	Australian Bureau of Agricultural and Resource Economics and Sciences Australian Bureau of Statistics Bureau of Resources and Energy Economics Reserve Bank of Australia
Azerbaijan	Central Bank of the Republic of Azerbaijan State Statistical Committee of the Republic of Azerbaijan
Bangladesh	Bangladesh Bank Bangladesh Bureau of Statistics Ministry of Finance
Bhutan	Ministry of Finance Ministry of Labor and Human Resources National Statistics Bureau Royal Monetary Authority of Bhutan
Brunei Darussalam	Autoriti Monetary Brunei Darussalam Department of Statistics Ministry of Finance
Cambodia	Ministry of Economy and Finance National Bank of Cambodia National Institute of Statistics
China, People's Republic of	National Bureau of Statistics
Cook Islands	Cook Islands Statistics Office Ministry of Finance and Economic Management
Fiji	Bureau of Statistics Reserve Bank of Fiji

Georgia	Ministry of Finance of Georgia National Bank of Georgia National Statistics Office of Georgia
Hong Kong, China	Census and Statistics Department Hong Kong Monetary Authority
India	Central Statistical Organization Ministry of Finance Reserve Bank of India
Indonesia	Bank Indonesia Badan Pusat Statistik-Statistics Indonesia Ministry of Energy and Mineral Resources PT Pertamina (Persero)
Japan	Bank of Japan Economic and Social Research Institute Japan Statistics Bureau Ministry of Economy, Trade and Industry Ministry of Finance
Kazakhstan	Agency of Statistics of the Republic of Kazakhstan National Bank of Kazakhstan
Kiribati	Kiribati National Statistics Office National Economic Planning Office
Korea, Republic of	Bank of Korea Ministry of Strategy and Finance Statistics Korea
Kyrgyz Republic	National Bank of the Kyrgyz Republic National Statistical Committee of the Kyrgyz Republic
Lao People's Democratic Republic	Bank of the Lao PDR Lao Statistics Bureau Ministry of Finance
Malaysia	Bank Negara Malaysia Malaysia Department of Statistics Ministry of Finance
Maldives	Department of National Planning Maldives Monetary Authority Ministry of Finance and Treasury
Marshall Islands, Republic of	Economic Policy, Planning and Statistics Office

Micronesia, Federated States of	Office of Statistics, Budget and Economic Management, Overseas Development Assistance and Compact Management
Mongolia	Bank of Mongolia National Statistical Office of Mongolia
Myanmar	Central Statistical Organization Ministry of National Planning and Economic Development
Nauru	Ministry of Finance and Economic Planning Nauru Bureau of Statistics
Nepal	Central Bureau of Statistics Ministry of Finance Nepal Rastra Bank
New Zealand	Ministry of Economic Development Reserve Bank of New Zealand Statistics New Zealand
Pakistan	Ministry of Economic Affairs and Statistics Ministry of Finance Pakistan Bureau of Statistics State Bank of Pakistan
Palau	Bureau of Budget and Planning, Ministry of Finance
Papua New Guinea	Bank of Papua New Guinea Department of Treasury National Statistical Office
Philippines	Bangko Sentral ng Pilipinas Bureau of Local Government Finance Bureau of the Treasury Department of Budget and Management Department of Energy National Statistical Coordination Board National Statistics Office
Samoa	Bureau of Statistics Central Bank of Samoa Economic Policy and Planning Division, Ministry of Finance
Singapore	Economic Development Board International Enterprise Singapore Ministry of Finance Ministry of Manpower Monetary Authority of Singapore Singapore Department of Statistics

Solomon Islands	Central Bank of Solomon Islands Statistics Office
Sri Lanka	Central Bank of Sri Lanka Department of Census and Statistics
Taipei, China	Central Bank of China Directorate-General of Budget, Accounting and Statistics Ministry of Education Ministry of Finance
Tajikistan	National Bank of Tajikistan Agency on Statistics under President of the Republic of Tajikistan (Tajstat)
Thailand	Bank of Thailand Ministry of Finance National Economic and Social Development Board National Statistical Office
Timor-Leste	Central Bank of Timor-Leste Ministry of Finance General Directorate of Statistics
Tonga	Ministry of Finance and National Planning National Reserve Bank of Tonga Department of Statistics
Turkmenistan	The State Committee of Turkmenistan on Statistics
Tuvalu	Central Statistics Division, Ministry of Finance and Economic Planning
Uzbekistan	Cabinet of Ministers, Government of Uzbekistan Central Bank of Uzbekistan Ministry of Finance of the Republic of Uzbekistan State Committee on the Republic of Uzbekistan on Statistics
Vanuatu	Department of Finance and Treasury Reserve Bank of Vanuatu Vanuatu National Statistics Office
Viet Nam	General Statistics Office Ministry of Finance State Bank of Viet Nam

**INTERNATIONAL, PRIVATE, AND NONGOVERNMENT ORGANIZATIONS**

Asia Pacific Energy Research Center  
Association of Southeast Asian Nations  
Carbon Dioxide Information Analysis Center  
CEIC Data Company Ltd.  
European Bank for Reconstruction and Development  
Food and Agriculture Organization  
German Agency for Technical Cooperation  
ICF International  
International Development Association  
International Energy Agency  
International Labour Organization  
International Monetary Fund  
International Road Federation  
International Telecommunication Union  
Interstate Statistical Committee of the Commonwealth of Independent States  
Organisation for Economic Co-operation and Development  
Pacific and Virgin Islands Training Initiatives, Graduate School USA  
Secretariat of the Pacific Community  
Transparency International  
UNESCO Institute for Statistics  
United Nations Children's Fund  
United Nations Department of Economic and Social Affairs  
United Nations Development Programme  
United Nations Economic Commission for Europe  
United Nations Economic and Social Commission for Asia and the Pacific  
United Nations Educational, Scientific and Cultural Organization  
United Nations Environment Program  
United Nations Human Settlements Programme  
United Nations Population Division  
United Nations Statistics Division  
United Nations World Tourism Organization  
United States Census Bureau  
United States Bureau of Economic Analysis  
World Bank  
World Health Organization  
WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation  
World Trade Organization

## Guide for Users

The *Key Indicators for Asia and the Pacific 2013 (Key Indicators 2013)* has the following structure. The Highlights section presents key messages from various parts of the publication. Part I contains a special chapter that varies every year and deals with a topic on key policy issues, measurement issues, or development challenges. This year's special chapter reviews the direction and pace of Asia's transformation during recent decades and sketches the main contours of economic transformation that can be expected in coming decades.

Part II comprises tables on indicators for the Millennium Development Goals (MDGs). The indicators are presented according to the United Nations revised MDG framework, which was expanded in January 2008 to include new targets for full and productive employment and decent work for all, access to reproductive health, access to treatment for HIV/ AIDS, and protection of biodiversity, as agreed on by member states at the 2005 World Summit. This year's *Key Indicators 2013* includes as many of the indicators for the new targets as possible. The tables contain indicators associated with each MDG target.

Part III consists of 112 regional trends and tables grouped into seven themes: People; Economy and Output; Money, Finance, and Prices; Globalization; Transport, Electricity, and Communications; Energy and Environment; and Government and Governance. Each theme is further divided into subtopics. The tables contain indicators related to a subtopic.

The MDGs and themes in Parts II and III start with a brief analysis of key trends of selected indicators. The accompanying statistical tables are presented for 48 economies of Asia and the Pacific that are members of the Asian Development Bank (ADB). The term "country," used interchangeably with "economy," is not intended to make any judgment as to the legal or other status of any territory or area. The 48 economies have been broadly grouped into developing and developed members aligned with the operational effectiveness of ADB's regional departments. The latter refer exclusively to Australia, Japan, and New Zealand. The remaining 45 developing members are further grouped into five subregions based on ADB's operational regions—Central and West Asia, East Asia, South Asia, Southeast Asia, and the Pacific. Economies are listed alphabetically in each group. The term "regional members" used in some tables refers to all 48 regional members of ADB, both developing and developed. Indicators are shown for the most recent year or period for which data are available and, in most tables, for an earlier year or period (usually 1990 or 1995).

Finally, Part IV defines the indicators in the MDGs and regional trends and tables. The publication also has a CD-ROM containing Parts I, II, III, and IV, plus individual tables for ADB's 48 regional members. The four parts and the individual statistical tables of the 48 regional members are also available on ADB's website at [www.adb.org/key-indicators/2013](http://www.adb.org/key-indicators/2013).

Data for the MDG indicators, regional trends and tables, and country tables are obtained mainly from two sources: ADB's statistical partners among its regional members, and international statistical agencies. Data obtained from the regional members are comparable to the extent that the regional members follow standard statistical concepts, definitions, and estimation methods recommended by the United Nations and other applicable international agencies. Nevertheless, regional members invariably develop and use their own concepts, definitions, and estimation methodologies to suit their individual circumstances, and these may not necessarily comply with recommended international standards. Thus, even though attempts were made to present the data in a comparable and uniform format, they are subject to variations in the statistical methods used by regional members, so that full comparability of data may not be possible. These variations are reflected in the footnotes of the statistical tables or noted in the Data Issues and Comparability sections. Moreover, the aggregates for developing and regional members shown in some tables are treated as approximations of the actual total or average, or growth rates, due to missing data from the primary source. No attempt has been made to impute the missing data.

## Fiscal Year

The data cutoff date for this issue is **July 2013**.

Twenty-four regional members have varying fiscal years not corresponding to the calendar year. Whenever the statistical series (for example, national accounts or government finance) are compiled on a fiscal year basis, these are presented under single-year captions corresponding to the period under which most of the fiscal year falls, as follows:

Regional Members	Fiscal Year	Year Caption
Afghanistan	21 March 2012–20 March 2013	2012
Brunei Darussalam (after 2002) Hong Kong, China India Japan Myanmar New Zealand Singapore	1 April 2012–31 March 2013	2012
Indonesia (until 1999)	1 April 1999–31 March 2000	1999
Australia Bangladesh Bhutan Cook Islands Nauru Pakistan Samoa Tonga	1 July 2011–30 June 2012	2012
Taipei, China (until 1999)	1 July 1999–30 June 2000	2000
Nepal	16 July 2011–15 July 2012	2012
Lao People's Democratic Republic (after 1992) Marshall Islands, Republic of the Micronesia, Federated States of Palau Thailand	1 October 2011–30 September 2012	2012

## Key Symbols

...	Data not available at cutoff date
—	Magnitude equals zero
0 or 0.0	Magnitude is less than half of unit employed
*	Provisional/preliminary/estimate/budget figure
	Marks break in series
>	Greater than
<	Less than
≥	Greater than or equal to
≤	Less than or equal to
na	Not applicable

## Measurement Units

μg	microgram
kg	kilogram
km	kilometer
kWh	kilowatt-hour
kt	kiloton

## Abbreviations and Acronyms

ADB	Asian Development Bank
ADB SDBS	Asian Development Bank Statistical Database System
AIDS	acquired immunodeficiency syndrome
APEC	Asia-Pacific Economic Cooperation
BOD	biochemical oxygen demand
BOP	balance of payments
BRT	bus rapid transit
CDIAC	Carbon Dioxide Information Analysis Center
CFC	chlorofluorocarbons
CIF	cost, insurance, and freight
CNG	compressed natural gas
CO <sub>2</sub>	carbon dioxide
CPI	corruption perceptions index
CPI	consumer price index
DAC	Development Assistance Committee
DOTS	Directly Observed Treatment Short Course
EFB	empty fruit bunches
EKC	Environmental Kuznets Curve
ESCAP	Economic and Social Commission for Asia and the Pacific
FAO	Food and Agriculture Organization
FDI	foreign direct investment

FIZ	free industrial zone
FOB	free on board
FTZ	free trade zone
GAR	Global Assessment Report on Risk Reduction
GCF	gross capital formation
GDP	gross domestic product
GHG	greenhouse gas
GNI	gross national income
GPI	gender parity index
GRUMP	Global Rural Urban Mapping Project
HCR	head count ratio
HDI	human development index
HIV	human immunodeficiency virus
IBT	increasing block tariff
IEA	International Energy Agency
ILO	International Labour Organization
IMF	International Monetary Fund
ISIC	International Standard Industrial Classification
IT	information technology
ITU	International Telecommunication Union
IUCN	International Union for Conservation of Nature
KILM	Key Indicators of the Labour Market
Lao PDR	Lao People's Democratic Republic
LCU	local currency unit
LDC	least developed countries
LECZ	low-elevation coastal zone
Ln	natural logarithm
MDG	Millennium Development Goal
NPL	nonperforming loan
ODA	official development assistance
ODP	ozone-depleting potential
OECD	Organisation for Economic Co-operation and Development
PLI	price level index
PM	particulate matter
PM <sub>10</sub>	particulate matter with diameter of 10 micrometers or less
PPP	purchasing power parity
PRC	People's Republic of China
SNA	System of National Accounts
SPC	Secretariat of the Pacific Community
SPM	suspended particulate matter
TB	tuberculosis
TFR	total fertility rate
UN	United Nations
UNAIDS	United Nation on HIV/AIDS
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization

UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund
UN-HABITAT	United Nations Human Settlements Programme
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNODC	United Nations Office on Drugs and Crime
UNSD	United Nations Statistics Division
UNWTO	United Nations World Tourism Organization
US	United States
US EPA	United States Environmental Protection Agency
WDI	World Development Indicators
WDPA	World Database on Protected Areas
WEO	World Energy Outlook
WHO	World Health Organization
WRI	World Resource Institute
WTO	World Trade Organization
WUP	World Urbanization Prospects
WVS	World Values Survey

Unless otherwise indicated, "\$" refers to United States dollars.



## Highlights

The *Key Indicators for Asia and the Pacific 2013* is the flagship annual statistical publication of the Asian Development Bank (ADB). The *Key Indicators* presents the latest available indicators for ADB's 48 regional members. It contains analyses and statistical tables on the Millennium Development Goals (MDGs) and seven other economic, financial, social, and environmental themes. The *Key Indicators* also includes a special chapter—Asia's economic transformation: Where to, how, and how fast?—that reviews the direction and pace of Asia's transformation during recent decades and sketches the main contours of economic transformation that can be expected in coming decades.

## Part I: Special Chapter

### Asia's economic transformation: Where to, how, and how fast?

#### Asia's transformation during the last 4–5 decades has been unprecedented but heterogeneous

- Developing Asia has experienced significant structural change during the last 4–5 decades, but it has been very uneven. Five economies—Japan; Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China—underwent the greatest transformation and became modern industrial and service economies. In many other Asian economies, structural transformation is taking place slowly and without significant deepening.
- In general, labor productivity growth due to intersectoral relocation of labor into higher-productivity sectors has been less important than the growth of labor productivity within sectors.
- Agriculture's share of total output has declined significantly, but agriculture is still the sector with the lowest productivity. The share of employment in agriculture has also fallen, but the sector still engages over 700 million workers—42.82% of Asia's total employment.
- Many Asian economies have attained high manufacturing output shares (hence the term “Factory Asia,” especially applied to the People's Republic of China [PRC]). Asia's most advanced economies have industrialized when measured by employment shares, but most of the other economies have not. Some Asian economies

appear to not have industrialized significantly and to have weak supply chains. As a consequence, their economic structure has not deepened.

- Measured by gross domestic product (GDP) shares, Asia is a service region, but the service sector is heterogeneous with both traditional, low-productivity services and modern, high-productivity services. In many Asian economies, structural transformation appears as a shift from agriculture into not low-productivity service subsectors.
- The export baskets of Asia's advanced economies have become more diversified and more sophisticated, but this is not the case in many other economies. Global value chains are a mechanism for firms and farms in developing countries to access the world market and advanced technologies, but only a few Asian countries are strongly linked to these chains. The share of value added Asian countries retain from their exports varies significantly.
- More diversified economies are more inclusive—they have lower Gini coefficients.

#### Several priorities merit consideration for Asia's continuing transformation

- Developing Asia needs to make a significant qualitative leap in structural transformation and to focus on transferring labor from sectors of low productivity (typically agriculture) into sectors of high productivity.

- But future transformation will most likely not resemble in pace and direction that seen in Japan and the newly industrialized economies during the second half of the 20th century, as the overall economic environment is very different today. The rest of developing Asia may not be likely to transform as quickly as this group.
- Policymakers ought to focus on facilitating firms and workforces to develop the capabilities they need to manufacture new products, to enter new markets, and to move up the development ladder (i.e., to make and provide increasingly sophisticated and complex products and services).
- Developments in agriculture will be key for Asia's future, in particular for the low-income economies. Agriculture has to "industrialize" (i.e., develop agribusiness and adopt modern methods) for the sector to achieve productivity levels similar to those in the economy as a whole. Increases in agricultural productivity allow for wage increases, which lead to investments in farm and human capital that are key for poverty reduction and, ultimately, for inclusive growth. During the coming decades, agriculture's share of GDP is likely to decline in most Asian economies to levels similar to those in developed countries, while agriculture's employment share will still be high in some countries. Technological advances in agriculture will help increase its productivity, and links to global agricultural value chains can facilitate the adoption of new technology.
- History suggests that manufacturing is important and that industrialization has been nearly essential for an economy to achieve high income levels. No country has achieved high-income status without its manufacturing sectors reaching at least an 18% share of total employment. Modern industrial and service economies have manufacturing at their core. We estimate that an economy where the shares of manufacturing in total employment and output are at least 18% has a 42% probability of achieving high income levels, but the probability of an economy with a small manufacturing sector (in both output and employment) achieving high-income status is less than 5%.
- Other factors are also important. Results also indicate that a country that industrializes in output and (i) has 17 kilometers of road per 1,000 persons has a 44.5% chance of being high income, (ii) has liquid liabilities representing 75% of GDP has a 43.5% chance of being high income, (iii) where workers have 9 years of average schooling has a probability of 48.5% of being a high income, (iv) with a share of high-tech manufacturing output representing 52% of total manufacturing GDP has a 75% chance of being high income, and (v) with a share of high-tech manufacturing employment representing 49% of total manufacturing employment has also a 75% chance of being high-income.
- These conclusions about the importance of manufacturing imply that a diversified manufacturing base remains important for economic development, so that labor does not simply move from low-productivity agriculture into low-productivity services.
- Upcoming inventions may revolutionize manufacturing, but they are likely to benefit developed countries first and foremost. Upcoming inventions tend to be very technology-intensive and will not create the millions of jobs that developing Asia needs. Factory Asia may continue to thrive for some time, but manufacturing will not be able to absorb 25%–30% of the region's workforce.
- The experience so far with global value chains is that if countries get stuck in the least desirable stages of the chains, they will not serve as a springboard for fast development.
- Countries that have based their industrial development strategies on foreign direct investment and disregarded the importance of local firms, can lack industrial deepening.
- Services will become the largest employer in most countries. Like manufacturing, some services have displayed high productivity growth (e.g., modern business services and finance), but others have not. In many countries, services provide significant employment, but much of it is of lower productivity than that in manufacturing. Policymakers need to

identify niches of high labor productivity within services to ensure growth, implement reforms to increase the sector's competitiveness, and encourage the expansion of labor-intensive services to accommodate employment.

- Provision of primary education and education of high quality facilitate export diversification. However, the process of diversification is “path dependent”—economies cannot readily jump from exporting unsophisticated products such as t-shirts to exporting very sophisticated ones such as cars; rather they need to progress through gradual steps along the path. Education achievement alone does not help countries leapfrog into significantly more sophisticated products than those they currently export, but the provision of good quality education reduces path dependence.
- Countries need to implement policies and develop institutions that facilitate desirable structural transformation. These are needed to promote mobility across occupations and sectors and movement into high-productivity activities.
- For India and other economies that have bypassed industrialization or are experiencing transition from agriculture into low-quality services, the recommendation is to develop a deeper and broader industrial base.
- For the advanced Southeast Asian economies, the main recommendation is to focus on upgrading, as they are already quite diversified. Countries such as Malaysia and Thailand have developed institutional capacity to diversify their economies, but need to deepen and upgrade their industries to avoid being caught in the middle-income trap. To escape this trap, the Philippines needs to develop a much deeper industrial base to complement its service sector.
- Small, low-income economies such as Cambodia, the Lao People's Democratic Republic, and Nepal can benefit from their comparative advantage in labor-intensive activities. But they should also implement policies and develop institutions that facilitate the accumulation of capabilities, foster diversification and upgrading, and target specific activities in more advanced industries, in order to progress from the simplest products into complex products and services.
- Most islands in the Pacific subregion will have difficulty industrializing. For them, the future lies in developing niches in some services.
- Economies that are rich in natural resources (e.g., Kazakhstan) need to manage those resources well and think about diversification.
- Countries that are just embarking on a deep reform process, such as Myanmar, can benefit from the experiences of other countries that have gone through the process.

## **The analytical results have different implications for different country profiles**

- Countries with large shares of employment in agriculture (such as Bangladesh, the PRC, India, Pakistan, and Thailand) need to develop industries and services that absorb labor. Concomitantly, the countryside will have to industrialize.
- The PRC and India are investing in science and engineering. So far, their efforts have been directed toward making inexpensive versions of existing goods. Over time, their role as innovators has to increase.

## Part II: Millennium Development Goals

Part II contains the Millennium Development Goals (MDG) indicators and short commentaries on progress toward achieving the specified targets. Two years before the MDG deadline in 2015, the region continues to make progress toward achieving the MDGs, although unevenly across the goals and economies. Most of the region has achieved significant progress in reducing poverty, improving access to universal primary education, and promoting gender equality and women's empowerment. However, progress in reducing child mortality and malnourishment and in improving maternal health will probably not suffice to meet the 2015 targets.

While the majority of economies have achieved the MDG target to improve access to safe drinking water, at least half could miss the target on improved sanitation. On the environment, the region has extended protected areas, which are dedicated to safeguarding and maintaining biological diversity and natural or cultural resources. The percentage of slum dwellers in urban populations has declined. With respect to global partnerships, official flows to ADB developing members have increased during most recent years but declined in 2011. The proportion of bilateral development assistance that is untied has turned down.

### MDG 1: Eradicate extreme poverty and hunger

- Most economies in Asia and the Pacific—17 of 22 with available data—have already achieved the target to halve the share of population living in extreme poverty. Nevertheless, about 800 million people in the region still live on less than \$1.25 a day.
- While the number of working poor declined in most economies, a significant proportion of workers across the region earned too little to lift their families out of poverty.
- The proportion of vulnerable workers, often without formal work arrangements, exceeded 40% of total employment in 18 economies, and was over 80% in two of the most populous economies—Bangladesh and India.
- Thirteen economies have already achieved or are on track to meet the MDG target to halve the percentage of children under 5 years of age who are malnourished. Discouragingly, 11 are making slow progress and will likely miss the target by 2015, and three are making no progress.

### MDG 2: Achieve universal primary education

- The majority of developing member economies have reached the primary school enrollment target, with 26 achieving enrollment rates of 95% or better. But a dozen economies are likely to miss this goal.
- Many children do not stay in primary school through the last year. Expected primary school completion rates increased, but 18 of 34 reporting economies could fall short of the MDG target, including several of the most populous ones.
- Youth literacy rates exceeded 95% in 31 of 42 economies with data in the latest year. Most economies with low youth literacy rates showed an improving trend.

### MDG 3: Promote gender equality and empower women

- All but 3 of 42 reporting economies have already achieved or expected to achieve gender equality at the primary education level by 2015. At the secondary level, only 5 economies might fall short of the target.

- The performance on gender equality in tertiary education has improved, but 13 economies are lagging, including two of the most populous ones—Bangladesh and India.
- Women held less than 40% of the wage-earning jobs outside of agriculture in 16 of 34 reporting economies, and less than 20% in three of the most populous ones despite some improvement over time. Women's representation in national parliaments increased in 29 of 40 reporting regional members between 2000 and the latest year.

## MDG 4: Reduce child mortality

- Child mortality was reduced by about half across the region between 1990 and 2011. In some cases, including the PRC, deaths of children under 5 years old fell by 70%. For 29 of 43 reporting members, though, the target of a two-thirds reduction by 2015 is beyond reach unless they accelerate progress.
- Further reductions in child mortality require greater attention to the health of babies under 12 months old, who account for most of the under-5 child mortality. Only 12 of 45 economies have already lowered or are expected to lower infant mortality by two-thirds by 2015.
- Measles immunization programs have made strong progress. About 86% of the region's 1-year-olds were immunized against this disease in 2011. However immunization rates were low in some economies, and declining in others.

## MDG 5: Improve maternal health

- Maternal health improved significantly in the region, with the maternal mortality ratio reduced by more than half between 1990 and 2010. Still, 28 of 38 reporting economies could fall short of achieving the target, which is a 75% reduction in maternal mortality ratio by 2015.
- The proportion of births attended by skilled health personnel is high in most economies. However, 23

of 41 economies with data are expected to miss the target to reduce births without skilled attendants by 75%.

- Renewed efforts are needed to provide women with access to good quality healthcare during pregnancy. The target of at least one antenatal care visit has been met or is expected to be met in 19 of 32 reporting economies, including the PRC and Indonesia, but the target may not be achieved in Bangladesh, India, Pakistan, and 10 others.

## MDG 6: Combat HIV/AIDS, malaria, and other diseases

- HIV prevalence in the region declined between 2001 and 2011 in countries with relatively high rates of the infection. Of the 27 reporting economies, 18 have already met or are expected to meet the target to halt and start to reverse the spread of HIV/AIDS, but 9 are not making progress.
- In 2011, most economies increased access to antiretroviral drugs to people with advanced HIV infection; only two economies reached 80% coverage, though.
- Of 44 reporting economies, 40 have either met the target to reverse the incidence of tuberculosis or are expected to do so by 2015.
- Malaria remains a problem and deaths from the disease are relatively high in the Pacific.

## MDG 7: Ensure environmental sustainability

- The target to provide households with improved drinking water has been met by twenty five of 42 reporting economies, including PRC and India.
- Progress on the sanitation target is less encouraging. Twenty five of 42 economies are expected to fall short of the target to halve the proportion of people using unimproved sanitation by 2015, including four of the five most populous countries.

- The percentage of slum dwellers in urban populations declined in most economies that report data on slums.
- The region has increased protected areas, which are dedicated to safeguarding and maintaining biological diversity and natural or cultural resources, and some progress is being made on forest cover. However, sustained economic growth has driven increases in emissions of carbon dioxide..
- The proportion of untied official development assistance to total development assistance declined from 66% in 2008 to 49% in 2011.
- Although official flows from all sources to ADB developing members eased by 7% in 2011, they were up by 83% since 2006. Almost 20% of total disbursements of official flows to ADB members in 2011 went to Afghanistan.
- Growth of 19% in merchandise exports from Asia and the Pacific contributed to a general decline in debt-service to export ratios in 2011. Duty free access to developed country markets continued to improve.

## **MDG 8: Develop a global partnership for development**

- Net official development assistance to developing economies worldwide fell by 2% in real terms in 2011 and preliminary data indicate a further 4% decline in 2012.

## Millennium Development Goals Progress Tracking

Goal	1	2	3	4	5	6	7														
Developing Member Economies	\$1.25 per day poverty	Underweight children	Primary enrollment	Reaching last grade	Gender Primary	Gender Secondary	Gender Tertiary	Under-5 Mortality	Infant Mortality	Maternal Mortality	Skilled birth attendance	Antenatal care (≥1 visit)	HIV prevalence	TB incidence	TB prevalence	Forest cover	Protected area	CO <sub>2</sub> emissions per capita	ODP substance consumption	Safe drinking water	Basic sanitation
Central and West Asia																					
Afghanistan		▲			■	■	▲	■	■	■	■	■	▲	▲	●	▲	▲	▲	●	●	■
Armenia	●	▲	●	●	●	●	●	▲	▲	■	■	●	▲	●	●	▲	●	▲	●	●	■
Azerbaijan	●	■	▲	●	●	●	●	■	■	■	■	■	▲	●	●	▲	●	●	●	■	▲
Georgia	▲	■	●	●	●	●	●	■	■	■	■	■	▲	●	●	▲	●	●	●	■	▲
Kazakhstan	●	■	●	●	●	●	●	■	■	■	●	●	▲	●	●	▲	●	▲	●	▲	■
Kyrgyz Republic	●	●	●	●	●	●	●	■	■	■	▲	●	▲	●	●	●	●	●	●	●	▲
Pakistan	●	■	■	▲	■	■	▲	■	■	■	■	■	▲	▲	●	▲	▲	▲	■	■	■
Tajikistan	●		●	●	●	■	■	■	■	■	■	▲	▲	●	●	▲	▲	●	●	■	●
Turkmenistan	●	▲						■	■	■	■	●		●	●	▲	▲	▲	●	▲	●
Uzbekistan		●	▲	●	●	●	▲	■	■	■	●	●		●	●	●	●	●	●	▲	●
East Asia																					
China, People's Rep. of	●	●	●		●	●	●	●	●	▲	●	▲	▲	●	●	●	●	▲	●	●	●
Hong Kong, China			●	●	●	●	●	●	●	▲				●	●		●	●			
Korea, Rep. of			●	●	●	●	■	■	■	■	●		▲	▲	●	▲	●	▲	●	●	●
Mongolia		●	●	▲	●	●	●	●	▲	■	●	●	▲	●	●	▲	●	●	●	●	■
Taipei, China			●		●	●	●		■	▲						●	●	▲	●		
South Asia																					
Bangladesh	■	▲				●	■	●	▲	▲	■	■	▲	▲	●	▲	●	▲	●	■	■
Bhutan	●	■	■	▲	●	●	■	▲	■	●	▲	●	▲	●	●	●	●	▲	▲	●	■
India	■		●	■	●	▲	●	■	■	■	■	■		●	●	●	▲	▲	●	●	■
Maldives		▲	▲		●	●	●	●	●	●	■	■	▲	●	●	▲	▲	▲	●	●	■
Nepal	●	■		■	▲	▲	■	▲	■	●	■	■	●	▲	▲	▲	▲	▲	●	●	■
Sri Lanka	●	▲	▲	●	●	●	●	■	■	■	●	●	▲	▲	●	▲	●	▲	●	●	●
Southeast Asia																					
Brunei Darussalam			●	●	●	●	●	■	■	■	●	●		●	●	▲	●	●			
Cambodia	●	■	●	■		▲	■	■	■	▲	■	■	●	●		▲	●	▲	●		■
Indonesia	●	■	●	■	●	●	▲	▲	■	■	▲	▲	▲	●	●	▲	●	▲	●	▲	■
Lao PDR	▲	■	●	■	▲	■	■	●	●	▲	▲	■	▲	●	●	▲	●	▲	●	●	●
Malaysia	●	▲	●	●	●	●	●	▲	▲	■	▲	▲	●	●	●	▲	●	▲	●	●	■
Myanmar		■		■	●	●	●	■	■	■	■	■	●	●	●	▲	●	▲	●	●	▲
Philippines	■	■	▲	■	●	●	●	■	■	■	■	■	▲	●	●	●	●	▲	●	▲	■
Singapore								▲	●	■			▲	●	●	▲	●	●	●	●	●
Thailand	●	●	▲		●	●	●	▲	▲	■	▲	●	▲	●	●	▲	●	▲	●	●	●
Viet Nam	●	●	●	▲	▲		●	■	■	●	▲	▲	▲	●	●	●	●	▲	●	●	●
The Pacific																					
Cook Islands			●	▲	●	●		■	■		●	●		●	●	●	●	▲	●	●	▲
Fiji	●		●	▲	●	●		■	■	■			▲	●	●		●	▲	●	●	●
Kiribati			●	▲	●	●		■	■		▲	▲		●	●	▲	●	▲	■	■	■
Marshall Islands			●	■	●	●		■	■		●			▲	▲	▲	●	▲	●	■	■
Micronesia, Fed. States of			●	▲	●			■	■	■	●			●	●	▲	●	●	▲	▲	▲
Nauru			●		●	●		▲	▲					▲	▲	▲	▲	●	●	■	▲
Palau			▲		●	●		■	■	■	●	▲		▲	▲	●	●	▲	●	■	▲
Papua New Guinea			■	▲	■	■	■	■	■	■	▲	■	●	●	●	▲	●	▲	■	■	▲
Samoa			▲	▲	●	●	▲	■	■	■	■	■		●	●	●	●	▲	●	■	▲
Solomon Islands			■	■	●	▲		■	■	■	■	■		●	●	▲	●	●	■	■	■
Timor-Leste		▲	■		●	●	▲	●	▲	▲	■	■		▲	●	▲	●	●	■	■	■
Tonga			●	▲	●	●	●	■	■	▲	●			●	●	▲	●	▲	■	■	▲
Tuvalu			●	▲	●	●		■	■		▲	●		●	●	▲	●	▲	●	■	▲
Vanuatu		▲	●	■	●	●		▲	▲	■	▲			●		▲	●	●	▲	●	■

■ = Early Achiever    ▲ = On track    ■ = Slow    ▲ = No progress/regressing

Note: Staff estimates based on UNESCAP, ADB, and UNDP method for assessing the MDGs (*Accelerating Equitable Achievement of the MDGs*, February, 2012).

## Part III: Region at a Glance

Although economic growth in the region was subdued in 2012, the message all the regional tables reinforce is that of Asia's growing importance in the world. The Asia and Pacific region now accounts for over half of the global population, more than one-third of global GDP (in purchasing power parity terms), and about a third of world exports. However, this growing importance brings with it increasing concerns. The region now consumes two-fifths of world energy, continues to increase its emissions of greenhouse gases and other pollutants, and faces increasing traffic congestion and rising consumption of scarce resources.

Inflation eased across Asia and the Pacific in 2012. The quality of life as measured by the human development index continues to improve in most of the region. Migrant workers' remittances remain a significant source of foreign exchange and, in a growing number of economies, services have become important contributors to exports. For businesses, the time it takes to start a business and the cost of registering a new business are declining. Efforts to reduce corruption need to be stepped up, though, with about half the region's economies falling into the bottom one-third of the global corruption rankings.

### People

- Asia and the Pacific accounts for nearly 55% of the global population and six of the world's 10 most populous economies. The region's population is forecast to grow by almost 1 billion by 2050.
- Population growth rates have slowed in most economies, but remain high in some. India's population is expected to surpass that of the PRC in the next 15 years.
- The region's population is aging, which has implications for economic growth. ADB's developed members already have a relatively high proportion of older people.
- Based on the human development index, about half the economies are in the "medium human development" category and nearly all show some improvements.
- Services continued to grow in importance and generated at least half of GDP in two-thirds of regional economies.
- Over half the region's economies have raised investment spending in recent years, expanding productive capacity to pave the way for further growth in output.

### Money, finance, and prices

- Inflation eased across the region in 2012, reflecting softer economic growth, relatively stable global food and commodity prices, and currency appreciation in some economies.
- Six economies (including India and Pakistan) recorded double-digit inflation on average between 2008 and 2012.
- Capital inflows contributed to appreciation of regional currencies against the United States dollar during 2011–2012, although South Asian currencies mostly depreciated.
- Banks' nonperforming loans generally declined, based on the data from reporting economies.

### Economy and output

- The region (including Japan) generated 36% of global GDP in 2012, using purchasing power parity terms. Together, the PRC, India, and Japan accounted for 70% of the region's output.
- GDP growth moderated in nearly two-thirds of the region's economies in 2012, dampened by weakness in exports.

## Globalization

- The Asia and Pacific region accounted for about one-third of the world's merchandise exports. Subdued demand from major markets dampened export growth in 2012.
- Intraregional trade has increased and accounted for almost 56% of merchandise exports and 50% of imports in 2012.
- Services have become important contributors to exports in some economies.
- Migrant workers' remittances are a major source of foreign exchange across the region.

## Transport, electricity, and communications

- Road networks have expanded rapidly in most economies in the region since 1990. The latest data show that the PRC and India account for almost two-thirds of the region's road network.
- Vehicle ownership has surged. Thirteen economies have at least 100 vehicles per thousand people. Deaths from road accidents are high in some developing economies.
- As demand for and production of electricity expanded, several major power producing economies have increased their reliance on coal to generate electricity since 1990.
- Cellular phone subscriptions showed huge growth, while fixed-line phones increased more moderately and decreased in some economies.

## Energy and environment

- The region accounts for almost 40% of global energy demand.
- Most economies in the region rely on imports of energy and the biggest energy users have increased their dependence on imports since 2000.
- Energy efficiency—GDP per unit of energy—has improved in most economies.
- Greenhouse gas emissions continued to rise, but most economies eliminated ozone-depleting chlorofluorocarbons.

## Government and governance

- Fiscal deficits were prevalent in 2012 as governments in the region supported economic growth in the face of a subdued global outlook.
- Government revenue increased in two-thirds of regional economies in 2012. However, low rates of tax collection still constrained public investment in some economies.
- The average time taken to start a business fell from 45 days in 2005 to 26 days in 2012. The cost of starting a business also declined in much of the region.
- Corruption remains a problem in many economies. About half the regional economies were in the bottom one-third of the global rankings in the Corruption Perceptions Index 2012.



**PART I**  
**Special Chapter**

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**Asia's Economic Transformation:  
Where to, How, and How Fast?**





## Structural transformation: What is it and why does it matter?

The Asia and Pacific region has not only grown rapidly during the last 4 decades but also has changed dramatically in many aspects. In the mid-1970s, over 60% of Asian workers were employed in agriculture. By 2010, the share had declined to slightly over 40% (more than 700 million people). In 1970, Asia's urban population amounted to 442 million people—an urbanization rate of 22%. By 2010, the region's urban population had increased to almost 1.6 billion, an urbanization rate of 40%. During the first decade of the 21st century, the People's Republic of China (PRC) added over 120 million nonfarm jobs in its expanding manufacturing and service sectors. India has followed a similar path but at a slower pace. And India created about 67 million nonfarm jobs—enough to keep pace with labor force growth but not sufficient to decrease the number of workers in agriculture by moving more of them into more productive jobs.<sup>1</sup> In the 1960s and 1970s, most of Asia's exports were simple, labor-intensive products; today some of its economies export a wide range of very sophisticated products. Finally, Asia's fertility rate has declined from almost 6 births per woman in 1960 to 2.4 today. What are the implications of these changes? Have all countries across the region changed the same way? Will the changes continue in the coming decades, and, if yes, how?

A well-established body of literature argues that development is about transforming the productive structure of the economy and accumulating the capabilities necessary to undertake this process (Kaldor 1967, Chenery et al. 1986, Kuznets 1966). According to this literature, development is a process in which new activities emerge, old ones disappear, resources shift from less productive activities (most often agriculture) to more productive ones, and the weight of economic sectors and patterns of interaction change in regular ways. Development is distinct from aggregate growth, which can occur without significant transformation, as has happened in some oil-rich economies.

The shift to sustained per capita income growth, a process known as “modern development,” started with the Industrial Revolution in the United Kingdom and extended to the rest of today's developed world. The most salient feature of this process was the change in the structure of the economy, especially the decline in agriculture's shares of both output and employment,

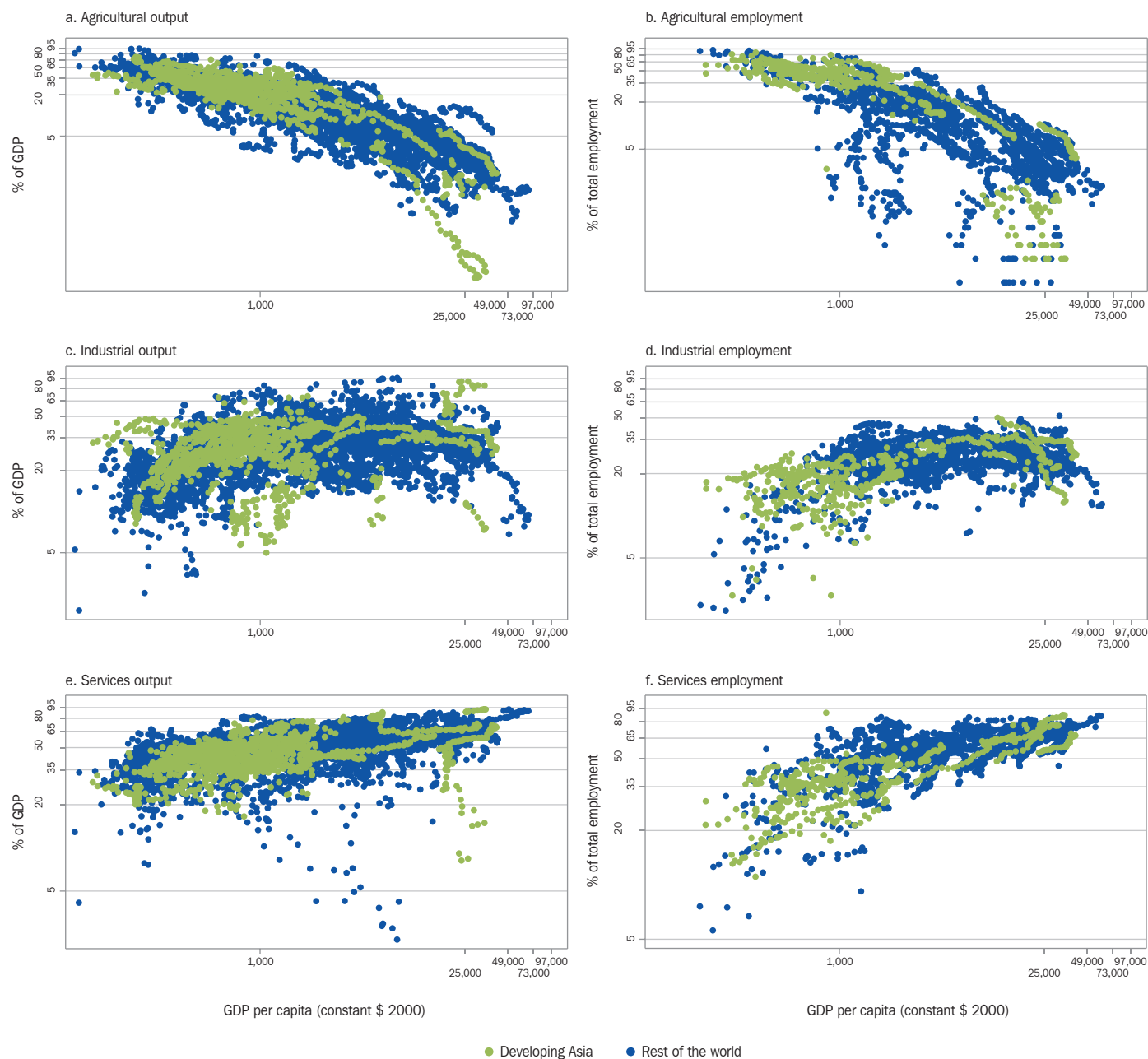
with a concomitant increase in the corresponding shares of industry and services. The literature refers to this process as “economic transformation,” and more generally as “structural transformation” (ST), as economic changes are often accompanied by other changes. In most parts of Asia, modern development did not start until the second half of the 20th century. This process appears to have been completed in a few economies like Japan and the newly industrialized economies (NIEs), but the process is still under way in some other Asian economies and has barely started in quite a few.<sup>2</sup>

### Five components of structural transformation

ST is a process that can be best described by five key components: reallocation of factors of production; diversification, upgrading, and deepening of the production and export baskets; use of new production methods and processes and different inputs; urbanization; and social changes.

- *Reallocation of the factors of production across sectors of different productivity.* Historically, as income per capita increased, the reallocation involved (i) a decline in the share of agriculture (where productivity is in general lower than in industry and services), (ii) an increase in the share of industry up to a point (the industrialization phase) followed by a decline (the deindustrialization phase), and (iii) an increase in the share of services. These patterns are shown in Figure 1.1. Using data since 1970, the graph shows output and employment shares worldwide against income per capita. The patterns in Figure 1.1 imply that in many low-income economies, economywide (average) labor productivity is significantly higher than labor productivity in agriculture, and the opposite is generally true for industry and services. (Labor productivity is defined as value added divided by the number of people employed.) The gaps between output and employment shares diminish as income per capita increases, approaching zero for high income levels, which implies that labor productivity in agriculture, industry, and services is about the same.

Figure 1.1 Output and employment shares in agriculture, industry, and services



Source: World Bank. WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012).

- *Diversification, upgrading, and deepening of the production and export baskets.* Diversification of the economic structure is probably the most conspicuous feature of economic development, and is a chief difference between it and aggregate economic growth. Upgrading refers to the capacity to produce higher quality, more distinctive, and more complex products. Deepening involves the formation of local linkages and complementarities

by creating a robust local supplier base and expanding ancillary services.

- *Use of new production methods and processes and different inputs.* Examples are steam and railroads during the first Industrial Revolution (1750–1830) and electricity and chemicals during the second (1870–1900). The impacts of modern information and communications technology (ICT)

as a potential third industrial revolution are still in the formative stages.

- *Urbanization, a key feature of modern development.* Nearly all countries become at least 50% urbanized before they reach middle-income status, and the urbanization rate of the high-income countries is 70%–80%.
- *Social changes.* Changes such as in family structure and in the role of women occur. It is impossible to become a modern economy with social structures that do not favor change.

In this special chapter, we discuss the economic aspects of ST, and we refer to urbanization, but not to the social aspects, which go beyond the scope of the chapter. We will most often use the term “structural transformation”; sometimes we use “economic transformation”; and only occasionally, “industrial transformation,” when referring to changes within manufacturing.

The literature indicates that a variety of factors affect the direction and pace of ST of an economy. First, ST is driven by demand and supply factors. On the demand side are effects related to increases in income per capita. As income increases, the relative demand for food and agricultural products decreases, while that for more income-elastic goods and services increases. On the supply side, differences in the capital stock per worker and in education and skills drive productivity differentials across sectors. Productivity is lowest in agriculture at low income levels, but this differential closes as workers shift to higher productivity sectors. Second, demographic and geographic variables (such as population density and resource endowments) and country size shape the pattern of ST across countries. Third, good organizational capabilities allow faster ST, but lack of essential capabilities leads to stagnation. Capabilities encompass all the tacit knowledge necessary to produce a good or deliver a service.<sup>3</sup> Fourth, specific policies and actions (e.g., those that pertain to education and the technological learning needed to compete internationally); institutions (that have developed historically and facilitate or retard ST); and politics often work jointly to determine the direction and pace of ST.

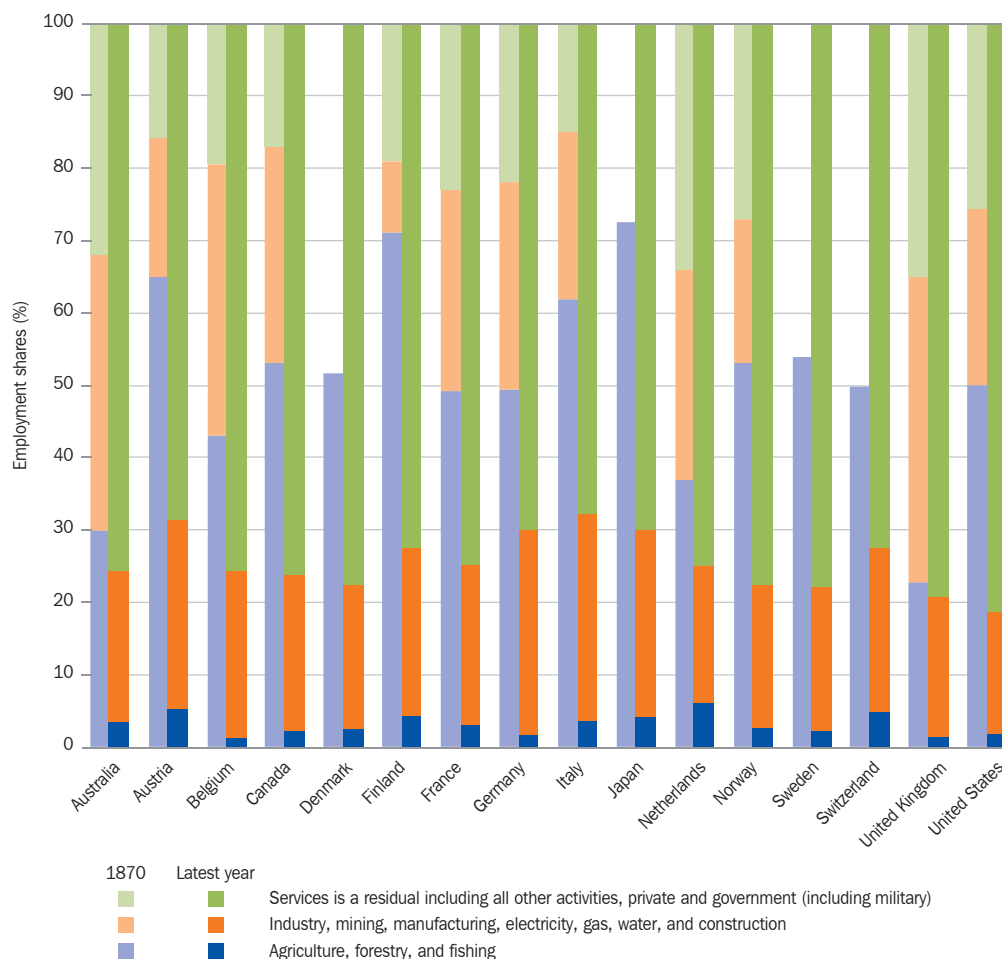
## The variable pace of structural transformation

Countries' ST patterns differ in both direction and pace. When ST creates a virtuous circle (i.e., the transfer of labor from traditional agriculture and low-productivity informal activities into modern sectors), it leads to higher growth and higher income per capita and these induce further changes in the structure of the economy. We refer to this as “desirable transformation.” However, if the pace of ST is too slow, if resources do not shift to activities of higher productivity, or if there is no upgrading or deepening, the economy stagnates.

The arrival of modern development and the consequent ST was a slow process in the economies that are currently termed “developed”—a process that lasted until well into the 20th century. In 1700, agriculture was the largest employer across the world. For example, in 1700 in the United Kingdom, 60% of all employment was in agriculture. With the Industrial Revolution, the share declined to 40% in 1820 and to 16% in 1890. And it took another 90 years to shrink to 2.5% (Maddison 1982). Agriculture played a fundamental role in propelling the take-off, as agricultural development freed resources for the birth of new industries and services and lowered production costs outside agriculture. Agricultural development bred the skills and social capital necessary for the nonfarm economy to develop and influenced the sociopolitical tissue of societies. Today, in most developed countries, the shares of agriculture in gross domestic product (GDP) and in employment are below 5% (Figure 1.2).

As previously noted, although Asia has registered high growth during the last 4 decades, only five of its economies—Japan; Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China—have undergone full modern development. The distinguishing feature of the last four economies is that they achieved very high standards of living in about 30 years.<sup>4</sup> Japan, the Republic of Korea, and Taipei, China followed a pattern of ST similar to that of the developed countries. Concurrently with the decline in their shares of agriculture, their shares of industry (especially manufacturing) increased, and now they are deindustrializing. At the same time, their share of services increased and now is the largest in both output and employment.

Figure 1.2 Changes in sector employment shares in developed countries



Sources: Maddison (1982) for 1870 (in some cases Maddison does not provide the three shares); World Bank. WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012).

But this is not the pattern that many other Asian economies are currently following, where the share of employment in manufacturing is rather small. The PRC and India, the two most populous economies, are undergoing significant STs, though at different paces and in different directions. At the other end of the spectrum are countries in the region where the “farm-to-factory” transition is very slow (e.g., Pakistan). Such economies have not transformed.

### Structural transformation: A key to Asia’s future

This chapter is about what has happened and what is expected to happen in the next 2–3 decades, the

medium and long-run. It argues that the region’s future course will depend on its ability to engineer fast and successful ST. First, the region is home to over 700 million workers employed in agriculture (about 40% of all employment). Indeed, agriculture is still the largest employer in many Asian economies and, for them to undergo modern development, farm workers will have to shift into activities of higher productivity. Second, in the 21st century, knowledge will become increasingly important as a source of productivity growth. How to increase the stock of productive and organizational capabilities to promote the generation and exploitation of knowledge and ideas will be a key challenge for ST.

Third, Asian economies face different challenges to further ST. The East Asian NIEs are already modern

industrial and service economies. As high-income economies, their challenge is to maintain growth and successfully develop a high-quality service sector and knowledge economy, and to continue upgrading their industry sector. The challenge for some Southeast Asian economies is to avoid being stuck in the middle-income trap. These economies have developed some industrial base and fairly large service sectors, but they remain middle income. Should they try to push industrialization further? What should the role of the agricultural sector be, given the new trend of food prices? How can they upgrade their service sector? The PRC has undergone significant ST during the last 4 decades and created a very large manufacturing sector. Moving forward, however, the PRC needs to think about how to transition into a modern industrial and service economy, as agriculture is still the PRC's largest employer. India is transitioning at a slower pace than the PRC, and from agriculture into services while possibly skipping the industrialization phase. Can India skip industrialization and still become a high-income economy? Can it create significant high-productivity subsectors without industrialization?

Countries rich in natural resources face the imperative of diversification. And small isolated economies, such as many in the Pacific, need to find niche markets. The important question is whether the environment of the 21st century will allow the poorer Asian countries to emulate the successful Asian economies of the 20th century or devise alternative development paths.

A discussion of these questions requires analyzing the direction and pace of ST along four interrelated axes:

- What economic transformation has Asia experienced during the last 4 decades?
- Where is the region going, i.e., what type of transformation is expected to take place in the coming decades?
- How will this transformation happen?
- How fast will Asia continue changing?

## The transformation of Asia's economies

In this section we analyze in some detail the direction and pace of change of ST in Asia during the last 4 decades. To do so, we (i) document how aggregate sectoral shares (agriculture, industry, and services) have evolved; (ii) decompose economywide productivity growth into that due to intrasector growth and that due to structural change; and (iii) analyze changes in diversification and complexity of exports. Together, these three analyses provide an overview of the changes that have taken place in the region during the last 4 decades, and allow us to explore differences across economies.

### Changes in sectors' shares

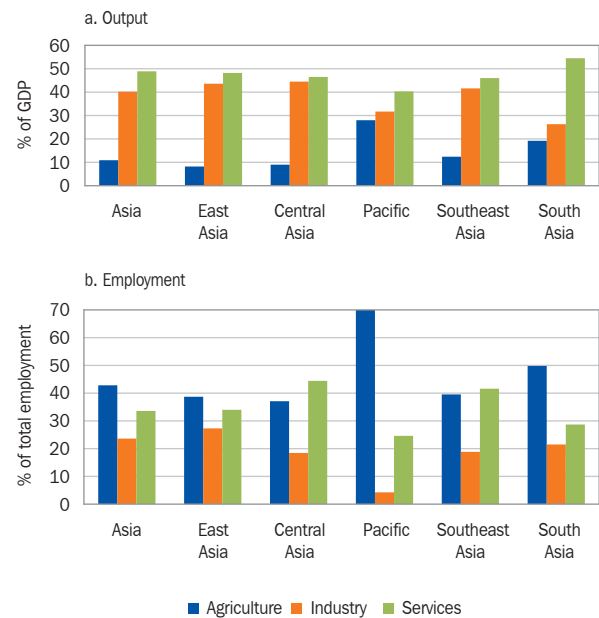
The most salient feature of modern development is a secular decline in the shares of agriculture in both output and employment, with the consequent increase in the combined share of industry and services (Figure 1.1). Figure 2.1 shows today's shares of agriculture, industry, and services in GDP and in total employment, by subregion; Table 2.1 shows which sector is the largest in output and in employment, by economy; and Appendix Table A1 provides shares in GDP and in total employment of agriculture, industry, and services for Asian economies in the 1970s (or the earliest available year) and 2010 (or the latest year).

Several patterns stand out.

- **Agriculture.** Agriculture's shares of both GDP and employment have declined all over the region. Agriculture is no longer the largest contributor to GDP in any of the economies, but is still the largest employer in developing Asia. Although the regional share of employment in agriculture has declined by over 20 percentage points since the mid-1970s, agriculture still accounts for 42.8% of total employment. Agriculture is the top employer in the Pacific, East Asia, and South Asia subregions, while the service sector is the largest employer in Central Asia and Southeast Asia. Agriculture is the largest employer in 17 economies for which we have data. In Bhutan, Cambodia, Georgia, India, Myanmar, Nepal, Papua New Guinea, Tajikistan, Vanuatu, and Viet Nam, agriculture's share in total

employment exceeds 50%. Moreover, in some countries (such as India), the absolute number of people employed in agriculture is still rising.

Figure 2.1 **Output and employment shares in Asia**  
(% of GDP and total employment, latest year)



GDP = gross domestic product.

Notes:

- Shares are for the latest years available, they are not necessarily the same across countries.
- Output shares are weighted by gross national income and employment shares are population-weighted.
- Japan is not included.

Source: World Bank, WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012).

- **Services.** In Asia, the service sector already accounted for the largest share of GDP in the 1970s. Many economies are not following a transition from agriculture into industry and finally into services—the path taken by East Asia and, before, Japan and the Western countries. In the mid-1970s, the service sector already contributed the largest (43.3%) share to GDP, not agriculture (22.8%). During the last 4 decades, agriculture's share has declined to 10.9% of the region's GDP, industry's share has increased from 33.8% to 40.2%, and the service sector now accounts for 48.9% of Asia's GDP (weighted by gross national income). The service sector is the largest sector in all five of ADB's subregions.

- *Industry.* Industry's employment share is, on average, the smallest of the three sectors. This has been true since the 1970s, and today industry is not the largest employer in any Asian economy.<sup>5</sup> In fact, industry has never been Asia's largest employer: in the mid-1970s, industry employed 16% of the region's labor force and today it employs about 23%. Since the 1970s, the share of employment in services has doubled, from 17% to 34%. Thus, across Asia during the last 4 decades, labor has been reallocated from agriculture mostly into services. Industry's share of GDP is the largest in only a few economies: Azerbaijan, Bhutan, the PRC, Indonesia, Papua New Guinea, Thailand, Turkmenistan, and Viet Nam—and in several of these, the industry category is dominated by oil and gas or minerals.
- *The path and pace of structural change.* ST in Japan and the NIEs has followed a path similar to that of the Western countries, but at a much faster pace in the NIEs. (As noted earlier, agriculture has long been a minor contributor to GDP in two economies—Hong Kong, China and Singapore.) In three economies—Japan; the Republic of Korea; and Taipei, China—the shares of agriculture declined while those of industry (and in particular manufacturing) and services increased. This happened very quickly during the 1970s and 1980s. Currently, as in most other developed economies, Japan and the NIEs are deindustrializing, with labor moving from industry into services. The consequence is that the service sector is larger than industry.

## Agriculture: Declining output share but still the largest employer in many Asian economies

Agriculture played an important role in launching the period of high growth in Japan; the Republic of Korea; and Taipei, China. Success in raising agricultural productivity underpins the entire process of industrialization. Getting agriculture right implies addressing problems of asset ownership as well as investing in irrigation, roads, technology, and other infrastructure.

In Japan, labor productivity in agriculture doubled between 1881–1890 and 1911–1920.<sup>6</sup> In Taipei, China, labor productivity in agriculture increased 130%–160% between 1901–1910 and 1931–1940, as agricultural research underpinned the development and selection of higher-yielding varieties, application of fertilizers increased, and farm practices improved (Johnston and Mellor 1961, Timmer 1995). And in the Republic of Korea and Taipei, China, post-1945 land reform allowed rural productivity to surge. In these economies, the link between agricultural development and poverty reduction showed that rapid growth can be achieved through a development strategy that emphasizes the role of the rural economy. Both governments put a huge effort into rural development, focusing on using technology to boost both land and labor productivity to release surplus labor to work at urban factories. The two governments also nurtured small-scale industries close to farming communities to create nonfarm earning opportunities (e.g., the *saemaul* movement in the Republic of Korea).

Table 2.1 Largest sector in Asian economies (latest year)

	Agriculture	Industry	Services
<b>Largest sector in GDP</b>	None	Azerbaijan, Bhutan, PRC, Indonesia, PNG, Thailand, Turkmenistan, Viet Nam	Afghanistan; Armenia; Bangladesh; Bhutan; Cambodia; Fiji; Georgia; Hong Kong, China; India; Japan; Kazakhstan; Kiribati; Korea, Rep. of; Kyrgyz Rep.; Lao PDR; Malaysia; Maldives; Mongolia; Myanmar; Nepal; Pakistan; the Philippines; Samoa; Singapore; Solomon Islands; Sri Lanka; Taipei, China; Tajikistan; Timor-Leste; Tonga; Uzbekistan; Vanuatu
<b>Largest sector in total employment</b>	Armenia, Bangladesh, Bhutan, Cambodia, PRC, Georgia, India, Myanmar, Nepal, Pakistan, PNG, Samoa, Tajikistan, Thailand, Uzbekistan, Vanuatu, Viet Nam	None	Azerbaijan; Hong Kong, China; Indonesia; Japan; Kazakhstan; Kiribati; Korea, Rep. of; Kyrgyz Rep.; Malaysia; Maldives; Mongolia; Philippines; Singapore; Sri Lanka; Taipei, China

GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China, WDI = World Development Indicators.

Notes: This table is based on Appendix Table A1 and does not reflect WDI's latest update of sectors' shares, according to which Thailand's largest sector in total employment is agriculture.

Source: Authors based on World Bank. WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012).

More recently, Indonesia (after 1966), the PRC (after 1978), and Viet Nam (after 1989) tilted investment priorities toward rural growth, which accelerated structural transformation and led to significant poverty reduction. However, the transformation of agriculture in other Asian countries, e.g., India and Pakistan, has been very slow.

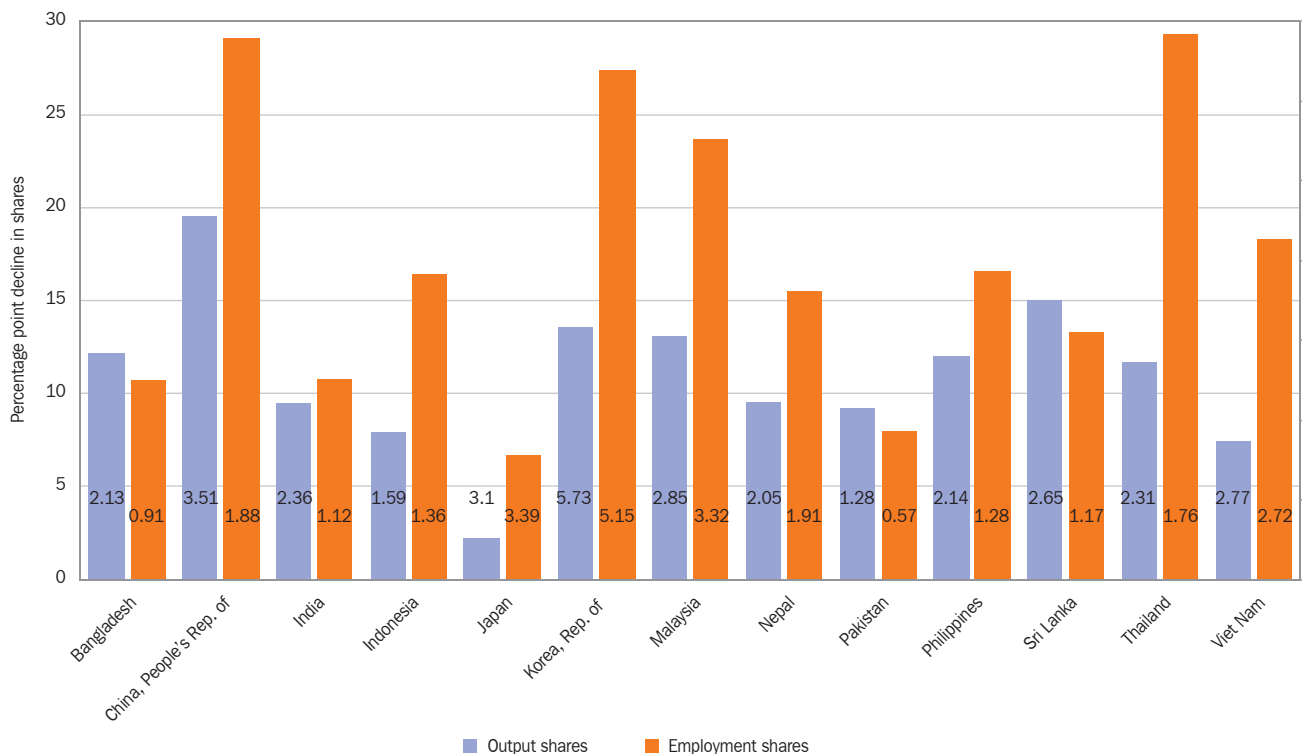
**Asia's agriculture has changed during the last several decades in five important aspects:** the share of its output is declining faster than its share of employment, the productivity of agricultural labor has increased rapidly, productivity of the land has grown fast, technology has led to better yields, and farmers are shifting to high-value crops.

*First, agriculture's share of total output is declining faster than its share of total employment.* While Asia's share of agriculture in GDP has declined since the 1970s at about 2.51% per annum (faster than the world's average), the share of employment in agriculture has declined at about 1.71% per annum (slower than the

world's average).<sup>7</sup> This implies that labor productivity in agriculture remains below the economywide average (but not that labor productivity in agriculture has declined). Figure 2.2 and Appendix Table A2 show the annual rate of decrease in the share of agriculture in both output and employment in selected Asian economies. The fastest declines in both shares were registered by the Republic of Korea, at about 5%–6% per annum. The pace at which the shares, especially that of employment, are declining in other countries is much slower—e.g., in Bangladesh and Pakistan, annual rates of decline are less than 1%.

An important explanation for the employment shares declining more slowly than the output shares is that agriculture is a sink for surplus labor. In most Asian developing countries, the point at which the shift from labor surplus to labor shortage in agriculture is reflected in rising agriculture wages is yet to be reached.<sup>8</sup> The current rate of population growth in developing Asia is an important factor—it is much faster than that in the industrialized countries when they were at a comparable

Figure 2.2 Percentage point decline in agriculture output and employment shares, and percent decline per annum



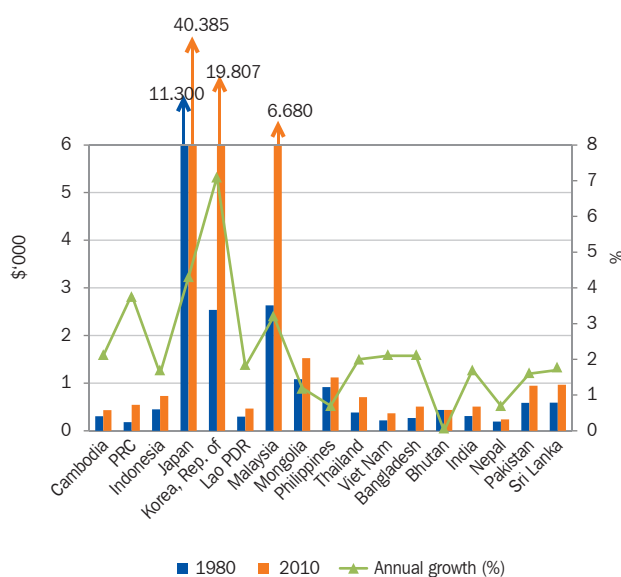
Notes: Height of the bars represents the percentage point decline in the share between the initial and the final year. Numbers inside the bars correspond to the percent decline per annum. Periods covered are as follows: Bangladesh (1984–2005); People's Rep. of China and Pakistan (1980–2008); India (1994–2010); Indonesia (1985–2010); Japan, Malaysia, Philippines, and Thailand (1980–2009); Rep. of Korea (1980–2010); Nepal (1991–2001); Sri Lanka (1981–2009); Viet Nam (1996–2006).

Source: Authors based on World Bank. WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012).

stage of development. Asia's high population growth rate exacerbates the labor absorption problem.

*Second, the productivity of agricultural labor has grown faster in Asia than in other developing regions.* Figure 2.3 shows that agricultural output per worker has risen fast in developing Asia. The average growth in Asia was 2.2% per year during 1980–2010, while in Sub-Saharan Africa it was only 0.6% and in Latin America and the Caribbean it was 1.8%. Within Asia, agricultural output per worker grew most rapidly in the PRC, Japan, the Republic of Korea, and Malaysia. Conversely, in Bhutan, Nepal, and the Philippines, labor productivity in agriculture has grown at Sub-Saharan Africa rates, or lower.

Figure 2.3 **Gross value added per agricultural worker**  
(in constant \$ of 2000, and annualized growth, 1980 and 2010)



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China

Notes: The growth rate is computed on an annualized basis between starting and ending years.

Source: Basic data from World Bank, WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012).

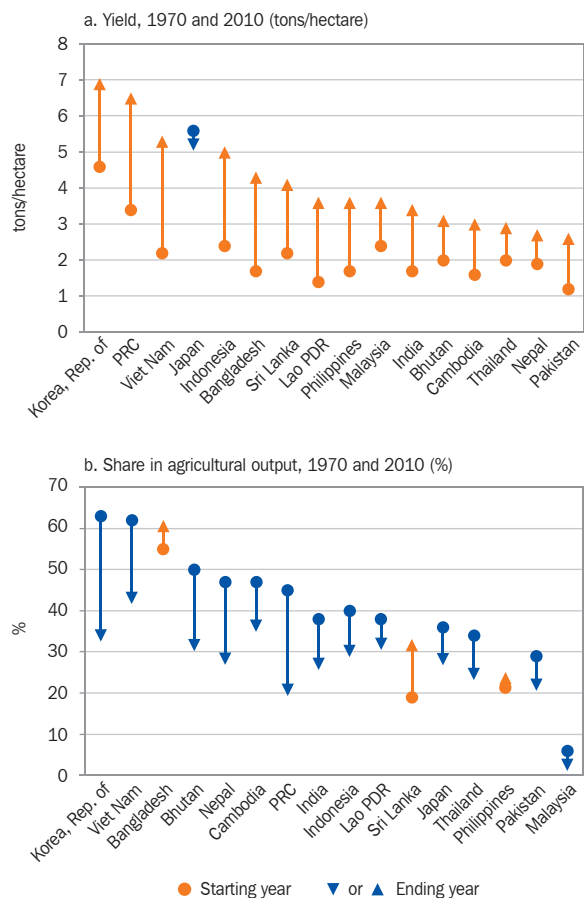
*Third, land productivity has grown faster in Asia than in other developing regions.* During the last 4–5 decades, the scope worldwide for expanding farmland has narrowed considerably, and the land constraint is most acute in Asia: its annual growth rate of agricultural area of arable land and permanent crops has been only 0.49% since 1980—less than in Latin America (0.61%) and Sub-Saharan Africa (0.89%). As shown in Appendix Table A3, in Asia during 1970–2009, annual growth in

land productivity averaged 2.24%, compared with 1.51% in Sub-Saharan Africa and 1.84% in Latin America. The share of land productivity growth in agricultural output growth is 82% in Asia, but only 62% in Sub-Saharan Africa and 75% in Latin America. Within developing Asia, only Indonesia, the Lao People's Democratic Republic (Lao PDR), Malaysia, and Viet Nam have benefited from expanding the land frontier since 1980. The implications of increasing the productivity of land for the future of Asia's agriculture will be analyzed in the section "Asia's future transformation."

*Fourth, technological change in agriculture since the 1960s led to significantly improved yields of traditional crops.* Figure 2.4 and Appendix Table A4 show the yield improvement in the most important cereal staple for a selected sample of Asian economies. The fastest yield growth since the 1970s was registered in Bangladesh, the Lao PDR, Pakistan, and Viet Nam, which all started out from a relatively low base. The PRC and the Republic of Korea, which have had good yield levels since 1970, attained sustained improvement and reached 6.5 tons per hectare of rice or better—among the highest yields worldwide. Next are Indonesia and Viet Nam, at 5 tons per hectare or more. The increased cereal yield was achieved through the Green Revolution—breeding and adopting modern varieties, which give higher yields in response to inputs (e.g., chemical fertilizer and water) than do traditional varieties. Improved wheat and rice varieties were pioneered at international research institutions in Mexico and the Philippines in the 1950s, and disseminated in the 1960s and 1970s throughout Asia. By the 1980s, modern varieties comprised about 60% of the rice Asia grew and 80% of its wheat.

*Fifth, agriculture in developing Asia is shifting from traditional to high-value products.* Increasing yields in traditional crops, especially cereals, is critical but not sufficient for growth, and continued growth in agriculture has been achieved in part by structural change within the sector. In developing Asia, the rapid growth of agriculture is increasingly being driven by expanding demand for livestock products and high-value crops, which are also more labor-intensive than traditional crops (World Bank 2009). Since 1970, the composition of agricultural output in developing Asia has shifted dramatically (Figure 2.5), albeit with country-specific differences. The PRC and the Republic of Korea have shifted from cereals to livestock products,

Figure 2.4 **Yield of primary cereals and their share in agricultural output, developing Asia, 1970 and 2010**



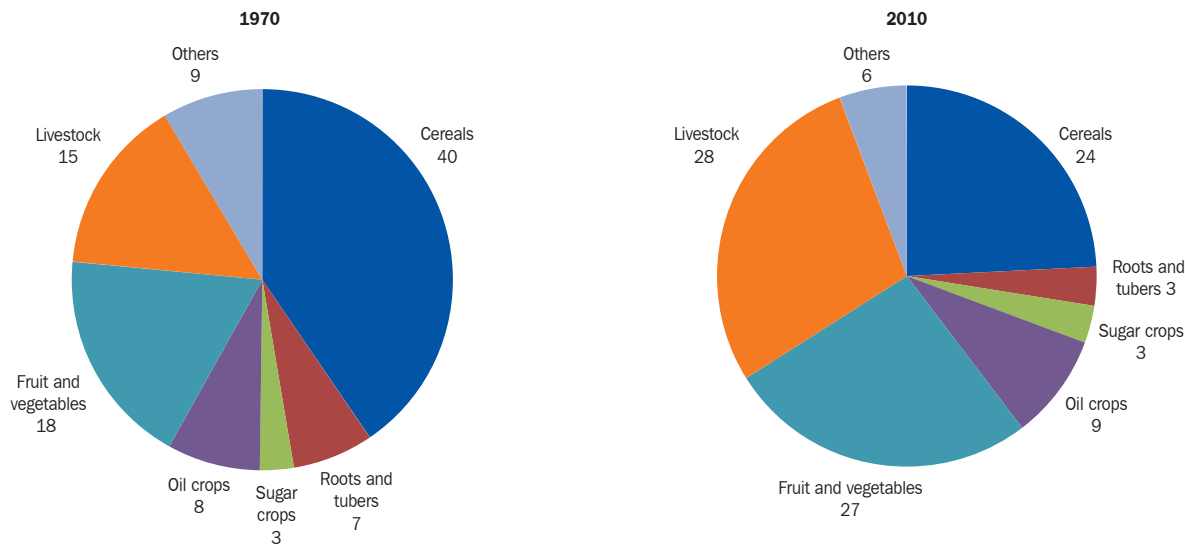
Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.  
 Notes: The share of primary cereals in agricultural output is measured in constant \$ of year 2000. The primary cereal is rice, except for Pakistan, where the primary cereal is wheat.  
 Source: Based on data from FAOSTAT. <http://faostat.fao.org> (accessed September 2012).

and, at a more moderate rate, so have India, Pakistan, Sri Lanka, and Viet Nam. Significant shifts toward oil crops are observed in Indonesia and Malaysia, and toward miscellaneous other crops in Thailand. Only in Bangladesh and the Philippines is the share of cereals in agricultural output rising. The difference in value per hectare between high-value agricultural products and traditional staples can be dramatic—tobacco and oranges earn about 10 times as much per hectare as rice, and the ratio is over 30 for bananas.

Increasing global trade is a key driver behind these trends. The share of developing Asia in global agricultural exports has increased from 12% to 17% since 1970. The composition of export trade has changed, away from traditionally grown tropical products (including coffee, cocoa, tea, sugar, spices, and nuts) toward horticulture production, seafood, and processed products (Humphrey and Memedovic 2006, Jongwanich 2009). Developing countries are typically net exporters of oilseeds and products, coffee and cocoa, sugar, and fruits and vegetables, and net importers of dairy products and cereals (Diaz-Bonilla and Reca 2000).

**The change in the composition of agricultural output has occurred within a broader diversification—the “agribusiness transition.”** The transition involves input providers (farm equipment producers, logistics firms, and other business service providers) as well as agriprocessors, distribution companies, and retailers. Agricultural transformation therefore involves a parallel development of industry (agriprocessing) and

Figure 2.5 **Composition of agricultural output (constant \$), developing Asian countries, 1970 and 2010 (%)**



Source: FAOSTAT. <http://faostat.fao.org> (accessed September 2012).

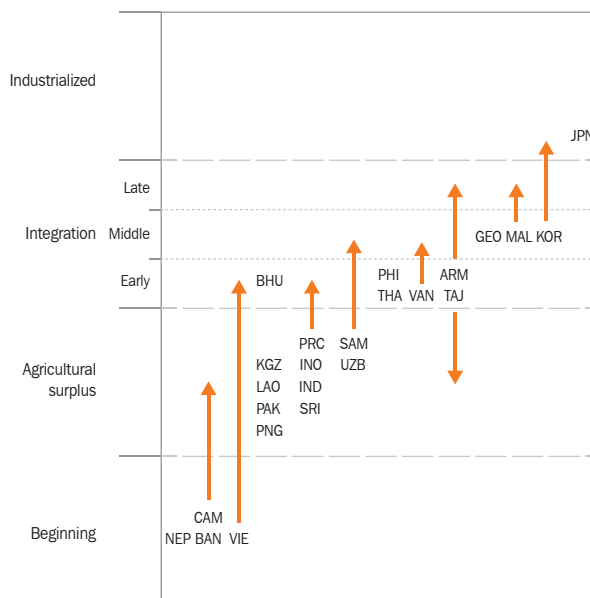
services (finance, logistics, marketing, etc.). In general, as a country's per capita income rises, the share of its agribusiness in GDP becomes higher than that of agriculture. The World Bank (2003) reports shares of agribusiness in GDP for Indonesia and Thailand at 33% and 43% (in the late 1990s), respectively. And Balisacan et al. (2011) indicate the share of agribusiness in GDP in the Philippines at 15% (in 2005–2010).<sup>9</sup>

One way to characterize the degree of transformation in Asia's agriculture is to follow Timmer's (1988) four phases: beginning, agricultural surplus, integration, and industrialization. This provides a summary of the state of agriculture, a comparison across economies, and the basis for a proper assessment of the sector's prospects (discussed in the section, Asia's future transformation). In the beginning phase, the productivity of agricultural labor starts to increase. Eventually, the productivity rises sufficiently to enable a transition to the second phase—agricultural surplus. The surplus allows industry and services to grow by mobilizing labor, savings, and tax revenues from the agriculture sector. In the integration phase, industry and services become increasingly significant—agricultural development depends on its being progressively linked to the rest of the economy through improved infrastructure and the development of markets. When integration is successfully completed, the economy is deemed industrialized. At this phase, the surplus labor in agriculture has been absorbed by the other sectors of the economy and agriculture's labor productivity is like that of industry and services.

Figure 2.6 shows developing Asian economies' stages in these four phases in 1980 and in 2010. The phases are defined based on per capita income and agricultural output per worker, and according to the qualitative description of Timmer's phases and the cross-section profile of developing countries.<sup>10</sup> The integration phase is divided into early, middle, and late stages. The demarcation of phases is described in the note to the figure. In 1980, only Japan had reached the industrialized phase. But during the next 30 years, most countries progressed. The most striking advances were made by Armenia, the Republic of Korea (which reached the industrialized phase), and Viet Nam. The PRC, India, Indonesia, and Thailand are still in the early integration stage; and Nepal, the Philippines, Thailand, and several others remain in the same phase after 30 years. The

reason is that the productivity of agricultural labor in these economies (given their income per capita) has not increased significantly.<sup>11</sup>

Figure 2.6 **Stages of agricultural development in developing Asia, Timmer's classification, 1980 and 2010**



▲ ▼ Indicates movement from 1980 to 2010. No arrow indicates no movements.

ARM = Armenia, BAN = Bangladesh, BHU = Bhutan, CAM = Cambodia, GEO = Georgia, GDP = gross domestic product, IND = India, INO = Indonesia, JPN = Japan, KOR = Republic of Korea, KGZ = Kyrgyz Republic, LAO = Lao People's Democratic Republic, MAL = Malaysia, NEP = Nepal, PAK = Pakistan, PHI = Philippines, PNG = Papua New Guinea, PRC = People's Republic of China, SAM = Samoa, SRI = Sri Lanka, TAJ = Tajikistan, THA = Thailand, UZB = Uzbekistan, VAN = Vanuatu, VIE = Viet Nam.

Notes:

- (i) Output per worker is measured in constant 2000 dollars; per capita income is measured in constant 2005 purchasing power parity (PPP)-adjusted dollars.
- (ii) 2010 represents either 2010 or the final year for which data are available; 1980 represents 1980 or the earliest year for which data are available. For details see Appendix Table A.1.
- (iii) High income = GDP per capita above \$15,000; middle income = \$2,500–\$15,000 GDP per capita; low income = less than \$2,500 GDP per capita. Middle income can be demarcated further as upper middle, at GDP per capita above \$6,125.
- (iv) The substages under the integration stage are as follows: middle-income economies with labor productivity of \$1,750 or below are in the early integration phase; those between \$1,750 and \$3,300 are in the middle integration phase; and those above \$3,300 are in the late integration phase.

Source: Authors based on World Bank. WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012).

## Industrialization: Different patterns of manufacturing across economies

A feature of Asia's ST has been the fast growth of manufacturing value added that led to relatively high shares of manufacturing in some economies' GDP (e.g., the PRC; Malaysia; the Republic of Korea; Taipei, China; and Thailand). A result is that some people speak of "Factory Asia,"<sup>12</sup> especially in reference to the PRC. This

characterization of Asia reflects three factors. First was the rapid industrialization in the four NIEs, which had started during the second half of the 1960s. Next came the wave of industrialization that spread throughout Southeast Asia during the second half of the 1980s and was driven by large Japanese overseas investments. This wave led to the emergence of regional value chains in the 1990s (discussed in the section, “Asia’s future transformation”), opening up opportunities for local firms in East Asia. Third was the incorporation of the PRC into the global economy, also during the 1990s.

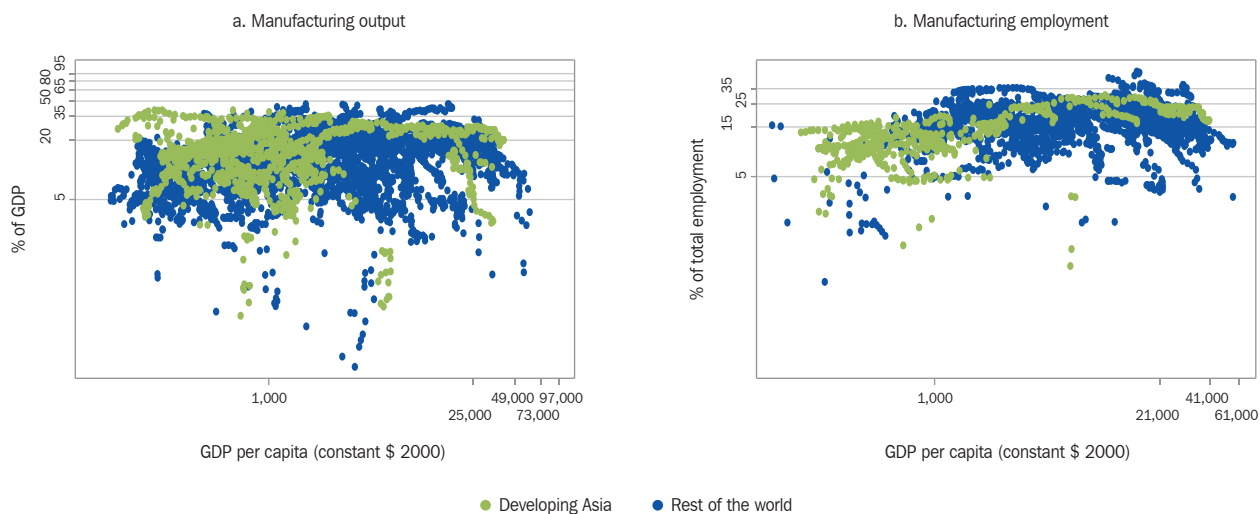
While these factors have been key drivers of industrialization in parts of Asia, two other factors are important. First, industry (including the manufacturing subsector) is not Asia’s largest employer. While manufacturing has reached high shares of GDP in a number of Asian economies, the shares of employment in manufacturing are much smaller, except in a few economies. Moreover, the employment shares are much smaller than they were decades ago in what are today’s developed countries. Second, except in a few economies, manufacturing has not been upgraded and deepened, i.e., it has not moved toward the high-tech subsectors. We review these two issues in the following text.

**The East Asian economies industrialized but in many other Asian economies, the shares of employment in manufacturing remain low.** To analyze the degree of industrialization across developing Asia,

we first graph manufacturing output and employment shares against real GDP per capita. These are shown in Figure 2.7. The patterns appear to follow an inverted U-shape, as noted in the introductory section of this chapter and shown in Figure 1.1. This means that the employment and output shares first increase up to a specific level of income per capita (the industrialization phase) and then decline (the deindustrialization phase).<sup>13</sup> The pattern is driven by the demand and supply factors that drive ST. The composition of the demand side changes—as reflected in the declining proportion of income spent on food as per capita income rises. The change leads to a shift in the pattern of demand from agricultural products (in poor countries, especially food) to manufactured products and services. The supply-side factor is the growth of labor productivity in agriculture, due to a whole range of technical innovations, freeing up more labor to move out of agriculture. The combined effect of demand- and supply-side factors is a large-scale shift of employment into manufacturing in the industrialization phase of the development process.

As the country develops further, demand shifts increasingly toward services, and the share of expenditure devoted to manufactures stabilizes and then ultimately falls in relative terms. The share of employment in manufacturing should also stabilize and eventually fall. The secular shift of employment from manufacturing toward services (the deindustrialization phase) has not been associated with any significant shift in the pattern of expenditures between the two sectors.

Figure 2.7 Manufacturing output and employment shares



GDP = gross domestic product.

Sources: ILO, LABORSTA. <http://laborsta.ilo.org> (accessed September 2012); World Bank, WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012).

Instead, deindustrialization appears to reflect mainly the impact of the different growth of labor productivity between manufacturing and services. If labor productivity in manufacturing increases consistently faster than that in services, then services will have to absorb an ever greater share of total employment just to keep its output rising in line with that of manufacturing. The consequence is that the continuous increase in the share of employment in services reflects both the shift in employment from agriculture to services during the industrialization phase, and later, from manufacturing to services.

There is another reason for the shift in employment: as economic specialization and automation increase with economic growth, it becomes efficient for services once provided within a firm or household to be contracted out to experts outside the organization. Legal, accounting, and data processing services are examples for firms; day care, housekeeping, and restaurants are examples for households. This may mean two things. First, that the same volume of services is being provided as before, but that these services are now measured as a separate market activity. Second, increased specialization can lead to higher quality and/or lower average costs for some services, which would increase the demand for and production of such services.

At what level of income does deindustrialization start? This obviously varies across countries and depends on the interaction among the drivers of ST. But we can estimate statistically (through regression analysis) the expected output and employment shares of manufacturing given income per capita and other relevant variables such as country size (proxied by population) and openness (measured by the trade ratio). We can then derive the maximum expected output and employment shares and the corresponding income levels at which they occur (i.e., the turning point

that marks the start of deindustrialization).<sup>14</sup> Table 2.2 summarizes the statistical analysis. The maximum manufacturing shares differ depending on population size and the trade ratio—11%–24% for output and 16%–22% for employment. Smaller economies and those with smaller trade ratios have their turning points at lower shares, and the opposite holds for larger countries and those with larger trade ratios. Table 2.2 indicates that the manufacturing share peaks at about 18% for a trade ratio of 50% and population of about 22 million. The peak occurs at about \$8,000 per capita income, and the result is similar for both manufacturing output and employment. This is the share we use to analyze industrialization and deindustrialization patterns in Asia.

The analysis allows us to classify economies into three groups:

- Economies that have industrialized and deindustrialized (in output and in employment). Such economies satisfy two criteria. First, a country industrialized if any 7-year moving average of manufacturing shares in output and employment are at least 18% each. This is to ensure that industrialization was sustained for a significant number of years and not just achieved for a very short period. Second, a country deindustrialized if the difference between the maximum of the series and the average during 2000–2010 (or the maximum number of years available during the last decade of available data) is at least 5 percentage points. This is to ensure that deindustrialization truly occurred, as opposed to a small decline in the shares.
- Economies that have industrialized but not deindustrialized. Such economies satisfy the industrialization criterion but not the deindustrialization criterion.

Table 2.2 Estimated manufacturing output and employment shares at the turning points for population levels and trade ratios

Population	3 million			12.5 million			22 million			60 million		
Trade ratio (%)	25	50	75	25	50	75	25	50	75	25	50	75
<b>Manufacturing output share</b>												
Turning point (\$)	6,029			7,238			7,782			8,850		
Estimated maximum manufacturing output share (%)	10.9	12.3	13.3	14.4	16.4	17.7	16.2	18.4	19.8	19.8	22.5	24.2
<b>Manufacturing employment share</b>												
Turning point (\$)	9,239			8,612			8,376			7,972		
Estimated maximum manufacturing employment share (%)	15.7	16.3	16.6	17.7	18.4	18.8	18.6	19.3	19.8	20.3	21.1	21.6

Source: Authors.

- Economies that never industrialized. In this group, the share of manufacturing never reached 18% on a sustained basis.

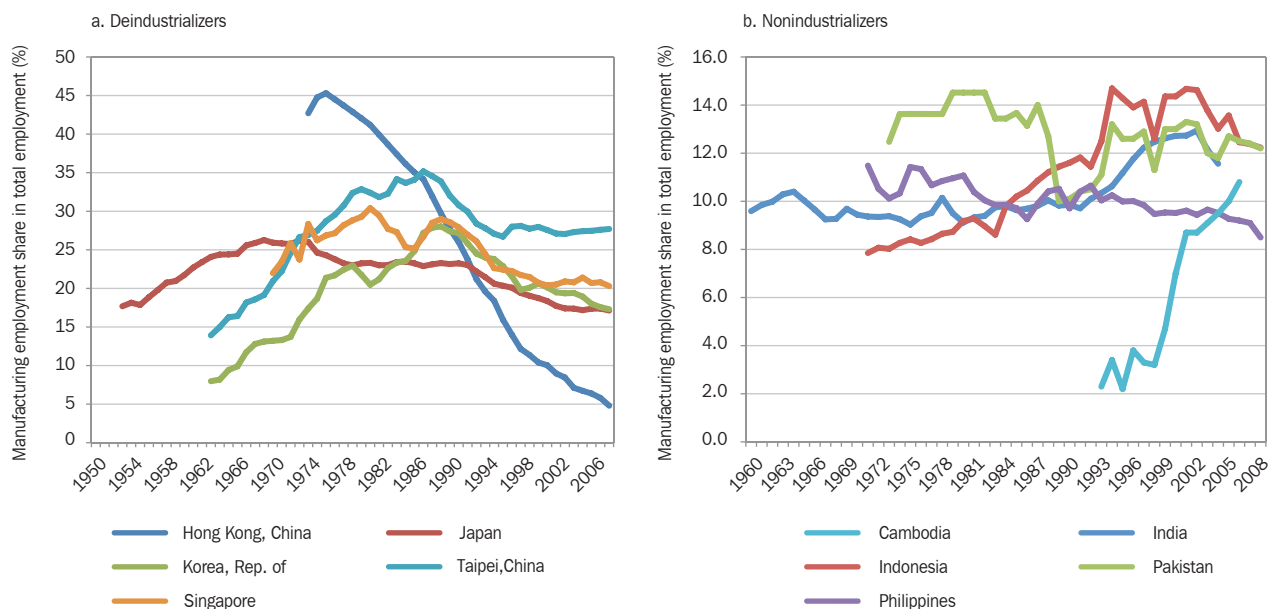
The members of the Organisation for Economic Co-operation and Development (OECD) industrialized long ago and have clearly deindustrialized during the last 3 decades or so. Their manufacturing output and employment shares peaked at about 25% during the 1970s—in some cases reaching 30% and above (Appendix Table A5). The share then declined to about half of that.

The situation across Asia is mixed (Figure 2.8 and Tables 2.3 and 2.4). Table 2.3 shows when Asian economies reached peak shares. Although the peak shares for manufacturing output are comparable to and slightly higher than those of the OECD, the peaks for the employment share are significantly lower by an average of 5 percentage points (Appendix Table A5). A significant group of Asian economies industrialized in output, and some of them have deindustrialized. But only Azerbaijan has both industrialized and deindustrialized in employment, apart from Japan and the four NIEs (Table 2.3);<sup>15</sup> and only Malaysia and Sri Lanka have

industrialized but not deindustrialized in employment. The rest of the economies for which we have data never industrialized in employment: that is, the share of manufacturing employment in total employment never reached 18% for a sustained period.<sup>16</sup> This includes the PRC, where the share of manufacturing in GDP reached about 41% in 1978 (Table 2.3) but the share of manufacturing employment in total employment is much smaller, about 13% after peaking at almost 16% in the late 1980s. This amounts to a very large number of workers in absolute terms (about 115 million), but it is not a large proportion of the PRC's total employment.<sup>17</sup>

This analysis indicates that, except for Japan and the NIEs, which emphasized employment creation, many other economies across developing Asia have problems generating enough employment in manufacturing to absorb new entrants into the labor force (Felipe and Hasan 2006). Consequently, many new entrants into the labor market are being absorbed by low-productivity service activities. While the share of manufacturing output is high in some Asian economies, the share of manufacturing in total employment is much smaller and only a few Asian economies can be said to have properly industrialized.

Figure 2.8 Asia's deindustrializers and nonindustrializers



Source: GGDC, 10-Sector Database. [www.ggdc.net](http://www.ggdc.net) (accessed September 2012).

Table 2.3 Peak manufacturing share in output and employment, Asian economies

Economy	Output			Employment		
	Data since	Year when highest share was obtained	Value of highest share	Data since	Year when highest share was obtained	Value of highest share
Azerbaijan	1990	1992	23.9	1983	1983	18.3
Bangladesh	1980	2011	18.2	1984	1989	13.9
Cambodia	1993	2004	19.9	1993	2006	10.8
China, People's Rep. of	1965	1978	40.5	1978	1988	15.9 <sup>a</sup>
Hong Kong, China	1970	1970	29.6	1974	1976	45.3
India	1960	1979	17.3	1960	2002	12.9
Indonesia	1960	2001	29.1	1971	1994	14.7
Korea, Rep. of	1965	1988	30.7	1963	1989	28.7
Kyrgyz Rep.	1990	1992	33.7	1986	1990	17.0
Malaysia	1960	1999	30.9	1975	1997	27.6
Pakistan	1970	2008	19.7	1973	1982	14.5
Philippines	1960	1973	26.6	1971	1971	11.5
Singapore	1975	2004	27.5	1970	1981	30.4
Sri Lanka	1960	1977	23.1	1990	2006	19.2
Taipei, China	1960	1986	39.2	1963	1987	35.2
Thailand	1960	2007	35.6	1960	2007	16.4
<b>Average</b>			<b>27.8</b>			<b>20.8</b>
<b>OECD</b>			<b>25.9</b>			<b>25.7</b>

OECD = Organisation for Economic Co-operation and Development.

a This refers to both urban and rural manufacturing employment. Available data for employment is only up to 2002. The share of urban manufacturing employment in total manufacturing employment is about 28% (for 2000–2010).

Notes: OECD output and employment averages refer to 23 countries. See Appendix Table 5.

Sources: Authors based on ILO. LABORSTA. <http://laborsta.ilo.org> (accessed September 2012); GGDC. 10-Sector Database. [www.ggdc.net](http://www.ggdc.net) (accessed September 2012); World Bank. WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012).

Table 2.4 Industrialization, deindustrialization, and nonindustrialization in Asia

Industrialized and deindustrialized	Industrialized and not deindustrialized	Not industrialized
<b>Output</b>		
Armenia; Azerbaijan; China, People's Rep. of; Hong Kong, China; Japan; Kyrgyz Rep.; Mongolia; Taipei, China; Tajikistan	Cambodia; Indonesia; Korea, Rep. of; Malaysia; Pakistan; Philippines; Singapore; Sri Lanka; Thailand; Viet Nam	Bangladesh, Georgia, India, Kazakhstan, Nepal, PNG
<b>Employment</b>		
Azerbaijan; Hong Kong, China; Japan; Korea, Rep. of; Singapore; Taipei, China	Malaysia, Sri Lanka	Armenia, Bangladesh, Cambodia, PRC, Georgia, India, Indonesia, Kazakhstan, Kyrgyz Rep., Mongolia, Nepal, Pakistan, PNG, Philippines, Tajikistan, Thailand, Viet Nam

Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea.

Source: Authors.

Finally, demographic and geographic variables affect the development of the manufacturing subsectors (Box 2.1). Such variables help explain, for example, why it is so difficult for island economies to industrialize. The Maldives and the Pacific islands are unique in developing Asia because of their small sizes, small populations, and remoteness. Overall, growth in the Pacific islands during the last 4 decades has been slow, leading to unemployment and joblessness. In addition, several of the island economies face serious environmental problems as a consequence of climate change and rapid urbanization. The Pacific island subregion is also impacted by high population growth, poor education, weak governance, poverty, and poor infrastructure. The public sector provides a high share of total employment, although many public employees

are highly underemployed; and many of the island economies depend heavily on transfer payments related to aid, military bases, and workers' remittances.

**East Asia's manufacturing has upgraded and deepened, but this has not occurred in many other Asian economies.** Table 2.5 divides 18 manufacturing subsectors into high tech and non high tech and shows the resulting output and employment shares in 12 economies. This follows the classification of Antweiler and Treffler (2002) and Ng (2002), based on technological levels. The classification is also consistent with that of Felipe et al. (2010) of almost 800 products. High-tech subsectors are chemicals and chemical products; fabricated metal products; office, accounting, computing machinery, and machinery and equipment;

## Box 2.1 The role of demographic and geographic variables

A series of recent papers have studied how different manufacturing subsectors evolve as income per capita increases. Some important conclusions are as follows:

**Country size.** Industrialization usually takes off earlier in small and mid-size countries than in large countries, but industrialization lasts longer in the latter. Although industries such as food and beverages, tobacco, textiles, wearing apparel, wood products, printing and publishing, coke and refined petroleum, nonmetallic minerals and furniture, are the first to develop (i.e., “early industries”) in all countries, they reach their maximum value added per capita first in small and medium size countries. But such industries also slow down first in these countries. At high income levels, capital- and technology-intensive industries (e.g., chemicals) become the largest, across all country size groups. Large countries tend to sustain the growth of these industries longer than medium and small countries.

**Population density.** Higher population density has a positive impact on the development of high-tech industries, especially chemicals, motor vehicles, and machinery and equipment industries.

**Natural resources.** Countries that are well endowed with natural resources and receive significant foreign exchange for them may lack the incentives to diversify their economies. This can negatively affect the development of manufacturing. An example is Papua New Guinea—over 70% of its exports are natural resources and

its manufacturing is underdeveloped. This effect can hamper the development of industries that play a key role in deepening and sustaining industrialization from the upper middle-income stage on, such as electrical machinery and apparatus, motor vehicles (in large countries only), and chemical industries. Countries richly endowed with natural resources need to manage them well to avoid undue currency appreciation from exporting natural resources and they need to invest in physical and human capital, which are both necessary for a continuous shift in the manufacturing structure.

**Food, drink, and clothing.** Food and beverages, textiles, and wearing apparel are major contributors to employment. These industries (especially the first two) are the largest manufacturing employers up to very high income per capita, and food and beverages remain the most important employer at all levels of income per capita. Most industries that develop early on during industrialization employ fewer workers than do industries that develop later. When employment in the “early industries” starts to slow, other industries have to contribute to employment generation. Given that the early industries provide substantially more employment than those that emerge later, a developing country will need to develop simultaneously several industries that develop during the middle (i.e., paper, basic metals, fabricated metals, and precision instruments) and late (i.e., chemicals, rubber and plastic, machinery and equipment, electrical machinery and apparatus, and motor vehicles) stages to compensate for the declining employment in the early industries.

a The exception is nonmetallic minerals industries: domestically oriented industries that produce building materials for construction and serve a relatively income inelastic demand.

Sources: Haraguchi and Rezonja (2010, 2011a, 2011b); Haraguchi (2012a, 2012b).

Table 2.5 Shares of high-tech and non high-tech subsectors in total manufacturing output and employment (%)

Economy	Output <sup>a</sup>				Employment <sup>b</sup>			
	Initial year		Latest year		Initial year		Latest year	
	High-tech	Non high-tech	High-tech	Non high-tech	High-tech	Non high-tech	High-tech	Non high-tech
Bangladesh	14.76	85.24	23.97	75.92	12.98	87.02	6.17	93.83
China, People's Rep. of	39.96	60.12	45.99	53.93	51.79	48.21	45.29	54.71
India	38.04	61.96	37.98	62.06	28.20	71.80	22.98	77.02
Indonesia	11.15	88.85	31.21	68.85	10.12	89.88	18.68	81.32
Korea, Rep. of	24.33	75.67	63.69	36.35	22.81	77.19	45.57	54.43
Malaysia	21.02	78.98	50.12	49.84	19.64	80.36	43.75	56.25
Pakistan	17.03	82.97	25.45	74.57	21.44	78.56	15.54	84.46
Philippines	23.28	76.72	47.47	52.53	18.43	81.57	44.37	55.63
Singapore	38.94	61.06	89.68	10.32	36.36	63.64	82.92	17.08
Sri Lanka	27.38	72.62	14.43	85.56	27.33	72.67	6.67	93.33
Taipei, China	32.62	67.45	51.42	48.58	...	...	...	...
Thailand	37.12	62.88	51.67	48.34	17.77	82.23	33.29	66.71

... = no data available, PRC = People's Republic of China.

a For output, the initial year for all economies is 1970, except for the PRC (1980) and Taipei, China (1979). The latest years are as follows: the PRC, Indonesia, Malaysia, and Singapore: 2007; India and Sri Lanka: 2008; Bangladesh: 1998; Pakistan, Philippines, and Thailand: 2006; Taipei, China: 1996. For Indonesia in 1970, there are no data on the following categories: petroleum, and nuclear fuel; basic metals; and medical, precision, and optical instruments. For Thailand in 1970, there are no data on coke, petroleum, and nuclear fuel; and medical, precision, and optical instruments. For Singapore in 2007, there are no data on food and beverages and tobacco products.

b There are no data for Taipei, China. The initial year for all economies 1970, except for the PRC (1977), India (1980), and Singapore (1969). The latest years are: the PRC and Indonesia: 2009; India, the Republic of Korea, Malaysia, Singapore, and Sri Lanka: 2008; Pakistan, the Philippines, and Thailand: 2006; Bangladesh: 1998. For Indonesia in 1970, there are no data for coke, refined petroleum, and nuclear fuel; and basic metals. For Thailand in 1970, there are no data for coke, refined petroleum, and nuclear fuel. For India and the Republic of Korea in 2008, there are no data for office, accounting, computing machinery, machinery and equipment; communication equipment, electrical machinery and apparatus; and medical, precision, and optical instruments. For Singapore in 2008, there are no data for food and beverages, and tobacco products. For Pakistan in 2006, there are no data for office, accounting, computing machinery, machinery and equipment.

Sources: Authors based on ILO. LABORSTA. <http://laborsta.ilo.org> (accessed September 2012); GGDC. 10-Sector Database. [www.ggdc.net](http://www.ggdc.net) (accessed September 2012); World Bank. WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012).

communication equipment, electrical machinery and apparatus; medical, precision, and optical instruments; and motor vehicles. Non high-tech subsectors are food and beverages; tobacco products; textiles; wearing apparel, fur and leather products, and footwear; wood products; paper and paper products; printing and publishing; coke, refined petroleum, and nuclear fuel; rubber and plastic products; nonmetallic mineral products; basic metals; and furniture.

The shares of high-tech subsectors in manufacturing output has increased since 1970 in the East Asian economies, while the increase in South Asia has been very small and even declined in India and Sri Lanka. The shares of high-tech subsectors in manufacturing employment have declined in Bangladesh, the PRC, India, Pakistan, and Sri Lanka.

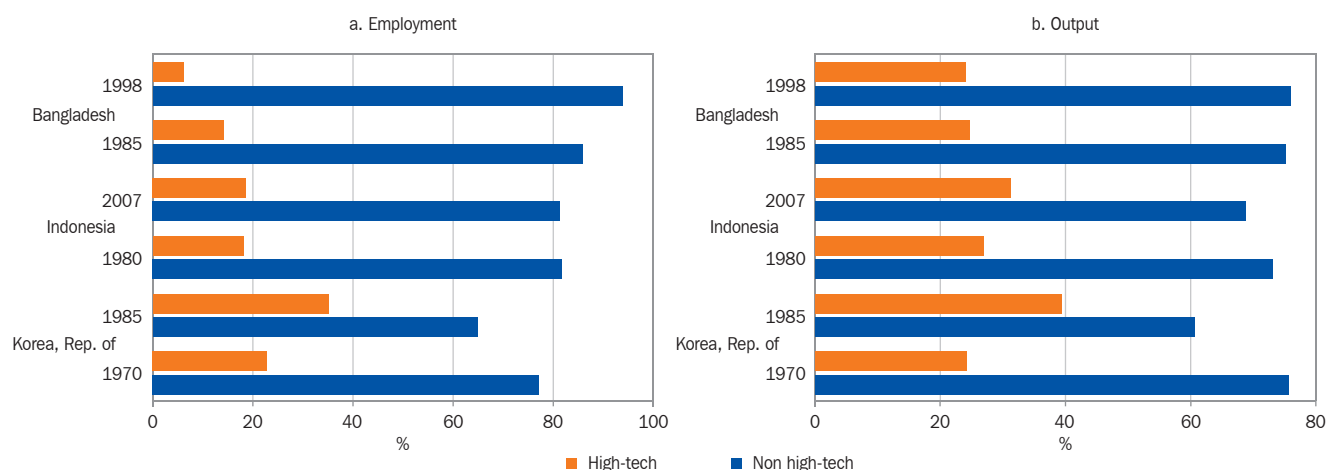
Figure 2.9 compares the change in high-tech and non high-tech manufacturing output and employment shares in the Republic of Korea in 1970 (before the start of the Heavy and Chemical Industry [HCI] drive) and 1985; in Indonesia in 1980 and 2007–2009; and in Bangladesh in 1985 and 1998. While the Republic of Korea's manufacturing underwent profound upgrading during 1970–1985 (with high-tech manufacturing reaching almost 40% of both output and employment), the change in Indonesia was smaller and in Bangladesh

employment in high-tech manufacturing even declined. Singapore and Taipei, China could be similarly compared with Malaysia, the Philippines, and Thailand.

Precisely why certain actions and policies (or lack of them) led to the successful industrialization of East Asian economies, while others failed, is difficult to ascertain. It is even more difficult to establish causality. For example, the governments of Japan, the Republic of Korea, and Singapore were relentlessly committed to industrializing, and all three used industrial policies extensively. Japan created the Ministry of International Trade and Industry in 1951. With the Ministry of Finance, it exerted tremendous authority over corporate Japan, although not without open resistance from the latter. The Ministry of International Trade and Industry targeted industries and the Ministry of Finance directed the flow of resources. While both institutions accepted that market forces should direct the country's scarce resources into the businesses in which Japan had clear advantages, they also wanted to develop new comparative advantages (Hayashi 1990).

Starting in the second half of the 1960s, the Republic of Korea made conscious and concerted efforts to move into higher-value-added areas through complementary investments in human capital and infrastructure. In 1973, President Park launched the

Figure 2.9 High-tech and non high-tech subsectors: Bangladesh, Indonesia, and the Republic of Korea (% of total manufacturing output and employment)



Note: High-tech subsectors include the following: chemicals and chemical products; fabricated metal products; medical, precision, and optical instruments; motor vehicles, trailers, semi-trailers, and other transport equipment; office, accounting, computing machinery, machinery and equipment not elsewhere classified; and radio, television, and communication equipment, electrical machinery, and apparatus. Non high-tech subsectors include the following: basic metals; coke, refined petroleum products, and nuclear fuel; food and beverages; furniture; manufacturing not elsewhere considered; nonmetallic mineral products; paper and paper products, printing, and publishing; rubber and plastics products; textiles; tobacco products; wearing apparel, fur, leather, leather products, and footwear; and wood products (excluding furniture).

Source: Authors based on UNIDO. <http://www.unido.org/resources/statistics/statistical-databases.html> (accessed September 2012).

HCI drive. The objective was to achieve, by 1981, \$10 billion in exports (which Japan had reached in 1967) and \$1,000 per capita income. The HCI subsector was to account for at least 50% of manufacturing value added and contribute 60.5% of manufacturing exports. Macroeconomic imbalances as well as political problems forced the government to call off the HCI drive in 1979. Despite the problems, the HCI drive helped build the foundation of many of the country's leading industries, such as steel, shipbuilding, machinery, electronics, and petrochemicals. The drive also strengthened backward and forward linkages among them and related industries such as automobiles (Lim 2012).

Singapore has virtually no natural resources beyond a natural harbor and, when it split from Malaysia in 1965, Singapore's unemployment was 14% and it had only 2 million people, a very small number to support any industry. The government concluded that, given these conditions, it had to be bold and devise a unique approach to industrialization and job creation, the key to economic development. But unlike in Japan and the Republic of Korea, bureaucrats in Singapore did not focus on nurturing Singaporean firms run by local entrepreneurs. When the Singapore government wished to enter a new area, it did so directly. In this sense, the government's degree of intervention in the economy was greater than that in Japan or the Republic of Korea; but, at the same time, Singapore was the most open of the three to the forces of globalization and the most promarket. The essence of the model was to achieve industrialization by attracting foreign investment. Singapore's economic team targeted types of multinational companies that could create the largest number of jobs, import new technologies, train Singaporeans in advanced technical and managerial skills, and generate exports. As in Japan and the Republic of Korea, Singapore also entrusted the development of master plans to a group of bureaucrats, by establishing in 1961 the Economic Development Board (Schuman 2009).

In contrast, several factors help explain why the Philippines failed to industrialize, despite attempts to do so during the 1980s. Both the Republic of Korea and the Philippines embarked on building an industrial base at the same time, struggled through worldwide economic recessions caused by two oil price shocks, selected a common set of industries to nurture, followed nearly

identical development blueprints for the selected sectors, utilized the same set of policy instruments to channel resources to targeted sectors, and relied heavily on external borrowing to fund domestic investment. But the Korean economy weathered and recovered much more quickly from economic slowdowns and price shocks than did others—a testament to its successful industrial transition—whereas the Philippines' shallow industrial base was nearly decimated by the ensuing internal and external crises (Box 2.2).

Haraguchi (2012a) examines the speed with which manufacturing developed in large countries that have some similar characteristics. His aim was to analyze why some countries have successfully hastened the transformation of their manufacturing while others have not. He finds that the real value added per capita of the Republic of Korea's manufacturing increased 20 times faster on average than Malaysia's, while most of Malaysia's industries grew faster than those of Sri Lanka. Haraguchi argues that, because the Republic of Korea's and Sri Lanka's economies are similar in terms of population density (above the world median) and resource endowment per capita (below the world median), differences are likely to be explained by country-specific conditions that relate to a country's capabilities, such as the ability of the state to promote diversification, deepening, and upgrading, and relate to other unique circumstances that enhance a country's infrastructure, institutions, and relative cost level.

Felipe (2012a, 2012b) finds that the Republic of Korea succeeded in achieving new comparative advantage in products that were significantly different from those it exported 5 years earlier. By comparison, Malaysia, and even more so the Philippines, acquired new comparative advantage in products that were very similar to the ones already exported.

In Malaysia's case, an analysis of the tasks conducted by electronics firms across the country concluded that they lag behind firms in Singapore and Taipei, China, in every stage of the process (i.e., assembly, manufacturing, product design, etc.). Malaysian firms are highly involved in assembly and product manufacturing and much less involved in high value-added activity (reported by Samel 2012). And using Malaysia's input-output tables, Tham and Loke (2011) concluded that efforts to deepen the country's manufacturing have

**Box 2.2 Lack of depth in the Philippine manufacturing subsector: The legacy of old, incoherent policies and attempts to correct them**

Former Philippine policymakers tried to steer the economy by implementing industrialization policies. Like other developing countries, the Philippines embarked on an industrialization program based on an inward-looking import substitution strategy during the 1960s, and then shifted to an export-oriented regime in the mid-1970s. During the 1980s, the country developed an aggressive industrialization strategy based on 11 major industrial programs. The plan was to spur the growth of supporting manufacturing activities. By locating major industries across the country, the government intended to disperse economic activities and generate rural employment. Financing was to come from external loans, foreign equity, and suppliers' credits.

Yet, unlike its East and Southeast Asian neighbors that managed to catapult their economies into the league of industrial nations, the Philippines remains constrained by narrow export specialization, import dependence, and a shallow knowledge base. The reasons include macroeconomic policies, flawed incentive structures, and lack of nationalism among the "captains" of industry. In addition was the discord in trade, investments, domestic regulation, human resources, and science and technology policies that were supposed to complement the industrial programs during the 1960s–1980s.

The overall lack of policy coherence during the 1980s as well as poor implementation left the Philippines with a much weaker economic structure than that in some of its East and Southeast

Asian neighbors. This is reflected in broken supply linkages that prevented the development of a robust domestic industrial structure. In many Philippine industries, labor is the only local input. For example, the lack of materials processing has affected the parts and supplies industries and hampered high-tech industries from moving up the value ladder. As a result of weak backward linkages within manufacturing, automotive and electronics continue to rely on imported parts and remain at the assembly stage of the supply chain. Iron and steel is also critical for the development of manufacturing, but the country does not locally manufacture the metals that many industries require (e.g., for refrigerators). With the closure of Global Steel, local production of hot-rolled coils and sheets, cold-rolled coil sheet, tin plates, and wire rods has been totally taken over by imports. The tool and die industry has to compete against imported dies and molds. Most raw materials, equipment, and software have to be imported.

To remedy these problems, and in consultation with the private sector, the Department of Trade and Industry and the Board of Investments are formulating a comprehensive manufacturing industry roadmap. The objective is to enable manufacturing firms to upgrade and spearhead growth. The overall plan includes a roadmap for the automotive industry. The automotive subsector has a very large multiplier effect (through backward linkage), as it demands a wide range of inputs from other industries, including raw materials, energy, construction, and services.

Sources: Abrenica (2013), Aldaba (2013), Balisacan and Hill (2003).

not succeeded in nurturing a critical mass of domestic entrepreneurs with indigenous innovative capacities, as the country's industrialization depends on imported technology and capital. The electrical and electronics subsector has weaker backward linkages than other subsectors in the economy.

The output mix has to be upgraded to raise wages in the long term, to create niches, and to move away from the most competitive low-wage and low-profit segments of the world market. Export unit values are the prices per unit that can be secured on the export market, a proxy for quality. The highest export value is referred to as the "frontier," the goal to be achieved. Research indicates that export unit values tend to converge rapidly across countries. This means that countries that enter a new sector and start well below the export unit values of the advanced economies (i.e., the frontier) raise both their unit values and per capita income faster (Hwang 2006). Poor countries converge to rich countries unconditionally within the set of goods

they produce, but most poor countries have not grown because the range of goods they produce and in which convergence can occur has been limited. In other words: an important difference between the slow-growing and the fast-growing countries is that the lagging countries are producing in sectors where the frontier—the highest value to be reaped—is not very far ahead of the value they are currently securing, so there is little potential for growth through catch-up. Conversely, fast-growing countries have managed to get into sectors where the frontier is further ahead.

### Services: Asia's service sector follows a two-wave pattern, and the share of complementary services is increasing

Because many developing Asian economies have skipped the industrialization stage, their service sector is the largest in GDP and in employment (Appendix Table

A1), at relatively low per capita income. The service sector is difficult to analyze because it is heterogeneous (ADB 2012a). Traditional services (e.g., barbershops and neighborhood retailing) are generally low productivity activities, but some services, based on new technology and standardization of delivery, permit substantial productivity gains. For example, transport services, financial operations, wholesale trade, and renting services are often complementary to industrialization and are a significant aspect of the ST process that leads the creation of a modern industrial and service economy. We document two features of Asia's service sector—first, the two-wave path of its subsectors; second, the rise of the share of financial intermediation, real estate, renting, and business activities.

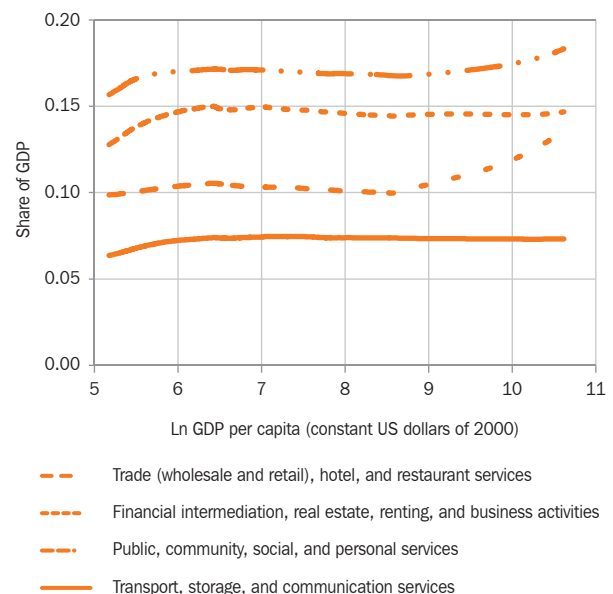
**The two-wave pattern of services.** Eichengreen and Gupta (2013) found a two-wave pattern in the growth of the service sector. The sector's output share in total GDP rises at a decelerating rate at relatively modest GDP per capita and then it rises again at a later level of GDP per capita. This finding challenges the somewhat conventional wisdom that the service sector only becomes important when countries reach a high level of per capita income, and explains the observation that many developing countries have sizeable service sectors (Appendix Table A.1 and Table 2.1). Several reasons account for this.

- First, governments aim to provide a minimum level of services to their constituencies, e.g., jobs for the urban middle classes, which organized industry cannot fully absorb.
- Second, the service sector has extensive disguised unemployment.
- Third, in countries relatively closed to foreign competition, the main activity of the urban middle and upper classes is wholesale and distribution.
- Fourth, in some developing countries, comparative cost considerations play an important role in determining the share of the service sector, e.g., the tourism industry in the Maldives and in some Pacific islands.
- Fifth, the composition of services in developing economies is very different from that in advanced economies. For example, ADB (2012a) reports that

the share of business services in total employment in countries such as the United Kingdom and the United States was over 20% in 2007—significantly higher than in most Asian economies.

In terms of the service sector's potential for stimulating economic development, it is important to understand the roles the service subsectors play during the phases of development. Figure 2.10 replicates the analysis of Eichengreen and Gupta (2013) with data for 23 Asian economies (using GDP per capita in constant dollars of 2000), disaggregated into four subsectors for the period 1974–2010: (i) public, community, social, and personal (PCSP) services; (ii) trade (wholesale and retail), hotel, and restaurant (THR) services; (iii) financial intermediation, real estate, renting, and business (FRB) activities; and (iv) transport, storage, and communication (TSC) services. The THR and TSC subsectors only have

Figure 2.10 **Services and development in Asia, sectors' shares:**  
**A two-wave pattern (Lowess regressions)**



GDP = gross domestic product, US = United States.

Notes: Lowess = locally weighted regression, a curve-fitting technique that provides a generally smooth curve, while making no prior assumption about the relationship; this is in contrast to "standard" ordinary least squares (OLS) regression analysis, which assumes that the relationship is represented by a straight line. The 23 economies are Azerbaijan; Brunei Darussalam; China, People's Republic of; Hong Kong, China; India; Indonesia; Japan; Kazakhstan; Kiribati; Korea, Republic of; Kyrgyz Republic; Lao People's Democratic Republic; Malaysia; Nepal; Pakistan; Papua New Guinea; Philippines; Singapore; Sri Lanka; Thailand; Tonga; Tuvalu; and Viet Nam. The four subsectors are trade (wholesale and retail), hotels, and restaurants (50–55); transport, storage, and communication (60–64); financial intermediation, real estate, renting, and business activities (65–74); and public, community, social, and personal services (75–99). Numbers in parentheses refer to International Standard Industrial Classification (ISIC), rev. 3 codes. The average shares in GDP for each subsector (across all economies and time) is 15%, 7%, 10%, and 17%, respectively; and the average of the overall service sector is 49%.

Source: Authors.

one inflection point, implying that they grow quickly at lower GDP per capita, and their shares stabilize above about \$560 and \$580, respectively. FRB has two inflection points, the first at \$600 and the second at \$5,500. PCSP also has two inflection points, at \$600 and \$6,000.

These results lead to the conclusion that the service sector matters at all levels of development, and not just at high levels of income per capita. In the first phase (the first wave), all four service subsectors increase their share of GDP (and consequently grow fast), but especially THR, TSC, and PCSP. During the second phase (between approximately \$625 and \$5,675), we observe roughly constant shares of the four service subsectors. The third phase (the second wave) is characterized by rising shares of FRB and PCSP. The second wave starts around \$5,675, and FRB is key to understanding the second wave of the service sector.

Table 2.6 uses the estimated regressions for the four service subsectors in Figure 2.10 to position the Asian economies in the two waves at five points in time. The table shows when countries passed by each of the two waves. For example, Thailand moved out of the first wave between 1975 and 1980; the PRC, Indonesia, and Sri Lanka, between 1990 and 2000; and India, Pakistan, and Viet Nam, between 2000 and 2010. Of the economies covered, only the Republic of Korea moved into the second wave, which it did between 1980 and 1990, joining Brunei Darussalam; Hong Kong, China; Japan; and Singapore.

**The rise of complementary services.** The share of services in total output has changed in many Asian countries, as has the composition within services. Figure 2.11 shows time series of the shares of the four service categories in total services. In particular, service sector activities have become increasingly commercialized, which has led to the rise of complementary services, especially FRB activities.

FRB activities are complementary to manufacturing as concomitants to urbanization, are necessary links to the process of modern production, and are enablers of greater specialization and division of labor. FRB activities allow firms to focus on their core competencies and make more use of specialist subcontractors to provide accounting, human resource management, and other services that were previously provided in-house. TSC (transport, storage, and communications, the other important type of complementary service), varies more across countries than the other subsectors, but overall, the share of FRB plus that of TSC has increased in most economies. Only in Japan, the Philippines, and Thailand has FRB's share not changed; and in India, it has declined (in India, the gainer has been THR).

**Urbanization and services.** An important aspect of ST in Japan and the NIEs has been substantial urbanization; other economies across the region are urbanizing fast. Between 1970 and 2010, Asia's urban population increased fourfold, to almost 1.6 billion people. By 2050, Asia's urban population is expected

Table 2.6 Asian economies: The two waves of the service sector

	Phase 1 (first wave) Subsectors with fastest growth in this wave: Trade (wholesale and retail), hotel, and restaurant services; Public, community, social, and personal services	Phase 2	Phase 3 (second wave) Subsector with fastest growth in this wave: Financial intermediation, real estate, renting, and business activities
1975	PRC, India, Indonesia, Nepal, Pakistan, Sri Lanka, Thailand	Kiribati; Korea, Rep. of; Malaysia; PNG; Philippines	Brunei Darussalam; Hong Kong, China; Japan; Singapore
1980	PRC, Indonesia, India, Nepal, Pakistan, Sri Lanka	Kiribati; Korea, Rep. of; Malaysia; PNG; Philippines; Thailand; Tonga	Brunei Darussalam; Hong Kong, China; Japan; Singapore
1990	PRC, India, Indonesia, <u>Kyrgyz Rep.</u> , <u>Lao PDR</u> , Nepal, Pakistan, Sri Lanka, <u>Viet Nam</u>	<u>Kazakhstan</u> , Kiribati, Malaysia, PNG, Philippines, Thailand, Tonga, <u>Tuvalu</u>	Brunei Darussalam; Hong Kong, China; Japan; Korea, Rep. of; Singapore
2000	India, Kyrgyz Rep., Lao PDR, Nepal, Pakistan, Viet Nam	PRC, Indonesia, Kazakhstan, Kiribati, Malaysia, PNG, Philippines, Sri Lanka, Thailand, Tonga, Tuvalu	Brunei Darussalam; Hong Kong, China; Japan; Korea, Rep. of; Singapore
2010	Kyrgyz Rep., Lao PDR, Nepal	PRC, India, Indonesia, Kazakhstan, Kiribati, Malaysia, Pakistan, PNG, Philippines, Sri Lanka, Thailand, Tonga, Tuvalu, Viet Nam	Brunei Darussalam; Hong Kong, China; Japan; Korea, Rep. of; Singapore

Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.

Note: Underlined entries refer to the first occurrence for the economy.

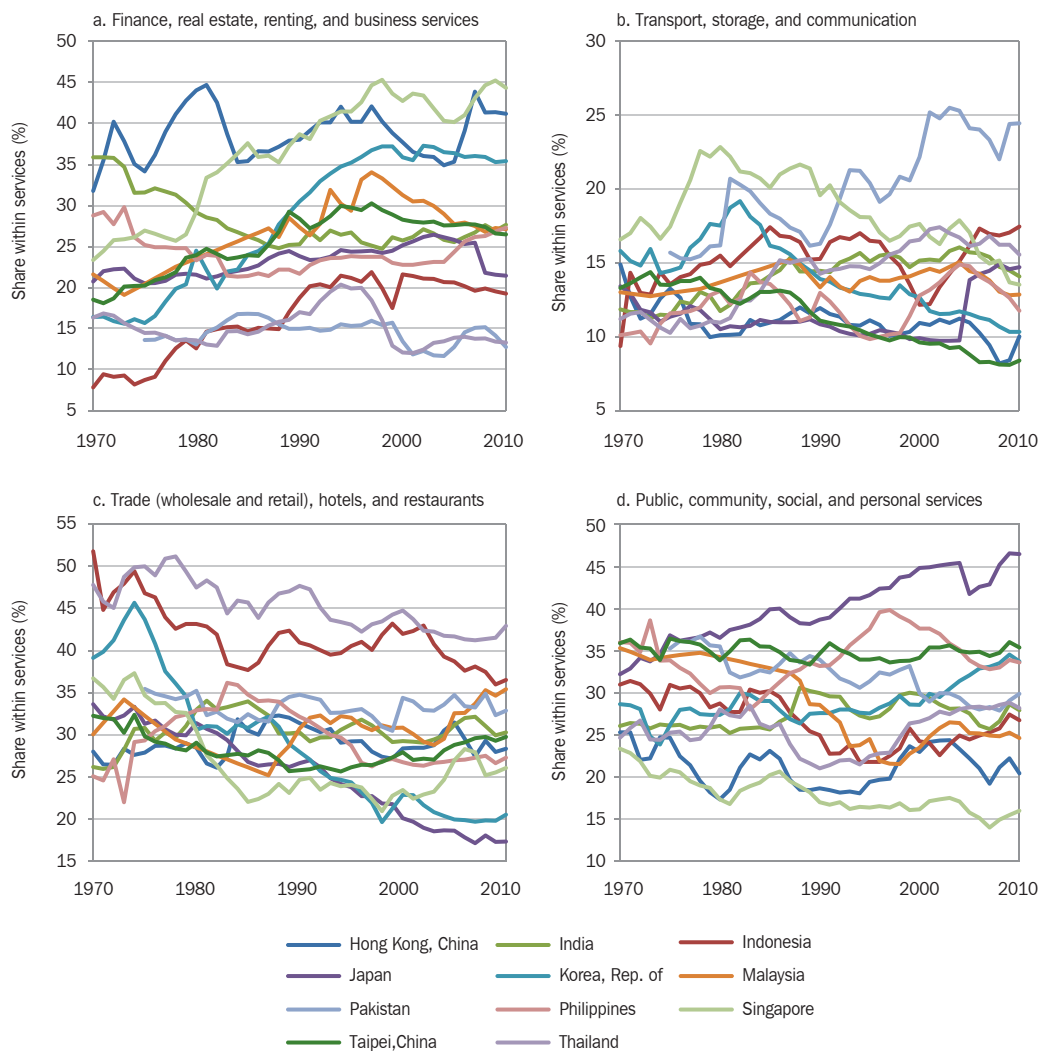
Source: Authors.

to reach almost 3 billion people—63% of the total population (Kohli et al. 2011). And urban centers produce services. Figure 2.12 documents the statistically significant relationship between the urbanization rate and (i) the share of employment in services, and (ii) the shares of manufacturing and services in GDP. The shares of manufacturing and services are higher in the more urbanized societies.

The result is that urbanization and GDP per capita tend to move in sync as countries develop, thus creating a consuming class that drives demand. In all known cases of high and sustained growth, urban manufacturing and services led the process, while increases in agricultural productivity freed up labor to move to the cities.

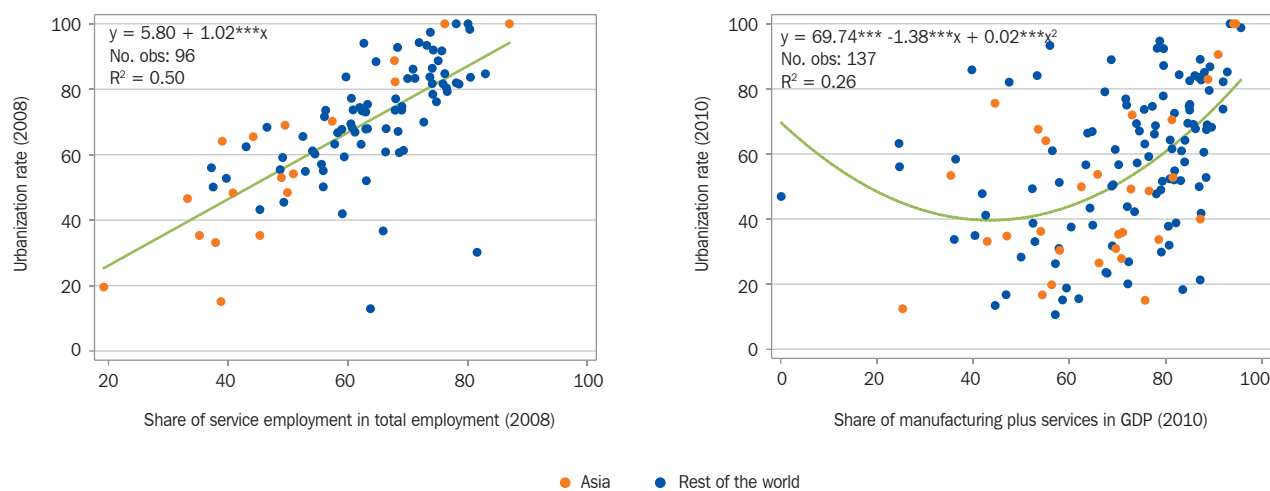
Urbanization's contribution to growth comes from two sources: the difference between rural and urban productivity levels, and more rapid productivity change in cities. In the high-growth cases Spence et al. (2009) examines, the average productivity of a worker in manufacturing or services is 3–5 times that of a worker in agriculture, and sometimes much more. In the early stages of development, when the majority of the population is still rural, the jump from rural to urban employment makes a big contribution to growth. As cities grow, the second effect—more rapid productivity change in cities—begins to dominate. Anything that slows the transfer of workers out of agriculture into activities in cities is likely to slow growth.

Figure 2.11 The rising share of complementary services



Source: ADB, SDBS. <https://sdb.sdb.org> (accessed September 2012).

Figure 2.12 Urbanization and structural transformation



\*\*\* = significant at the 1% level.

Source: World Bank. WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012).

Because urbanization is one of the most important enablers of rapid growth, countries that want to grow fast must learn how to make urbanization work well. The first challenge is to foster the growth of high-productivity activities that benefit from agglomeration and scale economies in developing-country cities. The second involves managing the likely side effects of the economic success of cities, i.e., urban poverty, pollution, congestion, and high prices of land and housing, as well as regional inequality. Meeting this second challenge is essential for mitigating the divisive impacts of successful economic growth and spreading the benefits of higher economic productivity widely (ADB 2012b).

The growth of business services is inextricably linked with urbanization, globalization, and the intertwining of modern industrial and service activities. They have grown rapidly in all developed and developing countries in recent years, both in terms of employment and value added. Services provide important inputs to production in all sectors, especially manufacturing. Three features of business services are a trend toward their spatial concentration, the increasing level of internationalization, and their contribution to improving the efficiency of manufacturing and other service industries.

### Most labor productivity growth has been within sectors; less has come from reallocating labor across sectors

In this subsection, we analyze productivity growth. To do this, we decompose the growth of labor productivity between two periods into (i) the “within effect”—its contributions within each sector; (ii) the “between effect”—the contribution from changes in the allocation of labor between sectors; and (iii) the “dynamic effect”—the interaction between changes in labor productivity and labor shares in individual sectors (Box 2.3). The last two effects reflect structural change.

The manufacturing sector registered the highest growth of labor productivity during 1974–2004 in all economies except India (where the labor productivity of the service sector grew the fastest), Malaysia, and the Philippines (where the fastest growth was registered by agriculture). Taipei, China attained the highest overall labor productivity growth, at 332%, and Philippines the lowest, at 20%.

## Box 2.3 Shift-share analysis of productivity growth

The shift-share method decomposes the growth rate of labor productivity into three components:

- the contribution from changes in the reallocation of labor between sectors, weighted by the initial value of labor productivity (positive if sectors of high productivity increase their employment share, and negative if they decrease their employment shares)—termed the “between effect;”
- the interaction between changes in labor productivity and labor shares in individual sectors—termed the “dynamic effect;” and
- the contribution of productivity growth within each sector, weighted by the initial share of each sector in total employment—termed the “within effect.”

Algebraically (with each term ordered in the sum), this is expressed as:

$$\dot{\pi}_N = \frac{\pi_{N,t} - \pi_{N,t-n}}{\pi_{N,t-n}} = \frac{\sum_{i=1}^N \pi_{i,t-n} (s_{i,t} - s_{i,t-n}) + \sum_{i=1}^N (\pi_{i,t} - \pi_{i,t-n}) (s_{i,t} - s_{i,t-n}) + \sum_{i=1}^N (\pi_{i,t} - \pi_{i,t-n}) s_{i,t-n}}{\pi_{N,t-n}}$$

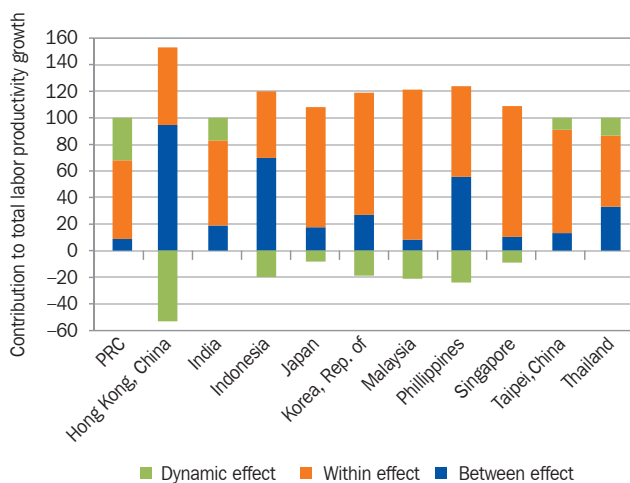
where  $\pi$  is labor productivity,  $t-n$  is the initial year,  $t$  is the final year,  $N$  is the number of sectors,  $i$  corresponds to each economic sector, and  $s$  is each sector's weight in employment.

Source: Maroto-Sanchez and Cuadrado-Roura (2009).

Figure 2.13 displays the shift-share decomposition for 11 Asian economies. The sum of the within, between, and dynamic effects is equal to the change in labor productivity growth for 1974–2004. The analysis considers nine sectors (some of them subsectors within industry and within services): agriculture; manufacturing; public utilities; mining and quarrying; construction; wholesale and retail trade and accommodation; transport and communications; FRB; and personal and government services.

To understand what the within effect measures, suppose that there was no change in the sectors' shares, and that productivity growth rates were the ones observed. Then this effect measures what productivity growth would have been in this case. In the case of the between effect, suppose that productivity growth rates in each sector had been zero and that one observed the sectors' shares changing as they did. Then this effect measures what productivity growth would have been in this case.

Figure 2.13 Shift-share analysis: Decomposition of labor productivity growth, overall economy, 1974–2004 (% contribution of each component)



PRC = People's Republic of China.

Note: The “within effect” is the contribution of productivity growth within each sector, weighted by the initial share of each sector in total employment; the “between effect” is the contribution from changes in the reallocation of labor between sectors, weighted by the initial value of labor productivity; and the “dynamic effect” is the interaction between changes in labor productivity and labor shares in individual sectors.

Source: Authors.

Labor productivity growth within each sector was the most important contributor to overall labor productivity growth in most cases. The two exceptions are Hong Kong, China and Indonesia, where the highest contributor was the between effect.<sup>18</sup> The within effect is also somewhat important in Indonesia, the Republic of Korea, the Philippines, and Thailand. Although not shown, in four economies (Japan; Hong Kong, China; the Philippines; and Singapore), manufacturing's contribution to the between effect was negative—the employment share of manufacturing fell; and in the Republic of Korea and Taipei, China, manufacturing's contribution to the between effect, while positive, was small, i.e., the employment share of manufacturing increased only marginally.

The structural change effects—comprising the between and the dynamic effects—are dominated by a positive between effect. This implies that employment shifted toward sectors of higher productivity. But in absolute terms, the between effect in most economies was weaker than the within effect.

Except in four economies (the PRC; India; Taipei, China; and Thailand), the dynamic effect was negative—with overall changes in the sectors' employment shares and changes in labor productivity moving in opposite directions (i.e., a sector's share in total employment increased while its labor productivity declined, or vice versa).

The analysis shows that overall labor productivity growth in many Asian economies during 1974–2004 resulted mainly from productivity growth within sectors, while the between effect—the reallocation of labor from sectors of lower into those of higher productivity—had a smaller effect. In India during the period considered, within-sector productivity growth accounted for 64% of total labor productivity growth, labor reallocation into higher productivity sectors accounted for 19%, and the dynamic effect—the interaction between changes in labor productivity and changes in sectors' shares—accounted for 17%. That is, labor shifted toward industries with fast productivity growth (Box 2.4). The corresponding shares for the PRC are 59%, 32%, and 9%. This means that labor reallocation across sectors was, in percentage terms, smaller than the within effect. But this does not mean that it was not large in absolute terms. The between effect is small in percentage terms in the PRC because the within effect was very large in absolute terms—over 350% (with significant contributions from agriculture and especially manufacturing), much larger than the between effect, at 54% (the same as the average of the other economies shown in Figure 2.13). Agriculture's reallocation effect was negative (the sector's share declined), while the contribution of

the other subsectors to this effect was positive. Finally, the dynamic effect accounted for 191% of overall productivity growth. What this suggests is that in many Asian economies there is plenty of room for the labor reallocation effect to play a significantly larger role as a contributor to overall productivity growth. We return to this issue in the section, Asia's future transformation.

## Diversifying and upgrading the complexity of exports have been uneven across Asian economies

In this subsection, we analyze changes in export baskets during 1995–2010. To do so, we use the concepts of diversification and complexity introduced by Hidalgo et al. (2007) and Hausmann et al. (2011) to complement our discussion of upgrading.<sup>19</sup>

**The key concept is complexity, which combines the ideas of diversification and ubiquity.** Diversification refers to the variety of products that a country exports (Box 2.5). The variety is larger in countries that have accumulated more knowledge (e.g., about production), and, in general, complex economies are more diversified than economies that are not complex.<sup>20</sup>

Using export data for 1,240 products for 1995–2010, we calculate the total number of products that a country exports with revealed comparative advantage and refer to it as a country's level of diversification (Box 2.6). When compared across countries and across time, this measure also indicates export competitiveness.

### Box 2.4 Economic transformation in India

India's situation reveals what many Asian economies face in generating desirable economic transformation. Recent research shows that India's rapid economic growth of about 8.7% per annum from 2004–2005 to 2009–2010 had little impact on the process of economic transformation. Agriculture's share in total employment declined significantly, by about 4 percentage points, with 15 million workers migrating to towns and cities. But the manufacturing and service sectors did not fully absorb them. Manufacturing in fact shed 5 million jobs, while services recruited 3.5 million workers. Increased construction pulled workers out of agriculture. The Government of India Planning Commission (2012) argues that many workers are shifting from informal agriculture to informal work outside agriculture, instead of being absorbed by manufacturing and services.

Sources: Government of India Planning Commission (2012), Mehrotra et al. (2012), Thomas (2012).

Figure 2.14 documents the level of diversification of 20 Asian economies at 5-year intervals during 1995–2010. The graphs show three levels of diversification in the economies' export baskets: economies that are well diversified and today have comparative advantage in over 700 products; economies that today have comparative advantage in 100 to 350 products; and economies that today have comparative advantage in 80 products or fewer.

Complexity is a measure of both product and economic sophistication. Complexity is calculated using information on how diversified an economy is and how unique the products that it exports are. This information can be combined to jointly generate an

economic complexity index (ECI) for countries and a product complexity index for products (Box 2.6). Not surprisingly, the most complex products are chemicals

and machinery, while the least complex are raw minerals and simple agricultural products (Felipe et al. 2012).

#### Box 2.5 Why does diversification matter for structural transformation?

The key difference between modern and premodern economies is not that the modern economies have more of the same things, but rather that they have a significantly larger number of different things, many of which were not available in earlier times. The increase in diversification is probably the most conspicuous aspect of economic development, and is a chief difference between the complex process of economic development and the aggregate process of economic growth. The economies and employment of countries or regions that export a diverse set of products grow faster, in part because they hold a varied set of industries and, through them, a larger number of productive capabilities. A diverse set of industries and capabilities, in turn, creates inter- and intra-industry spillovers that give rise to clusters of productive activities in which the competitiveness of each firm is connected to the existence of other firms.

Export diversification matters because it can lower volatility and instability in export earnings. Such effects can help hedge against

the risk inherent in a market with uncertain returns. Economic downturns are shorter lived in more diversified economies. Diversified exports reduce the possibility of overreliance on income from abundant natural resources (the “Dutch disease”),<sup>a</sup> institutional degradation, or reluctance to implement growth-enhancing reforms.

However, it is not very easy to diversify exports. Venturing into a new activity entails significant uncertainty about the profitability of the new venture. The new activity may have high social returns, but the risks are private.

Finally, diverse and more complex economies are more inclusive, as the Gini coefficient (a measure of inequality) and diversification (controlling for income) are significantly related. This implies that economies that are more diverse and more complex tend to be less unequal, even after controlling for income.

a “Dutch disease” refers to appreciation of the exchange rate due to significant current account surpluses resulting from exports of natural resources. This appreciation usually harms the development of the manufacturing sector.

Sources: Haraguchi and Rezonja (2010, 2011a, 2011b); Haraguchi (2012a, 2012b).

#### Box 2.6 Diversification and complexity measures

**Revealed comparative advantage and diversification.** For each country and product, we calculate the exports per capita and then compare this ratio to the same one at the worldwide level (i.e., world exports of the product divided by the sum of the populations of all the countries that export the product). We denote this ratio as the index of revealed comparative advantage, and write it as  $RCA(pop)_{c,p}$  (where the subscripts  $c$  and  $p$  denote country and product, respectively). Specifically, we argue that a country exports a product with revealed comparative advantage if  $RCA(pop)_{c,p} > 0.25$ , and the number of products exported with  $RCA(pop)_{c,p} > 0.25$  is a country’s level of diversification. Algebraically:

$$RCA(pop)_{c,p} = \frac{\text{exports}_{c,p} / \text{population}_c}{\sum_c \text{exports}_{c,p} / \sum_c \text{population}_c}$$

for exporter  $c$  and product  $p$ .

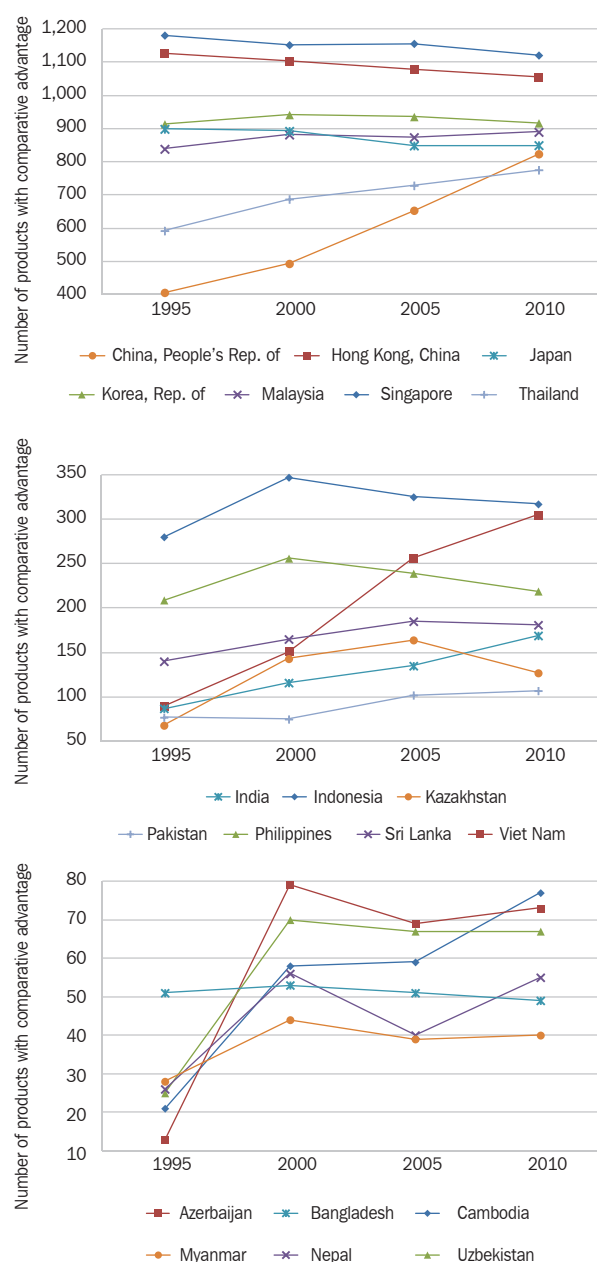
The threshold  $RCA(pop)_{c,p} > 0.25$  requires that a country’s exports per capita are larger than 25% of the world’s exports per capita of the product, and ensures that a country is a significant exporter of the product. If we make this threshold substantially larger, e.g.,  $RCA(pop)_{c,p} > 1$ , no country satisfies it for many products.

**Complexity.** To calculate this measure, we use information on the diversification of a country and on how unique a product is (i.e., how many other countries also export it with revealed comparative advantage). The latter is referred to as the “ubiquity” of a product.

A product that is exported by only a few countries is more unique, or less ubiquitous. Complex products require more knowledge to produce, so we may expect them to be less ubiquitous. Independently, diversity and ubiquity provide significant information about the variety of capabilities available in a country, or required by a product; but used jointly they provide more information. For example, only a few countries possess diamonds, which may give the impression that these countries are complex economies. However, countries that possess diamonds may not have many other products (i.e., their diversification is low). Two countries may be equally diversified but their products differ in terms of ubiquity; for example, one may manufacture medical devices produced by very few countries, and the other one, plastic buckets that are very standard and produced worldwide. This way, diversity can be used to correct the information conveyed by ubiquity, and likewise, ubiquity can be used to correct the information that diversity conveys; and so on until the process converges and there is no difference between successive iterations. Specifically, for a country, the method calculates the average ubiquity of the products that it exports and the average diversity of the countries that export those products. Conversely, for a product, the method calculates the average diversity of the countries that export them and the average ubiquity of the other products that these countries make. The result of these iterations is an economic complexity index for countries and a product complexity index for products.

Sources: Hausmann et al. (2011), Felipe et al. (2012).

Figure 2.14 Export diversification in Asia



Note: The table shows the number of products exported with RCA(pop)c,  $p > 0.25$  (Box 2.5). The maximum possible is 1,240 products.  
Source: Authors.

Figure 2.15 and Appendix Table A6 show time series for 1995–2011 for the ECI for 20 Asian economies. Values have been standardized for each year so that the mean of the distribution is zero. Therefore, for example, a value of 0.5 indicates that the country's ECI is half a standard deviation above the mean. The most complex economy in the region (and in the world) is Japan, at 1.22 standard deviations above the mean, followed by the Republic of Korea; the PRC; Hong Kong, China; and Singapore. The least complex is Myanmar, at 1.61 standard deviations below the mean.

The ECI has increased during 1995–2011 in economies such as Azerbaijan and Cambodia (both starting from about 1.5 standard deviations below the mean); Nepal (from 0.7 standard deviations below the mean to about the mean); and the Philippines, India, Thailand, and Viet Nam (from about 0.5 standard deviations below the mean to slightly above the mean). This is a sign of progress. In the most advanced economies, the ECI did not change (values were already high). And the ECI declined significantly in Kazakhstan, mostly because its export structure lacks diversification. As noted in Box 2.1, ample natural resource endowment can have a negative effect on the development of most manufacturing subsectors.

**Transformation of export diversification and complexity.** We comment briefly on the changes of export diversification and complexity, but do not cover each economy.

The PRC and India, the two economies with the largest populations, show marked differences in the diversification and complexity of their exports. The PRC's total exports of \$1.77 trillion in 2010 dwarf India's at \$238 billion. Between 1995 and 2010, the PRC more than doubled the number of products it exported with revealed comparative advantage (RCA), from 407 to 824; particularly significant are the increases in chemical and allied industries (from 46 to 109 products), machinery and electrical (from 26 to 117 products), and metals (from 48 to 110 products). While India nearly doubled its exports of products with RCA, the number was from 87 to 169. Of the 407 products that the PRC exported with RCA in 1995, 176 belonged to the bottom tercile of product complexity (43% of the total) and 85 were in the top tercile (9%); by 2010, the PRC exported 323 products that were in the top product complexity tercile (39% of the total). In the case of India, 71 of the 87 products that it exported with RCA in 1995 (82% of the total) belonged to the bottom product complexity tercile and only 2 products belonged to the top tercile; by 2010, the bottom tercile remained the largest group, containing 104 products (61% of the total), and India only exported with RCA 16 products that belonged to the top product complexity tercile.<sup>21</sup>

Countries such as Malaysia, Thailand, and Viet Nam have done very well. Between 1995 and 2010, Thailand increased the number of products exported with RCA from 593 to 776. In 2010, it exported 246 products that

belonged to the top product complexity tercile (32% of the total). Malaysia had already achieved a high level of diversification by 1995: 840 products. Between 1995 and 2010, the number of products Malaysia exported with RCA increased only to 890 (with 288 products in the top complexity tercile). Viet Nam registered an impressive increase in the number of products exported with RCA, from 90 to 305; and although in 2010 it still exported many products that belonged to the bottom complexity tercile, its products in the top product complexity tercile had increased from zero in 1995 to 53 in 2010.

On the other side of the spectrum are countries such as Kazakhstan and Pakistan, where most products exported with RCA are in the bottom tercile of the complexity range.

## Conclusions

This section has provided an overview of the direction and pace of ST across developing Asia during the last several decades. The six most important conclusions are as follows:

**During the last 4 decades, Asia's economies have transformed structurally; however, the pace and extent have been very uneven.** Desirable ST has taken place only in five Asian economies: Japan; Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China. Often, references to "Asia's success" mask very wide differences within the region. The PRC has experienced significant ST, but it still has a long way to go, especially because agriculture is still the largest employer. India lags well behind in the extent and pace of its ST. Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam have experienced ST in terms of diversification, upgrading, and deepening (and with important differences among the four economies). The rest of the region lags far behind, including large economies such as Bangladesh and Pakistan.

Figure 2.15 Economic complexity index (ECI), 20 Asian economies, 1995 and 2010



Source: Authors.

**The shares of agriculture in output and employment have declined, but at different speeds, and agriculture remains the largest employer in Asia.** In Japan; the Republic of Korea; and Taipei,China, increased agricultural productivity played key roles in releasing labor and capital for ST into higher productivity activities. However, many economies have not yet reached the turning point where the shift from surplus labor in agriculture to labor shortage is reflected in a rising agriculture wage. And in some economies, the process of reallocating labor from agriculture has scarcely begun. In the more dynamic economies, there has been ST within agriculture, upgrading to higher value products and integrating farms into agribusiness networks so that the sector becomes more like secondary industry.

**Manufacturing's output share has increased in many countries, and only the economies that industrialized early on have reached the deindustrialization stage.** But manufacturing absorbs much less employment than agriculture and services. Moreover, except in Japan and the NIEs, the share of employment in manufacturing is significantly smaller than it was in the OECD countries before they deindustrialized. Most Asian countries have not industrialized in employment, and only a few have experienced significant deepening in manufacturing, i.e., with a significant increase in high-tech subsectors.

**Economic transformation in many Asian economies is a shift from agriculture into services.** The service sector is the largest in many economies, but is difficult to analyze due to its heterogeneity. The development of the service sector follows a two-wave path: the first wave up to about \$600 GDP per capita, and the second from about \$5,500, led by finance, real estate, renting, and business activities, which complement increased complexity in agribusiness or manufacturing. Higher-productivity services are often associated with urbanization.

**In many Asian economies, productivity growth within sectors has contributed more to overall productivity growth than has the reallocation of labor into sectors of higher productivity.** This suggests that in many cases labor released from agriculture has moved to relatively low-productivity services. A lesson for future ST is the importance of reallocating labor to manufacturing and higher-productivity services.

**The complexity of export baskets varies across economies.** The export baskets of Japan, the NIEs, and some other East Asian economies have become increasingly complex, diversified, and unique, implying that they have moved up the quality ladder. However, the complexity of many other Asian countries' export baskets remains low.

## Asia's future transformation

The analysis and conclusions in the previous section, “The transformation of Asia’s economies,” clearly indicate that Asia’s future development will have to involve further economic transformation in many economies. The development will need to permit the transfer of workers out of agriculture into activities of higher productivity, and upgrading of the economic structure.

The key questions we address in this section pertain to how this transformation will take place (if it does transpire), how fast, and, ultimately, where it will take developing Asia. The environment in which Asia’s new industrial economies began to thrive during the 1960s and 1970s was a booming global economy in which many low-wage countries were pursuing inward-oriented development, leaving the few and small outward-oriented countries an almost unlimited demand for their labor-intensive manufactured exports. This state of affairs is unlikely to be repeated, even though many countries, including some with large pools of rural labor, now seek to follow that crowded path. Some patterns of ST will prevail in the future (such as a decline in agriculture’s shares in both GDP and employment), but ST in the next decades will differ from that in which Japan and the NIEs thrived during the last half century. Aging populations, the fast-growing global middle class, globalization, and the impact of the 2007–2009 recession and the subsequent slowdown will affect the direction and speed of developing Asia’s ST. And the role and impact of technology as a driver of future global growth is not clear.

This section and the next two discuss and outline the main contours of the region’s future economic transformation and shed light on the “where to, how, and how fast” questions. This section uses the same aggregate sectors—agriculture, industry (including manufacturing), and services—used in the previous section to look at the last 4 decades. Doing so allows continuity in the analysis and arguments. The disadvantage of using the same sectors is that many modern activities have features that make the standard classification of output and employment not very helpful in understanding ST in the 21st century. Indeed, the difference between goods and services is becoming blurred: often the two cannot be distinguished, with

the consequence that “manufacturing” is increasingly being interpreted in a wider sense, including business services and sometimes infrastructure relevant to producers.<sup>22</sup> Even agriculture becomes less distinctive at higher income levels with capital-intensity and research and development (R&D) greater than in many other productive sectors and extensive service inputs, especially if we consider the broader agribusiness subsector. However, with a few exceptions, comparable statistics for countries and time series are still presented in the traditional classification.

In this section, first, we argue that many Asian economies cannot afford to neglect agriculture, given the key functions that it plays in development and that the sector is the largest employer in many Asian economies. The secular decline in the share of employment in agriculture is a key feature of ST. Second, we inquire whether Asian economies can bypass industrialization and still achieve high-income status. Third, we discuss the roles of technology and global value chains (GVCs) in agriculture and in manufacturing. Will they contribute to developing Asia’s industrialization efforts in the 21st century? Fourth, we document the complementarity between manufacturing and services. Finally, we elaborate on the implications of ST based on shifting resources into the service sector.

### Asia’s agriculture sector needs upgrading and modernizing

Agriculture is still the largest employer in many Asian countries, including Bangladesh, Cambodia, the PRC, India, Pakistan, Papua New Guinea, Thailand, and Viet Nam. The bulk of the poor are still found in rural areas, where the primary source of employment is agriculture. An important pillar of the success of three economies—Japan; the Republic of Korea; and Taipei, China—was agricultural development through land reform and infrastructure. Thus, discussion of developing Asia’s future ST cannot neglect the agricultural sector. This is obvious for countries where the ST process has far to go—such as in Bhutan, Cambodia, Myanmar, and Nepal, where the share of agriculture in employment remains above 60%. In the rest of developing Asia, even though agriculture’s shares of output and employment have

declined over time, the reduction of the employment share lags behind that of the output share, implying relatively low levels of labor productivity in agriculture. None of the developing countries can therefore afford to neglect the transformation of agriculture.

The scope for large transfers of agricultural workers to industry and services is limited in some economies, as low-skilled, rural-based workers find it difficult to find high-productivity occupations outside the farm. Hence, productivity growth must increase within agriculture. The resulting income boost will allow farm households to increase their investment in human capital, which consequently will enable family members to find employment outside the farm. Therefore, at least in the short- to medium-term, a large part of the additional employment opportunities will have to be generated within agriculture. In the 1960s, Ranis and Fei (1961) and Johnston and Mellor (1961), and recently Studwell (2013), emphasized technological change and the multiple functions of agriculture in overall development—providing food for the nonagricultural labor force, supplying labor, providing savings to invest in manufacturing, saving foreign exchange by reducing agricultural imports, and expanding the market for nonagricultural goods. These functions will remain important for developing Asia in the coming decades.

Asia's agriculture needs to successfully address a series of challenges—resource depletion, climate change, and market instability (Briones and Felipe 2013). But the future of the sector lies in transforming it by taking advantage of new technologies; in making the transition to high-value products and to agribusiness (including the development of services such as finance, logistics, marketing, etc.); and in linking GVCs.

### **Resource depletion, climate change, market instability, and the long-term challenges for Asia's agriculture**

More than 40% of Asia's agricultural area suffers from some form of soil degradation. Freshwater supply per capita in Asia is about half the world's average, and water scarcity is expected to worsen. Meanwhile, climate change is amplifying the frequency and intensity of extreme events such as floods, cyclones, and droughts.

The food price crisis of 2007–2008 placed market instability high on the development agenda. Rising commodity prices may seem favorable to Asia's farmers, but even agricultural producers shun high price volatility. Whether commodity markets have moved permanently into a more volatile price regime is unknown. What will most likely happen is that episodes of price crises similar to those of the early 1970s and late 2000s will recur as climate change increases the frequency of extreme weather events large enough to damage crop production on a global scale.

These challenges have two major implications—the yield growth of major crops will slow, and food prices will rise. First, yield growth of major crops in Asia and the rest of the world will decrease between now and 2050. Overall during this period, crop production in South Asia and in East Asia will grow by 1.3% per year. The growth will be achieved mostly through increases in yields, but at rates lower than those of the last half of the 20th century. For example, while wheat yield in South Asia during 1961–2007 grew by 40 kilograms per hectare (kg/ha) annually, the yield between 2005–2007 and 2050 is projected to grow yearly by only 32 kg/ha. Naturally, there will be large variations across areas. Relative to the 2000s, major improvements are still possible in developing countries such as Cambodia and the Lao PDR, where agricultural land and labor productivity are well below those of Japan and the Republic of Korea. Climate change, however, introduces considerable uncertainty in this outlook, and Asia is among the regions facing the greatest risk to sustained yield growth.<sup>23</sup>

Second, food prices will trend upward during the first few decades of the 21st century. Compared with the baseline prices in 2003–2005, food prices in real terms in 2050 are likely to be somewhere between the baseline and crisis levels of 2007–2008. This trend is the result of the slowdown in yield growth and rising demand. The demand will be driven by higher food requirements due to larger populations and higher incomes, and by the increasing demand for biofuels. The rising cost of fossil fuels has improved the financial viability of crops as an alternative energy source. Currently, the largest biofuel producers in Asia are the PRC, India, Indonesia, Malaysia, the Philippines, and Thailand, all of which have implemented biofuel policies through mandates, subsidies, and procurement through state enterprises.

Price increases that are driven by demand (for food and bioenergy) will benefit Asia's farmers, but higher food prices will harm future generations of poor consumers across developing Asia.

### **Agricultural output and employment shares in 2040**

The ideal path of agricultural transformation involves sustained growth of output and output per worker in agriculture. This is accompanied by faster growth of output outside agriculture; hence, a declining share of agriculture in output. And due to the transfer of labor across sectors, agriculture's share of employment should also fall.

The current overall direction of agriculture's ST will likely continue during the next few decades. This means that as per capita incomes continue to rise, agriculture's shares of output and total employment will continue to fall, but the latter at a slower pace. Only at a mature stage of development will the employment share catch up with the output share (Figure 1.1), and this will be accompanied by an accelerated growth of agricultural labor productivity (as seen in the experiences of Japan and the Republic of Korea). Given the estimated elasticities of the output and employment shares of agriculture with respect to income per capita (as noted in the previous section, "The transformation of Asia's economies"), we expect that agricultural output shares in many Asian countries will fall below 5% during the next 30 years. This level is similar to that in the developed countries today. However, employment shares will remain significantly higher due to insufficient employment outside agriculture. As previously indicated, agriculture's employment and output shares tend to equalize as per capita income increases, and, for high-income countries, both shares are about 5% or less. Of the 42 countries with 2010 per capita income above \$20,000 adjusted for purchasing power parity, in 34, the share of employment in agriculture is less than 5% of total employment, and in 35, agriculture's output is less than 5% of total output.<sup>24</sup>

Figure 3.1 and Appendix Table A7 present the outlook for agricultural transformation for countries in developing Asia. The outlook is discussed in terms of Timmer's four phases—beginning, agricultural surplus, integration, and industrialization (Figure 2.6)—and projected output and employment shares of agriculture.

These are based on extrapolations of agriculture's elasticities at different income levels. During the 3-decade span considered, most countries will move to the next phase of agricultural transformation. This is particularly true for the largest developing economies in the region—the PRC and India—where agriculture will still account for between one-fifth and one-third of total employment. In other countries, where agriculture is today the largest employer—such as Bangladesh, Pakistan, and Viet Nam—employment shares are projected to remain over one-third. And in some countries, agriculture will still be the largest employer by 2040, e.g., Cambodia, the Lao PDR, and Papua New Guinea. The exception is Thailand, where both output and employment shares are expected to decline to below 5%.

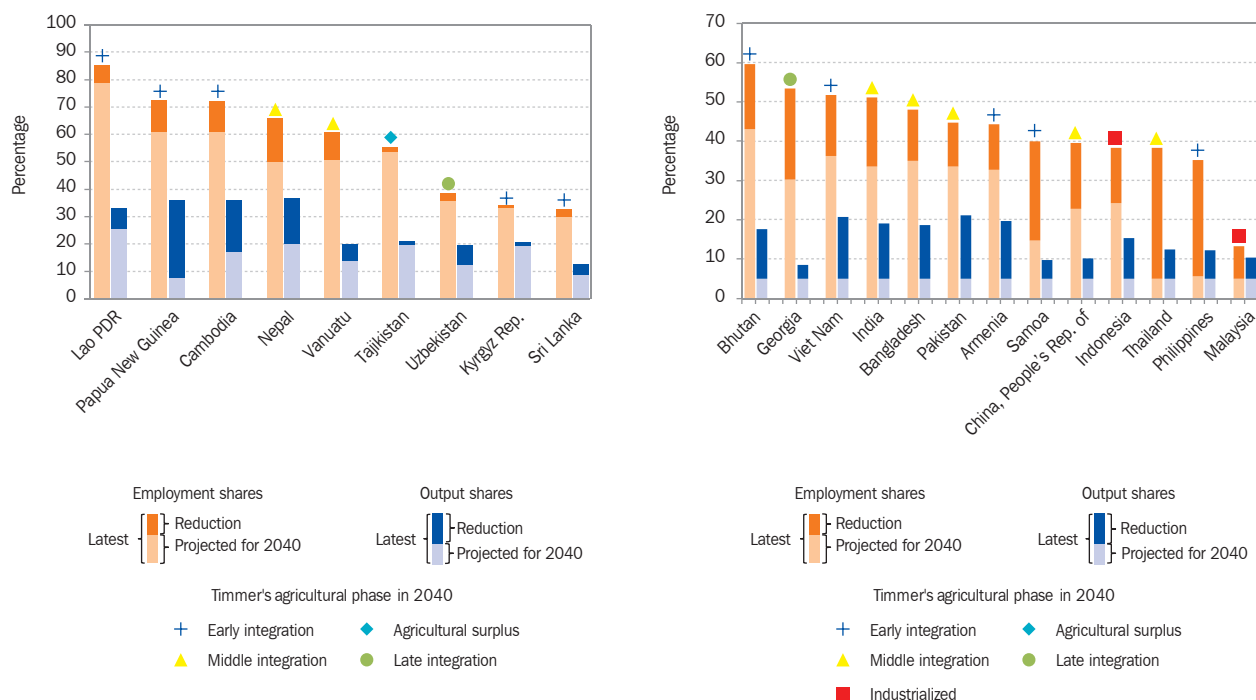
The lag in the decline between output and employment shares implies a relatively slow increase in labor productivity. Our estimations are that, among the developing Asian economies, only Malaysia will achieve industrialized agriculture status during the next 3 decades. Compared with the high-income countries today, the disproportionately large employment share and low labor productivity in agriculture is unprecedented. It is the legacy of the delay in ST, even during the period of fairly rapid economic growth during the last few decades.

Summing up, even a fairly extended time span (3 decades) will not suffice to complete the process of agricultural transformation in developing Asia. To expedite the process, many Asian countries will need to dedicate significant sums of money to improving their basic agricultural infrastructure. Simultaneously, they will need to adopt new technologies and conduct R&D. And, to move up in the value chain, countries will need to support the agribusiness transition and enable farmers to produce the types of products to the quality and standard demanded by GVCs.

### **The importance of industrialization**

The previous section ("The transformation of Asia's economies") showed that most Asian economies have not industrialized from the employment point of view (i.e., the manufacturing employment share did not reach 18% for a sustained period) and that only in a few of the economies did the manufacturing sector

Figure 3.1 **Agricultural output and employment shares, latest and projected for 2040 and stage of agricultural development (Timmer's classification)**



Lao PDR = Lao People's Democratic Republic.

Note: Projected output and employment shares for 2040 are less than 5% for Thailand. The countries with less than 5% projected output shares for 2040 are Armenia; Bangladesh; Bhutan; China, People's Rep. of; Georgia; India; Indonesia; Malaysia; Pakistan; the Philippines; Samoa; and Viet Nam.

Source: Authors.

shift toward the high-tech subsectors. Should this be a matter of concern as for Asia's policymakers?

Traditionally, development has been associated with industrialization, and in particular with a rising share of manufacturing. In modern times, this idea goes back to the "engine of growth hypothesis," which states that the faster that manufacturing output grows, the faster GDP grows (Kaldor 1967). In Kaldor's view, manufacturing growth induces the growth of both GDP and labor productivity. This is because manufacturing products and services have (on average) a higher income elasticity of demand than do other products. And on the supply side, the growth rate of productivity in manufacturing rises with the growth rate of manufacturing output, but such that it allows employment in manufacturing to grow. This implies that productivity growth is higher in manufacturing than in services, and tends to have a greater impact on aggregate output and productivity. An implication is that manufacturing grows faster than overall output, and therefore the share of manufacturing in output increases. Also on the supply side, employment growth in industry leads to a higher rate of productivity growth in agriculture as the former

absorbs employment. Likewise, manufacturing "pulls along" aggregate economic growth as it offers special opportunities for economies of scale and for technical progress. Both opportunities are linked to strong learning-by-doing effects (which allow the development and mastery of capabilities). Finally, manufacturing is thought to have significant linkages with the rest of the economy, in general more so than other sectors of the economy (Box 3.1). These points are at the center of policy discussions in Asia about the need to industrialize and whether countries can bypass the industrialization stage and base future growth on the creation of a large service sector. Research shows that manufacturing is critical for economic development (e.g., Amable 2000, Fagerberg 2000, Peneder 2003, Szirmai 2012, Szirmai and Verspagen 2011).

In addition to manufacturing's growth and linkages, it is essential due to its substantial and disproportionate role in innovation (e.g., the roles played by companies such as Boeing, Mitsubishi, Siemens, and Sony). About 70% of private sector R&D spending in the United States (US) and 90% of US patents issued today are manufacturing-related. Moreover, manufacturing

### Box 3.1 Manufacturing has strong linkages with the rest of the economy

Sectors' linkages can be measured through the input-output tables, forward linkages (by how much changes in final demand in other sectors affect a given sector), and backward linkages (by how much changes in final demand in a sector affect other sectors). The World Input-Output Database indicates that, in the United States, manufacturing has the largest backward linkage effect among all sectors: every \$1 of final demand in the sector required in 2008 \$2.04 of gross production, directly or indirectly, in all other sectors. The backward linkages of services and public utilities are \$1.60 and \$1.45, respectively. Manufacturing's higher backward linkage is due to the complexity of manufacturing production. Two subsectors within manufacturing—food and beverages, and tobacco—together have the strongest backward linkage effect. Most United States economic sectors are involved and connected in delivering to these subsectors, from primary metal to wholesale trade, and from banks and credit intermediation to management services: in 2008, manufacturing required \$2.43 of gross production to fulfill each dollar of final use. In Japan, the backward linkage of manufacturing is \$2.25, also higher than in other sectors (transport equipment is the highest); and in the People's Republic of China, it is \$2.59 (textiles, footwear, and leather being the highest).

In the Philippines (2000 input-output tables), manufacturing has the highest forward linkage index (the ratio of a sector's linkage to the average of all sectors), at about 3.0. This indicates that

a unit increase in all sectors' final demand will stimulate an above-average increase in output in manufacturing and reflects manufacturing's significant role as a supplier of inputs to the rest of the economy. However, manufacturing's backward linkage index is significantly smaller, about 1.2–1.3 (indicating that a unit change in manufacturing final demand will stimulate an above-average increase in activity in the rest of the economy); but nevertheless it was the highest among the backward linkages of all subsectors. Other industry subsectors (such as construction; electricity, gas, and water; and mining) have much lower linkages (especially forward ones). The agriculture, fishery, and forestry group is still an important input supplier, but its forward linkage is declining and is just above 1; and its backward linkage is less than 1. The forward and backward linkages of the rest of the subsectors are lower. Finance, trade, real estate, and government services have forward and backward linkages below 1. In 2000, both forward and backward linkages of the private sector (which includes private education, health and social services, business services, hotels and restaurants, recreational services, personal services, and other private services) moved above 1. Within manufacturing, resource-intensive (e.g., food and beverages) and scale-intensive (e.g., paper) subsectors have both forward and backward linkages above 1. Differentiated goods (e.g., machinery), labor-intensive (e.g., textile), and science-based (e.g., professional and scientific equipment) manufacturing also have backward linkage indexes above 1.

Sources: Magtibay-Ramos et al. (2011) and Timmer (2012).

is a fundamental source of commercial innovation and is essential for innovation in the services sector. Manufacturing makes up about 11% of the US GDP, but is responsible for about 68% of R&D spending by domestic US companies. In 2009, manufacturing R&D in the US amounted to \$195 billion. Manufacturing industries such as pharmaceuticals, transport equipment, communications equipment, and semiconductors each account for at least 5% of the nation's domestic company R&D. The only nonmanufacturing industries in which companies spend this much on R&D in the US are software and professional, scientific, and technical services. According to the National Science Foundation's 2008 Business R&D and Innovation Survey, in the US during 2006–2008, 22% of manufacturing companies but only 8% of other companies introduced a new or significantly improved good or service or used a new production, distribution, or support activity process (cited in Helper et al. 2012). McKinsey (2012) estimates that in the PRC, Japan, and the Republic of Korea, manufacturing shouldered 87%–89% of business R&D expenses in 2008.

Most developing countries still see manufacturing as the pathway to higher living standards, and building a manufacturing sector is considered to be a necessary step in national development. This includes countries such as India and the Philippines, which have had less success at building a manufacturing sector. India's National Manufacturing Policy, adopted in 2011, aims to raise the share of manufacturing in GDP from about 16% today to 25% by 2022. The policy also calls for setting up manufacturing zones to create 100 million manufacturing jobs. And the Philippines is working on a comprehensive manufacturing industry roadmap to develop a robust manufacturing sector (Box 2.2).

### Becoming a high-income economy generally requires industrialization

We now investigate whether developing countries can bypass the industrialization step in their quest to become high-income economies. To answer this question, we proceed in two steps.

**Industrialization in output and employment.**

First, we classify 109 economies with data for both manufacturing output and employment shares for 1970–2010 into eight groups, according to whether they were high income or low and middle income in 2010, and whether they had industrialized during the last 40 years (as defined in the section, “The transformation of Asia’s economies”). An economy is defined as “high income” if in 2010 it had a real GDP per capita of at least \$15,000 (in dollars of the year 2000) and as “low and middle income” if its income per capita was below \$15,000. The variables of interest—“industrialization in output” and “industrialization in employment”—have two states: either the economy had industrialized during 1970–2010 or it had not.

The most salient aspects of the tabulation shown in Table 3.1 are as follows:

- Of 25 high-income economies, 23 industrialized in both output and employment. Only one such economy, the United Arab Emirates (a small oil economy), did not industrialize in output or in employment. Only one high-income economy, Israel, industrialized in employment but not in output. And no high-income economy industrialized in output but not in employment.
- Of 84 low and middle-income economies, 32 industrialized in both output and employment and 23 have not industrialized in output or employment. Only 4 low and middle-income economies industrialized in employment but not in output, and 25 industrialized in output but not in employment.

These results lead to three important conclusions.

First, the (conditional) probability of being a high-income economy in 2010, given industrialization in both output and employment during the last 40 years (i.e., that a 7-year moving average of the manufacturing share in GDP and of the manufacturing employment in total employment was 18% or above), is  $23/55 = 41.82\%$ ; and the (conditional) probability of being a high-income economy in 2010 given no industrialization in output or in employment during the last 40 years is  $1/24 = 4.17\%$ .<sup>25</sup>

Table 3.1 **Matrix of economies' status of industrialization in output and in employment, and whether they are high income or low and middle income**

	Output		
		Industrialized	Did not industrialize
	High income		
Employment	Industrialized	Austria; Australia; Belgium; Canada; Denmark; Finland; France; Germany; Hong Kong, China; Ireland; Italy; Japan; Korea, Republic; Netherlands; Norway; Puerto Rico; Singapore; Spain; Sweden; Switzerland; Taipei, China; United Kingdom; United States	Israel
	Did not industrialize		United Arab Emirates
	Low and middle income		
	Industrialized	Argentina, Belarus, Bolivia, Bulgaria, Colombia, Costa Rica, Croatia, Czech Republic, Dominican Republic, El Salvador, Guatemala, Hungary, Latvia, Lithuania, Macedonia, Malaysia, Mexico, Moldova, Morocco, New Zealand, Peru, Poland, Portugal, Romania, Serbia, Slovak Republic, Slovenia, Sri Lanka, Tunisia, Turkey, Ukraine, Uruguay	Greece, Iran, Paraguay, Russia
	Did not industrialize	Albania; Armenia; Azerbaijan; Brazil; Cambodia; Cameroon; Chile; China, People's Republic of; Egypt; Honduras; Indonesia; Kyrgyz Republic; Lesotho; Mongolia; Nicaragua; Pakistan; Philippines; South Africa; Syria; Tajikistan; Thailand; Venezuela; Viet Nam; Yemen; Zambia	Algeria, Angola, Bangladesh, Botswana, Cuba, Ecuador, Ethiopia, Georgia, India, Iraq, Jamaica, Kazakhstan, Madagascar, Mali, Namibia, Nepal, Nigeria, Oman, Panama, Papua New Guinea, Saudi Arabia, Sierra Leone, Tanzania

Sources: Authors based on data for income per capita, from World Bank. WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012); for manufacturing shares, from UNIDO (2012).

Second, industrialization is, for all practical purposes, necessary to become a high-income economy: of 25 such economies, all but 2 had industrialized in both output and employment.

Third, industrialization is not sufficient for an economy to become a high-income one. This follows from the fact that, of the 55 economies that industrialized in both output and employment, 32 were not high income.

**Given industrialization, what else helps achieve high income?** In the second step, we ask: What characteristics of an economy (measured at the time of its most recent industrial peak), when combined with an industrialized status, improve our prediction of whether it will become high income?

We answer this question with the help of a probit regression. This statistical model allows us to determine the probability of a country having a high income if it has industrialized, when other variables are included.<sup>26</sup> The dependent variable of this model takes two values: 1 for high-income countries, with real GDP per capita above \$15,000 (in dollars of the year 2000) in 2010; and 0 for low- and middle-income countries, with GDP per capita below this threshold. The key dependent variable is whether the country industrialized or not in output during the last 40 years. This dummy variable takes on a value of 1 if the economy industrialized and 0 if it did not.

We ask: What other characteristics (variables) of an economy, combined with industrialization in output, help predict whether it will achieve high-income status?<sup>27</sup> The analysis now covers the 137 countries with population over 2 million in 2010 and with data on manufacturing output shares. (We do not have employment data for 28 countries, which are thus not part of Table 3.1.) The additional (control) variables in the regressions are roads per capita, financial development, schooling, share of manufacturing in high-tech subsectors (in both value added and employment), population, inflows of foreign direct investment (FDI), openness (and share of exports), and resource intensity. These variables are not measured in the year 2010 (when the dependent variable is measured), but at the time the country achieved its industrialization peak.

Table 3.2 summarizes the results. Appendix Table A8 provides the actual values for the variables that are statistically significant in the regression analysis, for the Asian economies and for several others, in 2007.

The probabilities shown (of being a high-income economy) are predicted from (probit) regressions including the “industrialization in output” dummy and each control variable introduced one at a time.<sup>28</sup> Each row in the table shows the predicted probabilities of

being a high-income economy at three percentiles of the distribution of each control variable: the 10th, 50th, and 90th. The table also shows the actual values of the control variables at the three percentiles of the distribution of 137 countries.<sup>29</sup> For example, economies in the 90th percentile of the distribution of roads per 1,000 persons have 17.04 kilometers (km) of roads per 1,000 persons; and the share in GDP of liquid liabilities in the financial system for economies in the 50th percentile of the distribution of this variable is 36.62%.

Table 3.2 indicates that a country that has industrialized in output, and that is

- at the 10th percentile in the distribution of kilometers of road per capita (1.3 km/1,000 persons) at the time it reached its industrial peak, has only a 16.0% chance of being high income;
- at the 50th percentile (4.4 km/1,000 persons), has a 20.2% probability of being high income; and
- at the 90th percentile (17.0 km/1,000 persons), has a 44.5% chance of being high income.

Financial development (plus industrialization) is also statistically significant and with estimated probabilities at the three percentiles similar to those of roads per capita. The three variables associated with knowledge and industrial upgrading are also strongly associated with being high income. Variations in years of schooling (plus industrialization) influence whether countries will become high income: the probability at the 10th percentile is 6.0% and at the 90th percentile it is 48.5%. The shares of manufacturing value added and employment at the time of peak industrialization that came from the high-tech manufacturing sectors are excellent predictors of being high income: 1.6% and 0.8% probability, respectively, at the 10th percentile; but 75.3% and 75.4%, respectively, at the 90th.

FDI inflows, openness, exports, and resource intensity are not associated with achieving high-income status when added to industrialization. This is a somewhat surprising result. One possible interpretation might be that openness and exports are important for the transition from low- into middle-income status, but their contribution then declines significantly for

the transition to the high-income level, and to avoiding the middle-income trap. That is, countries need more than opening to reach the high-income status. The same logic could apply to FDI inflows. They might be important for low-income countries. But FDI alone does not necessarily bring effective technology transfer.

**The road to high income.** We conclude that economies that aim to become high income generally need to industrialize—in particular, they need to create manufacturing jobs. And industrialization alone is not sufficient to become a high-income economy. Infrastructure, financial development, education, and sizable high-tech manufacturing contribute to becoming a high-income economy.

Some economies may have great difficulty industrializing. Indeed, for the Pacific islands to develop a wide range of competitive manufacturing activities will be very hard because of their remoteness and small populations. Although Papua New Guinea, Solomon Islands, and Vanuatu have developed small manufacturing subsectors, they are far from what is required to induce high and sustainable growth. Fiji had a garment industry, but it has been in decline since the end of the Multi Fibre Arrangement. Fiji also developed a small sugar industry and recently has started bottling mineral water. Samoa has a small automotive harnessing industry. Overall, the future of the Pacific island region depends largely on the performance of the rest of Asia (Box 3.2).

## What role will technology play in the coming decades?

We now discuss the roles of technology and GVCs in agriculture and manufacturing. Given the low productivity of developing Asia's agriculture, technology will have to play an important role in the coming decades. Likewise, given the relevance of manufacturing for becoming a high-income economy, the obvious question is: Will Asia's developing countries be able to industrialize? The results in Table 3.2 are based on an analysis of the past, and extrapolating into the future is always risky. It could be argued that developing Asian economies may become high income in the 21st century without achieving 18% of its employment

Table 3.2 **Determinants of high-income status**  
(economy with per capita income more than \$15,000 in 2010)

Industrialization (in output) and:		Percentile		
		10th	50th	90th
Roads per capita (km/1,000 persons)	actual value	1.267	4.359	17.045
	probability	16.00%	20.20%	44.50%
Financial development (liquid liabilities as % of GDP)	actual value	17.37	36.625	75.74
	probability	14.40%	22.30%	43.50%
Schooling (average number of years)	actual value	2.631	6.186	9.853
	probability	6.00%	21.00%	48.50%
Share of manufacturing value added in high-tech sectors (% of manufacturing value added)	actual value	10.507	36.128	52.389
	probability	1.60%	33.80%	75.30%
Share of manufacturing employment in high-tech sectors (% of manufacturing employment)	actual value	13.226	34.402	49.395
	probability	0.80%	27.5%	75.40%

GDP = gross domestic product, km = kilometer.

Note: The probit regressions include (i) the “industrialization” dummy, which takes on the value 1 if the output manufacturing share reached, during some 7-year period in the last 40 years, at least 18% on average; and 0 otherwise; and (ii) “The additional (control) variable in each regression was measured in the midyear. We added to the regression one variable at a time. The exceptions are roads and resource intensity, only measured as far back as 1990 and 1995, respectively. These two variables are, therefore, measured at the latest of these years, or at the year peak industrialization was reached. We report the predicted probability that a country is rich in 2010, given that it industrialized during the last 40 years, and that the additional variable in question is observed at the 10th, 50th, and 90th percentile.

In all regressions, the two variables included are statistically significant. Sample size varies across regressions, from 59 data points to 117.

Source: Authors.

in manufacturing. The economic environment today is different from that of the second half of the 20th century, so that “latecomer” countries may not need to follow the same path that today's high-income economies followed. And perhaps services could be a springboard, like manufacturing in the 1970s and 1980s.

## New technologies will help modernize Asia's agriculture

Improvements in infrastructure, water management, irrigation, and crop varieties introduced during the Green Revolution were instrumental for increasing yield growth. Economies for which agriculture still represents a large share of total output or employment (e.g., Cambodia, the PRC, India, Myanmar, Nepal, and

## Box 3.2 Options for the Pacific Islands

The Pacific islands are unique in developing Asia, as they face disadvantages due to their small size, low population, and remoteness (Duncan 2013). As a result, scale economies are almost nonexistent for both economic activities and provision of basic public services, making them more expensive to undertake.

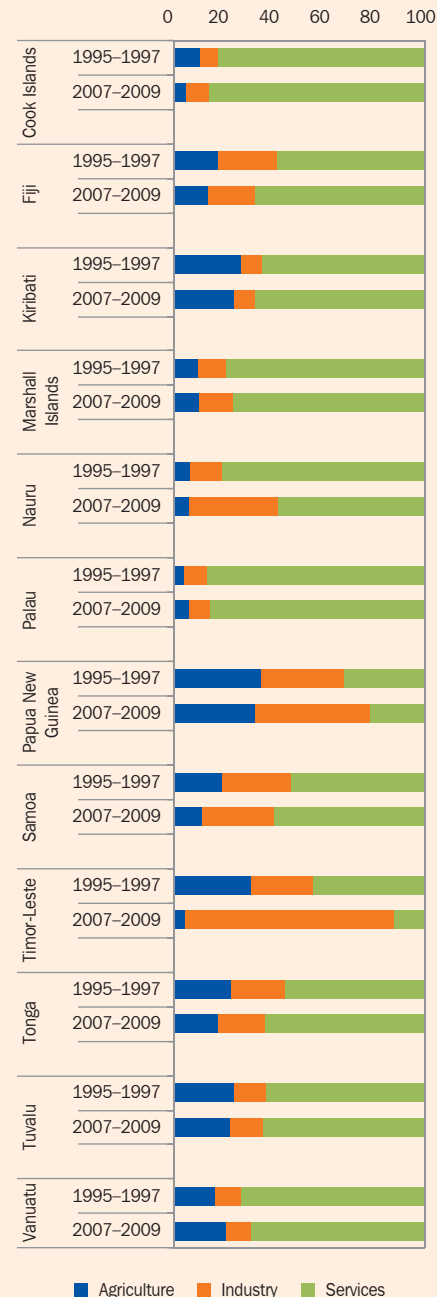
Overall, growth during the last several decades has been slow in the Pacific islands, leading to unemployment and joblessness. In addition, several of the economies face serious environmental problems as a consequence of climate change and rapid urbanization. The Pacific subregion also suffers from high population growth, poor quality education, weak governance, poverty, and poor infrastructure.

Box Figure 1 provides a snapshot of the economic structure of Pacific economies in terms of output. The high share of services mostly reflects the role that the public sector plays in the economies. Many of the employed people are, however, highly underemployed; and many of the islands in the region are heavily dependent on transfer payments related to aid, military bases, and workers' remittances. This is particularly true for Kiribati, the Marshall Islands, the Federated States of Micronesia, Nauru, Palau, and Tuvalu.

How can the Pacific economies generate structural change and thus growth in these circumstances? Progress in three areas is fundamental. First, most of them need more private sector investment. This requires tackling a number of problems, such as political instability, lack of law and order, and corruption. The subregion also needs to develop its financial systems, reform its legal and regulatory approaches, and revamp its state enterprises. Second, land reform, however sensitive an issue, is necessary in many countries. Given the importance of customary ownership, a gradualist approach must be taken. Improving both record keeping for land rights and land administration services will prove crucial. Third, strengthening political governance is required (the 2006 coup in Fiji, and civil unrest in the Solomon Islands and Timor-Leste, spring to mind), and cannot be postponed. Strengthening political governance will involve strengthening parliaments and electoral systems as well as developing partnerships with civil society.

Although up to a level the fate of the region is linked to developments in the rest of Asia, how can economic transformation help deliver higher growth? As we argue in this chapter, policymakers have to try to identify the new activities that a country can develop—activities that exploit the existing capabilities (markets, inputs, institutions). This is especially important for relatively backward economies, because creating new activities that require factors and capabilities that an economy does not have is very difficult. For this reason, developing a wide range of competitive traditional manufacturing activities is next to impossible in most of these island countries. Papua New Guinea has a very high resource intensity (over 70% of its exports are natural resources) and its export diversification is very low, at only 34 products. The economies of Papua New Guinea,

Box Figure 1 **Sectoral output of selected Pacific island countries, 1995–1997 to 2007–2009**



Sources: Duncan (2013); ADB (2012c).

Solomon Islands, and Vanuatu have developed some small manufacturing sectors. Still, these activities are far from what is required to induce high and sustainable growth. Fiji had a garment industry, but this has been in decline since the end of the Multi Fibre Arrangement. It also developed a small sugar industry and

*continued on next page*

Box 3.2 Options for the Pacific Islands *continued*

recently has started bottling mineral water. Samoa has a small export-oriented automotive harnessing industry and has been able to take advantage of the preferential market access offered under the South Pacific Regional Trade and Economic Cooperation Agreement (SPARTECA).

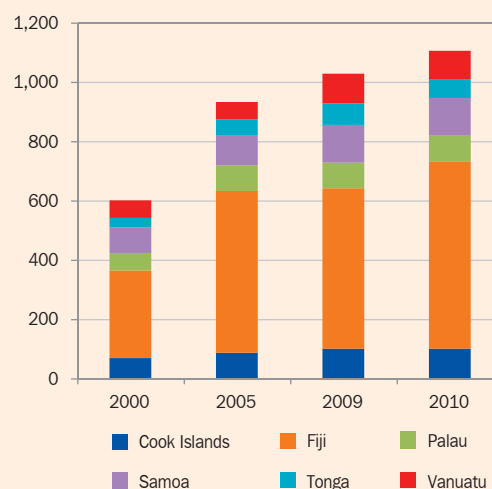
What can the Pacific economies therefore do? Agriculture is still their largest employer, and so it has to be developed. In particular, agricultural productivity has to increase. Poor infrastructure is a binding constraint, and farmers' access to the latest technologies has to increase. Given the Pacific economies' vast oceanic and coastal resources, fisheries offer good opportunities, but proper management of coastal resources is essential for sustainability and climate adaptation. Forestry also offers opportunities, but logging has to be properly managed, as the current rates of exploitation are unsustainable. Plantations also offer opportunities, but establishing large plantations will require land reform and community involvement. Papua New Guinea and Timor-Leste have significant petroleum reserves, but they have to be managed adequately and with transparency, especially as they may generate substantial revenues. Mining also has potential but, like logging, needs to be managed so that it continues to be a source of future income streams. Because the opportunities available to the Pacific are based on natural resources, their coordinated management will be key to ensuring a better future for the region.

Finally, tourism is an activity in which the Cook Islands, Fiji, Palau, Samoa, Tonga and Vanuatu have a natural advantage. The geographic area is vast, and offers up-market venture and exploration possibilities. The number of arrivals into these six economies increased significantly, from about 600,000 in 2000 to over 1,000,000 in 2010 (over half of them to Fiji). However,

Source: Duncan (2013).

to attract more tourists, infrastructure has to improve, as well as the quality of tourism professionals. Pacific countries that have benefited from increased tourism have implemented reforms that brought down air travel costs by privatizing or liberalizing the air transportation industry, and by implementing measures to encourage investments in tourism infrastructure such as resorts and accommodation.

Box Figure 2  
Tourist arrivals, 6 Pacific island countries, 2000–2010 ('000)



Sources: Duncan (2013); ADB (2012c).

Viet Nam) will still need to deploy large amounts of basic agricultural infrastructure and irrigation during the coming decades. The development and introduction of high-yielding cereal varieties, rice varieties tolerant to drought, and new varieties of fruit and vegetables will continue to be an important source of productivity growth. For less favorable farm areas to be productive, work in adaptive plant breeding (such as producing drought- and pest-resistant varieties) and research in sustainable management practices will need to continue.

In favorable areas, however, productivity growth will increasingly involve new discoveries in frontier technologies, such as animal feed made from agricultural waste and bio-based products such as biofertilizers,

biotechnology based on molecular genetics (Huang et al. 2002), vertical farming, nanotechnologies, biosensor technologies, and precision agriculture.<sup>30</sup> Middle-income countries in developing Asia are already adopting these technologies. Genetically-modified crops are widely sown in countries such as Argentina, Brazil, Canada, the PRC, India, and the United States. Currently, implanted traits mainly include pest resistance and herbicide tolerance, and genomics and molecular techniques are being applied to accelerate even conventional breeding programs, with concomitant cost reduction. Scholars agree that the trend is for genetically modified crops such as cotton and corn to be disseminated more widely throughout Asia and Africa, with currently high regulatory costs anticipated to fall (Fischer et al. 2009).

The information revolution has reached the level of the individual farmer. Market information is being disseminated via electronic and mobile phone networks, reducing transaction costs throughout the supply chain. Examples are seen in the management of contract growers, and farmers using information to match their output with demand and find the best current market price for their harvest. Variations in vulnerability to pests and disease, soil properties, terrain, etc., can now be pinpointed within a field using global positioning systems (GPS), facilitating the targeted application of inputs under precision agriculture. Nanotechnologies are beginning to be applied using nanomaterials and nanosensors, and promise to revolutionize precision agriculture and controlled environment systems in the next few decades (Gruere 2012). Around urban centers, food companies will pioneer very specialized “hyper niches” of high-tech urban production, e.g., vertical farming and hydroponics (US Grains Council 2011). Fisheries systems (marine fish farming and seaweed plantation) will expand to take over from today’s capture systems.

### **New technologies may change manufacturing but are not likely to create many manufacturing jobs in the short run**

To modernize developing Asia’s agriculture requires providing infrastructure, introducing new technologies, and linking farmers to GVCs to shift to agribusiness. This will increase productivity and incomes and ultimately will drive surplus workers out of agriculture, with the consequent decline in its share in total employment. In the case of manufacturing, however, the issue is slightly different. Productivity increases will lead to higher wages, but many Asian countries have not industrialized in employment. What will be the effect of technological progress?

Brynjolfsson and McAfee (2011) argue that the last several decades have seen significant technical progress and that the digital revolution is accelerating.<sup>31</sup> Moreover, some sources argue that new manufacturing technologies will revolutionize the world in the near future. This process started in the 1980s following advances in information and communication technology (ICT). Gratton (2011), for example, paints a not-too-distant world of robots. And Anderson (2012) thinks that the mix of technological innovation and globalization,

including “frugal innovation” and “3D manufacturing” (Box 3.3), is ushering in a new Industrial Revolution. There are high expectations that these technologies will affect the way products are created and distributed. McKinsey (2012, 2013) argues that innovation in materials (e.g., nanomaterials), product design (e.g., computer intelligence), production processes (e.g., industrial robotics), manufacturing information systems (e.g., Big Data), manufacturing business models (e.g., frugal innovation), and, generally, in the way production is organized, will bring significant productivity gains during the coming decades. Law and financial companies are examples of beneficiaries of this boom.

While these new technologies will bring about significant changes that could be labeled revolutionary in some respects, we have yet to see how they compare with the breakthrough inventions of the Industrial Revolutions or with the impact of innovations such as the aircraft, radio, highways, or penicillin (Cowen 2011, Friedman 2011).<sup>32</sup> Moreover, though the technological level of some developing countries is increasing fast, most new technologies are being created in the developed countries, which will benefit first from these technological advantages. Thus, we may witness a revival of manufacturing in high-income countries. How the new technologies will be transferred to and adapted by the developing countries is not clear. In fact, technology transfer in the coming decades may not be very different from that in the 20th century.

Also, many new technologies are labor saving. Thus, they are creating markets from which innovators, investors, and consumers—not workers—derive significant benefits. This has important implications for Asia’s developing countries. Brynjolfsson and McAfee (2011) argue that there is a good chance that the new technologies will displace more labor than they create. And, most likely, they will not create the millions of manufacturing jobs that developing Asia needs. Digital technologies already possess the skills that used to belong to humans alone (e.g., computers that drive vehicles, review documents, or serve as virtual assistants).

McKinsey (2013) argues that today there are 12 potentially disruptive technologies with important implications for employment: mobile internet, automation of knowledge work, internet of things,

## Box 3.3 Frugal innovation and 3D manufacturing

“Frugal innovation” consists of reinventing products by reducing complexity in production and stripping out all unnecessary frills, thus enabling firms to sell the products at extremely affordable prices. Frugal innovation is based on shorter launch cycles, innovation through commercialization, and reverse engineering. The trend is flourishing in the developing world, especially in the People's Republic of China (PRC) and India, where the idea is to adapt successful foreign products or business models to local markets, innovating and bringing products to markets quickly.

General Electric (GE) has established “local growth teams” in the PRC and India to customize objects based on local conditions and preferences. Also, due to the success of frugal innovation, ideas and products from emerging markets (such as the outputs of GE's local growth teams) are spreading to the West. For example, the price of a conventional ultrasound machine in 2002 was more than \$100,000, so sales in the PRC were very low. Because a large percentage of the PRC's population relies on poorly-funded hospitals or basic clinics, GE's local growth team in the PRC used GE's resources to develop a portable ultrasound machine that took the price down to about \$30,000. Additional development in the ultrasound machine brought the price down further, to \$15,000 in 2007, so sales in the PRC took off and GE was able to tap a global market for the product. Other firms in the PRC and India are also undertaking frugal innovation. In India, Tata Motors has produced the Tata Nano (the world's cheapest car, at \$2,000); Tata Chemicals has produced a cheap water filter made from rice husks; Godrej & Boyce has produced a refrigerator that runs on batteries; First Energy has produced a wood-burning stove that consumes less energy and produces less smoke than a regular stove; and Mahindra & Mahindra has produced small trucks

suitable to local Indian conditions. In the PRC, Build Your Dreams (BYD) has produced previously expensive lithium-ion batteries at a reduced price (only 30% of the original cost), and Haier has produced inexpensive air-conditioners, washing machines, wine coolers, etc. (which are now being heavily advertised in the United States market).

New advances in manufacturing technology are enabling firms to produce highly specialized goods in small quantities through the use of 3D printers. Most 3D printers work as follows: once a product is designed with software, the file is sent to a 3D printer. This contains a cartridge of plastic, metal, or ceramics, in a fine powder of gel-like texture. The 3D printer then uses a beam of ultraviolet light to solidify thin layers of the material in the cartridge and does the process repeatedly to build actual objects, layer by layer. Although 3D printers have been around for 2 decades, they are now gaining acceptance. Because no molds are needed and the 3D templates are made by a computer program, 3D printers can bring the cost of production down by a significant margin. They are used mainly in three fields: medical, industrial, and consumer goods. For example, 3D printers are being used to make personalized dental crowns and hearing aid shells, and to create blood vessel systems out of sugar. In industry, companies use 3D printers to develop specialized metals, robotics, and bioengineering, and to make parts of the F/A-18 and the Airbus 380. In the consumer goods area, 3D printers open a whole world of creativity by allowing people to build virtually anything—jewelry, home decor, etc. Other applications that researchers are testing are toilets and water collectors, which can be of immense help to poor people.

Sources: ADB (2010), *Economist* (2012a, 2012b), Immelt et al. (2009), MacIver (2012), McKinsey (2012), *Time* (2012).

cloud technology, advanced robotics, autonomous and near-autonomous vehicles, next-generation genomics, energy storage, 3D printing, advanced materials, advanced oil and gas exploration recovery, and renewable energy.<sup>33</sup> Advanced robotics, for example, could make more manual tasks subject to automation, including in services where automation has so far not had much impact. Moreover, the foregoing list suggests that today's emerging technologies will likely automate some jobs entirely. Some of the victims of disruption will be workers who are currently considered highly skilled. This phenomenon is both broad and deep, and will have profound economic implications. Certainly, such new technologies will have positive effects, as digital innovation increases productivity, reduces prices (sometimes to zero), and expands the size of the economy. But modern technologies are also changing how overall output is distributed. As new technologies are labor saving, they can leave many people behind.

Nevertheless, a correct assessment of the net employment derived from the introduction of a new technology is not simply the result of counting the new jobs gained and the ones destroyed. Indeed, one could expect that new technologies will disrupt production and employment in commodity-based industries such as shoes, clothing, chemicals, and electronics. But jobs might be created around the high-tech innovation areas (nanotechnology, biotechnology, information technology and networks, and neurotechnology) and in pharmaceuticals, health, energy, new areas in manufacturing, communications, transport, security, entertainment media, education and learning, knowledge engineering, and smart materials. The new jobs would result from expansionary effects on the economy that depend on increases in productivity. Revolutionary new technologies can create the basis for a virtuous circle of growth in which investment is high and labor productivity grows fast but output grows

faster, resulting in net growth of employment. Whether such growth takes place and is sustained depends on macroeconomic, trade, regulatory, and employment policies. Such a virtuous circle occurred during the Industrial Revolutions, and during the 1950s and 1960s in Europe, Japan, and the United States.

Our view, however, is that this state of affairs is not likely to be repeated in the short run. This does not mean that we are fundamentally pessimistic about the long-run employment implications of the information-knowledge society for developing Asia. Lessons of history—over the long-run—show that the introduction of new technologies is compatible with increases in labor productivity and wages, and with new employment opportunities. This may happen again, but it will take time. Rather, our messages for Asia's policymakers are:

- first, that the opportunities that the new technologies will bring about in the coming decades will need to be seized, and countries will need to design and implement policies so as absorb them and not to be left behind; and
- second, that these technologies, by rearranging industry structures, will have a positive impact on productivity, but, in doing so, they will be disruptive for labor, at least in the short-run.

The evidence indeed indicates that technological progress has a significant effect on employment. In the coming decades, developing Asia may face higher unemployment rates, caused by the introduction of highly labor-saving technologies, and difficulties generating a significant number of high-quality (high-wage) jobs. As a consequence, Asia may witness in the next decades increasing inequality that results from having a group of well-trained professionals with the “right” skills who get well-paid jobs and having millions of workers employed in jobs that require only simple skills. Indeed, evidence indicates that technology is changing the incomes of skilled versus unskilled workers, “superstars versus the rest,” and capital versus labor (Brynjolfsson and McAfee 2011, ADB 2012c).

## Linking to global value chains

### To upgrade, Asia's agriculture needs agribusiness transformation and linkages to global value chains

Asia's agriculture needs to be modernized and upgraded. The objective is to transform agriculture by using new technologies and market-oriented enterprises. The agribusiness transformation could deliver great benefits. Rising demand for fruit and vegetables, livestock products, and other goods with a relatively high income elasticity of demand stimulates product and process innovations and the development of stronger backward and forward linkages within the agrifood system. It also leads to investments that improve productivity, reduce product losses, and utilize by-products and waste products as inputs into agriculture and industries.

Today, agriculture and related agribusiness activities are being increasingly organized in GVCs. Supply chains link production, processing, and distribution centers, often driven by FDI in the food and retail sectors of developing countries. GVCs favor production and distribution systems that meet volume requirements and address quality and safety standards. Hence, organized supply chains are displacing traditional arrangements such as spot markets and integrated plantations (Box 3.4). Small farmers in developing Asia could realize dramatic income increases by joining these supply chains, especially if they can upgrade their farming and postharvest practices.

Key drivers of agricultural GVCs are international trade arrangements, including agriculture being brought into the World Trade Organization since 1995, domestic market liberalization, and technological change. But the fundamental driver of the formation of GVCs in agriculture is the transition in demand toward high-quality processed or packaged foods, associated with the growing global middle class and with social trends such as urbanization, increased female participation in the formal workforce, and single-adult households.

As incomes rise, food preferences shift toward products with higher income elasticities of demand. Middle- and upper-income consumers are willing to pay more for products that comply with phytosanitary

## Box 3.4 Country examples of global value chains in agriculture

The exploitation of many tropical export crops is changing from large, vertically integrated plantations into smallholder systems. Examples include sugarcane in Guyana, rubber in India, oil palm and rubber in Indonesia, and tea and coffee in Kenya.

In Sri Lanka, independent tea producers increased their share of total tea output from 11% in the 1960s to 60% by 2004. Small farmers sell green leaves to collectors or directly to processors. Green tea leaves are processed into black tea, most of which is sold in the world's largest tea auction, in Colombo. The world's tea trade is dominated by global brands such as Unilever (Lipton) and Tata (Tetley), which pack and distribute the tea worldwide in tea bags. Production is labor intensive and subject to minimal scale economies, but, given a prolonged gestation period, investment in tea plantations was historically unattractive to smallholders. Since the 1980s, unionization of plantation labor together with the government's price stabilization policy made tea raising attractive to smallholders.

In the People's Republic of China (PRC), by contrast, vegetable production never passed through a period of capitalist consolidation (before 1979, vegetables were farmed in collectives). The shift

to the household responsibility system enabled rapid agricultural growth. Vegetable production quadrupled during 1991–2003 as land resources were moved toward products with high domestic demand, reflecting the PRC's comparative advantage in labor-intensive and land-scarce activities. The largest horticultural region in the PRC is in Shandong Province. In Shandong's Laiyang County, export buyers determine vegetable varieties, production practices, and processing requirements. Up to half of the county's output is exported.

Because household land parcels are fragmented, village authorities consolidate farmers' parcels for lease to food processors. Production may follow a contract farming scheme in which the processor provides inputs and imposes delivery, quality, and management standards, while farmers supply labor. Larger buyers tend to be foreign-owned or foreign–domestic joint ventures, and the main export destinations are the European Union, Japan, the Republic of Korea, and the United States. Harvests from small farms go to processors for sorting, cleaning, and packing (in the case of fresh produce), and are then distributed to supermarket outlets such as Carrefour and Wal-Mart.

Sources: Herath and Weersink (2009), van der Wal (2008).

standards, and that meet their expectations for taste, packaging, and appearance. The demand transition is also being driven by urbanization and increased female labor participation, placing a premium on easy-to-prepare “convenience” foods. In the 20th century, these trends were largely limited to the old industrial countries, but economic growth in the 21st century is creating a vast global middle class—households with daily per capita expenditure of \$10–\$100 purchasing-power-parity-adjusted US dollars. In 2009, 1.8 billion consumers were in the middle class, and they had an annual purchasing power of \$21.3 trillion globally. By 2030, the global middle class may comprise 4.9 billion people spending \$55.7 trillion annually, and Asia will account for two-thirds of them and three-fifths of their spending (Kharas 2010).

GVCs have penetrated even to the retail level, as in the “supermarket revolution” that swept through developing Asia in the 2000s. In the PRC, India, and Viet Nam, the annual growth of supermarket retail sales has averaged 28%–50% during the 2000s (Reardon et al. 2012). Meanwhile, new technologies have drastically reduced processing costs, logistics, communications, and information management. They have also introduced greater capital requirements, intensifying economies of scale along the chain. Large buyers or suppliers,

typically operating as global companies, occupy key nodes of GVCs.

Smallholder systems will continue to dominate agricultural production in developing Asia in the next 2 decades (Lipton 2006). The growth of agricultural output per worker will increasingly depend on linking small farmers to expanding GVCs, with farmers meeting the requirements (e.g., quality, volume, and timing) specified by agriprocessors and modern retail outlets.

Finally, we must not forget that agricultural GVCs are not a panacea. Consolidation of chains around a few players renders small farmers vulnerable to the demands of big buyers, and offers neither security nor an equitable share of the value created along the chain. Unlike the case of many manufacturing GVCs (where the lowest value added occurs in the middle stages—assembly), in agribusiness GVCs, the lowest value added often accrues at the earliest stages, unless farmers have a unique niche based on soil, climate, or other special natural conditions or capabilities. Nevertheless, for self-employed farmers in a low-wage, labor-surplus setting, GVCs can provide access to premium export markets and hasten innovation, promoting agro-industrial modernization.

### **Global value chains are a mechanism for upgrading manufacturing but many Asian economies are only marginally integrated into them**

Can GVCs help countries across developing Asia to industrialize and, more generally, to climb the development ladder? The idea of specialization within production has been around for centuries, but the most recent spate of specialization started in Asia and accelerated with the entry of the PRC into global production during the late 1980s and early 1990s. Today, the most quoted case is Factory Asia. Indeed, one of the most remarkable developments since the 1990s has been the emergence of GVCs. They have opened up opportunities for local firms in East Asia, a key factor in some Asian countries' industrialization. Baldwin (2012) even identifies GVCs as the defining feature of the "second globalization"; in 19th century globalization, international trade separated producers and consumers on a global scale, while in 21st century globalization, the production process itself has been unbundled on a global scale. As discussed earlier, the revolution of manufacturing that could take place in developed countries in the coming decades may affect Asia's developing economies positively if they manage to link to, and upgrade within, GVCs. If not, they might end up being bypassed by another wave of industrialization.

With production of parts, components, services, and tasks dispersed geographically and shipped to assembly lines elsewhere, countries may not need to develop complete products and services at home. For example, decades ago, countries produced virtually all parts and components of a car in the domestic market. This created linkages all over the economy and led to high manufacturing output and employment shares. Now, however, GVCs are a source of opportunity for developing countries, which can start their outward-oriented ST by finding one niche in the chain rather than having to produce an entire finished product. The question is whether this mechanism will allow developing countries to progress fast, or whether it will simply keep them in the assembly stages.

We examine briefly (i) the evidence on the scale of GVCs in Asia, (ii) the advantages and disadvantages of developing economies participating in GVCs, and (iii) the learning and upgrading needed in GVCs to develop high-tech manufacturing.

### **How strong are global supply chains in Asia?**

World market integration has led to the fragmentation of production across countries, forming global supply chains in the process. Production networks and vertical trade—the trade that happens as products move between the manufacturing stages and the customer—have expanded rapidly in the global economy, especially since the early 1990s. The PRC is at the forefront of this rapid expansion, and, during the 2000s, has become a global manufacturing hub.

International trade statistics generally report gross value, not the value added by the segment of the production process in the exporting country. Therefore, official statistics are unsuitable for tracing value added and suffer from a double counting problem. To remedy this deficiency, various authors have come up with different solutions that have yielded important insights into the nature of global production networks. Ferrarini (2013) adds to this literature using product-level bilateral trade flows for 2006 and 2007 for 75 countries participating in global production networks. The analysis distinguishes parts and components trade among more than 5,000 products. The author provides a visualization of production networks and vertical trade in the form of network maps. This technique allows a graphical analysis of vertical trade. Ferrarini measures the intensity of bilateral vertical trade between countries participating in global production sharing through a network trade index.<sup>34</sup>

Ferrarini identifies three global centers of vertical trade: PRC–Japan, Germany, and the US. A second important finding is that most developing countries outside Asia and Mexico are not yet fully integrated in the global production networks. The paper reports the top 15 country pairs according to the average aggregate network trade index, of which 5 are pairs in which both are Asian economies: PRC–Japan (the top world network); PRC–Hong Kong, China; Thailand–Japan; PRC–Republic of Korea; and Republic of Korea–Japan. India, the other Asian giant, is outside the main global production networks, and its link is only with the PRC. The other 10 pairs are mostly European and US networks—the US–Mexico pair is the second most important in the world.

Vertical trade is more pronounced in the electric, electronics, and automotive industries. The East Asian networks clustered around PRC–Japan dominate the

electric and electronics industries, the PRC being their assembly hub. Of the top 15 pairs in these industries, 11 involve Asian economies. In 8 pairs, both economies are Asian (PRC–Hong Kong, China; PRC–Japan; PRC–Republic of Korea; Malaysia–PRC; Malaysia–Singapore; Republic of Korea–Japan; Philippines–Japan; Thailand–Japan), and 3 pairs entail Asian and non-Asian economies (PRC–US; Mexico–PRC; Slovakia–Republic of Korea). The US has close ties to these East Asian electric and electronics networks. East Asia's automotive industries are relatively less developed; they are dominated by Europe and North America. Only 3 of the top 15 pairs in these industries come from Asia: PRC–Japan, Republic of Korea–Japan, and Thailand–Japan.

In sum, GVCs are heavily regionalized around Factory Asia, EU networks, and US–Mexico. Within the Asian region, the picture is of the PRC's centrality in final assembly, and participation of a handful of other countries (Japan, the Republic of Korea, Malaysia, Singapore, and Thailand). Hong Kong, China often plays an important coordinating role. The rest of the region is little touched by GVCs, with limited participation of some South Asian or other Southeast Asian countries (e.g., the Philippines), and virtually no involvement of the majority of economies in the Asian and Pacific region.

Value chains are a more recent phenomenon in services than in goods, but since the early 2000s, they have experienced tremendous growth. This includes offshoring of technical, administrative, and professional services. India and the Philippines are world centers of ICT outsourcing, which includes a wide range of activities known as business process outsourcing, knowledge process outsourcing, and R&D. The difference between value chains in services and in manufacturing is that the former requires neither physical interaction with the customer nor local knowledge. Gereffi and Fernandez-Stark (2010) argue that changes in the world economy have facilitated the explosion of GVCs in services and that this change will be permanent for three reasons: (i) ICT now allows quick and easy information transfer so that any developing country with basic ICT infrastructure can export services; (ii) company operations such as human resources management, customer support, accounting and finance, and procurement operations can be performed in developing countries at a fraction of the labor cost in developed countries (e.g., business process outsourcing activities in the Philippines); and

(iii) in recent years, even activities such as R&D have begun to move offshore (e.g., the PRC and India are offering their services to giant pharmaceutical companies). This reflects the increasing capabilities of some developing countries entering GVCs.

India and the Philippines are mature providers of offshore services, with more than 50 centers in each country. The main reasons behind their success are low labor costs and an abundant supply of workers proficient in English. In 2009, employment in service GVCs in the Philippines was close to 500,000 workers (of about 38 million total employment), with revenues of about \$7.2 billion; in India, such employment was close to 2.5 million workers (out of a total employment of about 450 million workers) with revenues of about \$47 billion. The Philippines is one of the world's leading destinations for call centers, as well as finance and accounting outsourcing. India is the global leader of offshore services. The industry in India has evolved steadily and has been able to upgrade from lower value-added activities to R&D services, engineering, and software products. Other jobs GVCs perform are professional services such as reading X-rays, carrying out laboratory experiments for new drug discovery, developing engineering design, administering payrolls, and preparing documents for filing patents (Sako 2013).

**The evidence on value addition in global value chains.** It is difficult to estimate accurately the value addition that takes place in developing countries. Recent empirical work by Oikawa (2011) on the international distribution of value added using input–output tables for six industries in 10 economies shows they retained significant shares of value added, although the distribution of gains among the economies and sectors is uneven. These significant shares contrast with the very low percentages accrued to countries such as the PRC in some product-level studies. For example, Kraemer et al. (2011) conducted a product-level economic analysis of the Apple iPad as a way to understand who captures the value in its global supply chain. They concluded that only about \$8 per unit, or only 1.6% of the iPad's \$499 selling price, accrues to the PRC. The main reason for the significant difference with Oikawa's study is that input–output analyses consider the value added embodied in the intermediate inputs.<sup>35</sup> Indeed, if the iPad's hard drive is manufactured in the PRC (as it probably is, given that such components are likely to be made near the assembly point for logistics reasons), value added

would be created not only in the countries that supply the components (as gross profit) but also in the PRC in the form of wages and other intermediate inputs such as metal parts, wires, electric power, and various inputs that are locally produced. Unless one uses the input–output tables, all these seem to be subsumed into the cost of inputs, and assigned to Korean and Japanese firms, for example.<sup>36</sup>

Figures 3.2a and 3.2b summarize Oikawa’s results. They show the percentage of value added retained by the local industry and by other economies (the rest, to 100%, is freight, insurance costs, or tariffs). The values indicate, for example, that in 2000, the PRC retained about 85% of the total value added generated by its local automobile industry; while almost 9% was retained by the overseas suppliers. The iPad uses sophisticated components largely provided by overseas suppliers, the analysis of which biases the external contribution. There are many much simpler electronic products that rely on domestically-sourced parts. A recent review of the PRC’s upgrading by Kujis and Qiu (2013) indicates that the domestic value-added component of the PRC’s exports increased from 63% in 2004 to 76% in 2012. This reflects a move away from pure assembly and a deepening of domestic supply chains in tradables.

Oikawa’s analysis indicates that economies where industrialization has depended on multinational corporations do not capture much of the value added, corroborating Tham and Loke’s (2011) findings for Malaysia. These results have important lessons for countries following export-led, FDI-led strategies for their industrial development. Local firms play a key role in capturing the gains of integration through GVCs, and the rise of these firms’ capabilities matters for economic development. Examples are the Republic of Korea and Taipei, China, where FDI was assigned a secondary role in obtaining advanced technologies. In contrast, Malaysia, Singapore, Thailand, and Viet Nam have largely depended on multinational corporations. Their dominance of the high-tech sectors of these Southeast Asia’s economies is explained by the absence of competitive local firms. Oikawa’s results support the view that different industrial strategies have resulted in different economic results.

**Moving up global value chains from low- to high-tech manufacturing is not easy.** Successfully catching

up with and developing an advanced manufacturing base is not easy. How can countries use GVCs to develop a high-tech manufacturing base? For low-income countries, the initial niche ought to be the low-skilled, labor-intensive phases in traditional industries such as textiles and garments, toys, or perhaps the assembly of simple electronic products. To upgrade from such industries, opportunities have to be seized and learning has to be fast. This has to be supported by policies that facilitate learning and assimilation, education, and the development of a domestic manufacturing base.

After entering a GVC (at a low-tech stage), the goal should be to move up and, ultimately, to be able to innovate. To do this, countries need to create a local institutional and infrastructural environment conducive to technological upgrading and to integrated industrial production. For example, countries need to support the accumulation of labor skills, provide adequate transport and communications infrastructure, develop appropriate supporting industries, find the right balance of government regulations, and so on. This requires both continued upgrading within the same industry and successive entries into other industries (Lee and Mathews 2012).

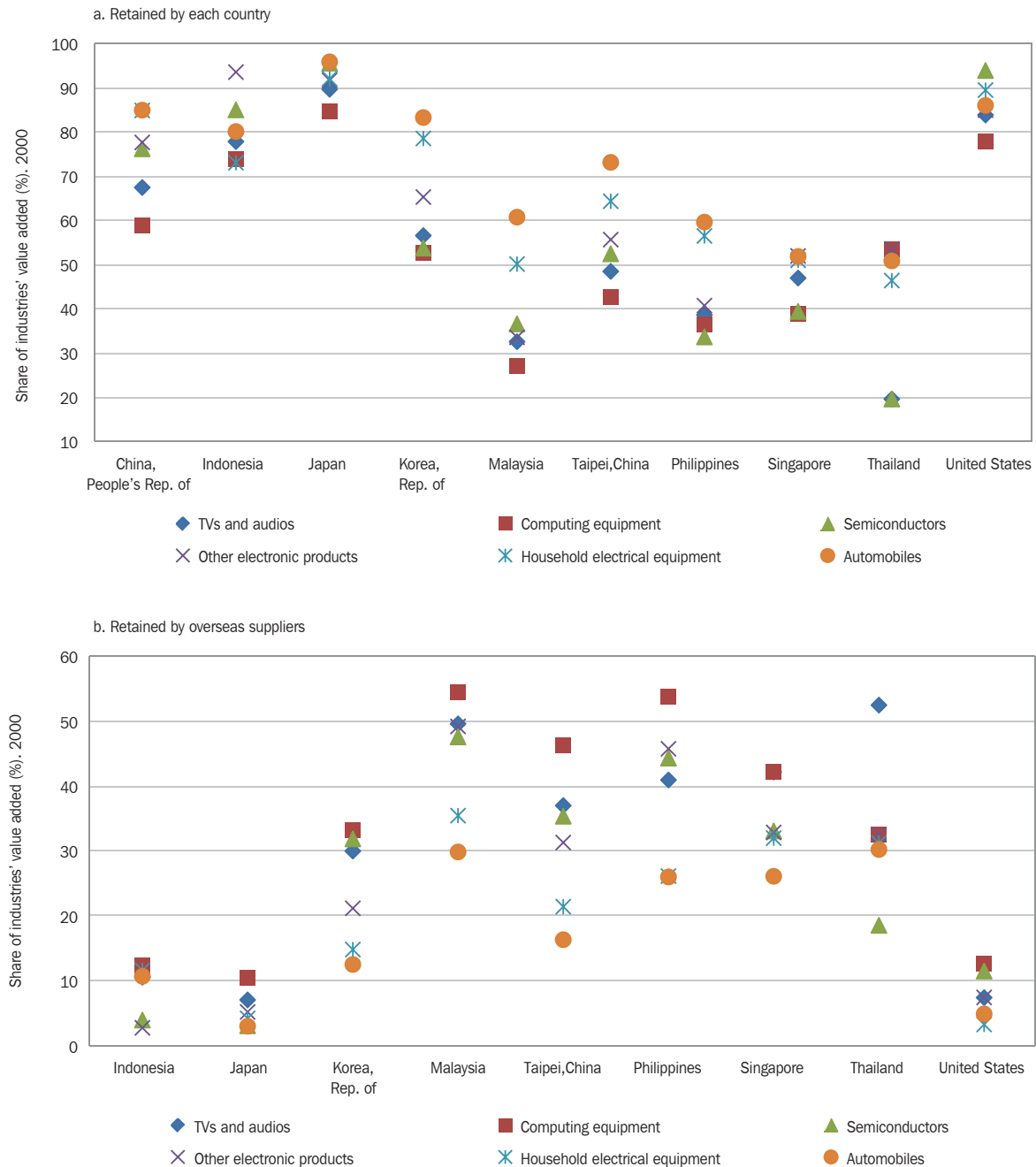
GVCs today are very different from those in the 1980s and 1990s, when they probably searched primarily for low-wage locations. Today, wage costs are not the primary driver of firms’ strategies in many GVCs. Their requirements are much more complex due to a shift from mass production to mass customization. In this environment, firms search for locations that allow them to meet demand volatility (to handle large swings in production demand), to respond very quickly to their customers (“deliver the products yesterday”) and in an unpredictable environment, and to have flexible production methods based on multiskilled workers and flexible equipment.

The rise of firms’ capabilities in GVCs is determined by the interaction between two sets of strategies: (i) learning strategies of latecomer firms in developing economies, and (ii) outsourcing strategies of lead firms from developed economies (Kawakami and Sturgeon 2011). In-depth research summarized by Sturgeon and Linden (2011) indicates that moving up in GVCs is possible, but very costly. Some supply chains allow learning (e.g., a captive supply relationship

with the local affiliate of a multinational corporation). However, if information, knowledge, and value capture are geographically partitioned and tacit knowledge matters a lot, learning will not occur. Also, suppliers in latecomer economies operate within constraints. After all, knowledge lies with the managers of lead firms elsewhere. Likewise, the oligopolistic market power

in some industries matters (such as for cellular phone firms such as Nokia, Motorola, and Samsung), as it allows powerful firms to negotiate on their own terms. Standards also play an important role in determining the structure and trajectory of GVCs. Finally, GVC strategies vary according to the nationality of the lead firms.

Figure 3.2 **Share of industries' value-added retained by economy and by overseas suppliers, 2000 (%)**



Source: Oikawa (2011).

In recent decades, the best examples of successful catch up by latecomers are provided by East Asian economies, especially in the semiconductors and electronics clusters, as well as in some high-tech industries (Lee and Mathews 2012). Their progress up the development ladder has been explained in terms of accumulating capabilities that have allowed the firms to move progressively toward more stages of production (by first implementing, then assimilating, and finally improving). They often achieve this by taking advantage of the opportunities offered by GVCs (Hobday 1995a, 1995b). The common factor among successful firms is that they made tremendous efforts to master capabilities by progressive, often slow, learning. In a dynamic setting, being successful refers to increasing wage rates, diversifying into more complex activities, and increasing technological and organizational capabilities.

Otherwise, there is a risk of being stuck in stages of the chain that compete exclusively on price. Such a strategy will not allow upgrading of the production structure and wages will not increase. Unfortunately this is the experience of many firms across the world, including firms in Asia. For example, Malaysia's well-documented success in electronics since the early 1970s seems to have reached a plateau (Henderson and Philips 2007, Samel 2012).<sup>37</sup>

## Services and manufacturing complement each other

We mentioned earlier that the difference between goods and services is becoming blurred. As many production processes have been fragmented in recent decades, firms seen as producing goods are in fact increasingly focused on service activities such as design and marketing (e.g., Apple). Likewise, decades ago, manufacturing companies had service departments such as finance, marketing, distribution, customer support, and R&D. The jobs and outputs of these departments were counted as part of the industrial sector, given that the final output of the company, was classified in industry. This continues to be the case.

But many manufacturers do not have such departments any more, and instead contract these

services to newly created companies that specialize in them. The result is a decline in the share of manufacturing employment that is partly a "statistical artifact" rather than a reality. Moreover, service-like activities have become a larger share of what the manufacturing companies actually do today. This is because manufacturing requires many support services that were previously done within manufacturing companies (e.g., accounting, compliance management, and some types of logistics). Indeed, an increasing proportion of what we consider as manufacturing jobs are actually white-collar jobs. Services such as telecommunications and travel, logistics, banks, and ICT provision are complementary to manufacturing.<sup>38</sup> Indeed, the evidence indicates that the linkage between manufacturing and services is increasing and that services are important inputs to manufacturing (Box 3.5).

The sectoral data available allow us to approximate the linkages between services and manufacturing. We use the input–output multipliers obtained from the world input–output tables (Timmer 2012), which take into account both direct (within a sector) and indirect (through the linkages with other sectors) effects (Box 3.6).<sup>39</sup> These tables contain data for six Asian economies (the PRC, Indonesia, India, Japan, the Republic of Korea, and Taipei, China) in 1995 and in 2008.

Figure 3.3 shows the dollar increase in value added of the service sector that results from a \$1 increase of final demand (consumption and investment) in three other sectors—primary, manufacturing, and public utilities and construction—in 1995 and in 2008.<sup>40</sup> Two findings are worth highlighting. First, among the three sectors, services add the greatest value in manufacturing (between \$0.23 and \$0.45 in 2008). In Taipei, China in 2008, for example, a \$1.00 increase of final demand in manufacturing led to a \$0.456 increase in value added in services. Second, except in India and Indonesia, the value services added to the three other sectors increased between the 2 years considered. The implication is that an important part of the service-sector value added comes from demand from manufactured goods. For example, automobile manufacture induces value added in services because car manufacturers use services such as insurance.

## Box 3.5 Services contribute to the competitiveness of manufacturing

That certain services are crucial for manufacturing has long been known. Recent work has studied and estimated quantitatively the role that service quality plays using three indicators of manufacturing competitiveness: (i) the degree of product differentiation, measured by the Grubel-Lloyd index; (ii) prices obtained in export markets; and (iii) the duration of trade. The service indicators used in the analysis are telephone density, interest spread between bank deposit and lending rates, transport costs, the total time to export and the total time to import goods and services, reliability of electricity supply, average years of schooling, number of procedures to enforce a contract, foreign direct investment restrictions, product market regulations in telecommunications and air transport, and tariffs.

Product differentiation increases as the quality of these indicators increases, although there are differences across sectors and country groups (by income). Manufacturers do better, in terms of product differentiation and export prices, in countries with good access to high-quality transport, telecommunications, electricity, and financial services. And their exports tend to be

more resilient over time. Policy distortions in service markets spill over to manufacturing export markets, and the higher the level of development, the larger the negative marginal impact on manufacturing export performance. Likewise, high-tech industries are more business-service intensive than other sectors. Finally, better services, alone, do not have a discernible impact on product differentiation in sectors where a country is far from the technological frontier or does not have comparative advantage. But better services are important for moving up the value chain in sectors where countries already have an advantage.

These findings are very important for all countries, but especially for low-income countries, as they need to work on all fronts, that is, to reduce tariffs, improve education, improve contract enforcement, reduce time for exports and imports, improve the reliability of electricity supply, and open up the service sectors. Reforms in these areas, which should not be very costly, can help low-income countries move up the value chains for clothing and electronics.

Source: Nordås and Kim (2013).

## Box 3.6 The world input–output tables

The input–output system that we use contains 41 economies (40 economies plus the “rest of the world”) and 35 sectors, and covers 1995–2009. Of the 41 economies considered, we concentrate on 6 Asian economies—the People’s Republic of China, India, Indonesia, Japan, the Republic of Korea, and Taipei,China—and 6 others—Brazil, France, Germany, the Russian Federation, the United Kingdom, and the United States.

This input–output system is truly global in the sense that it contains 35 sectors and 41 countries, but also in the sense that it tracks all deliveries between those sector–country combinations. The input–output tables record all intermediate deliveries of a sector–country combination to all other sector–country combinations (e.g., Japanese steel to Korean car makers). The tables also record deliveries of all industry–country combinations to final demand categories (consumers, gross fixed capital formation, and government) in all 41 countries. This means that, for every sector in each country, we have deliveries to  $41 \times 40 = 1,640$  separate destinations:  $41 \times 35 = 1,435$  industries (including itself) and 205 final demand categories.

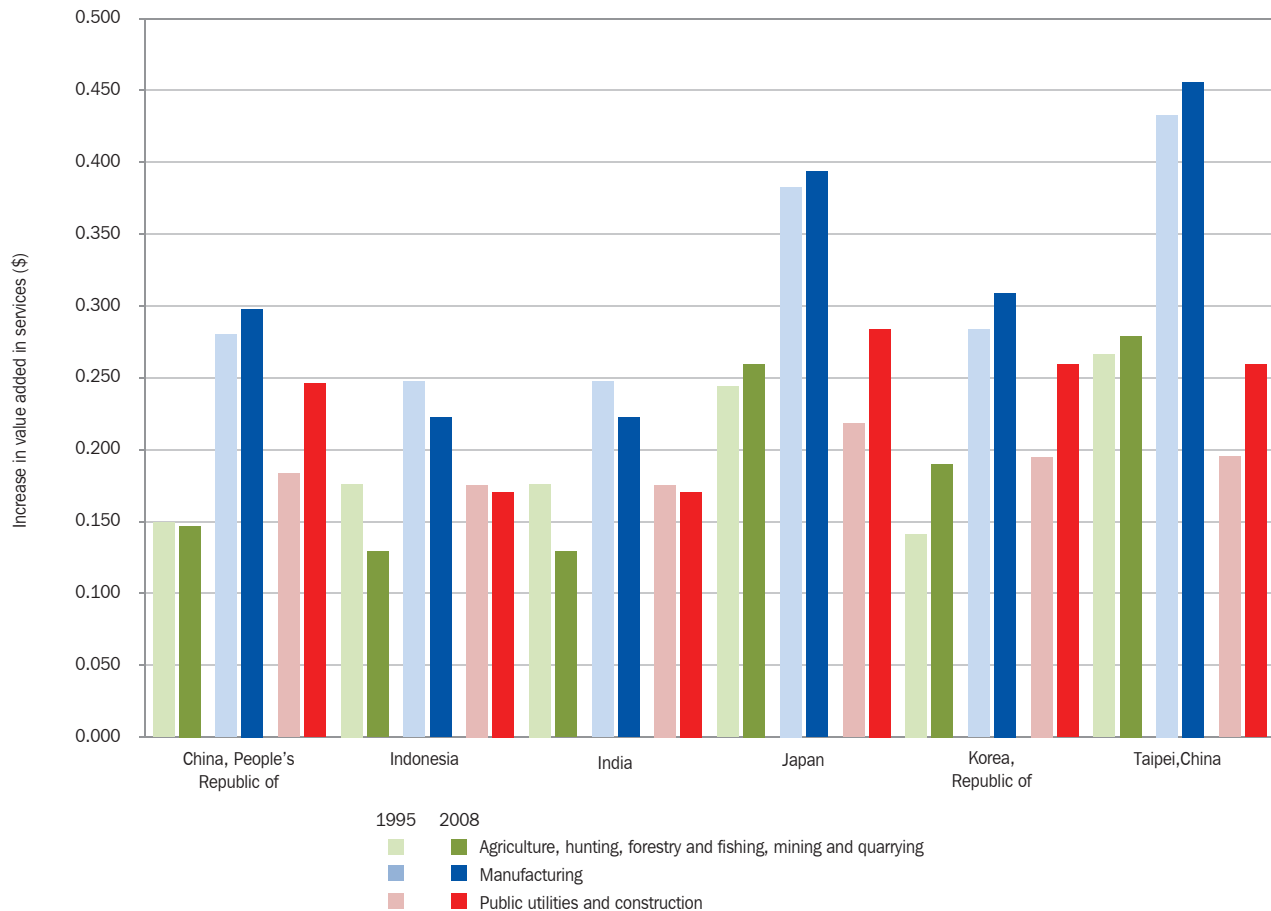
Algebraically and in matrix notation, it works as follows:  $Q = Mf$   $= [I - A]^{-1}f$  gives total gross output ( $Q$ ) as a function of  $f$  (column

vector of total final demand, domestic deliveries, and exports) and the matrix  $M = [I - A]^{-1}$ , where  $M$  is the inverse Leontief matrix ( $I$  is the identity matrix,  $A$  the matrix of output coefficients). The matrix  $M$  reflects how much incremental gross output is induced directly and indirectly by a unit increase in final demand, where “indirectly” refers to the recursive increase in output due to sectoral interdependence. In other words, the matrix  $M$  contains the multipliers or backward linkages of the global value chain.

To obtain employment instead of gross output (for the exercises in the following subsection of the main text), we use  $n = LQ$   $= LMf$ , where  $n$  is the vector of employment levels and  $L$  is a diagonal square matrix with labor coefficients (employment in the sector,  $n_j$ , divided by gross output,  $Q_j$ ) on the main diagonal and zeros otherwise. The off-diagonal elements of  $LM$  measure the indirect employment effects in the other sectors, other than where final demand originates. Gross output, therefore, results from two sources: final demand (exercised as consumption, investment, government consumption, or foreign final demand) and intersectoral multipliers.

Source: Timmer (2012).

Figure 3.3 The intensity of services in six Asian economies



Source: Authors based on World Bank. WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012).

## The service sector is the major absorber of employment in Asia

The service sector is effectively the largest absorber of employment in Asia. What lies behind this fact? This section analyzes a series of issues relevant to it. First, to understand employment dynamics, we decompose changes in sectors' employment shares into a productivity effect and a demand effect. Second, we use the same decomposition to analyze what drives employment growth and we delve into the question of whether there is technical progress in services or not. Third, we decompose service sector productivity growth into intra- and inter-sectoral change effects. Fourth, we analyze whether the service subsectors creating employment are highly productive. Fifth, we analyze whether service sector employment is becoming more globalized.

## The share of employment in agriculture is declining and that of services is increasing

The shift of employment in Asia into the service sector is a generalized phenomenon that largely reflects that industrialization is being bypassed. Table 3.3 summarizes percentage point changes in employment shares of the primary sector, manufacturing, construction and public utilities, and four service subsectors, in six Asian economies. The table corroborates that the share of employment in the primary sector is decreasing and that of services is increasing. The share of manufacturing employment either decreased during 1995–2009, or registered small increases, the same as that of construction and public utilities. And within services, the most important absorbers of employment are public, community, social, and personal services in the PRC, Japan, the Republic of Korea, and Taipei, China (in the last two, finance also absorbed a significant amount

of employment). And in India and Indonesia, the largest absorber was trade.

Table 3.3 Percentage point change in the share of employment between 2009 and 1995

Sector/ subsector	PRC	Indonesia	India	Japan	Korea, Rep. of	Taipei,China
Primary	-14.7	-7.4	-8.8	-2.2	-4.5	-5.0
Manufacturing	3.7	-1.5	1.4	-5.6	-6.0	0.9
Construction and public utilities	1.7	0.6	3.3	-1.6	-1.5	-3.0
Services	9.3	8.3	3.5	9.3	11.9	6.8
THR	2.5	5.6	2.6	-1.9	-2.1	-0.2
TSC	0.8	1.3	1.5	0.1	1.1	-0.6
FRB	0.2	0.8	1.0	2.9	5.4	3.6
PCSP	5.8	0.6	-1.6	8.2	7.5	3.9

FRB = financial intermediation, real estate, renting, and business activities; PCSP = public, community, social, and personal services; PRC = People's Republic of China; THR = trade (wholesale and retail), hotel, and restaurant services; TSC = transport, storage, and communication services.

Notes: (i) The "primary" sector includes agriculture, hunting, forestry and fishing, and mining and quarrying; (ii) a negative sign (–) denotes a decrease in the sector's share in total employment.

Source: Timmer (2012).

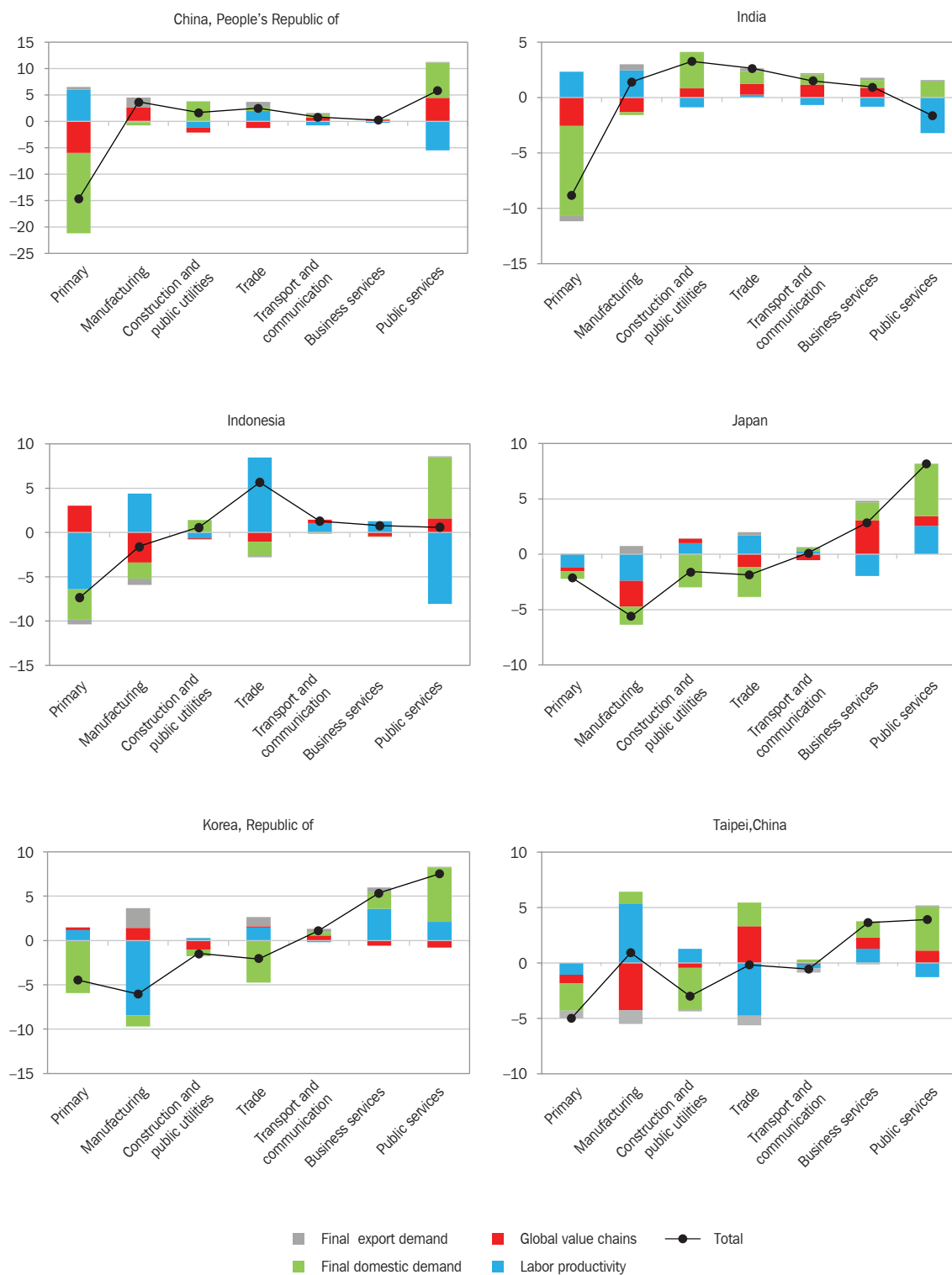
What lies behind the changes in the sectors' shares documented in Table 3.3? To answer this question, we use again the world input–output tables (Box 3.6), and decompose (additively) the change in a sector's share into a part due to labor productivity changes and another due to changes in demand. The changes in demand are decomposed into final direct demand and derived demand. We define direct demand as deliveries of a sector to consumers (including government) and to investment demand by firms. This is decomposed into final domestic demand and final export demand. Derived demand refers to intermediate deliveries of intermediate goods (raw materials or semi-finished products) to other sectors, i.e., demand that serves other industries for their current production. Derived demand is closely associated with the idea of GVCs—the partition of the production of a single good into smaller, specialized parts, often undertaken in different countries. For example, a car produced in Japan may use steel produced in the PRC, which uses iron ore from Australia.<sup>41</sup>

Underlying the decomposition is the fact that when labor productivity grows faster in sector A than in other sectors, sector A's employment share will decline as sector A will need a smaller share of total employment to fulfill demand. At the same time, the share of employment in the other sectors will increase. And, if demand in a sector grows rapidly (relative to other sectors), that sector's share in total employment will tend to rise.<sup>42</sup>

Results of this decomposition are shown in Figure 3.4. Here, we focus on the most salient points. The main contributor to the 14.7 total percentage-point decline in the primary sector's share of employment in the PRC was final domestic demand, which contributed 15.2 percentage points to the decline. The main reason was that the share of primary products in the PRC's total final domestic demand declined drastically because expenditures on goods and services from other sectors grew much more rapidly than expenditures on primary products. In addition, the share of imports in direct PRC demand for primary products is very low (although it increased a bit over this period). The total 3.7 percentage-point increase in the PRC's manufacturing share is mainly due to two factors: 2.6 percentage points from GVCs, and 1.9 percentage points from final export demand. This points to the strong and positive impact of globalization on PRC manufacturing employment. The other two economies where the share of manufacturing employment increased—India and Taipei,China—display a rather different profile from the PRC's: in both, slow labor productivity growth (relative to that in other sectors) is the main factor behind the increase in the manufacturing employment share.

Focusing on services, in five of the six economies analyzed, the contribution of direct domestic demand was larger than the contributions of the other three factors (i.e., final export demand, GVCs, and labor productivity). The Republic of Korea is the exception, where labor productivity growth was the largest contributing factor (i.e., labor productivity grew more slowly in services than in other sectors).

The impact of labor productivity, final export demand, and GVCs on the share of service employment varied across economies and subsectors. When aggregated across the four service subsectors, labor productivity changes had (i) a moderately positive impact in Indonesia and Japan, i.e., labor productivity in services increased more slowly than in other sectors; (ii) a large positive impact in the Republic of Korea; and (iii) a somewhat large negative impact in the PRC, India, and Taipei,China. The GVC effect was large and positive in the PRC, India, Japan, and Taipei,China. The increasing share of employment in services in these economies is the result of their services sectors' higher capacity to attract relatively more indirect demand than the other sectors (i.e., they are serving more intermediate demand).

Figure 3.4 **Decomposition of changes in sectors' and subsectors' shares: Productivity and demand effects**

Note: Vertical axes measure the percentage point change in the sector's employment share due to each effect.

Source: Authors based on Timmer (2012).

Thus, services are the main absorber of employment in the economies analyzed. They absorb employment by attracting a larger share of direct domestic demand than the other sectors. Effects such as GVCs are important in some economies for some service subsectors.

### Employment growth in Asia is driven by significant productivity and direct domestic demand effects moving in opposite directions

The foregoing analysis looked at sectors' shares in total employment and compared trends across different sectors of the economy. Here we analyze the effects of labor productivity and globalization on employment growth. To do this, we apply the same decomposition as above, but now to the change in the number of people employed, for 2000–2008. Because we now decompose changes in the number of people employed, productivity increases will always have a negative effect on employment. From this point of view, the challenge of development is to achieve fast growth of labor productivity while generating sufficient employment through GVCs, final direct domestic demand, and final direct export demand so that aggregate employment grows. This analysis also allows us to discuss the somewhat controversial question of whether there is productivity growth in Asia's services.

Results for the total economy and for the manufacturing and service sectors are shown in Table 3.4.

The figures in the column and rows, labeled "total" give the percentage change in total employment (persons engaged) during 2000–2008. The figures in the "Services" rows give the percentage change in employment in services. All economies except Japan registered double-digit positive employment growth, and in most, the growth of employment in services was large.

The second column shows the productivity growth effect. As expected, it is always negative—strongly so in the PRC, India, and Indonesia, and moderately so in the Republic of Korea and Taipei,China. Productivity growth is strongly negative in the service sector. Except in Japan, services' productivity comprises a sizable part

Table 3.4 **Decomposition of employment (number of workers engaged) growth in Asian countries, 2000–2008 (%)**

Change	Total	Productivity growth effect	GVC effect	Final direct domestic demand effect	Final direct export demand effect
<b>China, People's Rep. of</b>					
Total	15	–302	53	222	41
Manufacturing	42	–359	77	220	104
Services	58	–476	131	360	43
<b>India</b>					
Total	22	–109	–10	133	9
Manufacturing	39	–90	–27	125	31
Services	42	–160	13	178	12
<b>Indonesia</b>					
Total	24	–99	13	107	4
Manufacturing	10	–49	–18	69	8
Services	53	–113	16	146	4
<b>Japan</b>					
Total	–13	–5	–3	–7	1
Manufacturing	–37	–15	–13	–11	3
Services	0	–1	0	0	1
<b>Korea, Rep. of</b>					
Total	15	–39	8	37	10
Manufacturing	–14	–77	16	24	23
Services	40	–29	7	54	8
<b>Taipei,China</b>					
Total	10	–24	–3	34	2
Manufacturing	14	–3	–21	29	8
Services	24	–37	9	51	1

GVC = global value chain.

The columns labeled "Productivity growth effect", "GVC effect", "Final direct domestic demand effect", and "Final direct export demand effect" add up to the column "Total" (except for rounding).

Source: Authors' calculations based on Timmer (2012).

of the total, which indicates that labor productivity grew strongly in services.

The GVC effect, measures the extent to which countries increase their contribution to international flows of intermediate deliveries and is much smaller than the productivity growth. The largest GVC is in the PRC, and it is negative in India, Japan, and Taipei,China. GVC is positive for the service sector in all cases except Japan (where it is zero). This indicates that GVCs also provide employment opportunities for services.

The final direct domestic demand effect is also large, especially in the PRC. In India and Indonesia, it compensates for the strongly negative labor productivity growth. The final direct export demand effect is much smaller, but, unlike the GVC effect, it is positive in all cases.

This analysis leads to the conclusion that employment growth in Asia is driven by increased productivity that is more than offset by increased demand. This is also true for employment in services.

Table 3.4 documents that Asia's services have registered significant productivity growth. Moreover, whenever the absolute value of the "productivity growth" column is larger for services than for manufacturing, it means that the productivity growth is larger in the former. Results indicate that the effect of productivity was larger in services in four of the six economies during 2000–2008. This is compatible with the low productivity level of the service sector in most Asian economies, when compared with the OECD levels (ADB 2012a).<sup>43</sup>

For a long period (1974–2004), labor productivity growth was somewhat stronger in manufacturing than in services (Table 3.4). But these results corroborate that productivity growth in services was significant. Naturally, there are differences across subsectors. The service subsector that registered the highest productivity growth was transport, storage, and communication (which is complementary to manufacturing). During 1995–2004, it grew even faster than that of manufacturing. Conversely, productivity growth was lowest in public, community, social, and personal services.

These results put into question the view that services display no productivity growth, the so-called Baumol's disease (Baumol 1967, Baumol et al. 1985; Box 3.7), although services are a very heterogeneous category and some of them may be truly be characterized as stagnant. Indeed, recent statistical evidence has

shown that some services, based on new technologies and standardization of delivery, do register substantial productivity gains (Maroto-Sánchez and Cuadrado-Roura 2009).<sup>44</sup> With the rise of ICT, manufacturing's advantage over services in terms of the capacity to profit from economies of scale may have changed since the 1990s. In certain service subsectors, scale effects have become important, as the marginal costs of providing an additional unit of service have become close to zero. In these modern service sectors, innovation is relatively similar to that in manufactures. This is the case of engineering, R&D, financial, or data processing consulting firms, which have research centers. Google or DHL are examples of this type of innovation—a search engine or the development of social networks, and transport and logistics, respectively. This means that services that are highly dependent on ICT can indeed be engines of growth as they can achieve high productivity growth and they are subject to increasing returns to scale. However, services such as government, medical, education, hairdressing, house cleaning, and personal care are very labor-intensive (and the last three cannot be provided long-distance) and they are not likely to play the engine of growth role.<sup>45</sup>

The foregoing discussion implies that having a relatively large service sector may not be a problem for an economy, provided the services contain a significant share of high productivity (and high productivity growth) subsectors (i.e., that the stagnant activities represent

Table 3.5 Average labor productivity growth in Asia's Manufacturing and Services, 1974–2004 (% per annum)

Economy	Manufacturing	Services			
		Trade (wholesale and retail), hotels and restaurants	Transport, storage, and communications	Financial intermediation, real estate, renting, and business activities <sup>a</sup>	Public, community, social, and personal services
China, People's Rep. of	7.91	2.94	5.66	6.40	3.80
Hong Kong, China	7.03	3.62	1.77	-2.24	0.66
Indonesia	4.95	1.59	1.61	4.00	2.12
India	3.05	2.00	4.23	2.68	3.86
Japan (1974–2003)	3.68	3.17	2.10	4.73	0.62
Korea, Rep. of	6.90	2.22	5.00	-4.21	-0.31
Malaysia (1975–2003)	3.34	2.62	3.43	4.43	2.49
Philippines	0.29	0.03	0.08	1.84	-0.17
Singapore	4.77	3.32	5.83	1.68	2.58
Thailand	3.00	0.06	3.58	1.93	1.21
Taipei, China	5.04	4.87	5.99	1.14	3.39
Average of the 11 economies, 1974–2004	4.54	2.40	3.57	2.03	1.84
Average of the 11 economies, 1974–1995	4.66	2.79	3.04	3.05	1.62
Average of the 11 economies, 1995–2004	4.64	1.82	5.32	-0.97	2.12

a Excludes dwellings.

Source: Authors' calculations from data from the GGDC, 10-Sector Database. [www.ggdc.net](http://www.ggdc.net) (accessed September 2012); Data for the People's Republic of China compiled by the authors from multiple sources.

## Box 3.7 Baumol's Disease

The view that many services combine high income elasticities of demand with low productivity growth rates is known as Baumol's disease. This refers to the slackening of economic growth at high levels of income as the result of the service sector's lower productivity, the increase in its share of employment, and reallocation of labor from industry, where productivity growth tends to be higher. Service subsectors may be characterized as stagnant, with low productivity, and as progressive, with high productivity. A country's long-term average productivity is determined by that of the sectors with the lowest productivity growth rate—the more stagnant ones. The reason is that the relative costs and prices in the stagnant activities tend to rise persistently and cumulatively, and if the output proportions of progressive and stagnant sectors remain fairly constant, the share of the inputs used by the stagnant sectors (in the total economy) will tend to increase and potentially reach one. As resources shift toward activities where productivity is growing relatively slowly, the aggregate productivity growth rate will slow down.

Sources: Baumol (1967), Baumol et al. (1985).

a small share of the economy). For example, a high-income country such as Switzerland, which specializes in providing sophisticated financial, real estate, renting, and business services (FRBs) and personal services (e.g., tourism), as well as in manufacturing sophisticated consumer goods (e.g., watches and chocolates) with high income elasticities, exemplifies of a positive relationship between a large service sector and wealth. However, Switzerland has industrialized and many of the high-productivity services that it developed are complementary to manufacturing.

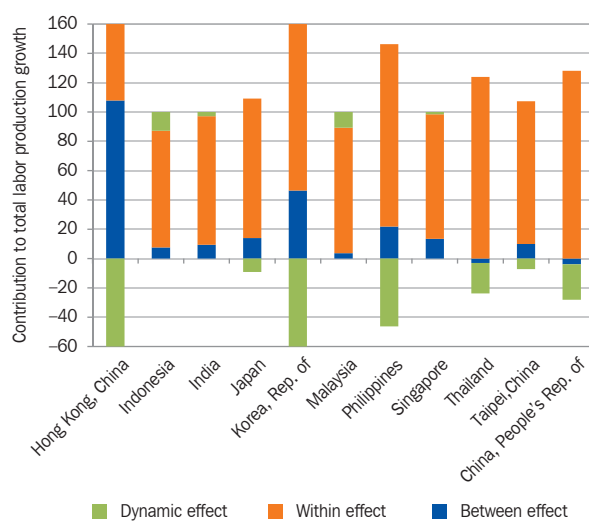
### Most growth of labor productivity within services is due to that within rather than between subsectors

Is labor reallocation within service subsectors contributing to the sector's productivity growth? To answer this question, we decompose productivity growth (through shift-share analysis) in the service sector along the lines of that in Box 2.3 (p.26) for the overall economy, and hence decompose the growth of service sector labor productivity into the "within effect," the "between effect," and the "dynamic effect" (the interaction between changes in labor productivity and in employment shares). The last two are the effects of structural change. We undertake now the same exercise by dividing the service sector into the four subsectors: financial intermediation, real estate, renting, and

business activities (FRB); public, community, social, and personal services (PCSP); trade (wholesale and retail), hotel, and restaurant services (THR); and transport, storage, and communication services (TSC).

Figure 3.5 summarizes the results. How large is the between effect? Except for Hong Kong, China, the results confirm the difficulty of creating employment in subsectors that have high productivity. Employment shifts from low- into high-productivity sectors (the between effect) contributed little to overall productivity growth everywhere except in Hong Kong, China and the Republic of Korea. Moreover, these between effect gains are substantially offset by the negative dynamic effects (i.e., changes in labor productivity and in employment shares move in opposite directions) in these two economies, as well as in the PRC, the Philippines, and Thailand. No economy has experienced significant positive dynamic effects in services. The conclusion, like that reached for the overall economy, is that reallocations of labor toward subsectors of higher productivity and productivity growth are not the main driver of labor productivity growth in services.

Figure 3.5 Shift-share analysis: Decomposition of labor productivity growth in services, 1974–2004 (% contribution of each component)



Source: Authors.

### The sectors with the largest gains in employment shares have generally had positive but relatively low productivity growth

Figure 3.6 graphs productivity growth against changes in employment shares for 1955–2009, again for six Asian

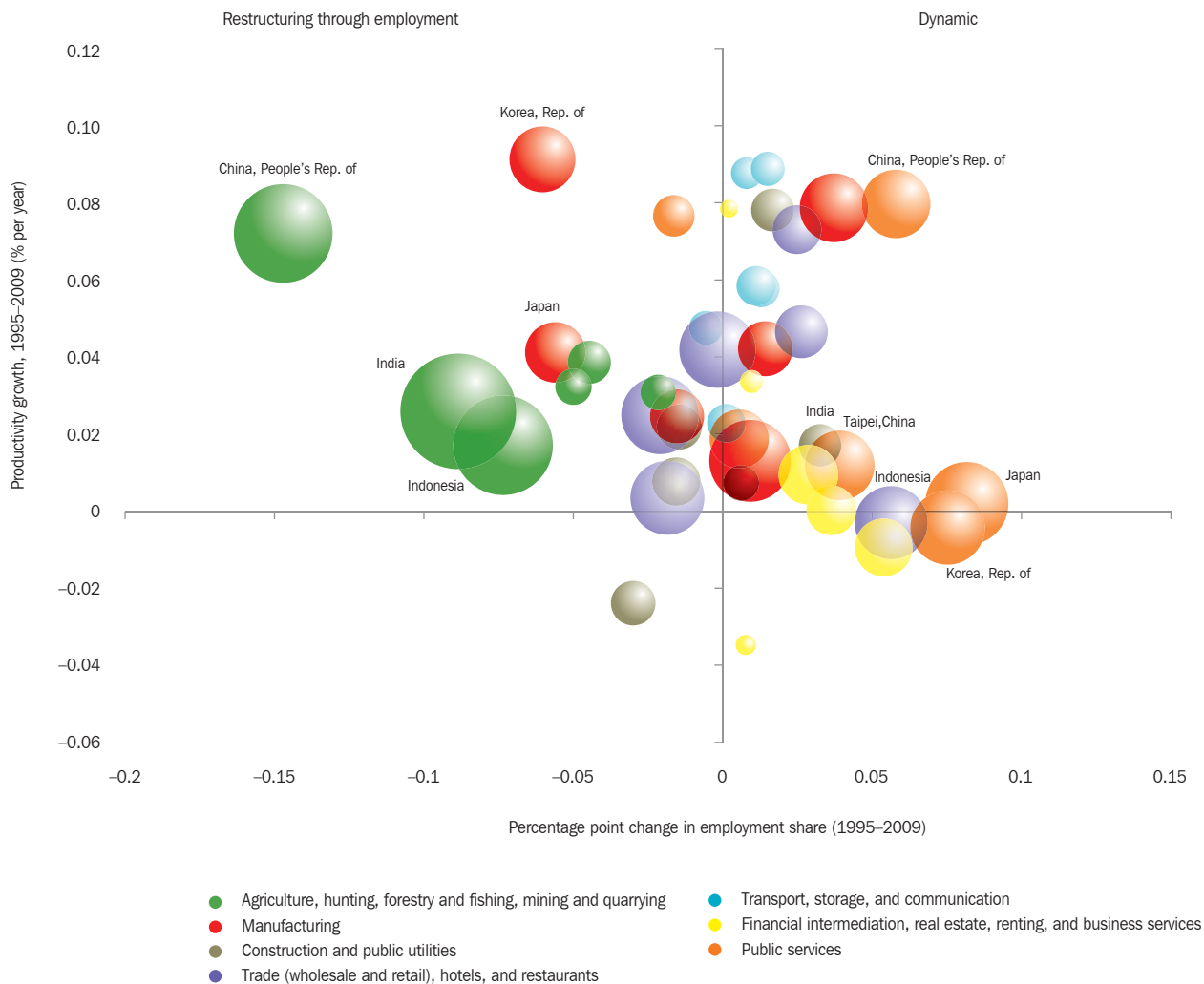
economies and the primary sector, manufacturing, construction and public utilities, and four service subsectors. The size of the bubbles is proportional to the employment share in 2009. Most bubbles are in the first and second quadrants. Sectors in the upper right-side quadrant are labeled “Dynamic”—with both positive productivity growth and increasing employment share. Sectors in the second quadrant are labeled “Restructuring through employment”—and feature positive productivity growth but declining employment share. Agriculture in all economies, manufacturing in two economies, and wholesale and retail trade in three economies, are in the second quadrant. There is a lot of variation in the “Dynamic” quadrant, although it appears that the sectors with the highest productivity growth registered small employment gains (e.g., transport, storage, and communications—TSC), and the sectors

that have gained most employment registered relatively small productivity growth (e.g., public services—PCSP).

### Service sector employment remains much more dependent on domestic demand than manufacturing employment

Is employment in services becoming more dependent on global factors over time? To answer this question, we compare the impact of foreign demand and foreign production linkages on employment in the service subsectors, to that on employment in manufacturing. Recently, ICT has led to increased productivity growth in services and increased tradability of services (ADB 2012a). Software and call centers are two often-cited examples in the Asian context, especially in India and the Philippines (Gereffi and Fernandez-Stark 2010).

Figure 3.6 Productivity growth and change in employment shares: Six Asian economies



To gain insight into whether employment in services is becoming more globalized than that in manufacturing, we again distinguish between direct and derived demand (as defined on p. 53). Using the world input–output tables, we decompose total employment into a part associated with direct export demand and a part associated with direct domestic demand.<sup>46</sup> An example is the PRC paper industry. Assume that it produces 2 million tons of paper per day, of which 1 million tons are supplied to consumers in the PRC (this is direct domestic demand), ½ million tons are supplied to consumers abroad (direct export demand), and ½ million tons are supplied to firms in the PRC and abroad that then resell it (this is derived demand, that is, the GVC effect). If customers of the PRC paper industry increase their production or sales, they will demand more paper, and output and employment in the PRC's paper industry will rise.

Figure 3.7 summarizes the main results of this analysis by graphing the share of manufacturing employment due to direct export demand in each subsector in 2000 and in 2008, for 6 Asian economies (Figure 3.7a) and a group of comparators (Figure 3.7b). The graphs corroborate the fact that, on average, more manufacturing employment is attributable to direct export demand than is the case in most service subsectors. In both graphs, the bubbles associated with manufacturing (in red) are closer to the upper right corner than bubbles of any of the service subsectors, except for those in Figure 3.7a for transport, storage, and communication, corresponding to the Republic of Korea and Taipei, China. All other service subsectors, especially PCSP services, are clustered toward the left lower corner. At the same time, most of the bubbles, including those of the service subsectors, are found above the diagonal line, indicating that the share of employment due to direct export demand generally grew during 2000–2008.

The conclusion is that employment in all service subsectors remains much less due to direct export demand than is the case in manufacturing. This is true both in Asia and elsewhere. Nevertheless, service sector employment due to direct export demand is not negligible, which means that services are tradable, and questions the long-held view that they are not. However, most employment in services remains much more dependent on domestic demand than is the

case in manufacturing. The transport, storage, and communications subsector is the only exception, as its share of direct export demand in total employment begins to approximate that observed in manufacturing.

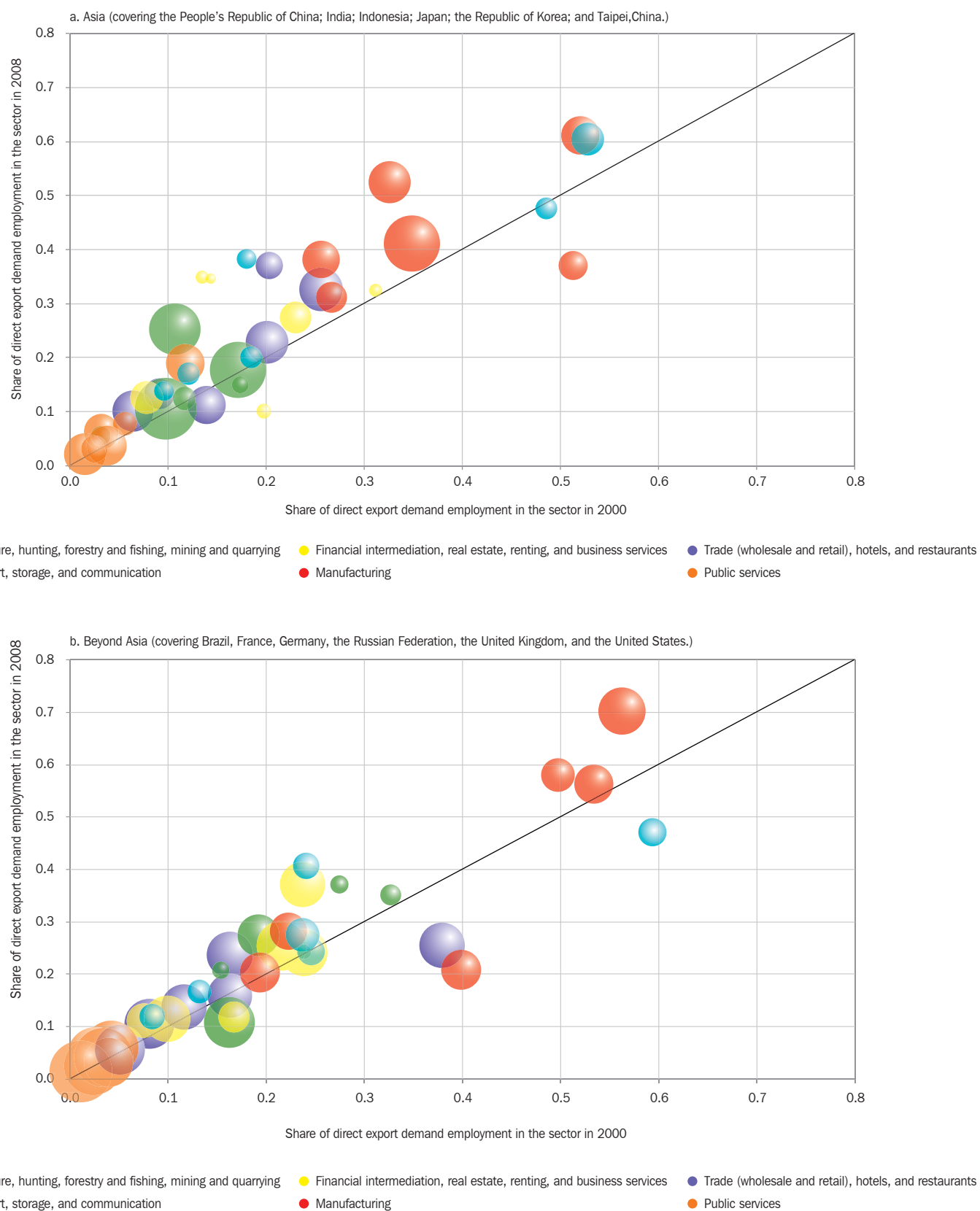
## Conclusions

ST during the 21st century will be key to developing Asian economies becoming modern industrial and service economies. We have argued that although some key patterns of economic transformation are likely to persist in the coming decades (e.g., the decline in agriculture's share and the increase in services' share), future transformation is not likely to mimic the patterns traced by Japan and the NIEs in the 20th century, particularly their successful industrialization experience. The main reason is that the overall economic environment has changed substantially.

As Asia's economies continue to develop, and as a result of productivity increases, the service sector will become the largest in both GDP and total employment. Employment growth in Asia, both in general and in services, is mostly driven by changes in direct domestic demand. And the share of employment in services is increasing because this sector attracts a larger share of direct domestic demand than do other sectors of the economy. With variations across subsectors, services have registered significant productivity growth, in some cases on par with manufacturing. And productivity increases are mostly driven by increases within sectors rather than by the reallocation of labor across them. The service subsectors that have gained most employment have registered relatively positive but low productivity growth.

We have concluded that developing Asia needs to nurture niches in high-productivity services that complement manufacturing (e.g., modern transport, logistics, and communications) to ensure growth. But such niches will be very difficult to develop without a solid complementary manufacturing base. Thus, economies that do not industrialize may end up specializing in low-quality services, and it will not be easy for them to become modern industrial and service economies. Simultaneously, Asian economies need to generate employment in labor-intensive activities to accommodate the labor supply.

Figure 3.7 Globalization of manufacturing and services employment



Size of the bubble indicates share of total employment in 2008  
Source: Authors.

In this transition to become services economies, agriculture will have to play the important roles that it played in past cases of successful ST (i.e., to provide food and demand for other sectors, and to release labor and capital). However, in the first decades of the 21st century, the share of employment in agriculture will remain relatively high in some Asian economies. The countryside will need to modernize (i.e., develop modern logistics, transport, etc.), and for this to happen, agriculture will have to take advantage of new technological developments and the opportunities offered by GVCs for a transition toward agribusiness.

We have also argued that, historically, manufacturing played very important roles in the development of an economy. Our analysis indicates that manufacturing is a developmental stage that generally cannot be bypassed on the road to becoming a high-income economy. Virtually all countries that are rich today industrialized in the past—for a sustained period, their shares of both manufacturing output and manufacturing employment reached at least 18% in GDP and total employment. While many Asian economies have achieved relatively high shares of manufacturing output in GDP, most have not industrialized from the employment point of view, and many seem to be bypassing this industrialization. Except in economies where industrialization is not likely to take off, developing Asia needs to devise policies to create more jobs in manufacturing.

Achieving a relatively high manufacturing share in GDP, however, does not guarantee that an economy will become a high income one. Indeed, a significant level of infrastructure, a high level of financial development, a well-educated population, and a high share of manufacturing in the high-tech subsectors all increase the likelihood of becoming a high-income economy. For example, results indicate that the probability of an economy achieving a high-income level is 41% if it industrializes in both output and employment. But if it industrializes and 50% of its employment in manufacturing is in the high-tech subsectors, then the probability that it will become a high-income economy increases to about 75%.

Industrialization is very relevant to achieving high-income levels, but increasing the share of manufacturing employment will not be easy in the coming decades. This is due to changes in the economic environment since the second half of the 20th century. Given current developments, such as high productivity in manufacturing, and technology-intensive and labor-saving manufacturing, many Asian economies will have difficulty attaining full employment industrialization—that is, their share of manufacturing employment will not reach the 25%–30% range that the advanced economies, Japan, and the NIEs achieved. Not generating sizeable employment in manufacturing is a concern for Asia's policymakers, especially if workers are not absorbed by other sectors of the economy that pay relatively high salaries and that allow the development of skills.

Can GVCs be the engine that will help Asia's developing economies industrialize in the 21st century? The phenomenon of GVCs—ever finer fragmentation of the production process allowing more specific division of labor—provides an opportunity for developing economies to enter the global economy without producing complete finished products. In Asia, only firms in seven economies—the PRC; Hong Kong, China; Japan; the Republic of Korea; Malaysia; Singapore; and Thailand—seem to be strongly connected to GVCs. Manufacturing will continue to be an important sector and, although developed countries may have deindustrialized, they will retain the stages of production that yield the highest value added, e.g., product conception and branding. In this context, Asian countries that expand capacities and move up the quality ladder and do high value-added activities will benefit from GVCs, while economies that remain in low value-added, unskilled-labor-intensive activities will stagnate.

As we noted in the introductory section, a variety of factors affect the direction and pace of ST. One factor that the literature highlights is education. Indeed, as the analysis in this section has found, education increases the odds of becoming a high-income economy. In the next section we inquire about the role of education in facilitating ST.

## How does education contribute to export diversification?

Previous sections have discussed Asia's pattern of economic transformation and the future prospects of the agriculture, industry, and service sectors. It is natural to ask what other factors (beside, for example, differentials in productivity across sectors, or geography) are important in driving this transformation. As the pace of innovation picks up globally, the educational achievements of a country's workforce are likely to be an important determinant of its ability to develop new industries that are capable of competing internationally. Hence, the analysis in this section contributes to the discussion of how economic transformation occurs by inquiring what role education plays in industrial development. As noted in the previous section, "Asia's future transformation," industrialization (achievement of a high share of manufacturing in output) alone provides no assurance that a country will become a high income economy, but when industrialization is combined with significant levels of education or a sophisticated industrial structure, the odds of becoming high-income rise substantially. This is consistent with the view that education facilitates industrial upgrading, and that industrial upgrading is crucial for economic success. The analysis in this section contributes to the discussion of how economic transformation occurs.

This section analyzes export data to learn about the relationship between education and industrial upgrading. Export data are useful for this purpose because they restrict attention to the mix of products a country is able to produce well enough to be competitive in global markets. Exports are therefore a preferred indicator of authentic industrial development, and ample evidence indicates that producing a diverse export mix is conducive to upgrading and economic growth (Hausmann et al. 2011).

Anecdotal evidence provides good reason to think that education is important for export diversification. Japan began expanding and diversifying its export mix in the late 1950s, when it had relatively high levels of education. Education levels rose rapidly in the Republic of Korea and Taipei, China between the 1960s and the 1980s as their shares of global markets for many products increased dramatically. The PRC began making inroads in global product markets in the 1980s, when only 29% of its 20–25 year olds had completed secondary school.

By 2010, the PRC had lifted this share to 92% and had come to dominate world markets in many products. The successes of Germany and Switzerland, whose exports are among the world's most diverse and sophisticated, are often ascribed to the rigor and practicality of their basic education systems. Conversely, Bangladesh and Pakistan, with low education attainment compared with the rest of Asia, have a relatively narrow mix of exports.

However, recent history shows that education alone is not always enough for industrial upgrading. Although Bangladesh still has relatively low primary and secondary school completion rates, these rates increased rapidly throughout the 1990s and 2000s, even as its exports became increasingly concentrated in one fairly unsophisticated industry—garments. Until recently, the Philippines enjoyed a substantial educational edge over Thailand in years of schooling, and international science and math tests revealed no major difference in the quality of Philippine and Thai education. During the last 3 decades, however, Thailand has been the more successful country in diversifying its export mix. Elsewhere, many Middle Eastern and North African countries have invested heavily in education without successfully diversifying their exports. These examples show that that a country will not successfully diversify its exports by simply having a well-educated workforce. We therefore need to know what complementary conditions and policies enable a country to use education to upgrade its industrial exports and achieve a high income level.

In what follows we ask three questions. First: Is a country's level of industrial diversification related to its population's educational attainment? In this context, we also ask whether it is the quantity or the quality of education that matters, and whether tertiary education is important for developing a well-diversified industrial structure.

The second question is: Does education help reduce path dependence, the need to move progressively from simple to complex manufactures, and how? That it is easier to develop industries similar to those a country already possesses than to develop unfamiliar new industries is well established (Hidalgo et al. 2007). For example, a country that is a successful

exporter of T-shirts will find it much easier to become a competitive exporter of trousers than of computers, because T-shirts and trousers draw on a similar knowledge base and require similar infrastructure and institutions. We say that T-shirts and trousers are “proximate” to each other; while T-shirts and computers are not. A country that successfully exports T-shirts may have to move incrementally from them through a series of increasingly complex products, learning through experience, in order to become good at making complex products such as computers. In theory, a country with a narrowly focused product mix—one from which it is difficult to move naturally toward more sophisticated products—could even experience a development trap, wherein it cannot find a path to sophisticated products.

Education can overcome this path dependence by helping countries to more rapidly assimilate the knowledge that is needed to make incremental transitions to slightly unfamiliar products, thereby permitting a country to move more rapidly through a sequence of products from poor-country products (i.e., less complex ones) to rich-country products (i.e., more complex ones). For example, education may help a country move from T-shirts through shoes, toys, kitchen appliances, and televisions, into computers (as the PRC has done). Or, in the extreme, education may allow a country to bypass the intermediate industries altogether, “teleporting” from simple products (e.g., T-shirts) to complex ones (e.g., computers) without having to develop the intervening industries. Knowing whether teleportation is possible has important policy implications: if it is possible, then a sufficiently educated country wishing to export computers will not require public policies to support the intermediate shoe, toy, kitchen appliance, and television industries. However, if these industries are not supported and incremental movements through intermediate products are required, then the industrialization strategy will fail.

Our third question is: Does education play different roles in the development of products of different levels of sophistication? Of course, the difficulty in building a new industry and the degree of path dependence that a country will encounter as it attempts to build it may vary depending on the type of industry that the country is attempting to build. The role of education in learning how to build cars could be different from the role it plays in learning how to weave fabric. Regardless of whether

teleportation is possible or not, learning to produce more sophisticated products may be difficult.

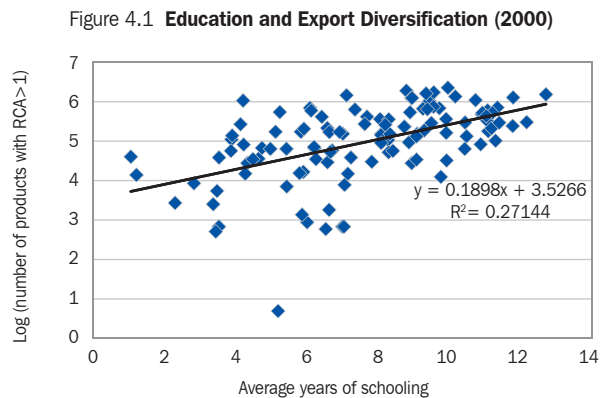
To answer these questions, we combined export data of 1,240 products for 114 countries between 1995 and 2010, with information on national educational attainment, measured in three ways: (i) average years of schooling in the population over the age of 15; (ii) primary, secondary, and tertiary attainment rates for the population over the age of 15; and (iii) a measure of the quality of education. The quality measure is proxied by the cognitive skills of the population with secondary-school education, gleaned from international science and mathematics tests. This is not a perfect measure of the quality of education as it neglects many other aspects that very likely influence quality, but it is widely used and is the only one available.<sup>47,48</sup>

The empirical work in this section measures relative export success in a given product using an index of revealed comparative advantage (RCA). The RCA is calculated as the ratio of a product's share in a country's export basket to that product's share in total global exports.<sup>49</sup> A country's diversification is measured by the number of products that a country exports with RCA greater than 1. For example, in 2010, fiber optic cable represented 0.037% of global exports by value, but 0.049% of India's exports. Thus, India's RCA in fiber optic cable is 1.341 (0.049/0.037). That this number exceeds 1 indicates that India is relatively specialized (or has an RCA) in fiber optic cable. RCA is a measure of relative export success—even a country with very low exports overall must have an RCA in something. Bhutan's exports of copper wire in 2010 were only \$29 million (or 0.1% of total copper wire exports), but nevertheless it had an RCA in the product. Among the Asian countries with complete data in 2010, Azerbaijan was the least diversified (specializing in 25 of the 1,240 products), and the PRC was the most diversified (with 525 products).

### **Years of schooling and diversification are positively related and the quality of education matters more than the quantity**

We now turn to our first question—whether diversification is related to educational attainment.

Figure 4.1 plots diversification and countries' average years of schooling, in 2000. The relationship is clearly positive but there is a lot of variation around the regression line. This indicates that, while countries with more years of schooling tend to have a more diverse product mix, other factors are also likely to be influencing diversification.



RCA = revealed comparative advantage.  
Source: Authors.

To examine in detail the relationship between education and diversification, we regress diversification on the three sets of education measures, and control for countries' per capita GDP and population. Table 4.1 shows the results. We focus on the sign of the variables and on whether they are statistically different from zero. Both control variables enhance export diversification, consistent with the notion that a larger and richer domestic consumer base can support a wider array of industries. When the total number of years of schooling is the only education measure (column 1), it is found to enhance diversification: a 1 standard deviation improvement in years of schooling is associated with a 50% increase in diversification.

The regression in column 2 introduces our measure of the quality of education, as well as the multiplication (or interaction) between this measure and the number of years of schooling. This is done to test whether there is any effect due to schooling quantity adjusted for quality. Results indicate that the quality rather than the quantity of schooling is important.

When the quantity of schooling is disaggregated by level (column 3), only primary education and quality of education have statistically significant relationships with diversification.<sup>50</sup> Controlling for primary, secondary, and tertiary education attainment are not significantly

associated with diversification. These results suggest that basic (primary) education and the quality of education matter significantly for diversification, and that variations in the quantity of tertiary education are not particularly important (the quality of tertiary education could matter, but it is not measured). Our claim about tertiary education refers specifically to its role in the diversification of the economy and does not mean that tertiary education is not important to, for example, upgrading. Box 4.2 shows that workers in services are more educated than in manufacturing.

Table 4.1 **Diversification and education**

<b>Dependent variable: Log-diversification</b>			
	(1)	(2)	(3)
<b>Key control variables</b>			
Years of schooling	0.502***	0.078	
Quality of education		0.315***	0.233**
Years of schooling x Quality of education		-0.024	0.101
Primary attainment			0.460**
Secondary attainment			-0.188
College attainment			-0.093
<b>Other control variables</b>			
Log(per capita GDP)	0.096	0.399	0.282
Log(per capita GDP) squared	-0.012	-0.103	-0.072
Log(population)	0.255***	0.167***	0.188***
Constant	4.229***	4.694***	4.572***
Sample size	111	60	60
R-squared	0.427	0.391	0.474

\*\*\* = statistically significant at the 1% level, \*\* = statistically significant at the 5% level, GDP = gross domestic product.

Note: All three education variables are scaled so that they are distributed with a mean of 0, and a standard deviation of 1. This means that the regression coefficients tell us the percentage increase in diversification for a 1-standard deviation difference in education levels.

Source: Authors.

### The quality of education helps reduce path dependence, and “teleportation” into the most complex products is practically impossible

We turn now to the second and third questions, which ask how education may influence the acquisition of comparative advantage in new products. To answer them we use a large sample of industries, where an industry is a country-product pair (e.g., the Cambodian T-shirt industry, the Pakistani ceramics industry, and so forth). The dependent variable now is the change in each product's RCA index between 1995 and 2010. For

example, the PRC's RCA index for socks and stockings grew from 0.29 to 3.16 between 1995 and 2010, indicating that the economy rapidly built an RCA in hosiery.

To assess path dependence in developing new RCAs between two periods, we introduce two measures developed by Hidalgo et al. (2007). The "proximity" between two products is a measure of their "co-exportability" (the overlap between the set of countries exporting the two products).<sup>51</sup> For example, T-shirts are proximate to trousers (as many countries specialize in both), but T-shirts are not proximate to surgical instruments (few countries co-export the two products). Using this measure, we can define an index of a country's "density" around each product. A country will have a high density around product A if it already possesses an RCA in many products that are proximate to A. For example, Bangladesh has a high density around socks because it has an RCA in many other types of apparel and the rest of the apparel sector is proximate to socks.

Density will help us assess path dependence versus teleportation. If the growth of a country's RCA in a given product is higher when the country has a high initial density around that product, then the country faces path dependence: it is easier to acquire comparative advantage in proximate products and hence to start exporting them. However, if the relationship between initial density and a growing RCA is weaker in more educated countries, then education does help reduce path dependence. Teleportation implies that countries can develop new RCA in products that are not proximate as easily as in proximate products.

To assess these effects, we include density as well as the multiplications (i.e., interactions) between density and the education measures as explanatory variables in the regression. If more education reduces path dependence, then one should expect the coefficients of the interaction terms to be negative. And all regressions include measures of the quality of education of secondary school graduates to examine the role of differences in the quality of basic education.

We also include a measure of the "sophistication of the target product" to capture the idea that some products are more technologically advanced than others. We take the average quality of education in

economies that have an RCA in a product as a measure of the product's sophistication. For example, the PRC, the Republic of Korea, and the OECD countries dominate the global market for pressurized gas containers, and these economies all have highly educated workers. Therefore, we consider pressurized gas containers to be a sophisticated product. We include this sophistication measure on its own in the regression, and in interactions between it and the education variables (both quantity and quality). This permits us to assess whether it is more difficult to acquire RCA in sophisticated products, and whether education helps to overcome that barrier.

The empirical analysis compares two roles that education may play as countries seek to develop new RCA. The first role examined is whether education may substitute for experience in many related industries (i.e., substitute for density). The second role examined is education's ability to facilitate handling product sophistication (i.e., to overcome the hurdles presented by technological advancement). The rationale for this second possible role is that not all products have the same consequences for development: complex and well-connected products (i.e., products that are proximate to many others) facilitate the development of more and more widely applicable capabilities. In our data set of 1,240 products, 230 products are highly complex and well connected to other products, 232 lack complexity and connectedness, and 778 products are in between. By focusing on these three groups of products separately, our work uncovers differences in the role of education for developing RCA in products of differing significance for development.

Table 4.2 shows the results. The test of the first possible role of education is shown in the table's first two columns. The first column examines the relative role of the quantity and quality of education, and the second examines the role of primary, secondary, and tertiary education attainment. Beginning with the density-related terms, the coefficient on density alone is positive and statistically significant, indicating that the development of new RCA is a path-dependent process for a country with an average level of education.

Increasing the quality of education reduces the importance of density (and thus path dependence) for the development of RCA, regardless of how the quantity of education is measured. The interaction

with secondary education has the expected negative sign but it is only marginally statistically significant; the interaction with tertiary education is insignificant; and the interaction with primary education has a positive sign that is contrary to what we would expect. Thus, after controlling for the quality of education delivered by the end of secondary school, there is no evidence that increasing the quantity of education reduces path dependence. Moreover, based on these regression results, we could reject the possibility of teleportation for all countries.<sup>52</sup> The key findings are that the development of RCA is path dependent—that is, teleportation into the more desirable products is practically impossible—but high quality basic education, by imparting good math and science skills, reduces that path dependence.

These two regressions also show that product sophistication has no effect on the development of new RCA for a country with an average education supply. The small and marginally significant positive coefficient on

the interaction term between product sophistication and years of schooling suggests that countries with below average years of schooling may be at a slight disadvantage when attempting to export sophisticated products. Other than this, there is little evidence that education is especially important for learning to produce sophisticated products.

These results therefore indicate that a lack of experience in proximate industries is a more serious barrier to industrial development than is the technological sophistication of the target industry. These results suggest that the key role of education is not to help master advanced technologies, but to help a workforce learn to perform unfamiliar functions.

The test of the second role of education is shown in the last three columns. They reveal stark differences between the three types of products analyzed. Developing new RCA in the most desirable products (i.e., the most complex and best-connected ones) depends

Table 4.2 Education and revealed comparative advantage (2010)

Table 4.2 Education and revealed comparative advantage (2010)					
	All products (1,240), education effects proxied by		Product type		
	Years and quality of schooling	Years, quality, and level of schooling	Connectedness to other products and complexity		
			High (230 products)	Medium (778 products)	Low (232 products)
Dependent variable: RCA in 2010					
Considerations relating to density					
Density	0.961***	0.767***	1.431**	0.856**	0.682
Density x years of schooling	0.121		-0.255	0.188	0.188
Density x quality of education	-0.450***	-0.448***	-0.366	-0.483**	-0.272
Density x years of schooling x quality of education	0.074	0.300	0.316	0.051	-0.085
Density x primary attainment		0.660***			
Density x secondary attainment		-0.443*			
Density x tertiary attainment		-0.080			
Considerations relating to product sophistication					
Product sophistication	-0.041	-0.025	0.003	-0.034	-0.119*
Product sophistication x years of schooling	0.084**		0.104	0.071*	0.098*
Product sophistication x quality of education	-0.013	-0.001	-0.048	0.007	-0.053
Product sophistication x years of schooling x quality of education	-0.038	-0.045	-0.122	-0.045	0.092
Product sophistication x primary attainment		0.005			
Product sophistication x secondary attainment		0.051			
Product sophistication x tertiary attainment		0.511***			
Control Variable					
Initial RCA (1995)	0.511***	0.511***	0.430***	0.541***	0.543***
Sample size	67,741	67,741	12,474	42,582	12,685
R-squared	0.244	0.244	0.246	0.329	0.122

\* = statistically significant at the 10% level, \*\* = statistically significant at the 5% level, \*\*\* = statistically significant at the 1% level,

RCA = revealed comparative advantage.

Note: Ordinary least squares coefficients with robust standard errors. Largest samples are used in all cases. Product sophistication is measured as the average level of cognitive skills (our proxy for the quality of education) among countries that export the product with  $RCA > 1$ . All education variables have been scaled to have a mean of 0 and a standard deviation of 1.

Source: Authors.

strongly on how many nearby products a country already exports (i.e., density matters). Education, however, does not overcome this—no country in our dataset possesses enough educated workers with high quality education to teleport into the most desirable products (Box 4.1). In contrast, there is no significant evidence of path dependence for the least desirable products (i.e., density is statistically insignificant for this group). Calculations based on the figures in Table 4.2 imply that teleportation into the least desirable products is at least a possibility for all countries. In fact, the statistically significant coefficient of the “product sophistication” variable in the lower part of the table indicates that product sophistication is a barrier to learning how to produce these less desirable products. (That is within the group of low complexity and connectedness, the least sophisticated products are the easiest in which to gain comparative advantage.) But this is surmountable given a modest quantity of education (i.e., the statistically positive interaction between “product sophistication” and “years of schooling”). Products in-between display the same features as those in the wider sample.

**Box 4.1 The capabilities demanded by the most desirable products are only learned by doing**

Regression results in Table 4.2 indicate that countries are unlikely to learn to produce the most complex and well-connected products without first acquiring the requisite capabilities by producing similar goods. This suggests that workers cannot quickly acquire the types of knowledge that are truly important for producing such products, but must instead acquire it through learning by doing. Hyundai's efforts to produce a car, after Mitsubishi refused to provide assistance for fear of creating a rival, provide a clear example of why this might be the case:

“... Hyundai engineers repeated trials and errors for 14 months before creating the first prototype. But the engine block broke into pieces at its first test. New prototype engines appeared almost every week, only to break in testing. ..., casting serious doubts even among Hyundai management, on its capability to develop a competitive engine. The team had to scrap 11 more broken prototypes before one survived the test. There were 2,888 engine design changes. Ninety-seven test engines were made ....more than 200 transmissions and 150 test vehicles were created before Hyundai perfected them in 1992.”

Source: Kim (1997).

Together, these results suggest that teleportation into desirable products is unlikely, even with large amounts of education. Countries that wish to export the most desirable products must learn how to do so incrementally by producing a succession of products increasingly similar to the desired ones. Education seems to be helpful for adopting off-the-shelf technologies, as has long been suggested (Nelson and Phelps 1966), but this only works for the least desirable products.

## Discussion and implications

This analysis has several implications. First, while education is indeed helpful for industrial upgrading, its value seems to derive mostly from the fact that a better educated workforce is more capable than an uneducated one of rapid transitions from one product into another. We find limited evidence that the quantity of education alone is important for learning how to produce sophisticated products. Education is not very helpful for acquiring a target product unless a country already has an RCA in industries that export products that are somewhat proximate to the target. Second, if faster transitions across products are driven by better educated workers' higher capacity for rapid learning, then public–private partnerships can play a very important role in skills' development. The usual prescription from industry is that public education systems should deliver the specific skills that industries need. While this may indeed be helpful, the analysis in this section suggests that it is probably equally important for employers to provide educated workers with the right learning opportunities, so that they may use their education to rapidly acquire skills that they can take up the industrial ladder with them. The implications for policymaking, then, are that governments need to consider

- providing high quality basic education;
- supporting the industries that act as stepping stones to industrial development; and
- ensuring that these industries provide jobs that support continuing learning opportunities.

## Box 4.2 Where is the knowledge economy?

Much has been made of the recent importance of the “knowledge economy,” and the idea that a country’s human capital stock is crucial for its capacity to compete internationally and lift incomes. While knowledge and education have become increasingly important determinants of productivity in some activities, societies that are unable to lift education levels rapidly will need to know which types of activities are most likely to be constrained by low education levels. This box draws together census and labor force survey data from nine developing countries during 2006–2010 to investigate the issue.<sup>a</sup> The questions asked are: Is there a hierarchy of education levels across economic sectors? If yes, is that hierarchy similar across countries? Which sectors of the economy, as distinguished by high education levels, comprise the knowledge economy? and How large is the knowledge economy? Each sampled worker was assigned by economic activity to one of 15 sectors as defined for this investigation.<sup>b</sup> The percentage difference between each sector’s mean years of schooling and the national average was calculated, and the sectors of each country were ranked by the average years of its workers’ schooling. Using rank orderings eliminates the need to consider differences in schooling attainment across countries, allowing for a focus on the relative schooling by sector.

The Box Figure depicts the range of the ranking of each sector. The graph reveals a very clear hierarchy, and one that appears quite consistent across economies. Workers in the education sector have the highest or second-highest average years of schooling in every economy. Indeed, they average 59% more years of schooling than the national average. The financial sector is not far behind. Indeed, the graph shows that if the knowledge economy could be defined by sectors, it would include the top six sectors: education, finance, health and social work, government, real estate and business services, and utilities. These six sectors have the most educated workforces in each country studied. Workers in transport and communications, the next most educated sector, average 22% fewer years of schooling than those in the utilities sector. At the other extreme, construction, private household services, and agriculture are consistently ranked the four least educated sectors in all nine countries (i.e., 12th to 15th).

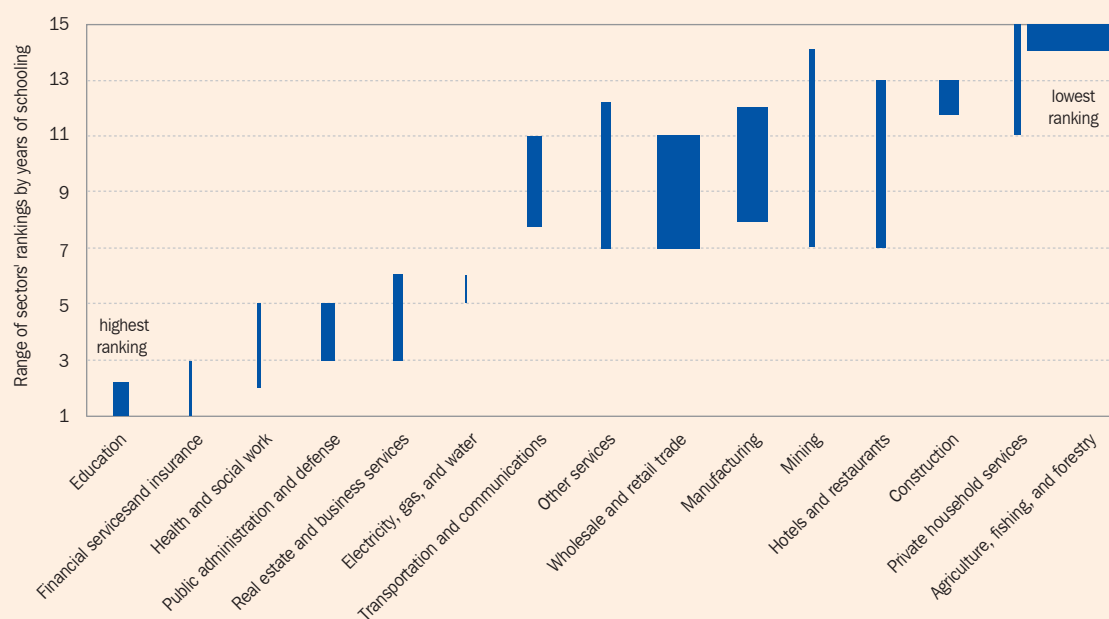
The six sectors with the most educated workforces share two defining features. First, they all produce services, not goods, and most of the services they produce are not widely internationally traded in the countries studied (the key exceptions here are, of course finance and business services). Second, none of the six sectors employ a large number of workers—together they employed 8%–20% of the workforce, depending on the country. Moreover, most of the employment in the top six sectors was in education or the public sector. This suggests that if the knowledge economy could be defined by sectoral education levels, it would involve a great deal of public employment.

What about manufacturing? Box Figure 1 shows that manufacturing workers rank 8th to 12th in the 15 sectors in terms of schooling, and average 7% more years of schooling than the national mean. In our country sample, Mexico and Viet Nam have the most educated manufacturing workforce, but their manufacturing workers have only 16% more years of schooling than the national average. Given that wages do not differ dramatically across industries at this level of aggregation,<sup>c</sup> these results indicate that demand for educated workers is not especially high in manufacturing. If education is crucial for international competitiveness in goods production, these results must indicate that (i) only the education of a minority of manufacturing workers matters (supervisors and managers, perhaps); or (ii) there are auxiliary services that are important for manufacturing competitiveness and that require high levels of schooling.

While this simple descriptive exercise offers little evidence that education alone is important for manufacturing success, the special chapter cautions strongly against over interpreting the result in this box. Knowledge and schooling are not the same thing. Much valuable knowledge is probably acquired on the job, and industries that produce manufactured and other tradable goods are important because they facilitate such learning-by-doing. The knowledge acquired in this way helps, in turn, to develop new industries, facilitating the creation of yet more knowledge. And this entire process is facilitated by an abundant supply of workers with high quality basic education.

*continued on next page*

## Box 4.2 Where is the knowledge economy? (continued)

Box Figure 1 How do sectors rank in terms of educational attainment?  
(1 = most educated sector, 15 = least educated sector)

Note: Width of the bars approximates the subsector's share of employment in total employment.

Source: Authors.

a Countries (and years) included in this study are: Cambodia (2008), Egypt (2006), El Salvador (2007), India (2010), Indonesia (2009), Mexico (2010), Peru (2007), the Philippines (2010), and Viet Nam (2009).

b Sectors vary widely in their share of employment in total employment. Agriculture's (mean) employment share is 38%, that of wholesale and retail trade is 15%, and that of manufacturing is 10%. The other sectors have much smaller shares.

c For a review of the literature on interindustry wage differentials in developing countries, see Mehta & Sun (2013).

Source: Authors.

## Priorities for structural transformation

This final section first summarizes the main patterns of ST in Asia during the last 4 decades. Second, it discusses priorities for Asia's economies and returns to the questions posed in the first section: What type of transformation is expected in the coming decades? How will this transformation happen? How fast will Asia continue changing?

### Key patterns of structural transformation in Asia

**Overall, Asia has made great progress.** During the last few decades, some Asian economies have undergone extraordinary, historically unprecedented structural changes, with the share of agriculture declining and the shares of industry and services increasing.

**But ST has been very heterogeneous and not all economies have moved in the same direction and at the same speed.** Only five economies—Hong Kong, China; Japan; the Republic of Korea; Singapore; and Taipei, China—have undergone deep ST and become modern industrial and service economies. Indonesia, Malaysia, Thailand, and even the PRC, have made significant progress but their transformation has not matched that of Japan and the NIEs.

Most other Asian economies are far behind: their shares of employment in agriculture are still high, shares of manufacturing employment are small and concentrated in the least technologically advanced subsectors, employment is shifting from agriculture into low-productivity services, and export baskets are not diversified and sophisticated. To progress, they will need to expedite ST in the decades ahead. Across Asia, over 40% of workers (more than 700 million people) are still employed in agriculture—more than in industry, at 23%, or services, at 33%. Agriculture is still the largest employer in most of the large countries—Bangladesh, the PRC, India, Pakistan, Thailand, and Viet Nam.<sup>53</sup> And in Bhutan, Cambodia, Georgia, India, Myanmar, Nepal, Papua New Guinea, Tajikistan, Vanuatu, and Viet Nam, agriculture's share of total employment exceeds 50%. In output terms, however, agriculture only contributes 11% to Asia's GDP. This difference in the employment and output shares implies that agriculture's labor productivity is well below that of the average of the economy.

**During the second half of the 20th century, Japan and the NIEs developed a sizeable manufacturing sector.** Manufacturing became significant both as a share of GDP and as a share of total employment, following a pattern similar to that of the advanced Western economies. In all these economies, manufacturing reached 25%–30% of both GDP and total employment at their peak, before deindustrialization set in. And they upgraded their manufacturing significantly (toward high-tech products) and deepened their industrial structures with increasingly diversified and complex export baskets.

**In many other Asian economies, manufacturing's share of GDP is high, but its share of total employment is below that achieved by the industrialized Western economies, Japan, and the NIEs.** Many Asian economies seem to have failed to industrialize in employment, and workers are shifting from agriculture into low-productivity services. For example, in India the largest sector of the economy is services, at 55% of GDP, while agriculture represents less than 20% of GDP. However, in employment terms, the numbers are almost reversed: 51% of employment is in agriculture and 26% is in services. Industry's shares are very similar: 26% for output and 22% for employment (while the shares of manufacturing are about 16% of GDP and barely 10% of total employment). The Philippines is also experiencing transformation from agriculture into services. Services make up the country's largest sector in both GDP and employment, accounting for over 50% of each. And the country's share of manufacturing in GDP (slightly over 20%) is significantly higher than the employment share (about 9%). In Thailand, agriculture remains a large employer (slightly less than 40% of total employment). Employment in manufacturing is about 15% of total employment but manufacturing's output contributes a very high 35% of GDP.

**Asia's service sector adds significantly to the region's GDP, but labor productivity tends to be low in the sector.** Services in Asia provide about 49% of the region's overall GDP, ahead of industry (40%) and well ahead of agriculture (11%). However, labor productivity in developing Asia's service sector is less than 20% of that in advanced economies. The low productivity partly reflects the dominant role of traditional service industries such as wholesale and retail trade, real estate,

and personal services. The share of modern services such as finance and business services in GDP is less than 15% of GDP in many economies, below the 20%–25% in advanced economies. Hence, it will be important to focus efforts on raising productivity in these sectors.

**In many Asian economies, within-sector productivity growth accounts for a larger share of overall labor productivity growth than does the reallocation of labor.** This finding is a salient feature of the region's ST during the last several decades. In some cases, this pattern of transformation is reflected in the transfer of labor out of agriculture into low-productivity services. Decomposition of labor productivity growth corroborates that the transformation is happening. The largest component of overall labor productivity growth in many Asian economies has been within-sector productivity growth. The reallocation of labor across sectors has played a smaller role. In India during 1974–2004, within-sector productivity growth accounted for 64% of total labor productivity growth, labor reallocation across sectors accounted for 19%, and the interaction between changes in labor productivity and changes in sectors' shares accounted for 17% (i.e., overall, labor shifted toward industries with fast productivity growth). The corresponding shares for the PRC are 59%, 32%, and 9%.

## The future of Asia's transformation

Agriculture will remain a large employer in many Asian economies in the coming decades. For this reason, industry needs to be promoted, upgraded, and modernized, and services will continue to provide increasing employment. The quality of education (proxied by the international science and mathematics test scores), rather than its quantity (number of years at school), matters for the diversification of the economic structure. Diversification is “path-dependent”—it takes place through a succession of small steps from unsophisticated to sophisticated products. The quality of education workers receive facilitates diversification and helps countries move into new territories. We have argued that it will be difficult for many Asian economies to undergo fast structural transformation in the next decades unless governments implement policies to speed it up.

### Low- and middle-income economies cannot neglect agriculture and its coming challenges

Agriculture is still the largest employer in the region, and will remain so in some economies for several decades, as agriculture's employment shares decline more slowly than its output shares. For example, in the PRC, agriculture's share of total employment is forecast to still be above 20% in 2040, and in India, above 30%. Agriculture will also continue to be an important source of labor for the other sectors of the economy and for the development of manufacturing, in particular agribusiness and food processing.

Low- and middle-income economies will have to dedicate significant effort to improve agricultural infrastructure, including agricultural extension services. In some economies, more equitable land distribution is pending, as past efforts suffered from implementation problems. Better infrastructure and more equitable land distribution are needed to ensure that agriculture provides food for the whole population, provides savings to channel into industry, helps mitigate the use of foreign exchange for imports, and facilitates an expanded market for manufactures.

In the coming decades, Asia's agriculture will face challenges from resource depletion, climate change, and market instability. So, in addition to the foregoing, Asia's agricultural output depends on putting to good use the new technologies (e.g., biofertilizers, biotechnology, and precision agriculture); making the transition into high-value products and to agribusiness; and linking to agricultural global value chains (GVCs).

### Manufacturing remains important and industrialization generally cannot be bypassed

**Manufacturing matters.** Historical analysis indicates that, with few exceptions, countries have been unable to achieve a high-income economy without having a significant manufacturing sector. We estimate that to be a high-income economy requires attaining a manufacturing output and employment share of 18% or more for a sustained period. If a country has industrialized both in output and in employment, the probability that it will become a high-income economy is 42%. But without reaching this industrialization threshold in output or employment, the probability is less than 5%. When combined with industrialization, the development of infrastructure, finance, education, and high-tech manufacturing contribute significantly to an economy achieving a high income.

Manufacturing matters because it drives R&D. Manufacturing's productivity growth is higher than that of most other activities of the economy and its modern functioning requires high-quality services such as business, legal, ICT, logistics, and finance. A low-income economy that does not have much experience producing sophisticated manufactures may reach middle-income status, but will face challenges to becoming a knowledge-based high-income country. The future of Asia's manufacturing will depend on the capacity to master technical progress; link firms to GVCs; and, very importantly, move up the value ladder. Technological advances in agriculture will lead to the decline in its share of total employment (historically a sign of development); and technical progress in manufacturing will make it harder to increase manufacturing's share of employment. All the evidence indicates that major technical advances in the coming decades will be highly labor saving. This will make it difficult for many Asian economies to achieve high shares of employment in manufacturing.

**Finding and nurturing niches, learning actively.** With the increasing importance of the GVCs, fragmentation of production will mean that countries do not have to develop complete products and services. Rather, they need to find niches in the value chain that match their comparative advantages. But this strategy will require active learning so that firms do not get stuck at GVC stages that add the lowest value, such as assembly. Asian firms need to move up to the stages that add more value—product design and marketing. Moving up also requires nurturing local knowledge, which plays a key role in capturing the gains of integration through GVCs. FDI does not necessarily include technology transfer to local firms and, therefore, may not be enough to help a country become a high-income economy, although it can help transform a low-income economy into a middle-income one.

### **The shift to services continues, with implications for all economies**

The trend to shift labor into services will continue, and ultimately services will be the largest sector in both output and employment. Thus, low- and middle-income Asian economies need to nurture niches in high-productivity services to ensure growth. They also need to make sure that enough employment is

created in other service areas so as to accommodate employment. Modern services such as business processes enjoy higher productivity, have greater potential for synergies with other sectors, and are more amenable to cross-border trade than traditional services such as barbershops. However, nurturing these niches will prove difficult for countries without a sophisticated and high-tech manufacturing sector, as modern, advanced services tend to complement manufacturing. This is also particularly important for the high-income Asian economies, where regulatory and peoples' skills bottlenecks are holding back service sector development. Excessive regulation that protects incumbent firms and other vested interests keeps markets less competitive and thus undercuts prospects for improved productivity and efficiency.

### **Basic education and the quality of education are key for diversification**

Education matters for industrial upgrading and, in general, for developing new industries that can compete internationally. As shown in the section on education, good quality primary education provides a sound basis for having a workforce capable of facilitating diversification. The analysis indicates that, together, the number of years of primary education and the quality of education have a significantly positive effect on diversification. Achieving primary universal education is therefore very important for low-income countries.

Increasing diversification (i.e., gaining comparative advantage in new products) is path dependent, but the way along the path is facilitated by good quality education. That is, countries that have already developed comparative advantage in some products will find it easier to export products that are proximate (i.e., similar) to the ones in which they already have comparative advantage. But the importance of path-dependence is attenuated by the quality of education. This means that the higher the quality of education, the easier it will be for a country to move on to products that are not so proximate. But efforts at teleportation, or leapfrogging—the opposite of path dependence—are unlikely to be successful. Thus, countries will find it very difficult to readily jump into exporting products that require capabilities very different from those they already have (e.g., from garments to turbines).

## Priorities for Asia's transformation in the coming decades

### Policies and institutions for transformation are country-specific

**There is no one-size-fits-all package of policies that countries can readily implement to develop certain industries.** Thus, we do not propose specific policy instruments in discussing priorities for Asia's structural transformation. There are very general policy recommendations, such as maintaining a stable macroeconomic environment, investing in infrastructure and human capital, assuring good governance, facilitating free trade, and supporting a good business environment—which should always be present and should accompany the implementation of more specific policies for transformation. The design and implementation of the more specific policies ought to be timed and sequenced carefully, and to be country-specific.

**To expedite economic transformation, government interventions to address market failures (as well as necessary reforms), will be important.** In many developing countries public sector action is required to remedy market failures such as insufficient provision of public goods (e.g., education and infrastructure), information and coordination problems, or externalities. Without public action, the market may not sufficiently provide certain goods and/or services of high social value. Direct government intervention in selected sectors and promotion through specific measures such as tax incentives and subsidies can help expedite ST, but the success of these interventions is controversial. Across the world, some of these interventions have succeeded, while others have failed. The success of such interventions depends on many factors, including policy design and supportive institutions, which are also country-specific. Thus, industrial policy is a high-return, high-risk venture. Today, many advanced economies rely on some element of government intervention to support venturing into new industries. The key question is not whether government action is needed, but how to design and implement the action so as to avoid problems such as, for example, rent seeking. Proper implementation of interventions requires putting in place risk management capacities and institutions prior to the activity, (e.g., at the budget level); during it (i.e., monitoring mechanisms); and after, to disseminate

lessons and make any needed corrections (e.g., evaluation).

### Different economies merit different priorities

The chapter's main findings suggest different priorities for different country profiles.

- Economies that still have significant shares of their employment in agriculture (such as Bangladesh, the PRC, India, Pakistan, or Thailand) need to speed up the transition of labor from agriculture into manufacturing and services. At the same time, these economies will have to industrialize the countryside so that agriculture can catalyze industrial development. Agriculture will not move much further in these economies until enough jobs are created in manufacturing and services to absorb surplus labor from agriculture. Then agricultural productivity will increase and, consequently, so will rural wages. India has to move forward with its manufacturing program (increase the share of manufacturing in the economy and create jobs in the sector). India also needs to address the distortions in the land market, i.e., change the land acquisition law for public use. The change is needed to expedite infrastructure investment, which is essential for the expansion of manufacturing (as well as housing and retailing). For several decades, investment has been tilted toward the capital-intensive industries at the expense of the labor-intensive industries. Indeed, in India, a high percentage of land titles are unclear. Land ownership is a prerequisite for investors to set up a factory.
- Economies that have failed to industrialize in employment (e.g., Bangladesh, India, Pakistan, and the Philippines) and are undergoing a transition from agriculture into low-productivity services need to reassess the importance of industrialization. An advanced and sophisticated manufacturing sector is key for developing advanced complementary services sectors (e.g., logistics, transport, and finance). Such countries may wish to consider continuing to develop these more productive segments of the service sector, while not neglecting manufacturing. In this sense, the Philippines needs to complete and implement successfully its manufacturing roadmap.

- For the upper middle-income Southeast Asian economies (e.g., Malaysia and Thailand) and the PRC, which have developed manufacturing and are quite diversified, the challenge is how to upgrade. These economies have developed the institutional capacity to diversify, but they need industrial deepening and upgrading. They will need to develop domestic capacities to compete internationally and to double their efforts to localize technologies embodied in FDI. In Thailand, investment in high-quality education is essential to upgrade its manufacturing sector. For the PRC, the challenge is how to expand local capabilities to innovate and to develop technologies, rather than to continue relying on FDI.
- Small, low-income economies (e.g., Cambodia and Nepal) that depend heavily on labor-intensive manufacturing (e.g., textile, apparel, leather, furniture, and toy industries) could usefully consider focusing on providing an investment-friendly environment to facilitate the transfer of labor-intensive industries from more advanced Asian neighbors, and to link them to GVCs. Promoting agricultural productivity will be essential for this transition, and the transition will contribute to the improvement of labor productivity.
- Small island economies (e.g., in the Pacific) may have to bypass industrialization. For them, the future lies in developing competitive niches within services.
- Economies rich in natural resources (e.g., Kazakhstan) need to overcome the challenges of managing them properly. High natural resource prices can dampen incentives to diversify the manufacturing base. Moreover, such countries need adequate macroeconomic and exchange-rate policies. The diversification of the economy has to be a gradual, medium-term objective, as it will be difficult to become a high-income economy while depending almost exclusively on natural resources.

## Endnotes

- 1 If a sector's employment share is larger than its output share, then labor productivity in the sector is below the average of the economy.
- 2 Asia's NIEs are Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China. Japan; the Republic of Korea; and Taipei, China underwent transformation from agriculture into industry and then services. Singapore and Hong Kong, China—small open economies with minimal agriculture—transformed from being ports to manufacturing centers, and then on to offshore financial centers.
- 3 The recent literature on structural transformation argues that the products and/or services that a firm produces reflect the set of capabilities that it possesses. Capabilities are intangible, firm-specific, locally-situated, and experience-based knowledge assets. They encompass all the tacit knowledge necessary to produce a good or deliver a service—human abilities, technology to ensure sustained growth, and firm-level “know-how,” and working and organizational practices held collectively by the group of individuals comprising the firm. The competitiveness of a productive sector ultimately depends on its firms' ability to accumulate technological capabilities in a changing environment. Technology refers to knowledge about raw materials, machines and equipment, engineers and skilled workers, technology management, and markets for technology. Know-how includes the communication, organization, and coordination abilities that provide the capacity to form, manage, and operate activities that involve large numbers of people. These practices are particularly important for developing countries, where they are often in short supply. Chen et al. (2012), Hausmann et al. (2011); Khan (2013); Sutton (2005); Vértessy and Szirmai (2010).
- 4 Japan is a different case. To understand its experience in catching up with the West, one needs to look before the period of fast growth after World War II. Japan's progress started with the Meiji Restoration (1868), when the government abolished the old social class system and committed itself to building an industrialized country under the slogans “promotion of industry” and “prevention of imports.” Part of what happened after the war was a recovery to prewar levels (Hayashi 1990).

5 Industry has been the largest employer in Asia only once, in Hong Kong, China, in 1980.

6 Minami (1994) notes that the Meiji Restoration abolished the old class system and allowed farmers to move from place to place, as well as to move into commerce and industry. During 1876–1880, 59,000 people per year, and during 1881–1885, 73,000 people per year, moved from primary to other industries. The government tried to stimulate agricultural production by transplanting Western agricultural technology, but this failed, except in Hokkaido. In the densely populated country, capital intensive, labor-saving methods could not take root, and farmers continued to use traditional methods. Minami argues that agriculture had expanded considerably before industrialization took place and that growth continued into the early period of industrialization. This was instrumental for Japan's success. Minami highlights that this is also true in the case of the United Kingdom.

7 We have estimated the elasticities of the shares of agricultural output and employment with respect to income per capita (in constant United States dollars of 2000). The estimated elasticities are  $-0.68$  for output and  $-0.47$  for employment (regressions include time and country fixed effects). However, the squared term of income per capita is statistically significant, indicating that the elasticities vary with the level of income per capita (and hence by country). Logarithmic regressions of the share of agriculture (in GDP and in total employment) on GDP per capita and GDP per capita squared (and both time and country fixed effects) yield the following results:

$\ln(\text{output share}) = 1.39 + 1.20 \cdot \ln(\text{GDP per capita}) - 0.13 \cdot [\ln(\text{GDP per capita})]^2 + \sum_i^N \hat{\alpha}_i D_i + \sum_t^M \hat{\beta}_t D_t$ , where  $D_i$  and  $D_t$  are country and time dummies, respectively. No. of observations: 5,076;  $R^2 = 0.76$

$\ln(\text{employment share}) = -3.26 + 2.27 \cdot \ln(\text{GDP per capita}) - 0.18 \cdot [\ln(\text{GDP per capita})]^2 + \sum_i^N \hat{\alpha}_i D_i + \sum_t^M \hat{\beta}_t D_t$ , where  $D_i$  and  $D_t$  are country and time dummies, respectively. No. of observations: 2,403;  $R^2 = 0.50$ .

The output elasticities vary from  $-0.19$  for Nepal to  $-0.93$  for Malaysia (at current income per capita). For employment, they vary from about

$-0.10$  for countries like Bangladesh, India, Kyrgyz Republic, and Nepal to  $-0.69$  for Malaysia (at current income per capita).

8 Taipei, China seems to have reached the point at which the shift from labor surplus to labor shortage in agriculture is reflected in rising agricultural wages (the "Lewis turning point") in the 1960s and the Republic of Korea in the 1970s. Ranis (2012) suggests that the PRC reached the turning point around 2000, but Indonesia had not yet reached it then, and Bangladesh and India are still in the surplus labor stage. Several studies using wage trends argue that the PRC has passed the Lewis turning point, but other studies using other information (production functions, employment data) or applying more controls (e.g., worker characteristics) indicate that the turning point is yet to be reached. Institutional restrictions on rural–urban migration are imposing local scarcities, which account for recent wage increases. Nevertheless, the critics concur that the turning point is fast approaching.

9 World Bank (2003) defines agribusiness as manufacturing activities closely related to agriculture: food and beverage, cotton ginning, tobacco processing, leather processing, woodworking, fertilizer manufacturing, agrichemical production, and agricultural machinery production, as well as the imputed component of food-related trade (based on the share of food in household expenditure) and transport and logistical services (based on the average of the food expenditure share and the share of agriculture and food in total exports). Data were obtained from FAOSTAT, World Bank WDI, and UNIDO databases. Other countries' shares reported by the World Bank (2003) are Argentina (29%), Brazil (30%), Cameroon (17%), Chile (34%), Cote d'Ivoire (26%), Ethiopia (30%), Ghana (19%), Kenya (23%), Mexico (27%), Nigeria (16%), South Africa (16%), Tanzania (21%), Uganda (23%), United States (13%), and Zimbabwe (21%). Balisacan et al.'s (2011) definition is different. The initial list of agribusiness subsectors was obtained from the official Philippine 240-sector input–output table. This list was narrowed down by eliminating subsectors below a cutoff (based on a composite indicator equal to a weighted average of the subsector's input–output

coefficient, its employment share, and its share in gross value added). Agribusiness subsectors include milling industries, food preservation, processing of agricultural raw materials, wood industries, jewelry and related articles, other rubber product manufactures, wood carving, restaurants, and wholesale and retail trade. Sample weights from a contemporaneous survey of business establishments conducted by the Philippine National Statistics Office were used to aggregate the value added of the final list of subsectors. Disaggregated information from the same survey was also used to estimate the agri-related component of wholesale and retail trade.

- 10 Because Timmer (1988) only provided a qualitative description of the four stages, there is an element of subjectivity in our assessment.
- 11 A least squares regression indicates that output per agricultural worker in Thailand is only 21% of what is expected given its level of per capita income, that of the PRC is only 19%, and those of Indonesia and India are only 50%. In contrast, Malaysia is close to its predicted level of output per agricultural worker (97%), as is the Philippines (92%).
- 12 The term “Factory Asia” is used to refer to both the significant increase since the 1990s in the world’s share of manufacturing value added that comes from Asia and the model of regional production networks connecting factories in different Asian economies, especially firms in East Asia (ADB 2013).
- 13 In the analysis of deindustrialization, Rowthorn and Ramaswamy (1997, 1998) focus exclusively on the employment aspect. Tregenna (2009), however, argues that this is incomplete and that a proper analysis of deindustrialization should also consider the decline in manufacturing output.
- 14 These turning points are derived from regressions of the logarithm of the manufacturing output and employment shares (of GDP and total employment, respectively) on the logarithms of income per capita (in constant US dollars of 2000), income per capita squared, population, the interaction between income per capita and population, and the trade ratio. Results are (all variables are statistically significant at the 5% confidence level):

$$\ln(\text{output share}) = -2.99 + 0.58 \ln(\text{GDP per capita}) - 0.04 [\ln(\text{GDP per capita})]^2 + 0.10 \ln(\text{population}) + 0.18 \ln(\text{trade ratio}) + 0.01 [\ln(\text{population}) \ln(\text{GDP per capita})].$$

No. of observations: 4,632;  $R^2 = 0.32$

$$\ln(\text{employment share}) = -7.64 + 1.82 \ln(\text{GDP per capita}) - 0.09 [\ln(\text{GDP per capita})]^2 + 0.17 \ln(\text{population}) + 0.06 \ln(\text{trade ratio}) - 0.01 [\ln(\text{population}) \ln(\text{GDP per capita})].$$

No. of observations: 5,542;  $R^2 = 0.30$

The statistically significant negative sign of the GDP per capita squared term (i.e.,  $[\ln(\text{GDP per capita})]^2$ ) in both regressions shows that the relationship between the share of manufacturing and income per capita follows an inverted U-shape, that is, the share increases up to a maximum and then starts declining.

- 15 Deindustrialization in these economies need not respond to the same causes. For example, Tregenna (2009) argues that the Republic of Korea’s employment deindustrialization resulted from falling labor intensity in manufacturing (that is, the number of jobs in the sector fell as productivity increased, as a result of improved skills or technology), while the manufacturing sector was growing in real terms and increasing its share of GDP. Hong Kong, China’s deindustrialization, however, resulted from a decline of the manufacturing share in GDP, and manufacturing shrank in real terms. See also Dasgupta and Singh (2006).
- 16 Significant data problems must be noted: (i) World Bank (WDI) and UNSTATS data differ for countries such as Bhutan, the Lao PDR, Mongolia, Tajikistan, Turkmenistan, Uzbekistan, and Viet Nam. For consistency with other data, we use the World Bank’s database. (ii) We only include economies with populations above 2 million that are not high income. (iii) We do not include informal employment because we do not have reliable data. In some cases, e.g., India, the manufacturing share of employment, including both formal and informal sectors, is likely to be significantly higher than the data indicate. (iv) The Central Asian republics may have achieved high employment shares while they were part of the Soviet Union, given the pretransition bias

- toward heavy industry. If this is the case, these economies have undergone deindustrialization that should be interpreted as transition-induced corrections for the distortions of industrial planning.
- 17 Table 2.3 shows that the PRC's output peak was reached in 1978, at 40.5% of GDP. In evaluating this very high share, it must be noted that the PRC did not follow the Western accounting at the time, with the consequence that services were underestimated. A large part of the economy's output was manufacturing products under nonmarket conditions
- 18 The manufacturing sector was the largest contributor to the within effect in Hong Kong, China; Indonesia; the Republic of Korea; and Japan. In India, Singapore, and Taipei, China, services was the largest contributor also to the within effect. In Thailand and the Philippines, agriculture was the largest contributor. And in Malaysia, it was public utilities, mining and quarrying, and construction. In Indonesia, public utilities, mining and quarrying, and construction was the largest contributor to the between effect; and in Hong Kong, China, services was the largest contributor to the between effect.
- 19 The work of Hidalgo et al. (2007) and Hausmann et al. (2011) is summarized in a tool called the Product Space. A visual representation of the product space is available at <http://www.chidalgo.com/Papers/HidalgoKlingerBarabasiHausmannScience2007.pdf>.
- 20 The terms "diversification" and "concentration" are not direct opposites of each other. Consider countries A and B. Country A exports 10 products, each with a global market representing a 0.1% share in world trade. Country B exports 9 products (like those of country A) plus oil, which alone represents 5% of world trade. In this case, both countries are equally diversified, but B's exports are more concentrated than those of A. This is not because B has specialized, but because oil is a product with an outsized world market. A true measure of diversification should control for differences in market size, for example, by using the index of revealed comparative advantage in per capita terms (Box 2.6), as we do here. If this control is not done, differences may emerge solely because countries have export baskets composed of products with different market sizes.
- 21 This is because India is not a top exporter (about \$238 billion in 2010 compared to the PRC's \$1.77 trillion) and therefore it is penalized by the calculation method of RCA(pop). Nevertheless, India has developed substantial capabilities in high-tech areas. On these two economies, see Felipe, Kumar, and Abdon (2013); Felipe, Kumar, Usui, and Abdon (2013).
- 22 An industry definition that embraces the production of goods and of services (such as financial, information, and communications technology; logistics; and business services) is already used in the Netherlands (Aiginger 2007).
- 23 See also Ray et al. (2013) for a recent analysis of yields of major crops (maize, rice, wheat, and soybean) forecasts for 2050. Although crop yields will have to increase to meet projected demands from rising population, diet shifts, and increasing biofuels consumption, they project yields that, in general (with variations across countries, areas, and crops), are lower than those required to meet demand.
- 24 Examples are Australia, output share=2.28%, employment share=3.30%; Canada, output share=1.91%, employment share=2.40%; France, output share=1.76%, employment share=2.90%; Netherlands, output share=1.96%, employment share=2.80%; and the United States, output share=0.88%, employment share=4.20%.
- 25 The other related (conditional) probabilities of being a high-income economy in 2010 are as follows: (i) 29% (23/80), if it has industrialized only in output; (ii) 40% (24/60), if it has industrialized only in employment; (iii) 7% (2/29), if it has not industrialized in output; and (iv) 2% (1/49), if it has not industrialized in employment. This implies that the probability of an economy not being a high-income in 2010 if it has not industrialized in employment is almost 100%.
- 26 The model is based on the following regression:  $P[Rich_i = j] = \alpha + \beta * Industrialization_i + \Phi'Z_i + \varepsilon_i$ , where  $\varepsilon_i \approx N[0,1]$ , where  $Z$  is a vector of control variables.
- 27 The probit regression cannot be estimated for the manufacturing employment share because every economy other than the United Arab Emirates that has industrialized in employment was at a high-income level in 2010. This leads to numerical

- breakdown (specifically, the maximum likelihood estimate of “industrialization in employment” does not exist) if one tries to estimate the regression. Except for the United Arab Emirates, every economy that has industrialized in employment is a high-income economy (i.e., industrialization in employment is sufficient to become high income). In contrast, three high-income economies did not industrialize in output: Israel, Kuwait, and the United Arab Emirates (not included in Table 3.1 for lack of employment data). That there are three economies now eliminates the numerical breakdown that occurs with employment. The coefficients on the additional (to industrialization) right-hand side variables are not simply identified off these three economies, but also off the 63 economies (out of the 137) that industrialized in output but did not become high income.
- 28 Each regression contains only two right-hand side variables. The reason for including only one additional regressor (at a time) together with industrialization is that adding additional variables creates a numerical problem when one has near perfect prediction. Only a handful of economies that failed to industrialize in terms of output became high income. Under these circumstances, adding more than one additional explanatory variable that is highly correlated with being high income creates a technical problem: when the included explanatory variables become nearly perfect at predicting that a country will not be high income, it becomes impossible to calculate the regression coefficients. We therefore compare the explanatory power of each additional variable by including them one at a time.
- 29 Now (with 137 countries) the conditional probability of becoming a high-income economy if the country has industrialized in output is 25.9% (29.17% before: see endnote 25). And the conditional probability of becoming a high-income economy if the country does not industrialize in output is 5.8% (10.71% before: see endnote 25).
- 30 Biosensor technology detects contaminants very quickly, even at very low concentration. Precision agriculture is about monitoring the status of agriculture land in terms of nutrition status and vegetation health using satellite images and unmanned aerial vehicles.
- 31 Cowen (2011) and Gordon (2012) offer a contrarian view. They argue that the world has been in a state of technological stagnation since the 1970s, when the effects of the second Industrial Revolution (1870–1900) were exhausted.
- 32 Both Cowen (2011) and Friedman (2011) argue that none of the technologies developed during the last decade has been truly transformative. Friedman (2011) argues that the world will not see major breakthrough technologies until the 2020s and beyond.
- 33 McKinsey (2013) also notes that other technologies have potentially disruptive effects, including next generation nuclear fission, fusion power, carbon sequestration, advanced water purification, and quantum computing.
- 34 The network trade index (NTI) is defined as the share of country  $j$  in country  $i$ 's parts and components imports in sector  $s$ , weighted by the share of sector  $s$  in  $i$ 's total final goods exports. Individual NTIs are then aggregated across sectors as a geometric average of the sector NTIs. To generate a single NTI, Ferrarini takes the average value of the NTIs for each country pair, i.e., from  $i$  to  $j$  and vice-versa. Network relations with NTI values below 0.05 are dropped. This leads to 192 links in total.
- 35 Input–output analyses only consider manufacturing processes. This means that marketing, R&D, retailing, and other nonmanufacturing processes are excluded from the analysis. However, a large share of value added is created in these downstream segments (e.g., of the iPad value chain), located in developed countries.
- 36 An additional reason for the different results is the higher level of aggregation in Oikawa's study: major subsectors as opposed to products. For example, the iPad belongs to “other electronic products” in Oikawa's work. This subsector includes various types of products, and the aggregate analysis may mask important differences across products.
- 37 Despite the seemingly ideal environment for continued upgrading, the Penang electronics firms do not appear to be moving significantly along the value chain toward research, product development, and design. The cluster has not nurtured firms such as Acer, Asus, Hon Hai, Hyundai, LG, TSMC, and Samsung to create a

domestic research infrastructure to support value-added upgrading and diversification. Overall, R&D skills in Malaysia are in short supply, and the innovation system, both local and national, remains weak, so that Penang's firms lag behind those in Singapore and Taipei, China. Penang's firms maintain a high density of assembly and product manufacturing and very low density in high value-added activities. Henderson and Philips (2007) argue that the state's efforts to ensure abundant resources for businesses may have had the perverse effect of constraining upgrading. This refers in particular to the state's implicit guarantee of a labor surplus, achieved by bringing workers from Bangladesh, Indonesia, and Nepal. Samel (2012) argues that the reason local firms do not upgrade is they have adapted to the ups and downs of the semiconductor market. They are comfortable in their niche, are content with the profits they earn, and do not have an incentive to upgrade.

38 McKinsey (2012) estimates that 30%–50% of manufacturing jobs in advanced economies are service-type functions. McKinsey also estimates that about 4.7 million service sector jobs in the United States depend on business from manufacturing. This means that total manufacturing-related employment in the United States is over 17 million people, substantially above official data of slightly above 11 million employed in manufacturing. And the PRC's manufacturers created demand for \$50 billion in services, while its service companies created demand for \$600 billion in manufactured goods inputs (McKinsey 2012).

39 Nordås and Kim (2013) provide estimates of the service intensity of manufacturing calculated using the OECD input–output tables. However, unlike us, they just calculate the share of intermediate services in gross output and in value added. Therefore, they only take into account direct intermediate services and disregard all indirect effects.

40 The calculations for Figure 3.1 are very similar to those in Box 3.1, with one crucial difference. In the latter, we calculated the effect of a \$1 increase in final demand on gross output. Here we calculate the effect of a \$1 increase in final demand on value added. So, the difference is between gross output and value added. The classic definition of a backward multiplier (Box 3.1) is in terms of

gross output. Here, we use value added because of the property that every \$1 increase in final demand in a sector leads to exactly \$1 increase in value added, seen from the point of view of the global economy.

41 In terms of the input–output tables, the labor productivity effect is the part of the overall change in industry *i*'s employment share attributed to changes in labor requirements (the inverse of labor productivity) per unit of gross output, between periods 0 and 1. The GVC effect gives the contribution of changes in the Leontief inverse, as this matrix measures the linkages (multipliers) between the different sectors in different countries. The final demand effect represents the part of the change in the industry *i*'s employment share that can be attributed to changes in final demand. This can be further subdivided into domestic final demand and foreign (exported) final demand.

42 If the labor productivity effect has a positive sign in a particular sector, it means that the sector has slow productivity growth, and hence needs a larger share of total employment to fulfill demand. Since this is a decomposition of the shares, and we keep the global value chain and final demand effects constant, this factor need not always be negative. What matters for changes in the employment share is whether the productivity change in the industry is above or below the average productivity effect in the country. Hence we will always see some sectors with a positive labor productivity effect and others with a negative effect.

43 There are well-known problems measuring productivity in services. Using local currencies, we have calculated productivity levels for manufacturing and the four service subsectors considered for 11 Asian economies: the China, People's Rep. of; Hong Kong, China; Indonesia; India; Japan; Korea, Rep. of; Malaysia; the Philippines; Singapore; Thailand; and Taipei, China. Results indicate that finance, real estate, renting, and business (FRB) services is the subsector with the highest productivity in 7 of the 11 economies considered; and in most cases, by a wide margin. In the Philippines, labor productivity in manufacturing is significantly higher than in services, but labor productivity in all subsectors has been flat. In Japan and the Republic of Korea, the subsectors with the highest productivity

- are manufacturing and transport, storage, and communications. But somewhat surprisingly, in these two countries, FRB is the least productive sector today (in Japan for quite some time). Finally, the productivity of India's FRB subsector suffered a serious setback in 1991 (but it remains the subsector with the highest productivity level), and Indonesia's and Thailand's productivity in FRB also suffered a severe decline in 1997–1998.
- 44 Triplett and Bosworth (2004) and Inklaar et al. (2006) have also questioned Baumol's theory on empirical grounds; and Oulton (2001) argued on theoretical grounds that if the stagnant sectors produce valuable and efficient intermediate inputs (e.g., business services), then aggregate productivity growth may rise rather than fall.
- 45 The innovation that takes place within traditional services is of very different nature. It tends to be more related to organizational changes and new ways of providing the service, e.g., by taking care of the needs of the clients. One example is Starbucks coffee shops, which changed the concept of "having a coffee," by providing consumers with Wi-Fi connection and merchandising.
- 46 In doing so, we assume that the employment effects that are attributed to the demand categories are proportional to the production shares. This means that labor productivity does not differ between the demand categories (i.e., firms that export are not more productive than firms that do not). Then we attribute all employment associated with derived demand (i.e., the GVC effect) to the direct demand category (foreign or domestic) that is ultimately associated with this derived demand (i.e., we trace where the direct demand for a product that used paper originated, e.g., the car industry in a foreign country, or the domestic chemical industry). In terms of the PRC paper industry example, note that ¼th of total employment (corresponding to 1/2 million tons of the 2 million tons of paper, as we assume that labor productivity does not differ across types of demand) is associated with derived demand. Our method attributes this to either foreign or domestic final direct demand through the GVC of intermediate deliveries in the world input–output tables (Timmer 2012).
- 47 Years of schooling and attainment data are drawn from Barro and Lee (2010). Cognitive scores come from (Hanushek and Woessmann 2008).
- 48 One important caveat on these results is that they do not control for the quality of tertiary education. Given the wide variety of intellectual and pedagogical objectives that tertiary education of different types serve, it is not clear what such a variable should measure, and, anyway, no international measures of college quality exist.
- 49 Recall the measure of RCA used in Section 2 (Box 2.6), which is slightly different because it takes into account a country's size (population).
- 50 The years of schooling variable is imputed from the completion rates, so these two different measures of education quantity cannot be included in a regression simultaneously.
- 51 Formally, proximity between products A and B is defined as the minimum of the two conditional probabilities  $P(A|B)$  and  $P(B|A)$ ; where  $P(A|B)$  is the conditional probability that a country exports product A given that it exports product B (and vice versa for  $P(B|A)$ ). For example if 20 countries export computers (product A), 24 countries export wine (product B), and 8 export both, then  $P(A|B)=8/24$  and  $P(B|A)=8/20$ . Therefore, the proximity between computers and wine is  $8/24=0.3$ . We choose  $P(A|B)$  so as to minimize the number of false positives.
- 52 To be precise, teleportation means that the expected change in RCA in a product is independent of which other products the country is already exporting with RCA. Technically, we reject the possibility of teleportation if zero lies outside the 95% confidence interval of the derivative of the regression equation with respect to density. Such a rejection does not mean that a country cannot jump into a particular far-away product. It simply means that, statistically, it will find it easier to take on products that are more proximate. Singapore is the exception, i.e., teleportation is possible. This is because it has a labor force of high quality, so that the country will find it as easy to take on products similar to those it is already exporting with comparative advantage as to taking on products that are very different.
- 53 We noted earlier that in the latest revision of the World Development Indicators, Thailand's largest employer is not agriculture, but services (World Bank WDI).

## Appendix

Appendix Table A1 Output and employment shares of agriculture, industry, and services

Subregion and economy	Initial year						Final year					
	Output share			Employment share			Output share			Employment share		
	A	I	S	A	I	S	A	I	S	A	I	S
<b>Central Asia</b>	<b>24.3</b>	<b>35.6</b>	<b>40.1</b>				<b>9.0</b>	<b>44.5</b>	<b>46.5</b>	<b>37.1</b>	<b>18.5</b>	<b>44.4</b>
Armenia							19.5	36.0	44.5	44.2f	16.8f	39.0f
Azerbaijan							5.8	64.7	29.5	38.6	12.9	48.5
Georgia	24.3a	35.6a	40.1a				8.4	23.2	68.4	53.4	10.4	36.2
Kazakhstan							4.8	42.3	52.9	30.2f	18.9f	50.9f
Kyrgyz Rep.							20.7	28.0	51.3	34.0f	20.6f	45.4f
Tajikistan							21.3	22.0	56.7	55.7c	18.0c	26.3c
Turkmenistan							12.0	54.0	34.0			
Uzbekistan							19.5	35.4	45.1	41.4c	20.8c	37.8c
<b>East Asia</b>	<b>11.7</b>	<b>40.6</b>	<b>47.7</b>	<b>61.2</b>	<b>20.5</b>	<b>18.3</b>	<b>5.4</b>	<b>36.4</b>	<b>58.2</b>	<b>35.3</b>	<b>26.7</b>	<b>38.0</b>
<b>East Asia (excludes Japan)</b>	<b>28.6</b>	<b>43.4</b>	<b>28.0</b>	<b>67.2</b>	<b>18.7</b>	<b>14.1</b>	<b>8.2</b>	<b>43.6</b>	<b>48.2</b>	<b>38.7</b>	<b>27.3</b>	<b>34.0</b>
China, People's Rep. of	32.4	45.7	21.9	68.7a	18.2a	13.1a	10.1	46.7	43.2	39.6	27.2	33.2
Hong Kong, China	1.7	33.5	64.8	1.4a	50.2a	48.4a	0.1g	7.4g	92.5g	0.2g	12.4g	87.4g
Japan	4.6	39.4	56.0	10.4a	35.4a	54.2a	1.4g	26.7g	71.9g	3.7	25.6	70.6
Korea, Rep. of	27.1	29.3	43.6	34.0a	29.0a	37.0a	2.5	39.3	58.2	6.6	17.0	76.4
Mongolia	16.7a	25.0a	58.3a				16.2	37.5	46.3	40.0g	14.9g	45.1g
Taipei, China	7.6	45.8	46.6				1.7	32.1	66.2	5.2	35.9	58.9
<b>The Pacific</b>	<b>24.8</b>	<b>19.8</b>	<b>55.4</b>				<b>28.0</b>	<b>31.7</b>	<b>40.3</b>	<b>71.1</b>	<b>4.3</b>	<b>24.6</b>
Fiji	25.6	22.3	52.1				12.1	19.7	68.2			
Kiribati	20.7a	9.0a	70.3a				28.6	9.5	61.9	2.8c	7.4c	89.8c
Papua New Guinea	31.4	30.1	38.5				35.8	44.8	19.4	73.3c	3.7c	23.0c
Samoa							9.8	28.2	62.0	40.6	20.0	39.4
Solomon Islands							38.9	6.1	55.0			
Timor-Leste							25.8	18.5	55.7			
Tonga							20.3	17.8	61.9			
Vanuatu	21.0a	7.5a	71.5b				19.7g	9.9g	70.4g	61.4g	7.1g	31.5g
<b>South Asia</b>	<b>37.1</b>	<b>22.3</b>	<b>40.6</b>	<b>70.1</b>	<b>12.1</b>	<b>17.8</b>	<b>19.2</b>	<b>26.3</b>	<b>54.5</b>	<b>49.8</b>	<b>21.5</b>	<b>28.7</b>
Afghanistan							29.9	22.2	47.9			
Bangladesh	31.6a	20.6a	47.8a				18.5	28.5	53.0	48.1c	14.5c	37.4c
Bhutan	43.5a	14.5a	42.0a				18.7	43.2	38.1	65.4g	6.4g	28.2g
India	38.0	22.5	39.5	72.4a	11.0a	16.6a	19.0	26.3	54.7	51.1	22.4	26.5
Maldives							3.1	14.5	82.4	12.0d	25.4d	62.6d
Nepal	71.8	8.1	20.1				36.1	15.4	48.5	65.8c	13.4c	20.8c
Pakistan	32.0	23.4	44.6	52.8a	20.3a	26.9a	21.2	25.4	53.4	44.7f	20.1f	35.2f
Sri Lanka	30.4	26.4	43.2	48.9a	19.9a	31.2a	12.8	29.4	57.8	33.5	25.8	40.7
<b>Southeast Asia</b>	<b>27.2</b>	<b>32.2</b>	<b>40.6</b>	<b>56.8</b>	<b>13.8</b>	<b>29.4</b>	<b>12.4</b>	<b>41.6</b>	<b>46.0</b>	<b>39.6</b>	<b>18.8</b>	<b>41.6</b>
Cambodia							36.0	23.3	40.7	72.2f	8.6f	19.2f
Indonesia	30.2	33.5	36.3	56.5a	13.1a	30.4	15.3	47.1	37.6	38.3	19.3	42.40
Lao PDR							33.0	30.2	36.8			
Malaysia	28.8	34.0	37.2	37.2a	24.1a	38.7a	10.6	44.4	45.0	13.5g	27.0g	59.5g
Myanmar	47.1	10.7	42.2	67.1a	9.8a	23.1a	36.4	26.0	37.6	62.8c	12.0c	25.2c
Philippines	30.3	35.0	34.7	51.8a	15.4a	32.8a	12.3	32.6	55.1	35.2g	14.5g	50.3g
Thailand	26.9	25.8	47.3	70.8a	10.3a	18.9a	12.3	44.7	43.0	41.6g	19.5g	38.9g
Viet Nam							20.6	41.1	38.3	51.7d	20.1d	28.2d
Singapore	2.2	32.3	65.5	1.3a	35.8a	62.9a	0.0	28.3	71.7	1.1g	21.8g	77.1g
<b>Asia</b>	<b>17.0</b>	<b>38.1</b>	<b>44.9</b>	<b>63.4</b>	<b>17.0</b>	<b>19.6</b>	<b>7.8</b>	<b>35.9</b>	<b>56.3</b>	<b>42.2</b>	<b>23.0</b>	<b>34.8</b>
<b>Asia (excludes Japan)</b>	<b>22.8</b>	<b>33.8</b>	<b>43.4</b>	<b>66.8</b>	<b>16.0</b>	<b>17.2</b>	<b>10.9</b>	<b>40.2</b>	<b>48.9</b>	<b>42.8</b>	<b>23.6</b>	<b>33.6</b>

A = agriculture, GNI = gross national income, I = industry, Lao PDR = Lao People's Democratic Republic, S = services.

Notes:

- Subregions in this table do not conform precisely to the country/economy compositions of the Asian Development Bank's official subregions, as Afghanistan and Pakistan are included in the South Asia group on the table.
- Figures in the initial years are for 1975 except as follows: a indicates that figure is for either 1980 or 1981; b indicates that the figure is for 1990. Figures for the last year are for 2010 except as follows: c indicates that figure is for 1998 up to 2005; d indicates that the figure is for 2006; e indicates that the figure is for 2007; f indicates that the figure is for 2008; and g indicates that the figure is for 2009.
- Subregional averages and average for Asia are weighted averages, where the weights are GNI (calculated using the Atlas method) for output shares, and total population for the employment shares. Myanmar is not included in the output weighted share (no GNI data). The average for Central Asia for the initial year for output includes only Georgia.
- Original World Bank, World Development Indicators sectoral data for a number of economies do not add up to 100%. This affects the calculations of the subregional averages as well as Asia's average (i.e., they do not add up to 100%). To solve this problem, we adjusted the figures for these economies so that they add up to 100%. This was done by apportioning the difference to 100% proportionally to each sector's share.

Sources: National Statistics (Taipei, China). [www.eng.stat.gov.tw](http://www.eng.stat.gov.tw) (accessed September 2012); World Bank. WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012).

Appendix Table A2 Agriculture output and employment shares in Asia: Speed of reduction

Economy	Period covered (OS - Longest Available)	OS (%)		Speed of Reduction of OS (% per annum)	Period covered (same for OS and ES)	OS (%)		Speed of Reduction of OS (% per annum)	ES (%)		Speed of Reduction of ES (% per annum)
		Start	End			Start	End		Start	End	
Bangladesh	1980–2010	31.6	18.6	1.70	1984–2005	32.3	20.1	2.13	58.8	48.1	0.91
China, People's Rep. of	1961–2010	35.5	10.1	2.48	1980–2008	30.2	10.7	3.51	68.7	39.6	1.88
India	1960–2010	42.8	19.0	1.58	1994–2010	28.5	19.0	2.36	61.9	51.1	1.12
Indonesia	1960–2010	51.5	15.3	2.35	1985–2010	23.2	15.3	1.59	54.7	38.3	1.36
Japan	1970–2009	6.0	1.4	3.57	1980–2009	3.6	1.4	3.10	10.4	3.7	3.39
Korea, Rep. of	1965–2010	39.4	2.6	5.74	1980–2010	16.2	2.6	5.73	34.0	6.6	5.15
Malaysia	1960–2010	34.3	10.6	2.28	1980–2009	22.6	9.5	2.85	37.2	13.5	3.32
Nepal	1965–2010	65.5	36.1	1.29	1991–2001	47.2	37.6	2.05	81.2	65.7	1.91
Pakistan	1960–2010	46.2	21.2	1.52	1980–2008	29.5	20.3	1.28	52.7	44.7	0.57
Philippines	1960–2010	26.9	12.3	1.52	1980–2009	25.1	13.1	2.14	51.8	35.2	1.28
Sri Lanka	1960–2010	31.7	12.8	1.76	1981–2009	27.7	12.7	2.65	45.9	32.6	1.17
Thailand	1960–2010	36.4	12.4	2.09	1980–2009	23.2	11.5	2.31	70.8	41.5	1.76
Viet Nam	1985–2010	40.2	20.6	2.54	1996–2006	27.8	20.4	2.77	70.0	51.7	2.72

ES = the share of employment in agriculture, OS = agriculture's output share.

Source: Authors calculations based on World Bank. WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012).

Appendix Table A3 Annualized growth rates of GDP, agricultural GDP, land productivity, and area in developing economies, 1970–2009 (%)

Economy	Area growth (a)	Land productivity growth (b)	Agricultural GDP growth (c) = (a) + (b)
Bangladesh	−0.16	2.29	2.13
Bhutan	−1.34	4.53	3.19
Cambodia	0.36	4.23	4.59
China, People's Rep. of	0.50	3.54	4.04
India	0.07	2.51	2.58
Indonesia	1.27	2.14	3.41
Japan	−0.59	0.22	−0.36
Korea, Rep. of	−0.63	2.64	2.01
Lao PDR	2.00	2.29	4.29
Malaysia	1.39	1.55	2.94
Mongolia	0.66	1.02	1.68
Nepal	0.62	1.96	2.58
Pakistan	0.25	3.18	3.43
Philippines	0.86	1.71	2.57
Sri Lanka	0.35	2.06	2.41
Thailand	0.82	2.17	2.99
Viet Nam	1.70	2.00	3.70
<b>Average Asia</b>	<b>0.49</b>	<b>2.24</b>	<b>2.72</b>

Notes: Agricultural output refers to gross value added in agriculture (\$ of year 2000). Area is arable land and permanent crops, in hectares. Land productivity is agricultural output per hectare. Growth is annualized over the available interval from 1970 to 2009; countries with intervals below 20 years were omitted, and below 100,000 hectares in area were omitted.

Sources: Authors based on World Bank. WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012); FAOSTAT. <http://faostat.fao.org> (accessed September 2012).

Appendix Table A4 Yield and yield growth of primary cereals, developing Asia, 1970 and 2010

Economy	Share in agricultural output, 1970 and 2010 (%)	Yield (t/ha)		Annualized yield growth (%)				
		1970	2010	1970s	1980s	1990s	2000s	1970–2000
Bangladesh	55–60.6	1.7	4.3	1.8	2.4	3.1	2.2	2.4
Bhutan	50–31.7	2.0	3.1	0.0	0.5	–2.1	6.3	1.1
Cambodia	47–36.3	1.6	3.0	–2.8	1.2	4.6	3.4	1.6
China, People's Rep. of	45–20.8	3.4	6.5	1.9	3.3	0.9	0.4	1.6
India	38–27.2	1.7	3.4	1.7	2.7	0.9	1.7	1.7
Indonesia	40–30.2	2.4	5.0	3.3	2.7	0.2	1.3	1.9
Japan	36–28.5	5.6	5.2	–0.9	2.1	0.6	–2.5	–0.2
Korea, Rep. of	63–34.0	4.6	6.9	–0.6	3.7	0.8	0.2	1.0
Lao PDR	38–32.0	1.4	3.6	0.6	4.8	2.9	1.6	2.5
Malaysia	6–2.7	2.4	3.6	1.8	–0.3	1.0	1.7	1.1
Nepal	47–28.3	1.9	2.7	–0.1	2.2	1.2	0.1	0.8
Pakistan	29–22.2	1.2	2.6	3.0	1.5	3.2	0.2	2.0
Philippines	22–23.2	1.7	3.6	2.4	3.0	0.3	1.7	1.8
Sri Lanka	19–31.6	2.2	4.1	1.4	1.7	1.2	1.7	1.5
Thailand	34–24.8	2.0	2.9	–0.7	0.4	2.9	1.2	0.9
Viet Nam	62–43.1	2.2	5.3	–0.3	4.3	2.9	2.3	2.3

Lao PDR = Lao People's Democratic Republic.

Notes: The share of primary cereals in agricultural output is measured in constant \$ of year 2000. The primary cereal is rice, except for Pakistan, where the primary cereal is wheat.

Source: Authors based on basic data from FAOSTAT. <http://faostat.fao.org> (accessed September 2012).

Appendix Table A5 Peak manufacturing share in output and employment, OECD countries

Country	Output			Employment		
	Data since	Year when highest share was reached	Value of the highest share	Data since	Year when highest share was reached	Value of the highest share
Australia	1970	1970	25.2	1970	1970	26.4
Austria	1976	1976	24.7	1976	1976	25.0
Belgium	1970	1974	29.7	1970	1970	31.7
Canada	1970	1972	21.4	1970	1970	22.9
Denmark	1970	1970	20.5	1970	1970	25.9
Finland	1970	1974	28.1	1970	1974	25.1
France	1970	1971	24.2	1970	1974	25.4
Germany	1980	1980	29.7	1991	1991	27.4
Greece	1970	1973	17.7	1981	1986	19.9
Iceland	1973	1979	26.6	1991	1994	17.5
Ireland	1986	1999	34.3	1970	1974	21.4
Italy	1970	1976	29.9	1970	1979	29.1
Japan	1970	1970	33.5	1953	1969	26.3
Luxembourg	1985	1989	22.6	1970	1970	32.0
Netherlands	1970	1970	24.9	1970	1970	25.7
New Zealand	1971	1983	22.4	1976	1989	21.1
Norway	1970	1974	21.5	1970	1970	22.9
Portugal	1977	1986	21.8	1974	1974	25.5
Spain	1980	1980	27.0	1970	1971	27.5
Sweden	1970	1974	26.9	1970	1970	27.4
Switzerland	1980	1980	24.7	1970	1979	38.2
United Kingdom	1970	1970	32.1	1970	1971	29.9
United States	1970	1970	26.6	1970	1970	22.4
<b>Unweighted Average</b>			<b>25.9</b>			<b>25.7</b>

OECD = Organisation for Economic Co-operation and Development.

Sources: Authors based on GGDC, 10-Sector Database. [www.ggdc.net](http://www.ggdc.net) (accessed September 2012); ILO, LABORSTA. <http://laborsta.ilo.org> (accessed September 2012); OECD, STAN. <http://www.oecd.org/industry/ind/stanstructuralanalysisdatabase.htm> (accessed September 2012); World Bank, WDI. <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed September 2012).

Appendix Table A6 Economic complexity index, 20 Asian economies

Economy	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Azerbaijan	-1.46	0.12	0.03	-0.18	-0.39	-0.15	-0.44	-0.45	-0.33	-0.26	-0.32	-0.07	-0.26	-0.24	-0.28	-0.49
Bangladesh	-0.45	-0.72	-0.72	-0.87	-1.02	-0.87	-0.71	-0.68	-0.56	-0.46	-0.41	-0.12	-0.34	-0.44	-0.28	-0.49
Cambodia	-1.54	-1.24	-1.08	-1.06	-1.02	-0.62	-0.67	-0.53	-0.44	-0.36	-0.67	-0.37	-0.57	-0.44	-0.59	-0.34
China, People's Rep. of	0.73	0.63	0.69	0.74	0.76	0.76	0.76	0.87	0.85	0.88	0.92	0.92	0.92	0.96	0.95	1.10
Hong Kong, China	0.98	0.96	0.93	0.98	0.98	0.95	0.96	0.94	0.91	0.91	0.91	0.86	0.86	0.87	0.84	0.97
India	-0.40	-0.68	-0.46	-0.45	-0.28	-0.31	-0.21	-0.11	0.01	-0.06	-0.10	-0.05	0.06	-0.14	-0.03	-0.02
Indonesia	0.17	0.04	0.01	0.06	0.17	0.22	0.18	0.21	0.21	0.15	0.19	0.15	0.20	0.21	0.24	0.23
Japan	1.26	1.26	1.24	1.33	1.31	1.26	1.27	1.28	1.20	1.19	1.19	1.12	1.08	1.09	1.08	1.22
Kazakhstan	0.12	0.56	0.43	0.25	0.11	0.22	0.26	-0.11	0.04	0.03	0.01	0.06	0.08	-0.01	-0.08	-0.42
Korea, Rep. of	1.13	1.12	1.07	1.12	1.12	1.13	1.14	1.15	1.09	1.06	1.06	0.99	0.98	1.00	1.00	1.14
Malaysia	0.89	0.86	0.85	0.85	0.88	0.88	0.89	0.88	0.84	0.81	0.82	0.76	0.75	0.73	0.75	0.85
Myanmar	-1.79	-1.83	-1.75	-2.06	-1.66	-1.49	-1.38	-1.40	-1.49	-1.44	-1.55	-1.38	-1.33	-1.34	-1.41	-1.61
Nepal	-0.67	-0.88	-0.84	-0.73	-0.61	-0.29	-0.46	-0.02	-0.21	-0.19	-0.19	0.00	-0.04	-0.30	0.01	0.02
Pakistan	-0.33	-0.54	-0.59	-0.61	-0.66	-0.63	-0.63	-0.52	-0.37	-0.24	-0.27	-0.16	-0.15	-0.19	-0.21	-0.35
Philippines	0.27	0.20	0.25	0.26	0.35	0.27	0.33	0.33	0.40	0.37	0.35	0.42	0.33	0.29	0.40	0.46
Singapore	0.95	0.93	0.91	0.95	0.95	0.92	0.92	0.91	0.89	0.85	0.85	0.80	0.79	0.79	0.80	0.91
Sri Lanka	-0.15	-0.46	-0.36	-0.28	-0.23	-0.36	-0.10	-0.13	-0.08	-0.09	-0.16	-0.04	-0.10	-0.10	0.02	-0.11
Thailand	0.75	0.66	0.67	0.70	0.76	0.76	0.76	0.78	0.75	0.76	0.76	0.76	0.72	0.74	0.77	0.85
Uzbekistan	-0.57	-0.05	-0.18	-0.39	-0.31	-0.40	-0.64	-0.65	-0.48	-0.42	-0.48	-0.28	-0.15	-0.30	-0.46	-0.58
Viet Nam	-0.46	-0.62	-0.44	-0.49	-0.29	-0.26	-0.21	-0.29	-0.23	-0.02	0.05	0.25	0.23	0.31	0.43	0.33

Source: Authors.

Appendix Table A7 Projections of agricultural output and employment shares for 2040

	Projected growth rate of income per capita (%)	Timmer's agricultural phase, 2040	Share elasticities of income per capita		Output shares (%)		Employment shares (%)	
			Output	Employment	Latest	Projected 2040	Latest	Projected 2040
East Asia								
PRC	4.3	Middle integration	-0.55	-0.17	10.1	<5	39.6	22.8
Central and West Asia								
Armenia	2.9	Late integration	-0.57	-0.19	19.6	<5	44.2	32.7
Georgia	2.7	Late integration	-0.70	-0.36	8.4	<5	53.4	30.2
Kyrgyz Rep.	0.7	Early integration	-0.34	-0.10	20.7	19.1	34.0	33.2
Tajikistan	0.8	Agricultural surplus	-0.26	-0.10	21.3	19.8	55.5	53.9
Uzbekistan	1.8	Late integration	-0.51	-0.10	19.5	12.3	38.5	35.6
South Asia								
Bangladesh	4.5	Middle integration	-0.33	-0.10	18.6	<5	48.1	34.9
Bhutan	4.2	Early integration	-0.52	-0.11	17.5	<5	59.5	43.0
India	5.0	Middle integration	-0.38	-0.10	19.0	<5	51.1	33.5
Nepal	4.1	Early integration	-0.19	-0.10	36.5	20.1	65.7	49.9
Pakistan	4.2	Middle integration	-0.43	-0.10	21.2	<5	44.7	33.6
Sri Lanka	1.6	Early integration	-0.54	-0.14	12.8	8.6	32.7	29.9
Southeast Asia								
Cambodia	3.1	Early integration	-0.35	-0.10	36.0	17.1	72.2	61.1
Indonesia	4.8	Industrialization	-0.52	-0.12	15.3	<5	38.3	24.2
Lao PDR	1.8	Early integration	-0.32	-0.10	33.0	25.5	85.4	79.2
Malaysia	3.0	Industrialized	-0.93	-0.69	10.4	<5	13.3	<5
Philippines	4.7	Late integration	-0.64	-0.29	12.3	<5	35.2	5.7
Thailand	4.2	Middle integration	-0.75	-0.44	12.4	<5	38.2	<5
Viet Nam	4.7	Early integration	-0.37	-0.10	20.6	<5	51.7	36.3
Pacific								
PNG	3.1	Early integration	-0.51	-0.10	35.8	7.6	72.3	61.0
Samoa	3.3	Late integration	-0.70	-0.38	9.7	<5	39.9	14.7
Vanuatu	1.2	Middle integration	-0.70	-0.37	19.7	13.8	60.5	50.8

GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China.

Notes:

- Growth projections are based on Felipe et al. 2012, except for Bhutan and Samoa, which are obtained by extrapolating past GDP growth trends.
- Labor productivity is projected to grow at the same rate as real per capita income.
- Projected shares of agricultural output and employment are obtained using elasticities from the regressions of the shares of agricultural output and employment (s) shown in section 2, and then applying the formula of the elasticity:  $s_{2040}^c - s_{2010}^c = \epsilon^c (y_{2040}^c - y_{2010}^c) \frac{s_{2010}^c}{y_{2010}^c}$ , where c indexes the country, and  $\epsilon^c$  denotes the elasticity (i.e., derivative of the log of the share with respect to the log of income per capita in the estimated regressions). Output and employment elasticities are evaluated at the mean of the per capita income distribution of each country.
- In some cases, the estimated employment elasticities were so small that there was no change in the share. In these cases we assumed an elasticity of -0.10.

Source: Authors.

Appendix Table A8 Actual values of the control variables. 2007

Economy	Roads per capita (km/'000 persons)	Financial development (liquid liabilities as % of GDP)	Average years of schooling	Share of manufacturing value added in high-tech sectors (% of manufacturing value added)	Share of manufacturing employment in high-tech sectors (% of manufacturing employment)
<b>Asian economies</b>					
Armenia	2.44	18.48	10.41		
Azerbaijan		16.10		17.20	34.91
Bangladesh		56.24	5.44		
Cambodia		25.63	5.95		
China, People's Rep. of	2.72	142.24	7.84	46.03	43.35
Georgia	4.63	19.61		19.04	
Hong Kong, China	0.29	270.78	10.06		
India	3.53	64.53	4.86	37.96	32.13
Indonesia	1.81	38.35	5.93	31.19	15.83
Japan	9.40	198.80	11.39	56.65	53.88
Kazakhstan	6.01	32.12	10.23		26.06
Korea, Rep. of	2.12	61.04	11.62	47.80	45.24
Kyrgyz Rep.	6.45	26.01	8.62	10.31	23.57
Lao PDR	6.21	21.45	4.82		
Malaysia		112.09	9.86	50.14	44.26
Mongolia		38.26	8.13	45.00	5.41
Nepal	0.67	55.66	3.61		
Pakistan	1.58	46.39	5.19		
Papua New Guinea		42.14	3.97		
Philippines		55.70	8.76		
Singapore	0.72	103.70	8.74	89.43	81.67
Sri Lanka		36.31	10.91	8.70	6.86
Tajikistan		17.59	9.31		
Thailand		97.59	7.09		
Turkmenistan					
Uzbekistan					
Viet Nam	1.90	90.78	6.02		19.09
<b>Other Economies</b>					
Australia	38.54	85.59	11.97		
Belgium	14.41	103.79	10.50	50.30	46.73
Brazil		56.16	7.31	39.47	
Canada	42.79	123.24	12.11	53.81	52.80
Chile	4.84		9.90		
France	14.86	74.38	10.14	66.38	61.72
Germany	7.83	108.02	11.83	67.75	61.48
Netherlands	8.27	122.00	10.89	51.04	49.67
Spain	14.86	131.94	9.99	43.46	42.60
United Kingdom	6.89	141.07	9.51	51.02	47.66
United States	21.54	70.85	12.99	57.01	51.86

GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.

Source: Authors.

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## PART II

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# Millennium Development Goals Trends and Tables





## Introduction to the Millennium Development Goals

At the Millennium Summit in September 2000, the largest gathering of world leaders in history adopted the United Nations Millennium Declaration, committing their nations to a global partnership to reduce extreme poverty and setting out targets with a deadline of 2015. These targets have come to be known as the Millennium Development Goals (MDGs). In 2007, the MDG monitoring framework was revised to include four new targets agreed on by member states at the 2005 World Summit:

- full and productive employment and decent work for all,
- access to reproductive health,
- access to treatment for HIV/AIDS, and
- protection of biodiversity.

The indicators for these new targets became effective in January 2008, and are included in the framework used here to monitor progress toward achieving the MDGs.

Box 1 lists the eight MDGs and the corresponding targets and indicators for monitoring progress.

Box 1 **MDGs and the corresponding targets and indicators for monitoring progress**

Goals and Targets (from the Millennium Declaration)	Indicators for Monitoring Progress
<b>MDG 1: Eradicate extreme poverty and hunger</b>	
Target 1.A: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1.1 Proportion of population below \$1 (PPP) per day <sup>1</sup> 1.2 Poverty gap ratio 1.3 Share of the poorest quintile in national consumption
Target 1.B: Achieve full and productive employment and decent work for all, including women and young people	1.4 Growth rate of GDP per person employed 1.5 Employment-to-population ratio 1.6 Proportion of employed people living below \$1 (PPP) per day 1.7 Proportion of own-account and contributing family workers in total employment
Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	1.8 Prevalence of underweight children under 5 years of age 1.9 Proportion of population below minimum level of dietary energy consumption
<b>MDG 2: Achieve universal primary education</b>	
Target 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	2.1 Net enrollment ratio in primary education 2.2 Proportion of pupils starting grade 1 who reach the last grade of primary 2.3 Literacy rate of 15–24 year-olds, women and men
<b>MDG 3: Promote gender equality and empower women</b>	
Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	3.1 Ratios of girls to boys in primary, secondary, and tertiary education 3.2 Share of women in wage employment in the nonagricultural sector 3.3 Proportion of seats held by women in national parliament
<b>MDG 4: Reduce child mortality</b>	
Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-5 mortality rate	4.1 Under-5 mortality rate 4.2 Infant mortality rate 4.3 Proportion of 1-year-old children immunized against measles
<b>MDG 5: Improve maternal health</b>	
Target 5.A: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	5.1 Maternal mortality ratio 5.2 Proportion of births attended by skilled health personnel
Target 5.B: Achieve, by 2015, universal access to reproductive health	5.3 Contraceptive prevalence rate 5.4 Adolescent birth rate 5.5 Antenatal care coverage (at least one visit and at least four visits) 5.6 Unmet need for family planning
<b>MDG 6: Combat HIV/AIDS, malaria and other diseases</b>	
Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS	6.1 HIV prevalence among population aged 15–24 years 6.2 Condom use at last high-risk sex 6.3 Proportion of population aged 15–24 years with comprehensive correct knowledge of HIV/AIDS 6.4 Ratio of school attendance of orphans to school attendance of nonorphans aged 10–14 years
Target 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	6.5 Proportion of population with advanced HIV infection with access to antiretroviral drugs
Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	6.6 Incidence and death rates associated with malaria 6.7 Proportion of children under 5 sleeping under insecticide-treated bednets 6.8 Proportion of children under 5 with fever who are treated with appropriate antimalarial drugs 6.9 Incidence, prevalence, and death rates associated with tuberculosis 6.10 Proportion of tuberculosis cases detected and cured under the Directly Observed Treatment Short (DOTS) course

continued.

Box 1 MDGs and the corresponding targets and indicators for monitoring progress (continued)

Goals and Targets (from the Millennium Declaration)	Indicators for Monitoring Progress
<b>MDG 7: Ensure environmental sustainability</b>	
Target 7.A: Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources	7.1 Proportion of land area covered by forest 7.2 CO <sub>2</sub> emissions, total, per capita and per \$1 GDP (PPP) 7.3 Consumption of ozone-depleting substances 7.4 Proportion of fish stocks within safe biological limits 7.5 Proportion of total water resources used
Target 7.B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	7.6 Proportion of terrestrial and marine areas protected 7.7 Proportion of species threatened with extinction
Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	7.8 Proportion of population using an improved drinking water source 7.9 Proportion of population using an improved sanitation facility
Target 7.D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	7.10 Proportion of urban population living in slums <sup>2</sup>
<b>MDG 8: Develop a global partnership for development</b>	
Target 8.A: Develop further an open, rule-based, predictable, nondiscriminatory trading and financial system  Includes a commitment to good governance, development, and poverty reduction—both nationally and internationally	Some of the indicators listed below are monitored separately for the least developed countries, Africa, landlocked developing countries, and small island developing states. Official Development Assistance (ODA) 8.1 Net ODA, total and to the least developed countries, as percentage of OECD/DAC donors' gross national income 8.2 Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water, and sanitation)
Target 8.B: Address the special needs of the least developed countries  Includes: tariff and quota free access for the least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction	8.3 Proportion of bilateral ODA of OECD/DAC donors that is untied 8.4 ODA received in landlocked developing countries as a proportion of their gross national incomes 8.5 ODA received in small island developing states as a proportion of their gross national incomes
Target 8.C: Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)	Market Access 8.6 Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty 8.7 Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries 8.8 Agricultural support estimate for OECD countries as a percentage of their gross domestic product 8.9 Proportion of ODA provided to help build trade capacity
Target 8.D: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	Debt Sustainability 8.10 Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative) 8.11 Debt relief committed under HIPC and MDRI Initiatives 8.12 Debt service as a percentage of exports of goods and services
Target 8.E: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	8.13 Proportion of population with access to affordable essential drugs on a sustainable basis
Target 8.F: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	8.14 Telephone lines per 100 population 8.15 Cellular subscribers per 100 population 8.16 Internet users per 100 population

AIDS = acquired immunodeficiency syndrome, CO<sub>2</sub> = carbon dioxide, DAC = Development Assistance Committee, GDP = gross domestic product, HIPC = heavily indebted poor countries, HIV = human immunodeficiency virus, MDRI = Multilateral Debt Relief Initiative, ODA = official development assistance, OECD = Organisation for Economic Co-operation and Development, PPP = purchasing power parity.

<sup>1</sup> For monitoring country poverty trends, indicators based on national poverty lines should be used, where available.

<sup>2</sup> The actual proportion of people living in slums is measured by a proxy, represented by the urban population living in households with at least one of the four characteristics: (a) lack of access to improved water supply; (b) lack of access to improved sanitation; (c) overcrowding (three or more persons per room); and (d) dwellings made of nondurable material.

Source: Millennium Development Goals Indicators: The Official United Nations Site for the MDG Indicators. July 2013.

## Progress toward achieving the Millennium Development Goals and targets

The progress of Asian Development Bank developing members toward achieving the MDGs and targets is discussed in this part of the *Key Indicators*. Each goal is accompanied by a short analysis and supporting statistical information presented in figures, boxes, and tables on the performance of countries toward achieving the goals. The classification of progress was determined using the methodology outlined in Technical Note I of the report, Accelerating Equitable

Achievement of the MDGs (ESCAP, ADB, and UNDP 2012). The rate of change is calculated using the linear time trend of a suitable transformation of the indicator values. On the basis of their performance to date, countries are classified as early achievers, on track, slow progress, or no progress or regressing, as measured by target indicators estimated from data available since 1990:

- early achievers are countries that have already reached the target;
- on track indicates countries that are expected to meet the target by 2015;
- slow progress applies to countries that are expected to meet the target after 2015;
- no progress/regressing describes countries that have made no progress since 1990 or have slipped backward.

Many of the figures in the following analyses that illustrate progress on the MDGs refer to the “earliest” and “latest” year for which data are available. Ideally, all countries would have the necessary statistics for every year from 1990 to the current year. However, lack of data from economies reflects the difficulty in collecting and disseminating the data. The statistical tables are the sources for the figures used in the analysis and show the actual years to which the data refer.

In addition, the classification of progress has been made for indicators that have explicit targets, such as \$1.25-a-day purchasing power parity poverty, maternal and infant mortality, school enrollment, and gender parity. In monitoring progress, cutoffs were introduced for several targets (see Table 1), which are the cutoffs adopted in the ESCAP, ADB, and UNDP (2012) report. For example, a cutoff of 2% is used for the target “halving extreme poverty between 1990 and 2015.” This means that when the share of people living on less than \$1.25 a day is reduced to 2%, the target is considered to have been reached, even if 2% is not half of the percentage in 1990.

For indicators whose target is to reverse a trend, such as in HIV prevalence, tuberculosis prevalence, tuberculosis incidence, forest cover, protected area, carbon dioxide emissions, and consumption of ozone-depleting substances, only three categories were used—economies trending in the “right” direction since 1990 are categorized as “early achievers,” economies showing no change during the period are categorized as “on track,” and economies that trended in the “wrong” direction or that have not progressed are categorized as “no progress/regressing.”

**Table 1. Cutoff Values for Selected MDG Indicators**

No.	Indicator	MDG Target	Cutoff
1.1	Proportion of population below \$1.25 (PPP) a day	half the 1990 percentage	2%
1.8	Prevalence of underweight children under 5 years of age	half the 1990 percentage	none
2.1	Total net enrollment ratio in primary education (both sexes)	100%	95%
2.2	Proportion of pupils starting grade 1 who reach the last grade of primary (both sexes)	100%	95%
3.1	Ratios of girls to boys in primary, secondary, and tertiary education	1	0.95
4.1	Under-five mortality rate per 1,000 live births	one-third the 1990 percentage	none
4.2	Infant mortality rate per 1,000 live births	one-third the 1990 percentage	none
5.1	Maternal mortality ratio	reduce by $\frac{3}{4}$ (without)	none
5.2	Proportion of births attended by skilled health personnel	reduce by $\frac{3}{4}$ (without)	none
5.5	Antenatal care coverage (at least one visit)	100%	95%
6.1	HIV prevalence	reverse the trend	none
6.9a	TB incidence	reverse the trend	none
6.9b	TB prevalence	reverse the trend	none
7.1	Forest cover	reverse the trend	none
7.2	CO <sub>2</sub> emissions	reverse the trend	none
7.3	ODP substance consumption	reverse the trend	none
7.6	Protected area	reverse the trend	none
7.8	Population using improved water sources (urban and rural combined)	half the 1990 percentage (without)	none
7.9	Population having access to improved sanitation facilities (urban and rural combined)	half the 1990 percentage (without)	none

CO<sub>2</sub> = carbon dioxide, ODP = ozone depletion potential, PPP = purchasing power parity, TB = tuberculosis

Table 2. Millennium Development Goals Progress Tracking

Goal	1	2	3	4	5	6	7														
Developing Member Economies	\$1.25 per day poverty	Underweight children	Primary enrollment	Reaching last grade	Gender Primary	Gender Secondary	Gender Tertiary	Under-5 Mortality	Infant Mortality	Maternal Mortality	Skilled birth attendance	Antenatal care (≥1 visit)	HIV prevalence	TB incidence	TB prevalence	Forest cover	Protected area	CO <sub>2</sub> emissions per capita	ODP substance consumption	Safe drinking water	Basic sanitation
Central and West Asia																					
Afghanistan		▲			■	■	▲	■	■	■	■	■	▲	▲	■	▲	▲	▲	■	■	■
Armenia	■	▲	■	■	■	■	■	▲	▲	■	■	■	▲	■	■	▲	■	▲	■	■	■
Azerbaijan	■	■	▲	■	■	■	■	■	■	■	■	■	▲	■	■	▲	■	■	■	■	■
Georgia	▲	■	■	■	■	■	■	■	■	■	■	■	▲	■	■	▲	■	■	■	■	▲
Kazakhstan	■	■	■	■	■	■	■	■	■	■	■	■	▲	■	■	▲	■	▲	■	■	■
Kyrgyz Republic	■	■	■	■	■	■	■	■	■	■	▲	■	▲	■	■	■	■	■	■	■	▲
Pakistan	■	■	■	▲	■	■	▲	■	■	■	■	■	▲	▲	■	▲	▲	▲	■	■	■
Tajikistan	■		■	■	■	■	■	■	■	■	■	▲	▲		■	▲	■	■	■	■	■
Turkmenistan	■	▲		■	■	■	▲	■	■	■	■	■		■	■	▲	▲	■	■	▲	■
Uzbekistan		■	▲	■	■	■	▲	■	■	■	■	■		■	■	■	■	■	■	▲	■
East Asia																					
China, People's Rep. of	■	■	■		■	■	■	■	■	▲	■	▲	▲	■	■	■	■	▲	■	■	■
Hong Kong, China			■	■	■	■	■	■	■					■	■		■	▲	■	■	■
Korea, Rep. of			■	■	■	■	■	■	■	■	■		▲	▲	■	▲	■	■	■	■	■
Mongolia		■	■	▲	■	■	■	■	▲	■	■	■	▲	■	■	▲	■	■	■	■	■
Taipei,China			■		■	■	■		■	▲						■	■	▲	■		■
South Asia																					
Bangladesh	■	▲				■	■	■	▲	■	■	■	▲	▲	■	▲	■	▲	■	■	■
Bhutan	■	■	■	▲	■	■	■	▲	■	■	▲	■	▲	■	■	■	■	▲	▲	■	■
India	■	■	■	■	■	▲	■	■	■	■	■	■		■	■	■	■	▲	■	■	■
Maldives		▲	▲		■	■	■	■	■	■	■	■	▲	■	■	▲	■	▲	■	■	■
Nepal	■	■		■	▲	▲	■	▲	■	■	■	■	■	▲	▲	▲	■	▲	■	■	■
Sri Lanka	■	▲	▲	■	■	■	■	■	■	■	■	■	▲	▲	■	▲	■	▲	■	■	■
Southeast Asia																					
Brunei Darussalam			■	■	■	■	■	■	■	■	■	■		■	■	▲	■	■	■		■
Cambodia	■	■	■	■	■	▲	■	■	■	▲	■	■	■	■	■	▲	■	▲	■	■	■
Indonesia	■	■	■	■	■	■	▲	▲	■	■	▲	▲	▲	■	■	▲	■	▲	■	■	■
Lao PDR	▲	■	■	■	▲	■	■	■	■	■	▲	■	▲	■	■	▲	■	▲	■	■	■
Malaysia	■	▲	■	■	■	■	■	■	▲	■	■	■	■	■	■	■	■	▲	■	■	■
Myanmar		■		■	■	■	■	■	■	■	■	■	■	■	■	▲	■	▲	■	■	■
Philippines	■	■	▲	■	■	■	■	■	■	■	■	■	▲	■	■	■	■	▲	■	▲	■
Singapore								▲	■	■			▲	■	■	▲	■	■	■	■	■
Thailand	■	■	▲		■	■	■	▲	▲	■	▲	■	■	■	■	▲	■	▲	■	■	■
Viet Nam	■	■	■	▲	▲		■	■	■	■	▲	▲	▲	■	■	■	■	▲	■	■	■
The Pacific																					
Cook Islands			■	▲	■	■		■	■		■	■	■	■	■	■	■	▲	■	■	▲
Fiji	■		■	▲	■	■		■	■	■			▲	■	■	■	■	▲	■	■	■
Kiribati			■	▲	■	■		■	■		▲	▲		■	■	▲	■	▲	■	■	■
Marshall Islands			■	■	■	■		■	■		■			▲	▲	▲	■	▲	■	■	■
Micronesia, Fed. States of			■	▲	■			■	■	■	■	■		■	■	▲	■	■	■	▲	▲
Nauru			■		■	■		▲	▲					▲	▲	▲	■	■	■	■	■
Palau			▲		■	■		■	■		■	▲		▲	▲	■	■	▲	■	■	■
Papua New Guinea			■	▲	■	■	■	■	■	■	▲	■	■	■	■	▲	■	▲	■	■	■
Samoa			■	▲	■	■	▲	■	■	■	■	■		■	■	■	■	▲	■	■	■
Solomon Islands			■	■	■	▲		■	■	■	■	■		■	■	▲	■	■	■	■	■
Timor-Leste		▲	■		■	■	▲	■	▲	■	■	■		▲	■	▲	■	■	■	■	■
Tonga			■	▲	■	■	■	■	■	▲	■			■	■	■	■	▲	■	■	■
Tuvalu			■	▲	■			■	■		▲			■	■	▲	■	■	■	■	■
Vanuatu		▲	■	■	■	■		▲	▲	■	▲			■	■	▲	■	■	▲	■	■

■ = Early achiever

▲ = On track

■ = Slow

▲ = No progress/regressing

Note: Staff estimates based on UNESCAP, ADB, and UNDP method for assessing the MDGs (*Accelerating Equitable Achievement of the MDGs*, February, 2012).

Table 2 illustrates the MDG progress classification, adapted from ESCAP, ADB, and UNDP (2012), which reflects the progress that developing economies in the Asia and Pacific region have made in 2 decades. Four categories were made for indicators where data were available from the United Nations (UN) Millennium Development Goals Indicators database (UN 2013), following the July 2013 update. Differences in progress classification between Table 2 and the ESCAP, ADB, and UNDP report arise due to differences in data used rather than in methodological processes.

The target to halve extreme poverty (MDG 1) has generally been met, except in South Asia; however, progress against child malnutrition is slow in many countries. Substantial progress has been made in raising enrollment for boys and girls in primary education (MDG 2); efforts now should be stepped up to ensure they complete primary school. Gender equality in primary and secondary education (MDG 3) is well advanced. While child and maternal mortality (MDGs 4 and 5) have been reduced by about half across the region since 1990, the targets for larger reductions by 2015 appear beyond reach. The goals to reduce the incidence and prevalence of tuberculosis (MDG 6) have been met by a large group of countries. Most countries are expected to halt and start to reverse the spread of HIV/AIDS, although some in Southeast Asia and Central and West Asia are lagging. In regard to environment sustainability (MDG 7), emissions of carbon dioxide have increased rapidly, but most countries have placed more land and sea areas under protection. Good progress has been made toward the target of improving access to safe drinking water; the record on provision of basic sanitation is less satisfactory. Finally, net official development assistance to developing countries worldwide (MDG 8) declined in the last 2 years.

## Data sources and comparability with other publications

Data used for assessing the economies' progress in achieving the MDGs are presented in the following statistical tables. The data were compiled from the UN Millennium Development Goals Indicators Database and the UN bodies that have been designated to monitor the MDGs. For some indicators, data on the Pacific countries were sourced from the National Minimum Development Indicators Database maintained by the Secretariat of the Pacific Community. Data for Taipei, China were sourced from its Directorate-General of Budget, Accounting and Statistics website. New data points for earlier years are added while the most recent estimates are revised whenever data become available. Data have been verified to the extent possible, but responsibility for the reliability of the statistics remains with the agencies that are listed as the sources of each table.

Differences between this publication and reports from other organizations on the performance of countries in meeting the MDGs may be due to several factors, including data sources, dates when statistics were collected and published, and different methodologies used in assessing the progress.

## MDG 1: Eradicate Extreme Poverty and Hunger

### Snapshots

- Most economies in the Asia and Pacific region—17 of 22 with available data—have already achieved the target to halve the share of population living in extreme poverty. Nevertheless, about 800 million people in the region still live on less than \$1.25 a day.
- While the number of working poor declined in most economies, a significant proportion of workers across the region earned too little to lift their families out of poverty.
- The proportion of vulnerable workers, often without formal work arrangements, exceeded 40% of total employment in 18 economies, and was over 80% in two of the most populous economies—Bangladesh and India.
- Thirteen economies have already achieved or are on track to meet the Millennium Development Goal (MDG) target to halve the percentage of children under 5 years of age who are malnourished. Discouragingly, 11 are making slow progress and will likely miss the target by 2015, and three are making no progress.

### Introduction

MDG 1 has three targets:

- 1.A: *Halve, between 1990 and 2015, the proportion of people whose income is less than a dollar a day.* This poverty threshold is a purchasing power parity (PPP) adjusted dollar that has the same purchasing power in all countries. The threshold was reviewed and increased to \$1.25 (PPP) at 2005 prices. For convenience, the target is still referred to by its old name.
- 1.B: *Achieve full and productive employment and decent work for all, including women and young people.* Measures for this target are the employment-to-population ratio, the percentage of workers living on less than \$1.25 a day, and the proportion of own-account and contributing family workers in total employment. The first indicator is a measure of the ability to provide employment and the other two are indicators of decent work.
- 1.C: *Halve, between 1990 and 2015, the proportion of people who suffer from hunger.* Hunger and malnutrition are measured by the percentage of children under 5 years of age who are underweight (malnourished) and the proportion of population consuming less than the daily minimum energy requirement (undernourished).

### Key trends

**Extreme poverty declined sharply across the region, but remained over 20% in some economies.** Figure 1.1 shows the share of population living on less than \$1.25 a day in PPP terms—the share considered to be extremely poor. Of 22 economies with data for the earliest and latest years, the share under the \$1.25-a-day poverty line fell in all economies, except Georgia. Figure 1.2 shows the annualized percentage point change in the proportion of population that is extremely poor.

Among the most populous economies, the People's Republic of China (PRC) achieved an average annual reduction in extreme poverty of 2.5 percentage points. Pakistan's rate declined by 2.6 percentage points a year, Indonesia's by 1.8 percentage points, Bangladesh's by 1.5 percentage points, and India's by 1.0 percentage points. Turkmenistan achieved a reduction of 7.7 percentage points a year, but the latest available data are for 1998.

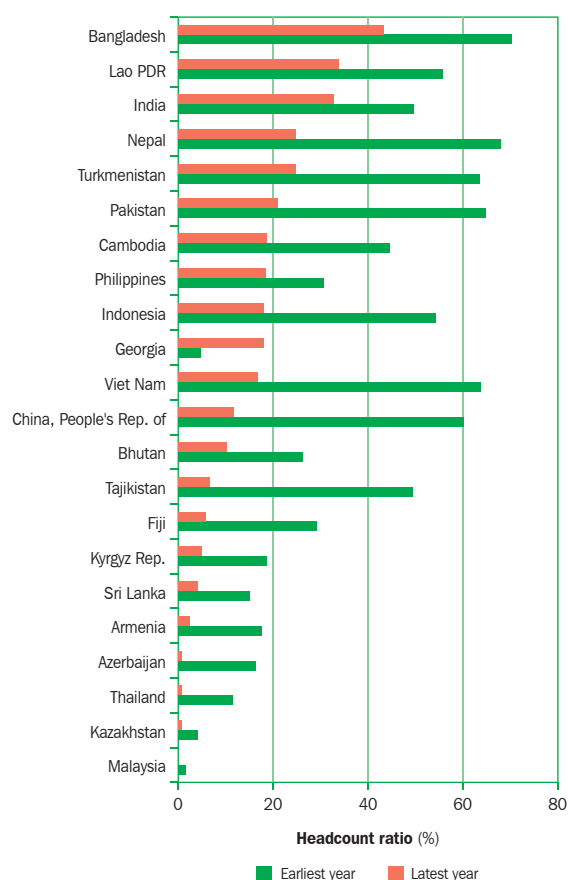
During 1990–2009, the PRC achieved annual reductions averaging 27.7 million people in the number of extremely poor people. India's annual decrease was 4.2 million during 1994–2010.

Nevertheless, 20% or more of the population suffered from extreme poverty in the latest year in eight economies (Table 1.1), including the populous ones—Bangladesh (43%), India (33%), and Pakistan (21%). Indeed, the Asia and Pacific region remained home to about two-thirds of the world's poor. About 800 million Asians still survived on less than \$1.25 a day and about 1.7 billion lived on less than \$2 a day (ADB 2013a).

**Most economies have achieved the MDG target to reduce extreme poverty.** Strong and sustained economic growth has contributed to pulling hundreds of millions of people out of poverty. Box 1.1 shows that 17 of 22 economies with data have attained the

goal of halving the percentage of the population living on less than \$1.25 a day. Based on current trends, the Lao People's Democratic Republic (Lao PDR) will also meet the target by 2015. However, three economies—Bangladesh, India, and the Philippines—are making only

Figure 1.1 Proportion of population living on less than \$1.25 a day, earliest (1990–2003) and latest (1998–2011) years (%)



Lao PDR = Lao People's Democratic Republic.  
Source: Table 1.1.

Figure 1.2 Annual percentage point change in proportion of population living on less than \$1.25 a day (percentage points)



Lao PDR = Lao People's Democratic Republic.  
Source: Table 1.1.

Box 1.1 Progress toward achieving the \$1.25 (PPP) a day target

#### Early achievers

Armenia	Malaysia
Azerbaijan	Nepal
Bhutan	Pakistan
Cambodia	Sri Lanka
China, People's Rep. of	Tajikistan
Fiji	Thailand
Indonesia	Turkmenistan
Kazakhstan	Viet Nam
Kyrgyz Rep.	

#### On track

Lao PDR

#### Slow progress

Bangladesh Philippines  
India

#### No progress/regressing

Georgia

Lao PDR = Lao People's Democratic Republic.  
Source: Table 1.1.

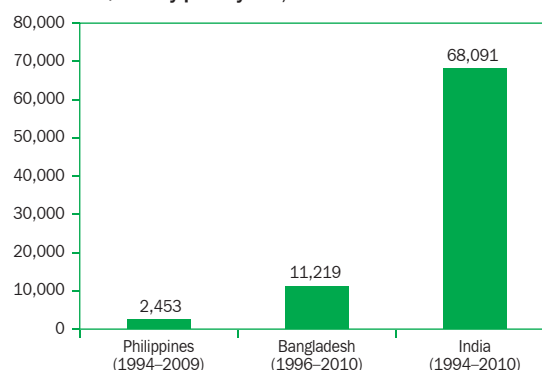
slow progress and could fall short of the target unless they intensify efforts to reduce extreme poverty. Georgia is making no progress: the proportion of its population living in extreme poverty increased between 1996 and 2010, partly due to economic disruptions. For some economies, including most of the Pacific countries, data are insufficient to assess progress.

The proportion of the population living on less than \$2 a day (PPP) declined for all economies, except for Georgia (Figure 1.3). However, reductions in the under \$2-a-day measure were not as substantial as those in the \$1.25-a-day measure. While the ratios fell in Bangladesh, India, and the Philippines, the number of poor living on less than \$2 a day in these economies increased by a total of 82 million people (Figure 1.4), because their population growth outpaced poverty reduction measured at the \$2-a-day poverty line.

**The depth of poverty also declined significantly.** Poverty gap ratios reflect the depth and incidence of poverty.

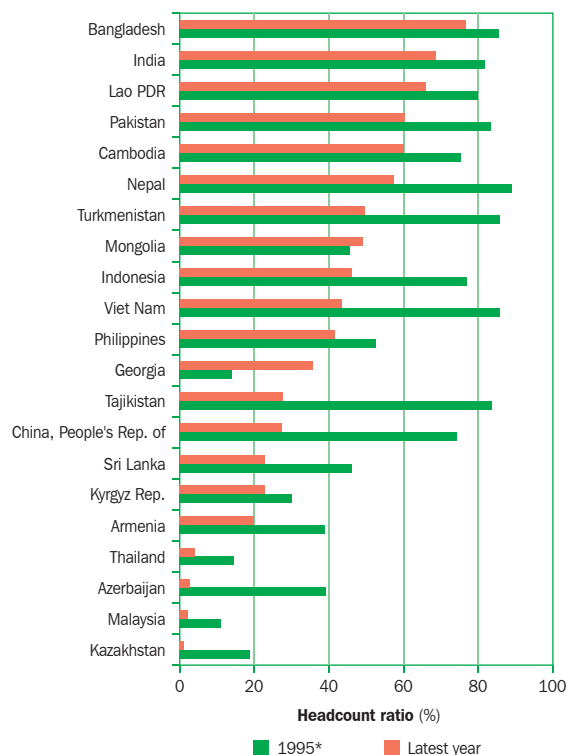
A declining poverty gap ratio indicates an increasing likelihood that more people living in extreme poverty will be lifted above the \$1.25-a-day line. Figure 1.5 shows that the poverty gap declined in all economies for which data were available, with Georgia again an exception.

Figure 1.4 Increase in people ('000) living below \$2-a-day poverty line, selected economies



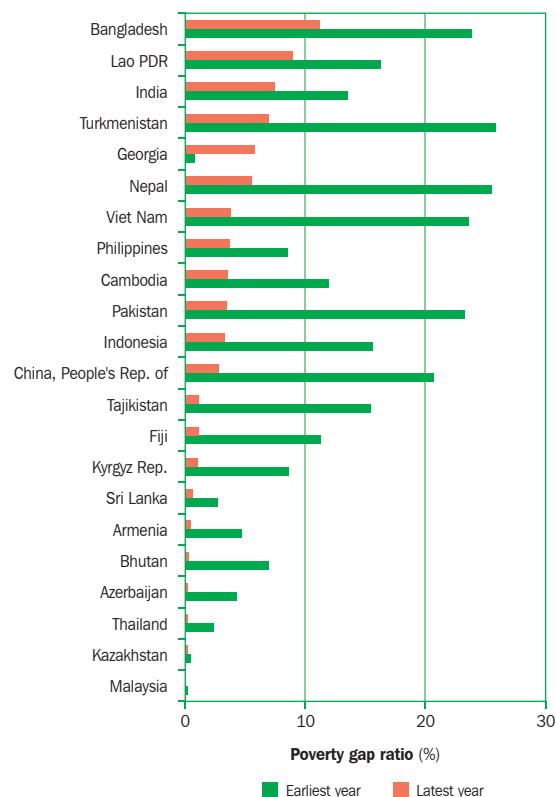
Source: RT 1.14 and population data from PovcalNet database.

Figure 1.3 Proportion of population living on less than \$2-a-day, 1995\* and latest (1999-2010) years (%)



Note: \* = refers to 1993-1998.  
Lao PDR = Lao People's Democratic Republic.  
Source: RT 1.14.

Figure 1.5 Poverty gap ratios, earliest (1990-2003) and latest (1998-2012) years (%)



Lao PDR = Lao People's Democratic Republic.  
Source: Table 1.1.

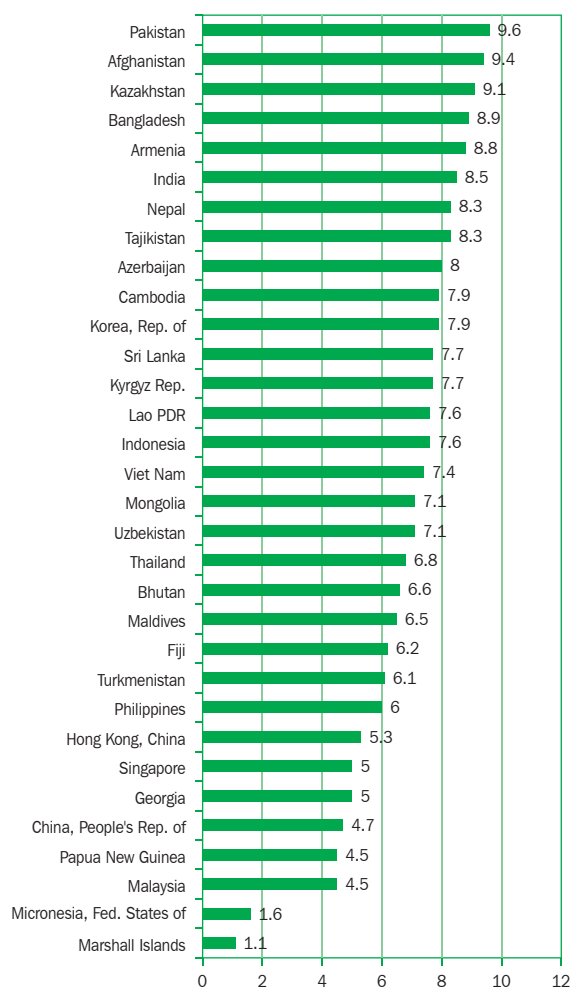
Despite significant improvements, poverty gap ratios remained relatively high in Bangladesh (11.2%), the Lao PDR (9.0%), India (7.5%), and Turkmenistan (7.0%).

**The poorest quintile's share of national income or consumption remained under 10%.** Figure 1.6 charts the share of national income or consumption going to the poorest 20% of the population in 32 economies. Economies with relatively low shares of national income or consumption for the poorest quintile—the PRC, Malaysia, the Marshall Islands, the Federated States of Micronesia, and Papua New Guinea—had relatively high Gini coefficients (a measure of inequality), ranging from 40% to 60%. Poverty reduction can be accelerated by development strategies that not only increase economic

growth but also raise the share of income going to the poorest groups.

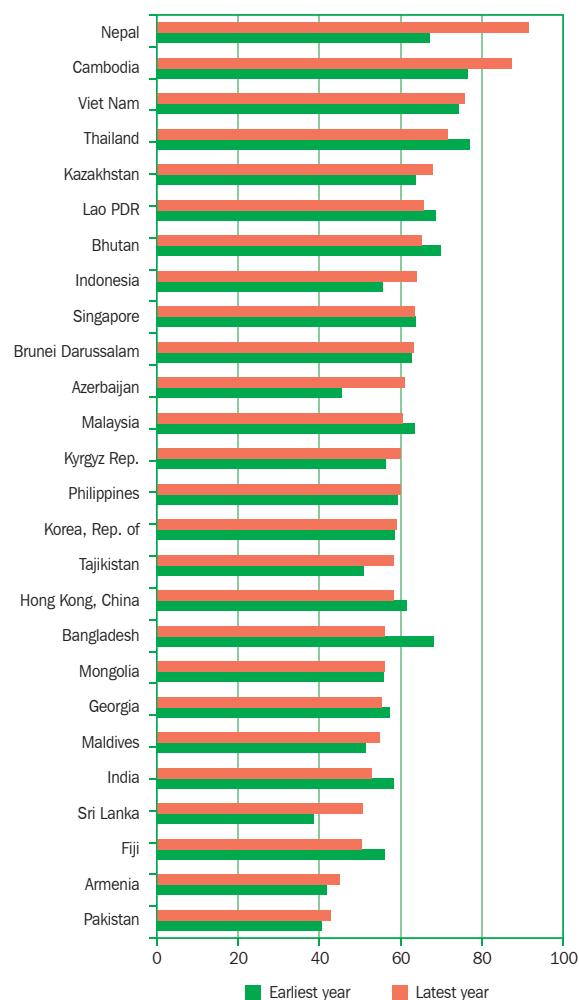
**The employment-to-population ratio increased in most reporting economies between the earliest and latest years** (Figures 1.7 and 1.8). This ratio, which is an indicator of an economy's ability to provide employment, improved in most economies with data. However, 10 developing economies, including Bangladesh and India, registered declines. For most economies, this ratio was in the 50%–70% range. The lowest employment-to-population ratios in the figures are Pakistan (43%), Armenia (45%), and Fiji (50%). Very high ratios, such as in Nepal (92%) and Cambodia (87%), usually indicate an abundance of low quality jobs (ILO 2009).

Figure 1.6 Share of poorest quintile in national income or consumption, 1996–2011 (%)



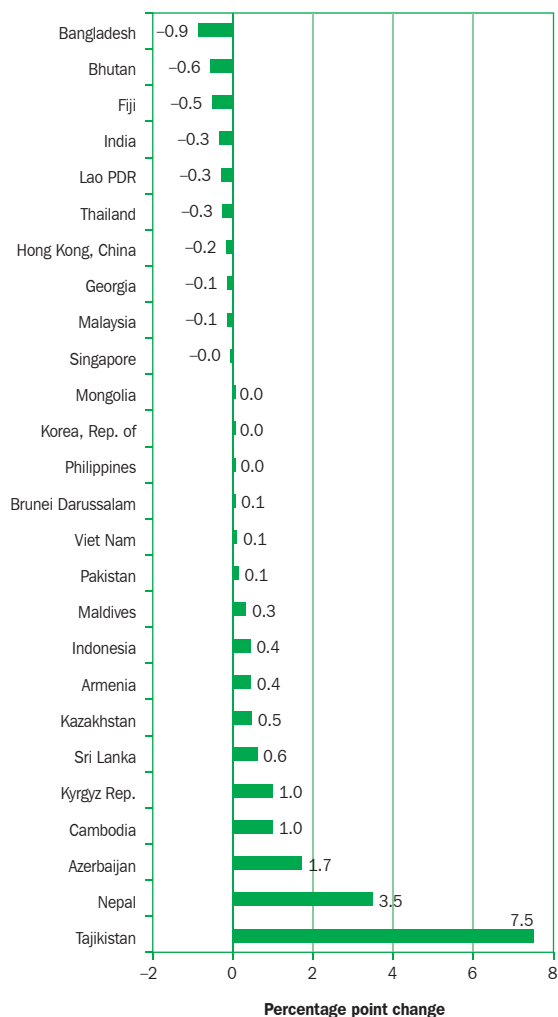
Lao PDR = Lao People's Democratic Republic.  
Source: Table 1.1.

Figure 1.7 Employment-to-population ratio, earliest (1990–2003) and latest (2001–2011) years (%)



Lao PDR = Lao People's Democratic Republic.  
Source: Table 1.2.

Figure 1.8 Annual percentage point change in the employment-to-population ratio from earliest to latest year (%)



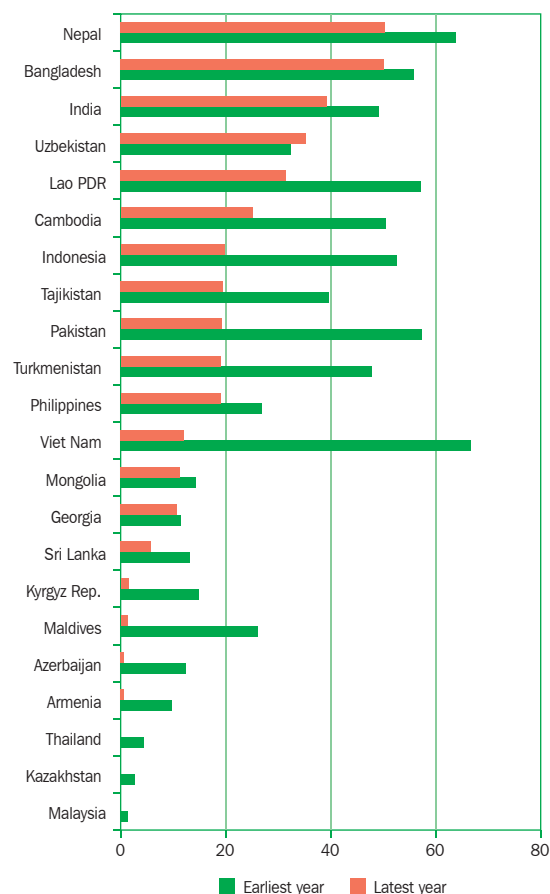
Lao PDR = Lao People's Democratic Republic.  
Source: Table 1.2.

**The number of working poor fell in almost 80% of reporting economies.** Figure 1.9 shows the percentage of employed people living on less than \$1.25 a day (the working poor) in 22 economies with data for earliest and latest years. Declines in the share of working poor were particularly steep in Viet Nam (from 67% in 1993 to 12% in 2008), Pakistan (from 57% in 1991 to 19% in 2006), and Indonesia (from 53% in 1993 to 20% in 2005). Kazakhstan, Malaysia, and Thailand reported no workers living on less than \$1.25 a day in their latest

data. Nevertheless, a significant proportion of workers across the region earned less than \$1.25 a day, too little to lift their families out of poverty. The working poor exceeded 10% of employment in 20 economies in the latest year, with very high rates in Nepal and Bangladesh (50%), India (39%), and Afghanistan (38%) (Table 1.2).

**The proportion of vulnerable workers remained high.** Vulnerable workers are those who work on their own account or contribute to family businesses, often without formal work arrangements. Table 1.2 shows that own-account and contributing family workers accounted for 40% or more of total employment in 18 economies, and for over 80% of total employment in the populous economies of Bangladesh and India. That compared with just 10% in the developed economies. Figure 1.10 shows that the proportion of vulnerable employment declined in many economies

Figure 1.9 Proportion of employed people living below \$1.25-a-day, earliest (1991–2002) and latest (1998–2009) years (%)



Lao PDR = Lao People's Democratic Republic.  
Source: Table 1.2.

with data for earliest and latest years, particularly the Maldives, Thailand, and Viet Nam, but increased in some, notably Bangladesh.

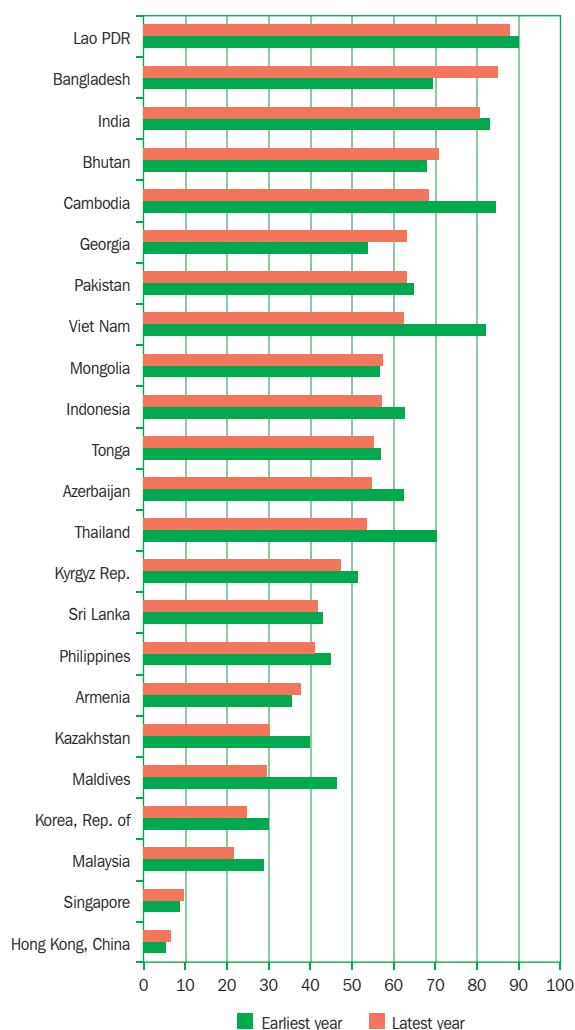
**Progress has been made in reducing hunger, but efforts need to be stepped up.** Figure 1.11 shows that the prevalence of underweight children under 5 years of age decreased in 24 of 28 economies with data for two periods. Most of the economies achieved sharp reductions. Among the most populous economies, the PRC cut malnourishment in under-5s to 4% and Indonesia to 18%. Bangladesh, India, and Pakistan also made progress, but their rates still exceeded 30% in the

latest year (and over 43% in India's case). The prevalence of malnourishment in under-5s in Timor-Leste rose from an already high 41% to 45%. Slight increases were registered in Armenia, Tajikistan, and Vanuatu.

Malnourished children develop more slowly, start school later, and perform less well than children who are adequately nourished. The impact of malnourishment can persist throughout an individual's lifetime.

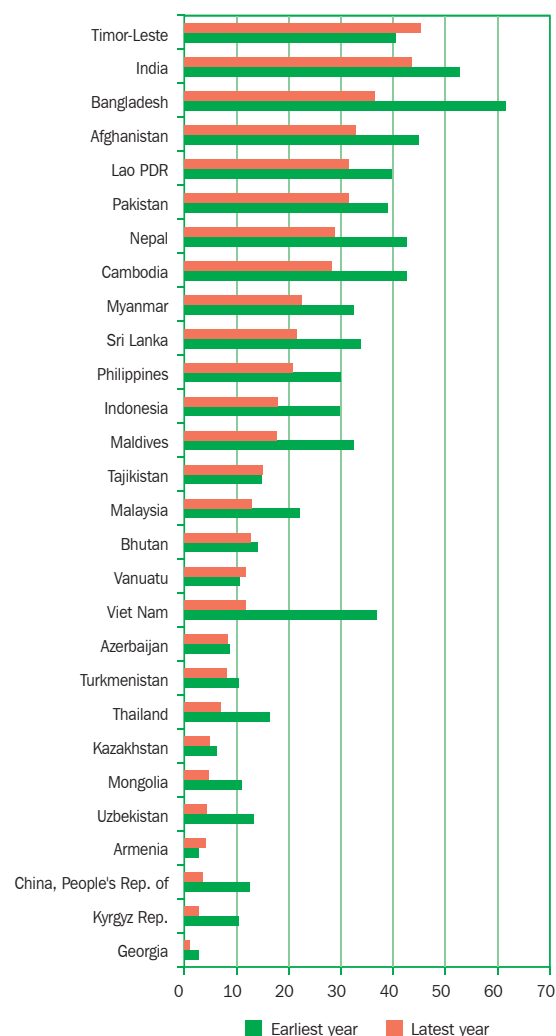
As shown in Table 1.3, almost all economies reduced undernourishment (a shortage of food energy to support normal daily activities) between the earliest

Figure 1.10 Proportion of own-account and contributing family workers in total employment, earliest (1990–2007) and latest (2003–2011) years (%)



Lao PDR = Lao People's Democratic Republic.  
Source: Table 1.2.

Figure 1.11 Prevalence of underweight children under 5 years of age, earliest (1990–2005) and latest (2004–2011) years (%)



Lao PDR = Lao People's Democratic Republic.  
Source: Table 1.3.

and latest years. Despite this improvement, 10% or more of the total population was undernourished in almost half the 31 developing economies with data. The highest rates of undernourishment were in Timor-Leste (38%), Tajikistan (32%), the Lao PDR (28%), Georgia (25%), Mongolia (24%), and Sri Lanka (24%).

Box 1.2 shows the progress made by 27 economies in meeting the hunger target to halve the percentage of children under 5 who are underweight. Seven economies achieved the target and six others are expected to meet it by 2015. Discouragingly, 11 economies are making only slow progress and will likely miss the target unless they ramp up efforts to reduce malnourishment, including heavily populated India, Indonesia, and Pakistan as well as Myanmar and the Philippines. Three economies are making no progress or are regressing. There was insufficient data to make an assessment for most Pacific countries. Regarding undernourishment of the total population, 11 economies reduced the proportion by half.

Box 1.2 Progress toward the hunger target

**Early achievers**

China, People's Rep. of	Thailand
Georgia	Uzbekistan
Kyrgyz Rep.	Viet Nam
Mongolia	

**On track**

Afghanistan	Maldives
Bangladesh	Sri Lanka
Malaysia	Turkmenistan

**Slow progress**

Azerbaijan	Lao PDR
Bhutan	Myanmar
Cambodia	Nepal
India	Pakistan
Indonesia	Philippines
Kazakhstan	

**No progress/regressing**

Armenia	Vanuatu
Timor-Leste	

Lao PDR = Lao People's Democratic Republic.  
Source: Table 1.3.

on household income or household consumption expenditure, and the PPP dollar conversion rate for 2005. Both the measurement of household income or expenditure in national currencies and the calculation of 2005 PPPs will have relatively high error margins in many countries. Data based on the \$1.25-a-day poverty line are missing for most of the Pacific island countries. For the number of poor, population data from the World Bank's PovcalNet Database were used to maintain consistency.

The computation of labor productivity (or gross domestic product per person employed) uses data on the number of persons employed, which does not take into account the actual number of hours worked. Assuming a constant mix of economic activities, the best measure of labor input to compute labor productivity would be the "total number of annual hours actually worked by all persons employed." In addition, differences in the coverage of informal sector activities in the statistics of developing members may hamper the comparability of estimates of labor productivity growth.

For the employment-to-population ratio, estimates across countries often are not strictly comparable because nationally reported data differ, mostly in age coverage.

The proportion of own-account and contributing family workers in total employment may not be able to capture vulnerable employment perfectly because, while most own-account workers are more vulnerable or worse off than salaried workers, this is not universally the case. Some salaried workers are in casual contracts, offering little or no social protection. This does not diminish the indicator's usefulness and relevance because high poverty rates are strongly correlated with large shares of vulnerable employment in less developed economies.

The hunger indicators are based on standards devised by the Food and Agriculture Organization (FAO), United Nations Children's Fund (UNICEF), and World Health Organization (WHO). While countries attempt to use the same standards, comparability is compromised by lack of regular data collection in many countries. Statistical techniques are typically used to extend data collected from household surveys to the full population. Such estimates may have large error margin.

## Data issues and comparability

The \$1.25-a-day test for determining poverty and the calculation of poverty gaps requires information

## MDG 1 Targets and Indicators

Table 1.1 **Target 1.A: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day**

Regional Member	1.1 Proportion of Population below the Poverty Line (%)						1.3 Share of Poorest Quintile in National Income or Consumption (%)
	\$1.25 a Day (PPP)		National		1.2 Poverty Gap Ratio		
	Earliest Year	Latest Year	Earliest Year	Latest Year	Earliest Year	Latest Year	Latest Year
Developing Member Economies							
Central and West Asia							
Afghanistan	...	...	33.0 (2005)	36.0 (2008)	...	...	9.4 (2008)
Armenia	17.5 (1996)	2.5 (2010)	48.3 (2001)	35.0 (2011)	4.7 (1996)	0.5 (2010)	8.8 (2010)
Azerbaijan	16.3 (1995)	0.4 (2008)	49.6 (2001)	7.6 (2011)	4.3 (1995)	0.1 (2008)	8.0 (2008)
Georgia	4.7 (1996)	18.0 (2010)	24.6 (2004)	23.0 (2011)	0.8 (1996)	5.8 (2010)	5.0 (2010)
Kazakhstan	4.2 (1993)	0.1 (2009)	46.7 (2001)	3.8 (2012)	0.5 (1993)	0.0 (2009)	9.1 (2009)
Kyrgyz Republic	18.6 (1993)	5.0 (2011)	62.6 (2000)	36.8 (2011)	8.6 (1993)	1.1 (2011)	7.7 (2011)
Pakistan	64.7 (1991)	21.0 (2008)	30.6 (1999)	22.3 (2006)	23.2 (1991)	3.5 (2008)	9.6 (2008)
Tajikistan	49.4 (1999)	6.6 (2009)	96.0 (1999)	46.7 (2009)	15.4 (1999)	1.2 (2009)	8.3 (2009)
Turkmenistan	63.5 (1993)	24.8 (1998)	...	29.9 (1998)	25.8 (1993)	7.0 (1998)	6.1 (1998)
Uzbekistan	...	...	27.5 (2001)	17.7 (2010)	...	...	7.1 (2003)
East Asia							
China, People's Rep. of	60.2 <sup>a</sup> (1990)	11.8 <sup>a</sup> (2009)	6.0 (1996)	10.2 <sup>b</sup> (2012)	20.7 <sup>a</sup> (1990)	2.8 <sup>a</sup> (2009)	4.7 <sup>a</sup> (2009)
Hong Kong, China	...	...	...	...	...	...	5.3 (1996)
Korea, Rep. of	...	...	...	5.0 (2004)	...	...	7.9 (1998)
Mongolia	...	...	...	27.4 (2012)	...	...	7.1 (2008)
Taipei, China	...	...	0.6 (1993)	1.4 (2011)	...	...	...
South Asia							
Bangladesh	70.2 (1992)	43.3 (2010)	56.6 (1992)	31.5 (2010)	23.8 (1992)	11.2 (2010)	8.9 (2010)
Bhutan	26.2 (2003)	10.2 (2007)	23.2 (2007)	12.0 <sup>c</sup> (2012)	7.0 (2003)	1.8 (2007)	6.6 (2007)
India	49.4 <sup>a</sup> (1994)	32.7 <sup>a</sup> (2010)	45.3 <sup>d</sup> (1994)	29.8 <sup>d</sup> (2010)	13.6 <sup>a</sup> (1994)	7.5 <sup>a</sup> (2010)	8.5 <sup>a</sup> (2010)
Maldives	...	1.5 (2004)	21.0 <sup>e</sup> (2003)	15.0 <sup>f</sup> (2010)	...	0.1 (2004)	6.5 (2004)
Nepal	68.0 (1996)	24.8 (2010)	41.8 (1996)	25.2 (2011)	25.6 (1996)	5.6 (2010)	8.3 (2010)
Sri Lanka	15.0 (1991)	4.1 (2010)	26.1 (1991)	8.9 (2010)	2.7 (1991)	0.7 (2010)	7.7 (2010)
Southeast Asia							
Brunei Darussalam	...	...	...	...	...	...	...
Cambodia	44.5 (1994)	18.6 (2009)	47.0 (1994)	30.1 (2007)	12.0 (1994)	3.5 (2009)	7.9 (2009)
Indonesia	54.3 <sup>a</sup> (1990)	18.1 <sup>a</sup> (2010)	17.6 <sup>a</sup> (1996)	12.0 <sup>a</sup> (2012)	15.6 <sup>a</sup> (1990)	3.3 <sup>a</sup> (2010)	7.6 <sup>a</sup> (2010)
Lao PDR	55.7 (1992)	33.9 (2008)	45.0 (1992)	27.6 (2008)	16.2 (1992)	9.0 (2008)	7.6 (2008)
Malaysia	1.6 (1992)	0.0 (2009)	5.7 (2004)	3.8 (2009)	0.1 (1992)	0.0 (2009)	4.5 (2009)
Myanmar	...	...	32.1 (2005)	25.6 (2010)	...	...	...
Philippines	30.7 (1991)	18.4 (2009)	33.1 (1991)	26.5 (2009)	8.6 (1991)	3.7 (2009)	6.0 (2009)
Singapore	...	...	...	...	...	...	5.0 (1998)
Thailand	11.6 (1990)	0.4 (2010)	58.1 (1990)	13.2 (2011)	2.4 (1990)	0.0 (2010)	6.8 (2010)
Viet Nam	63.7 (1993)	16.9 (2008)	...	20.7 <sup>g</sup> (2010)	23.6 (1993)	3.8 (2008)	7.4 (2008)
The Pacific							
Cook Islands	...	...	...	28.4 <sup>h</sup> (2006)	...	...	...
Fiji	29.2 (2003)	5.9 (2009)	35.0 <sup>h</sup> (2003)	31.0 <sup>h</sup> (2009)	11.3 (2003)	1.1 (2009)	6.2 (2009)
Kiribati	...	...	...	21.8 <sup>h</sup> (2006)	...	...	...
Marshall Islands	...	...	20.0 <sup>h</sup> (1999)	...	...	...	1.1 (1999)
Micronesia, Fed. States of	...	31.2 <sup>i</sup> (2000)	27.9 <sup>h</sup> (1998)	31.4 <sup>h</sup> (2005)	...	16.3 <sup>i</sup> (2000)	1.6 <sup>i</sup> (2000)
Nauru	...	...	...	...	...	...	...
Palau	...	...	...	24.9 <sup>h</sup> (2006)	...	...	...
Papua New Guinea	...	35.8 (1996)	30.0 <sup>h</sup> (1990)	28.0 <sup>h</sup> (2009)	...	12.3 (1996)	4.5 (1996)
Samoa	...	...	22.9 <sup>h</sup> (2002)	26.9 <sup>h</sup> (2008)	...	...	...
Solomon Islands	...	...	...	22.7 <sup>h</sup> (2006)	...	...	...
Timor-Leste	...	...	36.3 <sup>h</sup> (2001)	41.1 <sup>h</sup> (2009)	...	...	...
Tonga	...	...	16.2 <sup>h</sup> (2001)	22.5 <sup>h</sup> (2009)	...	...	...
Tuvalu	...	...	21.2 <sup>h</sup> (2004)	26.3 <sup>h</sup> (2010)	...	...	...
Vanuatu	...	...	...	13.0 <sup>h</sup> (2006)	...	...	...
Developed Member Economies							
Australia	...	...	...	...	...	...	5.9 (1994)
Japan	...	...	...	...	...	...	10.6 (1993)
New Zealand	...	...	...	...	...	...	6.5 (1997)

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, PPP = purchasing power parity.

a Weighted average of urban and rural estimates.

b Refers to rural areas only.

c Consumption data are not comparable with the data used in 2003.

d Based on the new methodology recommended by the Tendulkar Committee.

e Data have been adjusted to account for inflation.

f Based on half the median of Atoll expenditure per person per day (Rf. 22).

g Figure is based on the 2010 revised WB/GSO expenditure poverty line, and thus, not comparable with the prior series. An alternative poverty headcount rate released by the government is 14.2, which is based on the official MOLISA poverty lines (revised every 5 years for the SEDP) and a 'bottom up' system using community-level poverty counts aggregated up to district, province, and national levels.

h Refers to percentage of population below the basic needs poverty line.

i Refers to urban areas only.

Sources: Millennium Indicators Database Online (UNSD 2013), PovcalNet Database (World Bank 2013), Pacific Regional Information System (SPC), country sources.

## MDG 1 Targets and Indicators

Table 1.2 **Target 1.B: Achieve full and productive employment and decent work for all, including women and young people**

Regional Member	1.4 Growth Rate of GDP per Person Employed		1.5 Employment-to-Population Ratio		1.6 Proportion of Employed People Living below \$1.25 per Day (PPP)		1.7 Proportion of Own-Account and Contributing Family Workers in Total Employment	
	(% , at constant 1990 \$ PPP)		(% , aged 15 years and over)		(% )		(% )	
	Earliest Year	Latest Year	Earliest Year	Latest Year	Earliest Year	Latest Year	Earliest Year	Latest Year
<b>Developing Member Economies</b>								
<b>Central and West Asia</b>								
Afghanistan	...	...	...	...	...	38.0 (2005)	...	...
Armenia	...	...	41.9 (2001)	45.0 (2008)	9.7 (1996)	0.7 (2008)	35.7 (2007)	37.8 (2008)
Azerbaijan	10.6 (2003)	-0.1 (2011)	45.4 (2002)	60.9 (2011)	12.5 (1995)	0.7 (2008)	62.4 (2003)	54.7 (2008)
Georgia	2.6 (1999)	4.6 (2011)	57.3 (1998)	55.4 (2011)	11.4 (2002)	10.7 (2008)	53.9 (1998)	63.2 (2008)
Kazakhstan	5.0 (2003)	5.1 (2011)	63.6 (2002)	67.8 (2011)	2.7 (1993)	- (2007)	40.0 (2001)	30.4 (2011)
Kyrgyz Republic	...	...	56.3 (2002)	60.1 (2006)	14.8 (1993)	1.5 (2007)	51.5 (2002)	47.3 (2006)
Pakistan	9.2 (1991)	4.1 (2007)	40.5 (1990)	42.8 (2007)	57.4 (1991)	19.2 (2006)	64.9 (1995)	63.1 (2008)
Tajikistan	...	-6.2 (2004)	50.9 (2003)	58.4 (2004)	39.6 (1999)	19.5 (2004)	...	...
Turkmenistan	...	...	...	...	47.9 (1993)	19.0 (1998)	...	...
Uzbekistan	...	...	...	...	32.4 (2002)	35.3 (2003)	...	...
<b>East Asia</b>								
China, People's Rep. of	...	...	...	...	...	...	...	...
Hong Kong, China	4.1 (1991)	2.0 (2011)	61.5 (1990)	58.2 (2011)	...	...	5.5 (1993)	6.5 (2011)
Korea, Rep. of	6.1 (1991)	1.9 (2011)	58.6 (1990)	59.1 (2011)	...	...	30.0 (2000)	24.8 (2008)
Mongolia	7.8 (2004)	5.3 (2005)	55.9 (1998)	56.0 (2005)	14.3 (1995)	11.3 (2002)	56.6 (2000)	57.5 (2009)
Taipei, China	...	...	...	...	...	...	...	...
<b>South Asia</b>								
Bangladesh	...	...	68.2 (1991)	56.0 (2005)	55.9 (1992)	50.1 (2005)	69.4 (1996)	85.0 (2005)
Bhutan	20.0 (2006)	4.6 (2011)	69.8 (2003)	65.3 (2011)	...	26.9 (2003)	68.0 (2006)	70.9 (2011)
India	...	...	58.3 (1994)	52.9 (2010)	49.1 (1994)	39.2 (2005)	83.1 (1994)	80.8 (2010)
Maldives	...	...	51.3 (1995)	54.9 (2006)	26.1 (1998)	1.3 (2004)	46.3 (1990)	29.6 (2006)
Nepal	...	...	67.2 (1996)	91.6 (2003)	63.9 (1996)	50.4 (2003)	...	71.6 (2001)
Sri Lanka	5.3 (1991)	6.7 (2010)	38.6 (1990)	50.7 (2010)	13.2 (1991)	5.8 (2007)	43.0 (1990)	41.9 (2010)
<b>Southeast Asia</b>								
Brunei Darussalam	...	...	62.6 (1991)	63.1 (2001)	...	...	...	4.1 (1991)
Cambodia	-5.8 (2001)	4.1 (2011)	76.4 (2000)	87.3 (2011)	50.5 (1994)	25.1 (2007)	84.5 (2000)	68.5 (2011)
Indonesia	11.0 (1995)	5.0 (2011)	55.7 (1992)	63.9 (2011)	52.6 (1993)	19.8 (2005)	62.8 (1997)	57.2 (2011)
Lao PDR	...	...	68.6 (1995)	65.7 (2005)	57.1 (1992)	31.5 (2008)	90.1 (1995)	88.0 (2005)
Malaysia	4.9 (1993)	4.9 (2010)	63.5 (1990)	60.6 (2010)	1.4 (1992)	- (2009)	28.8 (1991)	21.7 (2010)
Myanmar	...	...	...	...	...	31.1 (2005)	...	...
Philippines	-2.5 (1991)	0.7 (2011)	59.3 (1990)	60.1 (2011)	26.8 (1991)	19.0 (2006)	44.9 (1998)	41.2 (2011)
Singapore	17.6 (1991)	3.0 (2011)	63.6 (1990)	63.5 (2011)	...	...	8.8 (1991)	9.6 (2011)
Thailand	-4.1 (1997)	-1.0 (2011)	76.9 (1990)	71.6 (2011)	4.4 (1992)	- (2004)	70.3 (1990)	53.5 (2011)
Viet Nam	7.5 (1997)	4.9 (2004)	74.3 (1996)	75.8 (2011)	66.7 (1993)	12.0 (2008)	82.1 (1996)	62.5 (2011)
<b>The Pacific</b>								
Cook Islands	...	...	...	60.0 (2001)	...	...	...	...
Fiji	0.4 (2008)	-2.2 (2009)	56.0 (1996)	50.3 (2007)	...	18.5 (2005)	...	39.0 (2005)
Kiribati	...	...	...	80.1 (2000)	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	26.7 (1999)
Micronesia, Fed. States of	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	34.0 (1996)	...	...
Samoa	...	...	...	48.2 (2001)	...	...	...	...
Solomon Islands	...	...	...	23.1 (1999)	...	21.5 (2005)	...	...
Timor-Leste	...	...	...	...	...	...	...	...
Tonga	...	...	...	50.6 (1996)	...	...	57.0 (1996)	55.2 (2003)
Tuvalu	...	...	...	53.3 (2002)	...	...	...	2.0 (2002)
Vanuatu	...	...	...	67.6 (2009)	...	...	...	70.0 (2009)
<b>Developed Member Economies</b>								
Australia	2.0 (1991)	0.2 (2011)	59.3 (1990)	62.2 (2011)	...	...	10.3 (1990)	9.0 (2008)
Japan	1.5 (1991)	4.6 (2011)	62.1 (1990)	56.6 (2011)	...	...	19.2 (1990)	10.5 (2008)
New Zealand	0.9 (1991)	-0.6 (2011)	59.1 (1990)	63.9 (2011)	...	...	12.7 (1991)	12.1 (2008)

... = Data not available at cutoff date, - = Magnitude zero, PPP = purchasing power parity, GDP = gross domestic product.

Source: Millennium Indicators Database Online (UNSD 2013).

## MDG 1 Targets and Indicators

Table 1.3 **Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger**

Regional Member	1.8 Prevalence of Underweight Children under 5 Years of Age (%)		1.9 Proportion of Population below Minimum Level of Dietary Energy Consumption (%)		
	Earliest Year	Latest Year			
	Total	Total	1991	2000	2011
<b>Developing Member Economies</b>					
<b>Central and West Asia</b>					
Afghanistan	44.9 (1997)	32.9 (2004)	...	...	...
Armenia	2.7 (1998)	4.2 (2005)	23	19	<5
Azerbaijan	8.8 (1996)	8.4 (2006)	23	15	<5
Georgia	2.7 (1999)	1.1 (2009)	60	22	25
Kazakhstan	6.2 (1995)	4.9 (2006)	<5	8	<5
Kyrgyz Republic	10.4 (1997)	2.7 (2006)	16	16	6
Pakistan	39.0 (1991)	31.5 (2011)	26	24	20
Tajikistan	14.9 (2005)	15.0 (2007)	31	41	32
Turkmenistan	10.5 (2000)	8.2 (2005)	10	8	<5
Uzbekistan	13.3 (1996)	4.4 (2006)	<5	15	6
<b>East Asia</b>					
China, People's Rep. of	12.6 (1990)	3.6 (2010)	21	14	12
Hong Kong, China	...	...	...	...	...
Korea, Rep. of	...	...	<5	<5	<5
Mongolia	11.0 (1992)	4.7 (2010)	38	38	24
Taipei, China	...	...	...	...	...
<b>South Asia</b>					
Bangladesh	61.5 (1990)	36.4 (2011)	35	18	17
Bhutan	14.1 (1999)	12.7 (2010)	...	...	...
India	52.8 (1992)	43.5 (2006)	27	21	18
Maldives	32.5 (1994)	17.8 (2009)	11	10	6
Nepal	42.6 (1995)	28.8 (2011)	26	25	18
Sri Lanka	33.8 (1993)	21.6 (2009)	34	29	24
<b>Southeast Asia</b>					
Brunei Darussalam	...	...	<5	<5	<5
Cambodia	42.6 (1996)	28.3 (2010)	40	34	17
Indonesia	29.8 (1992)	17.9 (2010)	20	18	9
Lao PDR	39.8 (1993)	31.6 (2006)	45	40	28
Malaysia	22.1 (1990)	12.9 (2006)	<5	<5	<5
Myanmar	32.5 (1990)	22.6 (2009)	...	...	...
Philippines	29.9 (1990)	20.7 (2008)	24	21	17
Singapore	...	3.3 (2000)	...	...	...
Thailand	16.3 (1993)	7.0 (2006)	44	20	7
Viet Nam	36.9 (1993)	11.7 (2011)	47	22	9
<b>The Pacific</b>					
Cook Islands	...	...	...	...	...
Fiji	...	6.9 (1993)	6	<5	<5
Kiribati	...	...	9	7	8
Marshall Islands	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...
Nauru	...	4.8 (2007)	...	...	...
Palau	...	...	...	...	...
Papua New Guinea	...	18.1 (2005)	...	...	...
Samoa	...	1.7 (1999)	13	<5	<5
Solomon Islands	...	11.5 (2007)	23	15	13
Timor-Leste	40.6 (2002)	45.3 (2010)	40	32	38
Tonga	...	...	...	...	...
Tuvalu	...	1.6 (2007)	...	...	...
Vanuatu	10.6 (1996)	11.7 (2007)	11	9	9
<b>Developed Member Economies</b>					
Australia	...	...	<5	<5	<5
Japan	...	...	<5	<5	<5
New Zealand	...	...	<5	<5	<5

... = Data not available at cutoff date, &lt; = less than.

Source: Millennium Indicators Database Online (UNSD 2013).

## MDG 2: Achieve Universal Primary Education

### Snapshots

- The majority of economies in the Asia and Pacific region have reached the primary school enrollment target, with 26 achieving enrollment rates of 95% or better. But a dozen economies are likely to miss this goal.
- Many children do not stay in primary school through the last year. Expected primary school completion rates increased, but 18 of 34 reporting economies could fall short of the Millennium Development Goal (MDG) target, including several of the most populous ones.
- Youth literacy rates exceeded 95% in 31 of 42 economies with data in the latest year. Most economies with low youth literacy rates showed an improving trend.

### Introduction

The target for MDG 2 is to ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling. Primary education usually starts at 5–6 years of age and continues through 11–12, although age requirements differ among countries.

To achieve this target, countries need to ensure that primary school-age children are enrolled in school, and that they complete the full primary years. Although the target is 100% enrollment and completion, a cutoff rate of 95% is set to track the progress toward achieving the target.

Youth literacy, or literacy among 15–24 year olds, is a good indicator of the effectiveness of the primary education system and thus is viewed as an alternative indicator to measure social progress and economic achievement. The youth literacy rate shows how well basic reading and writing skills learned in primary school have been retained when young people join the workforce or enter higher education.

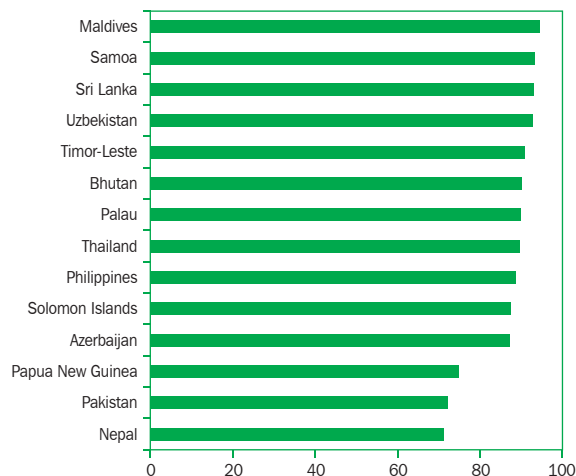
Whenever available, the reference year used in reporting the latest data is 2011 for net enrollment ratios in primary school, 2010 for the proportion of pupils starting the first grade that is expected to reach the last grade of primary school, and 2011 for literacy rates. However, actual latest available data range from 2000 to 2012 for net enrollment rates, except in one case where the data are for 1995; 2001 to 2011 for the proportion of pupils starting the first grade that is expected to reach the last grade of primary school; and 2005 to 2012 for the literacy rates. The data in the analysis refer only to developing member economies in Asia and the Pacific.

### Key trends

**Most economies have achieved 95% primary school enrollment.** Table 2.1 shows that 26 of the 40 economies in the region for which data were available had net primary school enrollment ratios of at least 95% in 2011 or the nearest year. Among the most populous economies, the People's Republic of China (PRC), India, and Indonesia achieved enrollment rates of 99% or more, while Pakistan lagged at 72%.

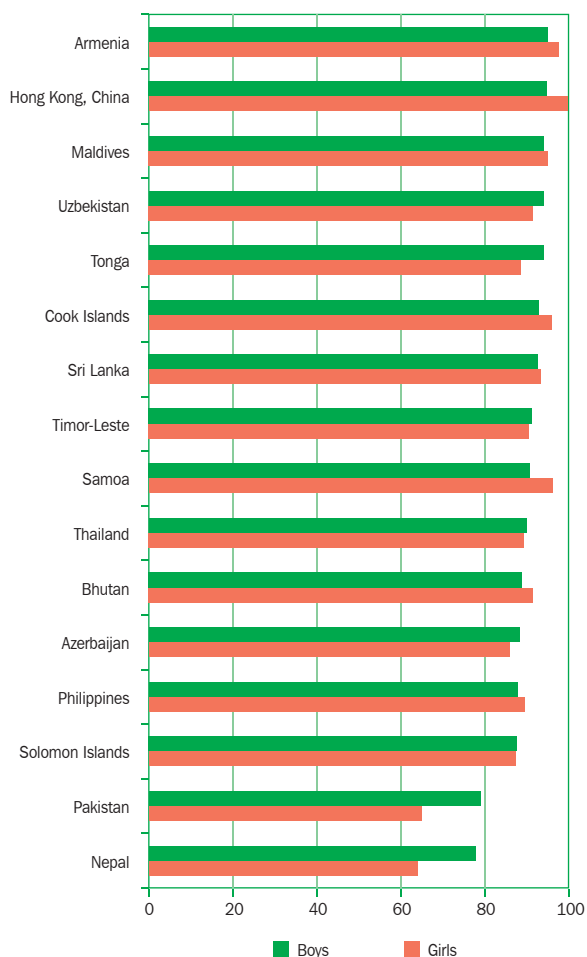
Figure 2.1a shows the 14 economies yet to reach 95% primary school enrollment, with Papua New Guinea, Pakistan, and Nepal at the tail end (below 75%). Figure 2.1b shows that in Pakistan and Nepal, enrollment rates for boys were 14 percentage points higher than for girls. Otherwise, enrollment rates for boys and girls were quite close across the region. Enrollment rates for girls were slightly higher than for boys in 11 economies (Table 2.1).

Figure 2.1a Net enrollment rate in primary education below 95%, both sexes, latest year



Source: Table 2.1.

Figure 2.1b Net enrollment rate in primary education below 95% in either boys or girls, latest year



Source: Table 2.1.

Figure 2.2 shows that most economies increased their primary enrollment rates between the earliest and latest years; however, some regressed, notably the Philippines for which data are available, Sri Lanka, and Thailand. These three economies are likely to miss the MDG target of 95% primary enrollment, as will Azerbaijan, Bhutan, the Maldives, Pakistan,

Figure 2.2 Percentage point change in total net enrollment ratio in primary education from earliest to latest year (%)



Note: Only economies with at least a 3-year gap between the earliest and the latest year data are shown.

Lao PDR = Lao People's Democratic Republic.

Source: Table 2.1.

Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, and Uzbekistan at their current rates of progress (Box 2.1). Twenty-six economies have achieved the MDG target and Palau is expected to join them within the next 2 years.

Box 2.1 Progress toward target for primary school enrollment

#### Early achievers

Armenia	Kyrgyz Rep.
Brunei Darussalam	Lao PDR
Cambodia	Malaysia
China, People's Rep. of	Marshall Islands
Hong Kong, China	Micronesia, Fed. States of
Cook Islands	Mongolia
Fiji	Nauru
Georgia	Taipei, China
India	Tajikistan
Indonesia	Tonga
Kazakhstan	Tuvalu
Kiribati	Vanuatu
Korea, Rep. of	Viet Nam

#### On track

Palau

#### Slow progress

Bhutan	Solomon Islands
Pakistan	Timor-Leste
Papua New Guinea	

#### No progress/regressing

Azerbaijan	Sri Lanka
Maldives	Thailand
Philippines	Uzbekistan
Samoa	

Note: Only economies with at least a 3-year gap between the earliest and the latest year data are shown.

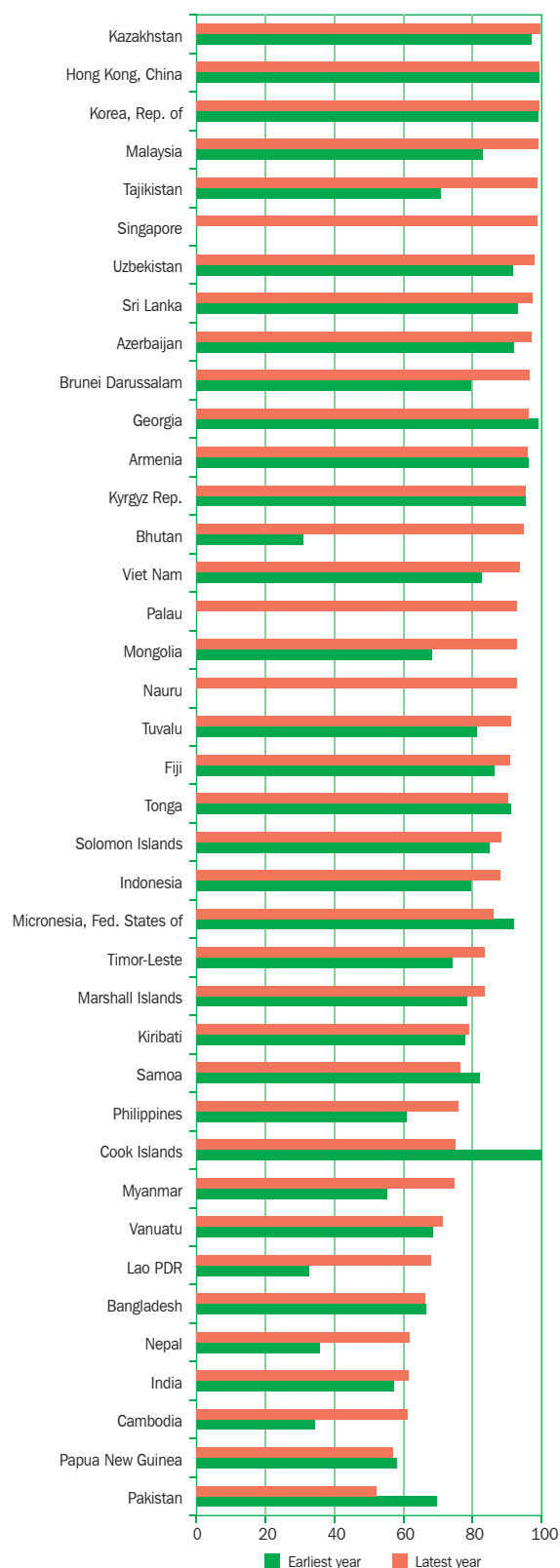
Lao PDR = Lao People's Democratic Republic.

Source: Table 2.1.

**Many children do not finish primary school.** Children must complete primary school to master basic literacy and numeracy skills, but many drop out before the last year of primary school. Household poverty is the single most important cause for keeping children out of school worldwide. Rural children are more likely to be out of school than those in cities.

Figure 2.3 shows the percentage of children who enrolled in the first grade that are expected to reach the last grade of primary education in 39 reporting economies. Only 13 economies had expected primary school completion rates of 95% or above in the latest year. For the most populous economies, completion rates were just 52% in Pakistan, 61% in India, 66% in Bangladesh, and 88% in Indonesia (recent data were not available in the PRC).

Figure 2.3 Percentage of pupils starting grade 1 who reach the last grade of primary, earliest and latest year



Lao PDR = Lao People's Democratic Republic.  
Source: Table 2.1.

Expected primary school completion rates improved in most economies between 1990 and the latest year, with significant increases in Bhutan, Cambodia, the Lao People's Democratic Republic (Lao PDR), Myanmar, Mongolia, Nepal, and Tajikistan (Table 2.1). However, 10 economies recorded declines, albeit relatively slight for most. In the majority of economies, girls were more likely to complete primary schools than boys. In three economies—Bangladesh, Kiribati, and the Philippines—the expected completion rates for girls were at least 8 percentage points higher than for boys. This could reflect poor families sending boys to work to contribute to household incomes.

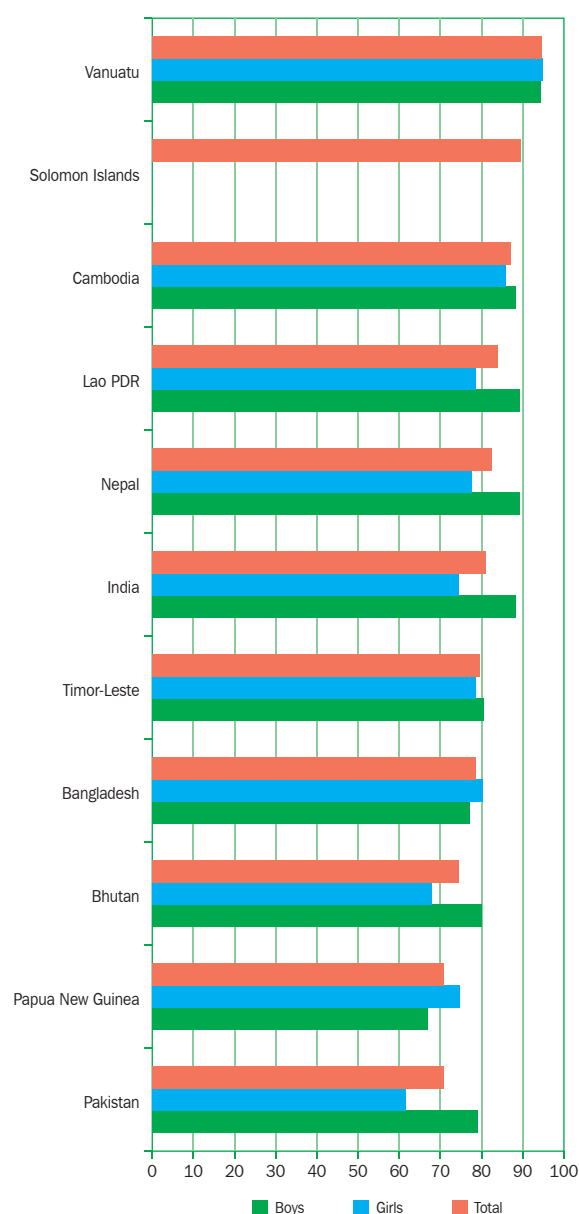
Box 2.2 shows progress toward the target of keeping children in primary school through the final year. Sixteen economies have reached or are expected to meet the 95% target. However, 18 have not been making enough progress to achieve the goal, including India, Indonesia, Myanmar, Pakistan, and the Philippines.

**Youth literacy rates are generally high across the region.** Literacy rates for people aged 15–24 years exceeded 95% in three-quarters of 42 economies with data in 2011 or the nearest year. The PRC and 15 other economies reported youth literacy rates of at least 99%. Figure 2.4 shows the 11 economies with rates below 95%. Pakistan's youth literacy rate was just 71%,

Bangladesh's was 79%, and India's was 81%. Others with relatively low rates were Bhutan (74%), Papua New Guinea (71%), and Timor-Leste (80%).

Several economies with low youth literacy rates recorded substantial improvements between the earliest and latest years (Figure 2.5). Bangladesh, Nepal, and Solomon Islands raised youth literacy rates by more than 25 percentage points, and increases of India and

Figure 2.4 Literacy rate below 95% among 15–24 year-olds by gender, latest year (%)



Lao PDR = Lao People's Democratic Republic.  
Source: Table 2.1.

#### Box 2.2 Progress toward target for completion of last grade of primary

##### Early achievers

Armenia	Korea, Rep. of
Azerbaijan	Kyrgyz Rep.
Brunei Darussalam	Malaysia
Hong Kong, China	Sri Lanka
Georgia	Tajikistan
Kazakhstan	Uzbekistan

##### On track

Bhutan	Mongolia
Fiji	Viet Nam

##### Slow progress

Cambodia	Myanmar
India	Nepal
Indonesia	Philippines
Lao PDR	Solomon Islands
Marshall Islands	Vanuatu

##### No progress/regressing

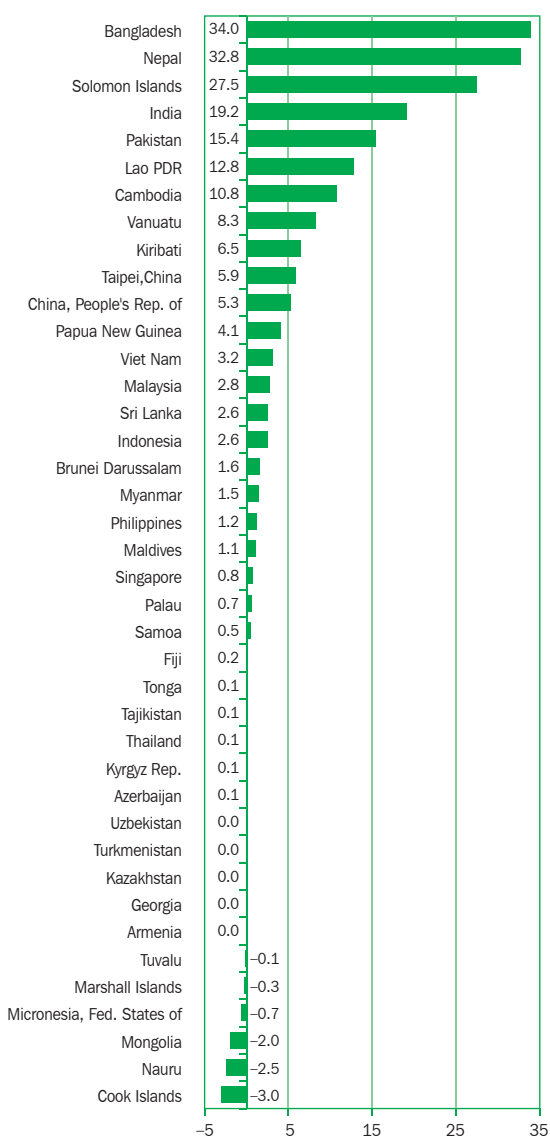
Cook Islands	Papua New Guinea
Kiribati	Samoa
Micronesia, Fed. States of	Tonga
Pakistan	Tuvalu

Lao PDR = Lao People's Democratic Republic.  
Source: Table 2.1.

Pakistan exceeded 15 percentage points. However, youth literacy declined in five Pacific island countries and in Mongolia.

Table 2.1 shows that literacy among females aged 15–24 was slightly higher than among males in 18 economies. The opposite applied in Bhutan, India, the Lao PDR, Nepal, and Pakistan, where boys' literacy rates exceeded that of girls by at least 10 percentage points, although the gender disparities narrowed between the earliest and latest periods in these economies, except in Bhutan.

Figure 2.5 **Percentage point change in literacy rate among 15–24 year-olds, earliest to latest year**



Lao PDR = Lao People's Democratic Republic.  
Source: Table 2.1

## Data issues and comparability

Most of the statistics for MDG 2 are from the United Nations Statistics Division (UNSD) MDG database, which are sourced from the UNESCO Institute for Statistics (UIS). For the net enrollment ratio in primary education and the proportion of children starting first grade who will continue to the last grade of primary school, the UIS obtains data on enrollment and repeaters from education ministries or national statistical offices and United Nations (UN) population estimates. To ensure comparability across countries and time of national data derived from administrative records, adjustments are made by the UIS to be consistent with the International Standard Classification of Education (ISCED 1997). Also, whenever necessary, the UIS adjusts nationally reported data in order to take into account either under- or over-reporting.

Basic literacy data are sourced primarily from population and housing censuses. Other sources include national sample surveys and international sample surveys such as UNICEF's Multiple Indicator Cluster Surveys, both of which involve using a literacy variable in a household or individual sample surveys. To improve the international comparability of literacy data, the UIS has developed the following to help determine the suitability of national data for reporting at the international level: the survey must (i) incorporate a direct question to assess literacy as part of its methodology, (ii) receive a satisfactory evaluation by the UIS that is based on the responses to the questionnaire's metadata section, and (iii) be able to provide data in the format required by the UIS. The number of literates and illiterates were derived using the UN population estimates, which are produced by the United Nations Population Division (UNPD) using consistent methodology and assumptions across countries, thus ensuring further international comparability.

## MDG 2 Targets and Indicators

Table 2.1 **Target 2.A: Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling**

Regional Member	2.1 Net Enrollment Ratio in Primary Education (%)					
	Total		Girls <sup>a</sup>		Boys <sup>a</sup>	
	1990	2011	1990	2011	1990	2011
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	25.7 (1993)	...	13.1	...	37.4	...
Armenia	86.9 (2002)	96.2 (2007)	87.8	97.6	86.1	95.0
Azerbaijan	88.8 (1991)	87.3	88.6	86.0	89.1	88.4
Georgia	83.8 (1995)	98.4	83.0	94.2 (2007)	84.5	96.3 (2007)
Kazakhstan	94.0 (2000)	99.6 (2012)	95.3	99.6	92.8	99.6
Kyrgyz Republic	91.9 (1996)	96.1	89.9	95.8	93.9	96.3
Pakistan	57.9 (2001)	72.1	46.3	65.0	68.9	79.0
Tajikistan	96.1 (2000)	97.6	92.8	95.7	99.3	99.5
Turkmenistan	...	...	...	...	...	...
Uzbekistan	93.4 (2007)	92.8	92.2	91.5	94.5	94.1
<b>East Asia</b>						
China, People's Rep. of	97.8	99.8	...	...	...	...
Hong Kong, China	92.2 (1995)	97.2	92.8	99.8	91.6	94.9
Korea, Rep. of	99.4	98.9 (2010)	99.5 (1998)	98.4	98.1 (1998)	99.3
Mongolia	80.7 (1995)	98.8	81.6	98.2	79.9	99.4
Taipei, China	98.0	97.8 (2012)	97.9	97.7	98.2	97.9
<b>South Asia</b>						
Bangladesh	72.7	...	66.9	...	78.2	...
Bhutan	55.0 (1998)	90.2 (2012)	51.0	91.5	59.0	88.9
India	83.5 (2000)	98.6 (2010)	75.9	98.5	90.4	98.8
Maldives	97.8 (1999)	94.6	98.0	95.1	97.5	94.1
Nepal	65.1 (1999)	71.1 (2000)	57.0	64.0	72.7	77.9
Sri Lanka	99.8 (2001)	93.0	99.8 (2006)	93.3	99.9 (2006)	92.7
<b>Southeast Asia</b>						
Brunei Darussalam	93.4 (1991)	99.1 (1995)	93.2	99.7 (1994)	93.6	96.6 (1994)
Cambodia	81.6 (1997)	98.2	75.0	95.4 (2010)	88.0	96.4 (2010)
Indonesia	94.6	99.0	92.7	100.0	96.6	98.0
Lao PDR	66.2	97.4	55.1 (1992)	96.4	63.6 (1992)	98.2
Malaysia	96.2 (1994)	95.9 (2005)	96.4	95.9	96.0	95.9
Myanmar	...	...	...	...	...	...
Philippines	97.7	88.7 (2009)	97.0	89.5	98.4	87.9
Singapore	...	...	...	...	...	...
Thailand	93.6 (2006)	89.7 (2009)	92.9	89.4	94.3	90.0
Viet Nam	98.5 (1998)	99.4	...	...	...	...
<b>The Pacific</b>						
Cook Islands	90.8 (1998)	98.4 (2010)	89.2	95.9 (2000)	92.3	93.0 (2000)
Fiji	94.7 (1998)	99.0	94.7	99.3 (2009)	94.7	98.8 (2009)
Kiribati	99.7 (1991)	99.6 (2002)	...	...	...	...
Marshall Islands	98.1 (2002)	99.4	97.5	...	98.7	...
Micronesia, Fed. States of	93.7	95.8	...	...	...	...
Nauru	75.1 (1992)	95.0	...	...	...	...
Palau	81.8	90.0	...	...	...	...
Papua New Guinea	53.1	74.9 (2010)	...	...	...	...
Samoa	96.7 (1998)	93.4	98.8	96.2	94.8	90.8
Solomon Islands	77.0 (2005)	87.5 (2010)	76.1	87.3	78.0	87.7
Timor-Leste	66.8 (2005)	90.9	65.3	90.6	68.3	91.3
Tonga	92.3	98.9 (2006)	93.2	88.7 (1999)	91.5	94.0 (1999)
Tuvalu	99.5 (1991)	98.1 (2007)	...	...	...	...
Vanuatu	98.3 (1998)	98.9 (2005)	98.1	97.0 (2004)	98.4	98.1 (2004)
<b>Developed Member Economies</b>						
Australia	97.5	97.2 (2010)	97.7	97.5	97.2	96.9
Japan	100.0	100.0 (2010)	100.0	99.9 (2007)	99.9	100.0 (2007)
New Zealand	99.5	99.5 (2010)	98.7 (1991)	99.6	99.0 (1991)	99.3

continued

## MDG 2 Targets and Indicators

Table 2.1 **Target 2.A: Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling** (continued)

Regional Member	2.2 Proportion of Pupils Starting Grade 1 Who Reach the Last Grade of Primary (%)					
	Total		Girls <sup>a</sup>		Boys <sup>a</sup>	
	1990	2010	1990	2010	1990	2010
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	87.8 (1993)	...	87.8	...	87.8	...
Armenia	96.4 (1997)	96.0	95.6 (2002)	96.0	95.9 (2002)	96.0
Azerbaijan	92.0 (1993)	97.2	91.2	95.6	92.7	98.6
Georgia	99.1 (1999)	96.2 (2009)	99.8	98.6	98.5	94.1
Kazakhstan	97.1 (1994)	99.6 (2011)	97.5	99.7	96.7	99.4
Kyrgyz Republic	95.5 (1995)	95.3	93.9 (1999)	95.9	95.1 (1999)	94.7
Pakistan	69.7 (2004)	52.2	72.4	51.0	67.8	53.2
Tajikistan	70.9 (1997)	98.9	99.2 (2008)	98.7	98.2 (2008)	99.1
Turkmenistan	...	...	...	...	...	...
Uzbekistan	91.8 (1995)	98.1	96.9 (2000)	98.3	98.6 (2000)	97.8
<b>East Asia</b>						
China, People's Rep. of	87.3	...	...	...	...	...
Hong Kong, China	99.3 (2002)	99.4	100.0	99.3	98.7	99.6
Korea, Rep. of	99.2 (1998)	99.3 (2009)	99.0	99.3	99.4	99.2
Mongolia	68.2 (1995)	92.8	70.5	93.6	65.8	92.1
Taipei, China	...	...	...	...	...	...
<b>South Asia</b>						
Bangladesh	66.6 (2008)	66.2 (2009)	66.1	70.6	67.1	61.9
Bhutan	31.0 (1993)	94.9 (2011)	29.3	98.7	32.3	91.2
India	57.3 (1995)	61.4 (2001)	54.1	63.5	59.8	59.7
Maldives	...	...	...	...	...	...
Nepal	35.7 (1991)	61.7 (2007)	32.3 (1992)	63.7	43.9 (1992)	59.8
Sri Lanka	93.2	97.3	94.1	94.6	92.2	100.0
<b>Southeast Asia</b>						
Brunei Darussalam	79.7 (1991)	96.6	95.1 (2003)	96.3 (2009)	99.0 (2003)	96.0 (2009)
Cambodia	34.4 (1994)	61.3	34.9 (1995)	62.0	44.2 (1995)	60.7
Indonesia	79.7	88.0	92.7 (1995)	82.8 (2007)	86.1 (1995)	77.4 (2007)
Lao PDR	32.7	68.0	32.1 (1992)	69.2	33.9 (1992)	66.9
Malaysia	83.0	99.2 (2009)	83.3	99.9	82.7	98.7
Myanmar	55.2 (2000)	74.8 (2009)	55.2	77.5	55.3	72.2
Philippines	60.9	75.8 (2008)	75.9 (1998)	80.0	65.3 (1998)	72.0
Singapore	...	98.7 (2008)	...	98.8	...	98.5
Thailand	...	...	...	...	...	...
Viet Nam	82.8 (1999)	93.8	86.2	85.0 (2002)	79.9	85.7 (2002)
<b>The Pacific</b>						
Cook Islands	99.9 (2001)	75.0	...	...	...	...
Fiji	86.5 (1998)	90.9 (2008)	89.4	88.3	84.0	93.4
Kiribati	78.0 (1995)	78.9 (2003)	67.2 (2001)	86.1	71.7 (2001)	72.7
Marshall Islands	78.4 (2005)	83.5 (2008)	72.4 (2006)	79.5	69.4 (2006)	87.3
Micronesia, Fed. States of	92.0 <sup>b</sup> (2000)	86.0 <sup>b</sup> (2009)	...	...	...	...
Nauru	...	92.8 (2011)	...	...	...	...
Palau	...	93.0 (2005)	...	...	...	...
Papua New Guinea	58.1	56.9 (2009)	...	...	...	...
Samoa	82.2 (1996)	76.6	91.7 (1999)	79.1	88.5 (1999)	74.2
Solomon Islands	85.0 (1991)	88.3 (2009)	...	...	...	...
Timor-Leste	74.2 (2008)	83.6	77.9	85.1	70.8	82.1
Tonga	91.1 (2000)	90.4 (2005)	...	91.4	...	89.4
Tuvalu	81.3 (1991)	91.2 (2004)	...	...	...	...
Vanuatu	68.5 (1992)	71.5 (2008)	71.0 (1999)	69.3	67.0 (1999)	73.5
<b>Developed Member Economies</b>						
Australia	...	...	...	...	...	...
Japan	100.0 (2008)	100.0 (2009)	100.0	99.9	100.0	100.0
New Zealand	...	...	...	...	...	...

continued

## MDG 2 Targets and Indicators

Table 2.1 **Target 2.A: Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling** (continued)

Regional Member	2.3 Literacy Rate of 15–24 Year-Olds (%)					
	Total		Girls <sup>a</sup>		Boys <sup>a</sup>	
	1990	2011	1990	2011	1990	2011
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	...	...	...	...	...
Armenia	99.8 (2001)	99.8	99.9	99.8	99.8	99.7
Azerbaijan	99.9 (1999)	100.0 (2009)	99.9	99.9	99.9	100.0
Georgia	99.8 (2002)	99.8	99.9	99.9	99.8	99.8
Kazakhstan	99.8 (1999)	99.8 (2009)	99.9	99.9	99.8	99.8
Kyrgyz Republic	99.7 (1999)	99.8 (2009)	99.7	99.8	99.7	99.7
Pakistan	55.3 (1998)	70.7 (2009)	43.1	61.5	67.1	79.1
Tajikistan	99.8 (2000)	99.9	99.8	99.9	99.8	99.9
Turkmenistan	99.8 (1995)	99.8	99.8	99.9	99.8	99.8
Uzbekistan	99.9 (2000)	99.9	99.9	100.0	99.9	99.9
<b>East Asia</b>						
China, People's Rep. of	94.3	99.6 (2010)	91.5	99.6	97.0	99.7
Hong Kong, China	...	...	...	...	...	...
Korea, Rep. of	...	...	...	...	...	...
Mongolia	97.7 (2000)	95.7	98.4	97.3	97.0	94.1
Taipei, China	92.4 <sup>c</sup>	98.3 <sup>c</sup> (2012)	...	...	...	...
<b>South Asia</b>						
Bangladesh	44.7 (1991)	78.7	38.0	80.4	51.7	77.1
Bhutan	...	74.4 (2005)	...	68.0	...	80.0
India	61.9 (1991)	81.1 (2006)	49.3	74.4	73.5	88.4
Maldives	98.2	99.3 (2006)	98.3	99.4	98.1	99.2
Nepal	49.6 (1991)	82.4	32.7	77.5	68.2	89.2
Sri Lanka	95.6 (2001)	98.2 (2010)	96.1	98.6	95.1	97.7
<b>Southeast Asia</b>						
Brunei Darussalam	98.1 (1991)	99.7	98.1	99.7	98.1	99.8
Cambodia	76.3 (1998)	87.1 (2009)	71.1	85.9	81.8	88.4
Indonesia	96.2	98.8	95.1	98.8	97.4	98.8
Lao PDR	71.1 (1995)	83.9 (2005)	64.1	78.7	78.8	89.2
Malaysia	95.6 (1991)	98.4 (2010)	95.2	98.5	95.9	98.4
Myanmar	94.6 (2000)	96.1	93.5	95.8	95.8	96.3
Philippines	96.6	97.8 (2008)	96.9	98.5	96.3	97.0
Singapore	99.0	99.8 (2010)	99.1	99.8	98.9	99.7
Thailand	98.0 (2000)	98.1 (2005)	97.8	97.9	98.1	98.2
Viet Nam	93.9 (1999)	97.1	93.6	96.7	94.2	97.5
<b>The Pacific</b>						
Cook Islands	99.0 (2001)	96.0	...	...	...	...
Fiji	99.3 (1996)	99.5 (2008)	...	...	...	...
Kiribati	92.0 (2000)	98.5 (2010)	...	...	...	...
Marshall Islands	98.3 (1999)	98.0	...	...	...	...
Micronesia, Fed. States of	96.4 (1994)	95.7 (2010)	...	...	...	...
Nauru	99.0 (2002)	96.5	...	97.2	...	95.7
Palau	99.0 (2000)	99.7 (2005)	...	...	...	...
Papua New Guinea	66.7 (2000)	70.8	64.1	74.8	69.1	67.0
Samoa	99.0 (1991)	99.5	99.0	99.6	99.1	99.4
Solomon Islands	62.0 (1991)	89.5 (2009)	...	...	...	...
Timor-Leste	...	79.5 (2010)	...	78.6	...	80.5
Tonga	99.3 (1996)	99.4 (2006)	99.4	99.6	99.3	99.3
Tuvalu	98.7 (1991)	98.6 (2007)	...	...	...	...
Vanuatu	86.3 (1994)	94.6	85.2	94.8	87.3	94.4
<b>Developed Member Economies</b>						
Australia	...	...	...	...	...	...
Japan	...	...	...	...	...	...
New Zealand	...	...	...	...	...	...

... = Data not available at cutoff date.

a Figures refer to the same year as indicated in the column for "total" unless indicated otherwise.

b Data for 2000 and 2009 apply to reference period 1997–2000 and 2007–2009, respectively.

c Refers to literacy rate among persons aged 15 and above.

Sources: Millennium Indicators Database Online (UN 2013); National Minimum Development Indicator Database (Secretariat of the Pacific Community 2013); for the People's Republic of China (Indicator 2.1): China Statistical Yearbook 2012 (National Bureau of Statistics 2013); for Taipei, China (Indicators 2.1 and 2.3): Educational Statistical Indicators Online (Ministry of Education 2013).

## MDG 3: Promote Gender Equality and Empower Women

### Snapshots

- All but 3 of 42 reporting economies in the Asia and Pacific region have already achieved or expected to achieve gender equality at the primary education level by 2015. At the secondary level, only 5 economies might fall short of the target.
- The performance on gender equality in tertiary education has improved, but 13 economies are lagging, including two of the most populous ones—Bangladesh and India.
- Women held less than 40% of the wage-earning jobs outside of agriculture in 16 of 34 reporting economies, and less than 20% in three of the most populous ones despite some improvement over time. Women's representation in national parliaments increased in 29 of 40 reporting regional members between 2000 and the latest year.

### Introduction

The target for Millennium Development Goal (MDG) 3 is to eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015.

The gender parity index (GPI) is used to track this target. This index refers to the ratio of the number of female students enrolled in a specific education level to the number of male students in the same level. The index is standardized using the GPI of the gross enrollment ratios at each level to eliminate population structure effects. An economy with a GPI of 1.00 has achieved parity between the sexes, and a GPI less or greater than 1.00 indicates a disparity in favor of males or females, respectively. The accepted measure for gender parity in education is 0.97–1.03. However, when tracking progress, a cutoff ratio of 0.95 is considered sufficient for having achieved parity.

MDG 3 also monitors gender parity in nonagricultural wage employment and women's political empowerment.

The reference year used for gender parity in primary, secondary, or tertiary education is 2011, although the latest available data may be from 2002 to 2012. For the share of women in nonagricultural wage employment, the reference year is 2010, with the latest available data ranging from 2003 to 2011. For the proportion of seats women held in national parliaments, data for the latest year are for 2013, except for some Pacific economies.

### Key trends

**Nearly all economies in the region have achieved the target for eliminating gender disparity in primary school.** By 2011 or the latest year with data, 39 of 45 reporting economies had achieved female–male ratios in primary education of 0.95 or higher and, of

these, 21 reported ratios of 1.00 or higher (Table 3.1). Six economies fell short of the 0.95 target—Afghanistan at 0.71, Pakistan at 0.82, Nepal at 0.86, Papua New Guinea at 0.89, the Lao People's Democratic Republic (Lao PDR) at 0.94, and Viet Nam at 0.94.

Box 3.1 shows that three of the six economies yet to reach 0.95 are on track to achieve it by 2015 at their current rates of progress. However, Afghanistan, Pakistan, and Papua New Guinea will need to accelerate efforts if they are to meet the target within 2 years.

**Substantial progress has been made toward gender equality in secondary schools.** By 2011 or the latest year, 35 of 44 reporting economies had achieved GPIs in secondary education of 0.95 or higher. Twenty nine had GPIs of 1.00 or above. However, values for nine economies were under 0.95, and the gap between their GPIs and the target level was generally greater than gaps of the economies falling short of the primary school target. Box 3.2 shows how the nine economies are expected to fare between now and 2015. Four, including India, are expected to join the group that has achieved 0.95. At current rates of progress, though, Afghanistan, the Lao PDR, Pakistan, Papua New Guinea, and Tajikistan will not meet the target. Afghanistan could fall far short—its GPI in 2011 was just 0.55.

**Gender disparities are greater at the tertiary level of education.** More females than males were enrolled in tertiary education in about half the economies, which had GPIs above 1.03. In Palau, more than twice as many females as males were at tertiary institutions (Table 3.1). Seventeen economies had GPIs below 0.95, with males outnumbering females in tertiary education, often by a wide margin. While most of the economies with GPIs below 0.95 narrowed the gender disparities between the earliest and latest years, the GPIs remained far below target in Afghanistan (0.24), Tajikistan (0.52), Papua New Guinea (0.57), Nepal and Vanuatu (0.60), and Cambodia (0.62).

Box 3.3 presents economies that have not yet reached the gender equality goal for tertiary education and have adequate data for an assessment. Only two—Indonesia and Pakistan—are on track to achieve GPIs of at least 0.95 by 2015 at current rates of progress. Bangladesh, India, the Republic of Korea, and six others made inadequate progress toward the target and four others made no progress.

Looking across primary, secondary, and tertiary education, Figure 3.1 shows that eight economies have achieved high GPIs in all three levels—Armenia; Brunei Darussalam; the People's Republic of China; Hong Kong, China; Malaysia; Myanmar; New Zealand; and Taipei, China. The record of some others, notably Afghanistan and Papua New Guinea, was relatively weak across all levels.

Box 3.1 Progress toward the target for gender equality in primary education

**On track**

Lao PDR Nepal	Viet Nam
------------------	----------

**Slow progress**

Afghanistan Pakistan	Papua New Guinea
-------------------------	------------------

Lao PDR = Lao People's Democratic Republic.  
Source: Table 3.1.

Box 3.2 Progress toward the target for gender equality in secondary education

**On track**

Cambodia India	Nepal Solomon Islands
-------------------	--------------------------

**Slow progress**

Afghanistan Lao PDR Pakistan	Papua New Guinea Tajikistan
------------------------------------	--------------------------------

Lao PDR = Lao People's Democratic Republic.  
Source: Table 3.1.

Box 3.3 Progress toward the target for gender equality in tertiary education

**On track**

Indonesia	Pakistan
-----------	----------

**Slow progress**

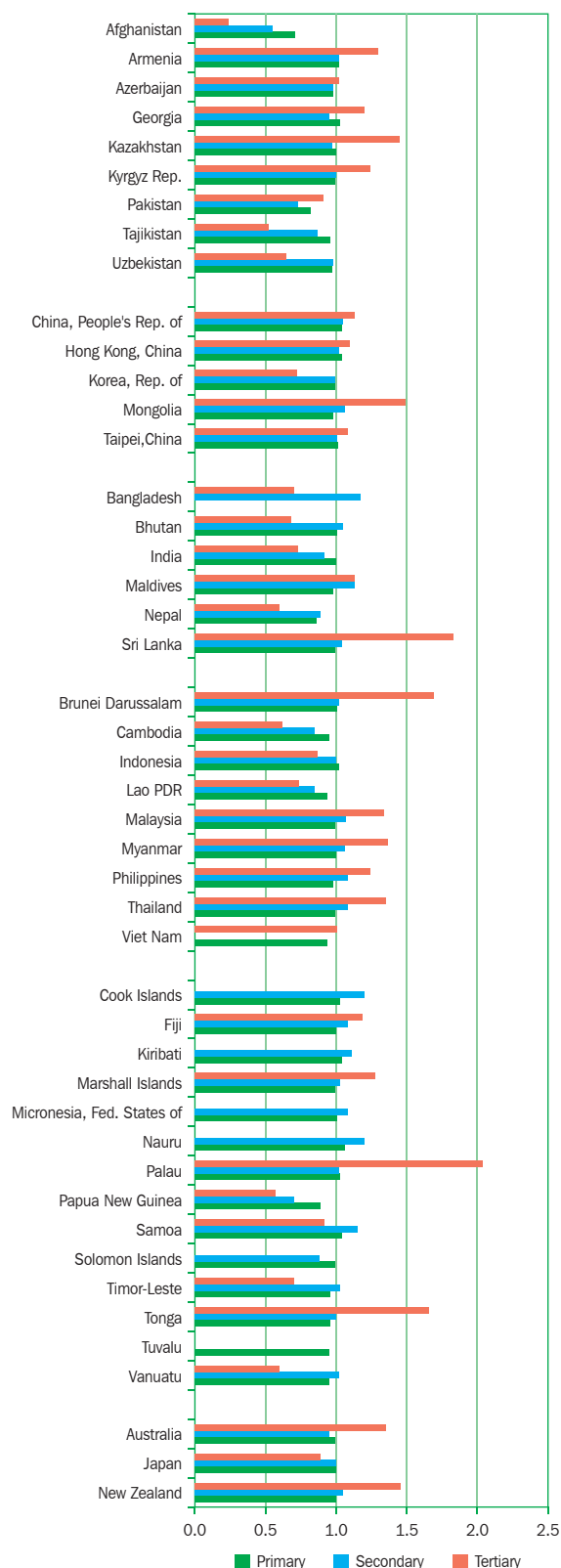
Bangladesh Bhutan Cambodia India Korea, Rep. of	Lao PDR Nepal Papua New Guinea Tajikistan
---	--

**No progress/regressing**

Afghanistan Samoa	Timor-Leste Uzbekistan
----------------------	---------------------------

Lao PDR = Lao People's Democratic Republic.  
Source: Table 3.1.

Figure 3.1 Gender parity index in primary, secondary, and tertiary education, 2011 or latest year



**Women are underrepresented in nonfarm paid employment.** The percentage of wage-earning employment outside of agriculture held by women is an indicator of gender equality in access to better employment and integration into the formal economy. Moreover, expanding opportunities for women in the workforce supports economic and social development. For the 34 developing member economies in Figure 3.2, women held just over half the nonfarm wage-earning jobs in 2010 in two—Cook Islands and Mongolia—and almost half in four—Georgia; Hong Kong, China; Kazakhstan; and Kiribati. Women's share of nonfarm wage employment ranged from 40% to 46% in a further 12 economies.

However, in the remaining 16, women held less than 40% of wage-earning jobs outside of agriculture, and in three of Asia's most populous economies—Bangladesh, India, and Pakistan—women held fewer than 20 of every 100 paid nonfarm jobs. While women's share has edged higher since 2000 in 20 economies, notably India, it fell in 12, including Bangladesh and Pakistan.

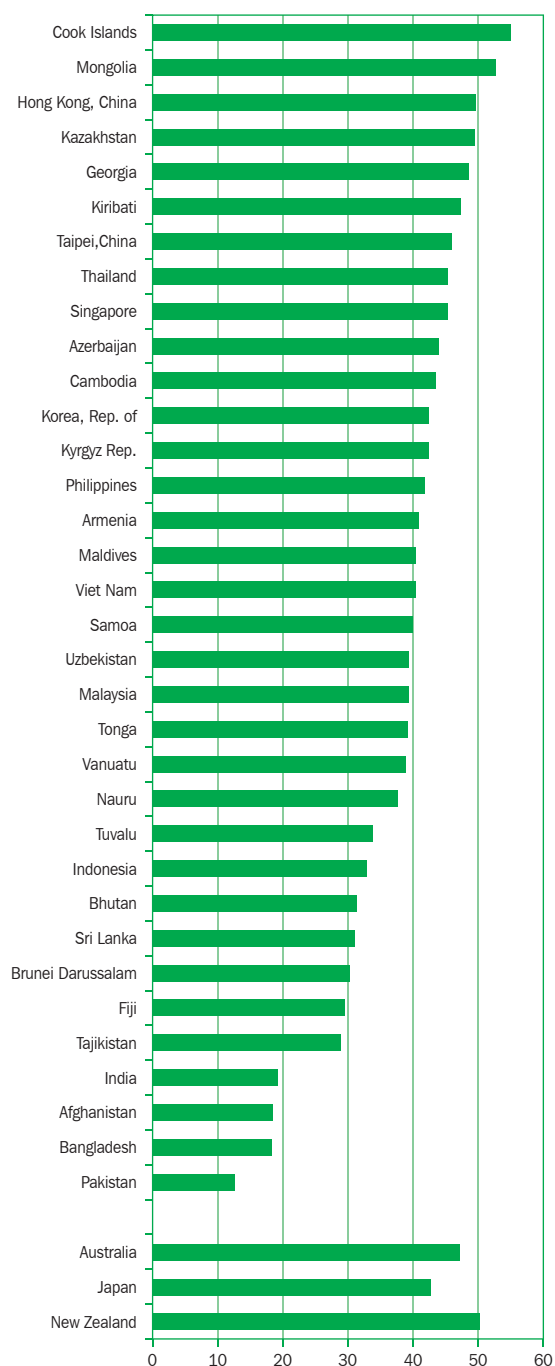
In addition to being underrepresented in wage-earning employment, women face persistent gender wage gaps and low representation in managerial jobs in developed and developing economies (UN 2013).

**Women's representation in national parliaments increased.** Figure 3.3 compares the percentages of women members of national parliaments in 40 regional members of the Asian Development Bank between 2000 and the latest year. Women's representation increased in 70% and fell in 13% of the group during this period. In some cases, the changes were fairly minor, which could be accounted for by swings in electoral fortunes rather than by longer-term trends. But almost half the economies recorded significant increases. The proportion of women at least doubled in Armenia, Bangladesh, Bhutan, Cambodia, Indonesia, Kazakhstan, the Republic of Korea, the Kyrgyz Republic, Nepal, Singapore, Tajikistan, Thailand, and Uzbekistan.

Despite these gains, the proportion of women in national parliaments did not approach that of men in developing or developed economies. The highest percentages of women in parliament were in Timor-Leste (39%); Nepal (33%); New Zealand (32%);

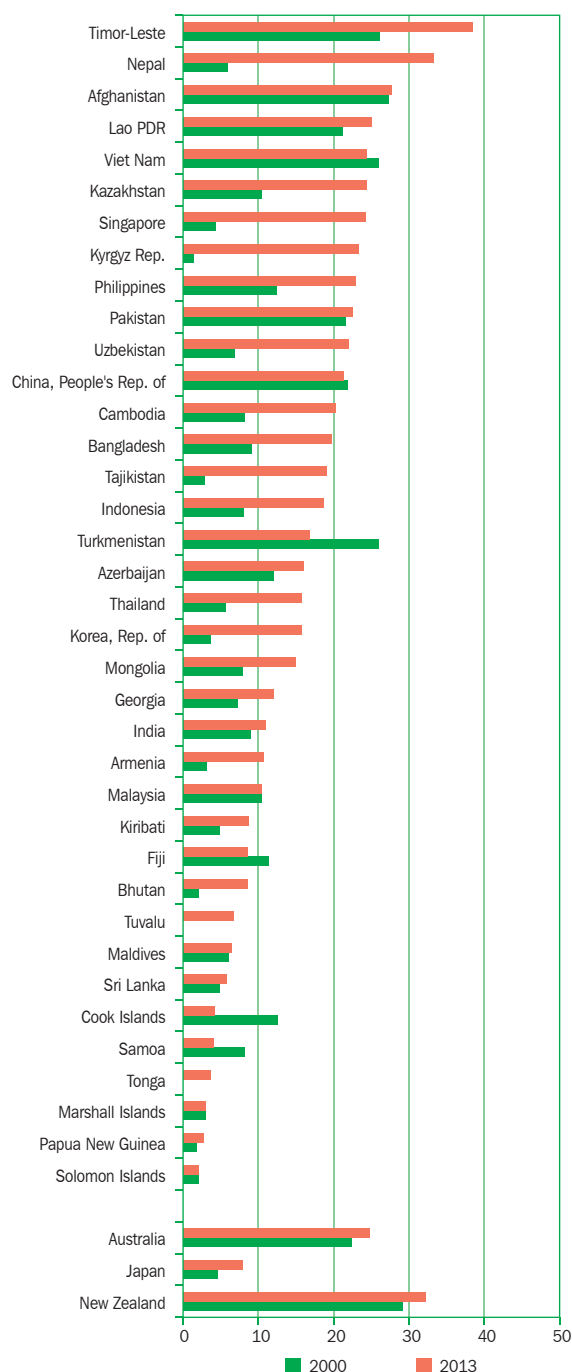
Afghanistan (28%); Australia (25%); the Lao PDR (25%); and Kazakhstan, Singapore, and Viet Nam (24%). Women were least represented in Sri Lanka (6%), Myanmar (6%), the Maldives (7%), Japan (8%), and in Pacific economies (0%–9%) other than Timor-Leste.

Figure 3.2 **Percentage of women in nonagricultural wage employment, 2010 or latest year**



Lao PDR = Lao People's Democratic Republic.  
Source: Table 3.1.

Figure 3.3 **Proportion of seats held by women in national parliaments, 2000 and 2013 or nearest year (%)**



Lao PDR = Lao People's Democratic Republic.  
Source: Table 3.1.

## Data issues and comparability

Enrollment rates generally follow the United Nations Educational, Scientific and Cultural Organization guidelines on definitions of education levels and methods of calculation. Many small Pacific island economies do not have tertiary education facilities and their students go abroad for such education.

The most reliable information on female employment in nonagricultural activities comes from household labor force surveys, but these are not

conducted in all economies. Alternative sources include enterprise employment surveys, population censuses, and household demographic surveys.

The percentage of women in parliament refers only to national parliaments. In some economies, a more relevant measure of empowerment would be the number of women active in government at the local or community level.

## MDG 3 Targets and Indicators

Table 3.1 **Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education not later than 2015**

Regional Member	3.1 Ratio of Girls to Boys in Education Levels <sup>a</sup>					
	Primary		Secondary		Tertiary <sup>b</sup>	
	1991	2011	1991	2011	1991	2011
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	0.55	0.71	0.51	0.55	0.28 (2003)	0.24 (2009)
Armenia	1.04 (1994)	1.02 (2010)	1.06 (2002)	1.02 (2010)	1.09 (1999)	1.30
Azerbaijan	0.99	0.98	1.01	0.98	0.67	1.02
Georgia	1.00	1.03	0.97	0.95 (2008)	0.91	1.20
Kazakhstan	1.00 (1994)	1.00 (2012)	1.02 (1993)	0.97 (2012)	1.14 (1999)	1.45 (2012)
Kyrgyz Republic	1.01 (1992)	0.99	1.02	1.00	1.04 (1999)	1.24
Pakistan	0.67 (2000)	0.82	0.47	0.73	0.79 (2002)	0.91
Tajikistan	0.98	0.96	0.86 (1999)	0.87	0.43 (1999)	0.52
Turkmenistan	...	...	...	...	...	...
Uzbekistan	0.98	0.97	0.98 (1999)	0.98	0.82 (1999)	0.65
<b>East Asia</b>						
China, People's Rep. of	0.91	1.04	0.75	1.05	0.83 (2003)	1.13
Hong Kong, China	1.00 (1995)	1.04	1.03 (1996)	1.02	1.00 (2003)	1.10
Korea, Rep. of	1.01	0.99 (2010)	0.97	0.99 (2010)	0.49	0.72 (2010)
Mongolia	0.99	0.98	1.10	1.06	1.84 (1999)	1.49
Taipei, China	1.01	1.01 (2012)	1.04	1.01 (2012)	0.96	1.08 (2012)
<b>South Asia</b>						
Bangladesh	...	...	0.94 (1994)	1.17	0.49 (1999)	0.70
Bhutan	0.76 (1993)	1.01 (2012)	0.78 (1998)	1.05 (2012)	0.58 (1999)	0.68
India	0.76	1.00 (2010)	0.63 (1993)	0.92 (2010)	0.54	0.73 (2010)
Maldives	1.00 (1992)	0.98	1.04 (1994)	1.13 (2004)	2.29 (2003)	1.13 (2008)
Nepal	0.63	0.86 (2002)	0.46	0.89 (2006)	0.33	0.60 (2006)
Sri Lanka	0.96	0.99	1.09	1.04	0.48	1.83
<b>Southeast Asia</b>						
Brunei Darussalam	0.96	1.01	1.08	1.02	1.39 (1999)	1.69
Cambodia	0.83 (1994)	0.95	0.54 (1998)	0.85 (2008)	0.21 (1993)	0.62
Indonesia	0.97	1.02	0.82	1.00	0.88 (2000)	0.87
Lao PDR	0.79	0.94	0.66 (1992)	0.85	0.43 (1993)	0.74
Malaysia	1.00	1.00 (2005)	1.05	1.07 (2010)	1.07 (1998)	1.34 (2010)
Myanmar	0.96	1.00 (2010)	0.98	1.06 (2010)	1.25 (1992)	1.37
Philippines	1.00	0.98 (2009)	1.10 (1998)	1.08 (2009)	1.49 (1992)	1.24 (2009)
Singapore	...	...	...	...	...	...
Thailand	0.98	0.99 (2009)	0.97	1.08 (2012)	1.14 (1993)	1.35 (2012)
Viet Nam	0.95 (1998)	0.94	0.89 (1998)	...	0.65 (1998)	1.01
<b>The Pacific</b>						
Cook Islands	1.00 (1998)	1.03	1.10 (1998)	1.20	...	...
Fiji	1.00	1.00	0.97	1.08	1.20 (2003)	1.19 (2005)
Kiribati	1.01	1.04 (2009)	1.07	1.11 (2008)	...	...
Marshall Islands	0.99 (1999)	0.99	1.06 (1999)	1.03 (2009)	1.28 (2001)	1.28 (2003)
Micronesia, Fed. States of	0.98 (2004)	1.01 (2007)	1.06 (2004)	1.08 (2005)	...	...
Nauru	1.33 (2000)	1.06 (2008)	1.17 (2000)	1.20 (2008)	...	...
Palau	0.93 (1999)	1.03 (2007)	1.07 (1999)	1.02 (2004)	2.35 (2000)	2.04 (2002)
Papua New Guinea	0.85	0.89 (2008)	0.67	0.70 (1998)	0.47 (1995)	0.57 (1999)
Samoa	0.99 (1995)	1.04	1.09 (1995)	1.15	0.93 (1998)	0.92 (2001)
Solomon Islands	0.87	0.99 (2010)	0.60	0.88 (2010)	...	...
Timor-Leste	0.93 (2004)	0.96	0.98 (2004)	1.03	1.24 (2002)	0.70 (2009)
Tonga	1.00	0.96 (2007)	1.02	1.00 (2006)	1.35 (1999)	1.66 (2003)
Tuvalu	1.02 (1999)	0.95 (2006)	1.10 (2001)	...	...	...
Vanuatu	0.96	0.95 (2010)	0.81	1.02 (2010)	0.57 (2002)	0.60 (2004)
<b>Developed Member Economies</b>						
Australia	1.00	0.99 (2010)	1.00 (1993)	0.95 (2010)	1.19	1.35 (2010)
Japan	1.00	1.00 (2010)	1.02	1.00 (2010)	0.65	0.89 (2010)
New Zealand	0.99	1.00 (2010)	1.01	1.05 (2010)	1.13	1.46 (2010)

continued

## MDG 3 Targets and Indicators

Table 3.1 **Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education not later than 2015** (continued)

Regional Member	3.2 Share of Women in Wage Employment in the Nonagricultural Sector (%)			3.3 Proportion of Seats held by Women in National Parliament (%)		
	1990	2000	2010	1990	2000	2013
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	19.2 (2002)	18.4 (2008)	3.7	27.3 (2006)	27.7
Armenia	...	45.0 (2002)	40.9	35.6	3.1	10.7
Azerbaijan	47.5 (1997)	47.6	43.9	12.0 (1997)	12.0	16.0
Georgia	49.4 (1998)	49.6 (2002)	48.5	6.8 (1997)	7.2	12.0
Kazakhstan	...	48.5 (2001)	49.5	13.4 (1997)	10.4	24.3
Kyrgyz Republic	...	44.5 (2002)	42.5	1.4 (1997)	1.4	23.3
Pakistan	7.7	13.0	12.6 (2008)	10.1	21.6 (2003)	22.5
Tajikistan	21.2 (1991)	23.2	28.9 (2009)	2.8 (1997)	2.8	19.0
Turkmenistan	39.9 (1995)	42.1 (2002)	...	26.0	26.0	16.8
Uzbekistan	37.0 (1991)	37.1	39.4 (2007)	6.0 (1997)	6.8	22.0
<b>East Asia</b>						
China, People's Rep. of	37.8	39.1 (1999)	...	21.3	21.8	21.3
Hong Kong, China	41.2	44.8	49.6 (2011)	...	...	...
Korea, Rep. of	38.1	40.1	42.5 (2011)	2.0	3.7	15.7
Mongolia	48.5 (2003)	48.6	52.7	24.9	7.9	14.9
Taipei, China	42.9	44.0	46.0	...	...	...
<b>South Asia</b>						
Bangladesh	20.2 (1991)	24.7	18.3	10.3	9.1	19.7
Bhutan	...	...	31.4 (2009)	2.0	2.0	8.5
India	12.7	16.6	19.3	5.0	9.0	11.0
Maldives	15.8	40.6	40.5	6.3	6.0 (2001)	6.5
Nepal	15.1 (1999)	14.0 (2001)	...	6.1	5.9	33.2
Sri Lanka	30.2 (1997)	30.2	31.0	4.9	4.9	5.8
<b>Southeast Asia</b>						
Brunei Darussalam	22.5 (1991)	30.3	30.3 (2003)	...	...	...
Cambodia	...	41.1	43.5 (2004)	5.8 (1997)	8.2	20.3
Indonesia	29.2	31.7	32.9	12.4	8.0 (2001)	18.6
Lao PDR	20.3	32.1 (2005)	...	6.3	21.2	25.0
Malaysia	35.3 (1991)	37.9	39.3	5.1	10.4 (2001)	10.4
Myanmar	30.7	35.7 (1998)	...	...	...	6.0
Philippines	40.4 (1991)	40.9	41.8 (2011)	9.1	12.4	22.9
Singapore	42.5 (1991)	43.6 (2001)	45.4 (2009)	4.9	4.3	24.2
Thailand	41.9	44.1	45.4 (2011)	2.8	5.6	15.8
Viet Nam	41.0 (1996)	40.7	40.4 (2004)	17.7	26.0	24.4
<b>The Pacific</b>						
Cook Islands	38.0	46.0 (2001)	55.0 (2006)	6.0 (1991)	12.5 (2007)	4.2 (2011)
Fiji	29.9	33.2	29.6 (2005)	4.3 (1997)	11.3	8.5 (2006)
Kiribati	...	36.8	47.4	...	4.9	8.7
Marshall Islands	...	29.3 (1999)	...	3.0	3.0 (2001)	3.0 (2011)
Micronesia, Fed. States of	14.8 (1994)	14.4	...	– (1997)	–	–
Nauru	...	42.0 (2002)	37.6 (2011)	5.6	–	–
Palau	39.5	39.6	...	– (1997)	–	–
Papua New Guinea	27.9	32.1	...	–	1.8	2.7
Samoa	31.0	36.7 (2001)	40.0 (2011)	–	8.2	4.1
Solomon Islands	...	30.8 (1999)	...	–	2.0	2.0
Timor-Leste	...	35.0 (2001)	...	...	26.1 (2003)	38.5
Tonga	...	35.7 (1996)	39.2 (2006)	–	– (2001)	3.6
Tuvalu	...	34.3 (2002)	33.9 (2004)	7.7	–	6.7
Vanuatu	...	37.5 (2004)	38.9 (2008)	4.3	–	–
<b>Developed Member Economies</b>						
Australia	43.7	46.3	47.2 (2011)	6.1	22.4	24.7
Japan	38.0	40.0	42.7 (2011)	1.4	4.6	7.9
New Zealand	47.8	49.8	50.2 (2011)	14.4	29.2	32.2

... = Data not available at cutoff date, – = Magnitude equals zero.

a The ratio is a gender parity index, measured as the ratio of female to male value of the gross enrollment ratios at primary, secondary, and tertiary level of education.

b There is no tertiary education in the Cook Islands, Kiribati, Nauru, Solomon Islands, and Tuvalu. In the Maldives, tertiary education became available only recently.

Sources: Millennium Indicators Database Online (UNSD 2013); for Taipei, China: Educational Statistical Indicators Online (Ministry of Education 2013); National Minimum Development Indicator Database (Secretariat of the Pacific Community 2013).

## MDG 4: Reduce Child Mortality

### Snapshots

- Child mortality was reduced by about half across the Asia and Pacific region between 1990 and 2011. In some cases, including the People's Republic of China (PRC), deaths of children under 5 years old fell by 70%. For 29 of 43 reporting members, though, the target of a two-thirds reduction by 2015 is beyond reach unless they accelerate progress.
- Further reductions in child mortality require greater attention to the health of babies under 12 months old, who account for most of the under-5 child mortality. Only 12 of 45 economies have already lowered or are expected to lower infant mortality by two-thirds by 2015.
- Measles immunization programs have made strong progress. About 86% of the region's 1-year-olds were immunized against this disease in 2011. However immunization rates were low in some economies, and declining in others.

### Introduction

The Millennium Development Goal (MDG) 4 target is to reduce the mortality rate for children under 5 years old by two-thirds between 1990 and 2015.

Related indicators are

- (i) to reduce the infant mortality rate by two-thirds between 1990 and 2015; and
- (ii) to increase the percentage of 1-year-old children who have been immunized against measles. Immunization against measles has a direct impact on child mortality, and the percentage of 1-year-olds who have been

immunized is also a good indicator of the quality of the child health care system.

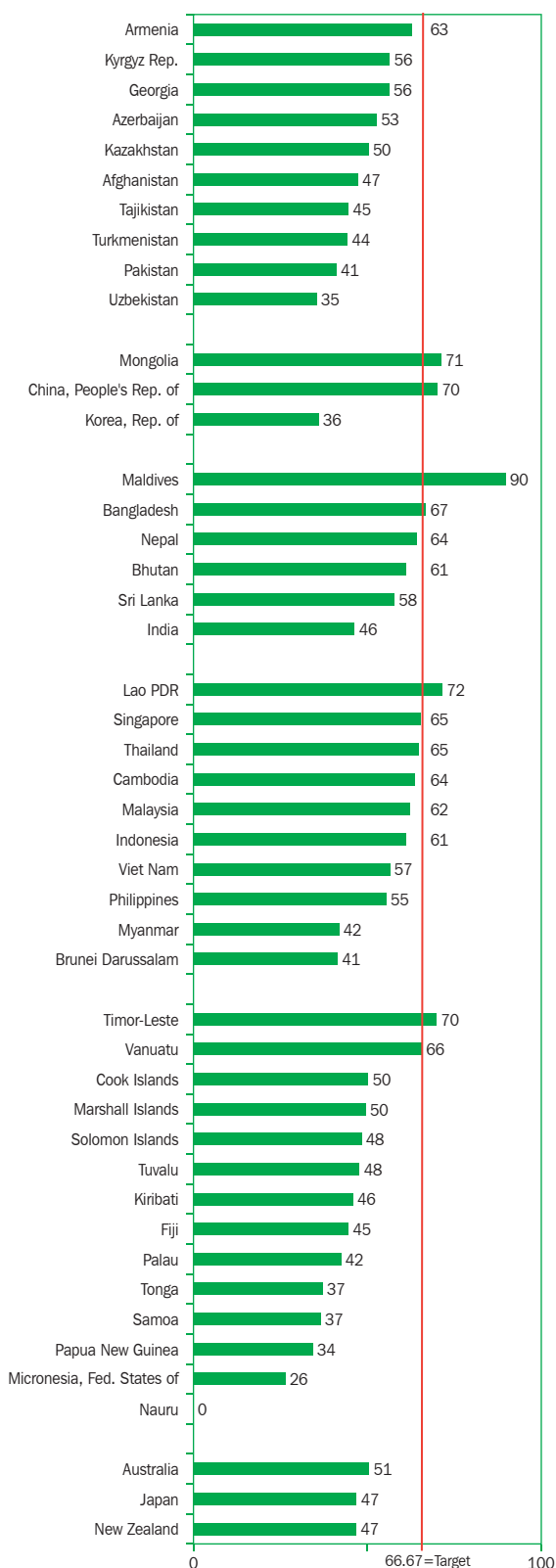
### Key trends

**Child mortality has fallen by half, but the two-thirds target will be missed by many economies.** Table 4.1 shows that under-5 mortality rates in developing member economies fell from an average of 85 per thousand live births in 1990 to 43 in 2011, below the global average of 50. Figure 4.1 charts under-5 mortality rates for 43 developing members and three developed members in 1990 and 2011. The highest rates of under-5 mortality in 2011 were recorded in Afghanistan (101), Pakistan (72), Tajikistan (63), Myanmar (62), and India (61), even after reductions of at least 40% in these economies. The under-5 mortality rate in the PRC, at 15, was considerably lower than rates of other heavily populated economies.

The sharpest reductions were achieved by the Maldives (down by 90%), the Lao People's Democratic Republic (Lao PDR) by 72%; Mongolia, 71%; the PRC and Timor-Leste, 70%; and Bangladesh, 67%. Relatively moderate reductions of 26%–35% were made by the Federated States of Micronesia, Papua New Guinea, and Uzbekistan.

Box 4.1 shows progress toward achieving the target of reducing the under-5 mortality rate by two-thirds by 2015. Fourteen economies achieved the target or are expected to do so, based on current trends, including Bangladesh, the PRC, and Indonesia. A much larger group of 29 economies are expected to miss the target, India and Pakistan among them, unless they accelerate their

Figure 4.1 Under-5 mortality rate, percent reduction, 1990 to 2010



Lao PDR = Lao People's Democratic Republic.  
Source: Table 4.1.

Box 4.1 Progress toward the target for under-5 mortality rate

#### Early achievers

Bangladesh	Maldives
China, People's Rep. of	Mongolia
Lao PDR	Timor-Leste

#### On track

Armenia	Nepal
Bhutan	Thailand
Indonesia	Vanuatu

#### Slow progress

Afghanistan	Myanmar
Azerbaijan	Pakistan
Brunei Darussalam	Palau
Cambodia	Papua New Guinea
Cook Islands	Philippines
Fiji	Samoa
Georgia	Solomon Islands
India	Sri Lanka
Kazakhstan	Tajikistan
Kiribati	Tonga
Korea, Rep. of	Turkmenistan
Kyrgyz Rep.	Tuvalu
Marshall Islands	Uzbekistan
Micronesia, Fed. States of	Viet Nam

#### No progress/regressing

Nauru
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Lao PDR = Lao People's Democratic Republic.

Source: Table 4.1.

efforts. About half these economies could still meet the target if they reduced their under-5 mortality by about 2 deaths per thousand live births annually (ESCAP, ADB, and UNDP 2012).

Major causes of child death are complications during birth, undernutrition, and pneumonia, diarrhea, and malaria (UN 2013). Standard measures known to reduce such deaths include promoting breastfeeding and providing women and their children with adequate nutrition and safe drinking water, skilled care at birth, postnatal care services, good sanitation, and vaccination programs.

**Further progress on reducing child mortality requires greater attention to the health of infants.** The first few months of life is a precarious time, and deaths during that period account for most under-5 mortality. Developing member economies brought infant mortality (deaths of babies under 12 months old) down from 62 per thousand live births in 1990 to 34 in 2011. Table 4.1 shows significant reductions in all reporting economies, except for Nauru, where the infant mortality rate was unchanged at 32. Nevertheless, Figure 4.2 indicates that rates of reduction in infant mortality generally lagged behind those of under-5 mortality.

Figure 4.2 Infant mortality rate, percent reduction, 1990 to 2011



Lao PDR = Lao People's Democratic Republic.  
Source: Table 4.1.

Box 4.2 shows that five economies—the PRC; Hong Kong, China; the Lao PDR, the Maldives, and Singapore—achieved the target of lowering infant mortality rates by two-thirds, and seven others will join them at their current rates of progress. Bangladesh and the PRC achieved the target or are on track to do so. However, 32 economies, including some of the most populous ones, are making slow advances on this goal and are unlikely to reach it by 2015.

While Brunei Darussalam, the Cook Islands, the Republic of Korea, and Taipei, China were considered to be making slow progress in lowering infant mortality rates by two-thirds, their rates were already among the lowest in the region in 2011.

Box 4.2 Progress toward the target for infant mortality rate

**Early achievers**

China, People's Rep. of	Maldives
Hong Kong, China	Singapore
Lao PDR	

**On track**

Armenia	Thailand
Bangladesh	Timor-Leste
Malaysia	Vanuatu
Mongolia	

**Slow progress**

Afghanistan	Myanmar
Azerbaijan	Nepal
Bhutan	Pakistan
Brunei Darussalam	Palau
Cambodia	Papua New Guinea
Cook Islands	Philippines
Fiji	Samoa
Georgia	Solomon Islands
India	Sri Lanka
Indonesia	Taipei, China
Kazakhstan	Tajikistan
Kiribati	Tonga
Korea, Rep. of	Turkmenistan
Kyrgyz Rep.	Tuvalu
Marshall Islands	Uzbekistan
Micronesia, Fed. States of	Viet Nam

**No progress/regressing**

Nauru

Lao PDR = Lao People's Democratic Republic.

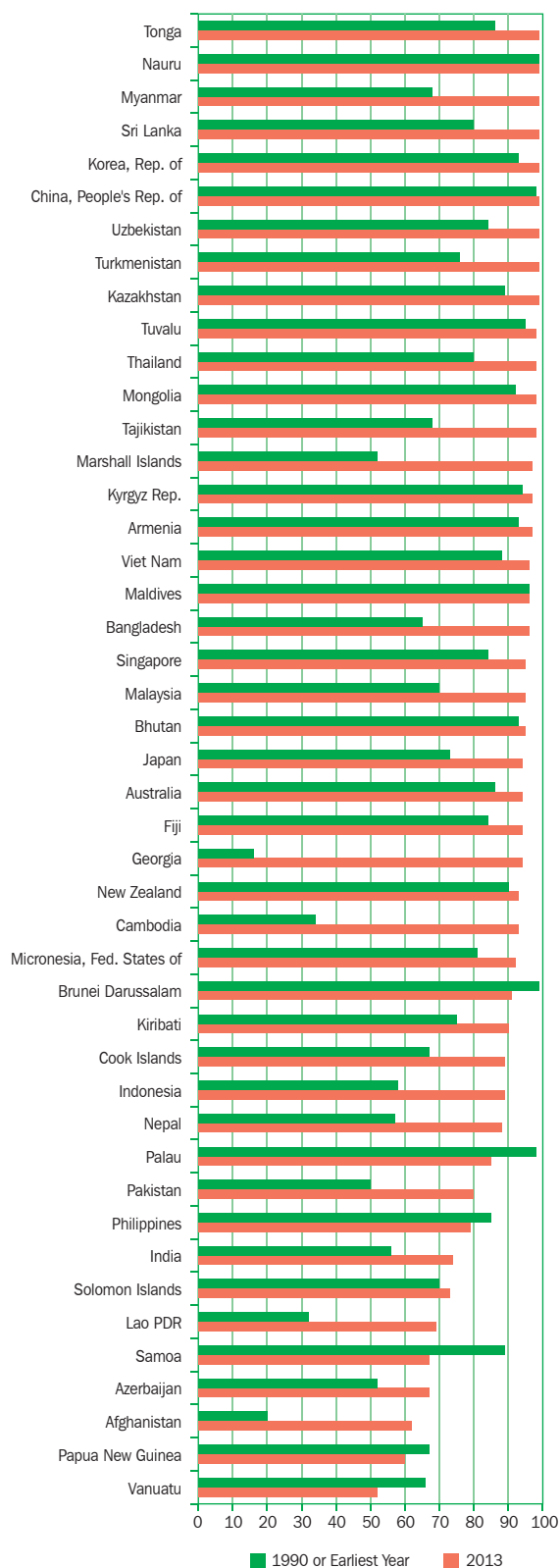
Source: Table 4.1.

**Immunization against measles has made substantial progress in the region.** Measles is a highly contagious viral respiratory infection that kills and can leave survivors with life-long disabilities. Most at risk are children under 5 who have not been vaccinated against the disease. Figure 4.3 presents the proportion of 1-year-old children immunized against measles in 1990 and 2011. The average for developing member economies increased from 74% of 1-year-olds in 1990 to 86% in 2011. In 31 of the 45 economies, at least 90% of the children were immunized against measles in 2011.

Increases in immunization coverage were generally high in economies that started from a low base. For example, Cambodia raised its immunization rate from 34% in 1990 to 93% in 2011 and Georgia from 16% in 1992 to 94% in 2011. India had the lowest immunization rate among the most populous economies, at 74% in 2011. That compared with Pakistan (80%), Indonesia (89%), Bangladesh (96%), and the PRC (99%).

The lowest immunization rates were in the Pacific—Vanuatu (52%), Papua New Guinea (60%), Timor-Leste (62%), and Samoa (67%)—as well as Afghanistan (62%) and the Lao PDR (69%). Also of concern, immunization rates fell in six economies between 1990 and 2012, mostly in the Pacific, and in the Philippines, where the immunization rate fell to 79%, the lowest in Southeast Asia after the Lao PDR. To be successful, vaccination campaigns must reach all children and be sustained over time (World Bank 2013).

Figure 4.3 **Proportion of 1-year-old children immunized against measles, 1990 or earliest year and 2011 (%)**



Lao PDR = Lao People's Democratic Republic.

Source: Table 4.1.

## Data issues and comparability

In developed economies, data on mortality are usually taken from vital statistics registration records. Most developing economies lack fully functioning vital registration systems; thus, census and household surveys have become primary sources of data, although with some limitations as to their quality. Because the surveys may not be held each year, econometric estimation techniques may be used to produce a consistent time series. For these reasons, mortality data are of varying quality.

Data on immunization may be provided directly by health workers and clinics providing inoculations or, more commonly in Asia, the information is collected from samples of households in health and demographic surveys. As with mortality data, estimation techniques are used to convert partial data into comprehensive estimates.

## MDG 4 Targets and Indicators

Table 4.1 **Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate**

Regional Member	4.1 Under-Five Mortality Rate (per 1,000 live births)			4.2 Infant Mortality Rate (per 1,000 live births)			4.3 Proportion of 1-Year-Old Children Immunized against Measles (%)		
	1990	2000	2011	1990	2000	2011	1990	2000	2011
<b>Developing Member Economies</b>									
<b>Central and West Asia<sup>a</sup></b>	<b>116</b>	<b>94</b>	<b>69</b>	<b>89</b>	<b>73</b>	<b>56</b>	<b>55</b>	<b>62</b>	<b>81</b>
Afghanistan	192	136	101	129	95	73	20	27	62
Armenia	47	30	18	40	26	16	93 (1992)	92	97
Azerbaijan	95	69	45	75	57	39	52 (1992)	67	67
Georgia	47	33	21	40	29	18	16 (1992)	73	94
Kazakhstan	57	42	28	48	37	25	89 (1992)	99	99
Kyrgyz Republic	70	47	31	58	41	27	94 (1992)	98	97
Pakistan	122	95	72	95	76	59	50	59	80
Tajikistan	114	95	63	89	76	53	68 (1992)	88	98
Turkmenistan	94	71	53	75	59	45	76 (1992)	96	99
Uzbekistan	75	61	49	62	51	42	84 (1992)	99	99
<b>East Asia<sup>a</sup></b>	<b>48</b>	<b>34</b>	<b>14</b>	<b>38</b>	<b>28</b>	<b>12</b>	<b>98</b>	<b>84</b>	<b>99</b>
China, People's Rep. of	49	35	15	39	29	13	98	84	99
Hong Kong, China	...	...	...	6	3	1	...	...	...
Korea, Rep. of	8	6	5	6	5	4	93	95	99
Mongolia	107	63	31	76	49	26	92	92	98
Taipei, China	...	...	...	5	6	4	...	...	...
<b>South Asia<sup>a</sup></b>	<b>117</b>	<b>86</b>	<b>59</b>	<b>82</b>	<b>63</b>	<b>45</b>	<b>57</b>	<b>58</b>	<b>77</b>
Bangladesh	139	84	46	97	62	37	65	72	96
Bhutan	138	89	54	96	65	42	93	78	95
India	114	88	61	81	64	47	56	55	74
Maldives	105	53	11	76	41	9	96	99	96
Nepal	135	83	48	94	62	39	57	71	88
Sri Lanka	29	19	12	24	16	11	80	99	99
<b>Southeast Asia<sup>a</sup></b>	<b>69</b>	<b>47</b>	<b>30</b>	<b>48</b>	<b>35</b>	<b>23</b>	<b>70</b>	<b>80</b>	<b>89</b>
Brunei Darussalam	12	10	7	9	7	6	99	99	91
Cambodia	117	102	43	85	76	36	34	65	93
Indonesia	82	53	32	54	38	25	58	74	89
Lao PDR	148	81	42	102	60	34	32	42	69
Malaysia	17	11	7	15	9	6	70	88	95
Myanmar	107	84	62	77	62	48	68	84	99
Philippines	57	39	25	40	29	20	85	78	79
Singapore	8	4	3	6	3	2	84	96	95
Thailand	35	19	12	29	16	11	80	94	98
Viet Nam	50	34	22	36	26	17	88	97	96
<b>The Pacific<sup>a</sup></b>	<b>89</b>	<b>68</b>	<b>51</b>	<b>66</b>	<b>52</b>	<b>40</b>	<b>70</b>	<b>65</b>	<b>64</b>
Cook Islands	19	17	10	16	15	8	67	76	89
Fiji	30	22	16	25	19	14	84	81	94
Kiribati	88	65	47	64	50	38	75	80	90
Marshall Islands	52	38	26	41	31	22	52	94	97
Micronesia, Fed. States of	56	49	42	44	39	34	81	85	92
Nauru	40	40	40	32	32	32	99 (1997)	7	99
Palau	32	25	19	27	20	14	98	83	85
Papua New Guinea	88	72	58	64	54	45	67	62	60
Samoa	30	23	19	25	19	16	89	93	67
Solomon Islands	42	31	22	34	25	18	70	85	73
Timor-Leste	180	109	54	135	86	46	...	56 (2002)	62
Tonga	25	20	15	21	17	13	86	95	99
Tuvalu	58	43	30	45	35	25	95	81	98
Vanuatu	39	23	13	31	20	11	66	61	52
<b>Developed Member Economies<sup>a</sup></b>	<b>7</b>	<b>5</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>76</b>	<b>95</b>	<b>94</b>
Australia	9	6	5	8	5	4	86	91	94
Japan	6	5	3	5	3	2	73	96	94
New Zealand	11	7	6	9	6	5	90	85	93
<b>DEVELOPING MEMBER ECONOMIES<sup>a</sup></b>	<b>85</b>	<b>67</b>	<b>43</b>	<b>62</b>	<b>51</b>	<b>34</b>	<b>74</b>	<b>69</b>	<b>86</b>
<b>REGIONAL MEMBERS<sup>a</sup></b>	<b>84</b>	<b>66</b>	<b>42</b>	<b>61</b>	<b>50</b>	<b>33</b>	<b>74</b>	<b>70</b>	<b>86</b>
<b>WORLD</b>	<b>87</b>	<b>73</b>	<b>50</b>	<b>61</b>	<b>51</b>	<b>36</b>	<b>72</b>	<b>72</b>	<b>84</b>

... = Data not available at cutoff date.

<sup>a</sup> Aggregates are derived for reporting economies only.

Sources: Millennium Indicators Database Online (UNSD 2013); for Hong Kong, China: Census and Statistics Department and Centre for Health Protection, Department of Health; for Taipei, China: Directorate-General of Budget, Accounting and Statistics; ADB estimates.

## MDG 5: Improve Maternal Health

### Snapshots

- Maternal health improved significantly in the Asia and Pacific region, with the maternal mortality ratio reduced by more than half between 1990 and 2010. Still, 28 of 38 reporting economies could fall short of achieving the target, which is a 75% reduction in maternal mortality ratio by 2015.
- The proportion of births attended by skilled health personnel is high in most economies. However, 23 of 41 economies with data are expected to miss the target to reduce births without skilled attendants by 75%.
- Renewed efforts are needed to provide women with access to good quality healthcare during pregnancy. The target of at least one antenatal care visit has been met or is expected to be met in 19 of 32 reporting economies, including the People's Republic of China (PRC) and Indonesia, but the target may not be achieved in Bangladesh, India, Pakistan, and 10 others.

### Introduction

Millennium Development Goal (MDG) 5 has two targets:

- 5.A: *Reduce, by three-quarters, between 1990 and 2015, the MMR.* The MMR is calculated as the number of maternal deaths per 100,000 live births. A related indicator is the number of births attended by skilled health personnel who are trained to conduct deliveries and care for newborns.
- 5.B: *Achieve, by 2015, universal access to reproductive health services.* These services cover advice on contraceptive methods and family planning, antenatal care, and transmission of HIV/AIDS and other sexually transmitted diseases. This target, which was introduced in the revised Millennium Development Goal (MDG) framework of 2008, has no direct indicator and is measured by a set of four related indicators—contraceptive use, adolescent birth rates, antenatal care coverage, and unmet need for family planning.

### Key trends

**Maternal deaths fell by more than half between 1990 and 2010.** Figure 5.1 shows the number of maternal deaths per 100,000 live births for 40 economies. All but two reduced the MMR between 1990 and 2010, the exceptions being Georgia and Tonga. The MMR for the region as a whole fell from 388 in 1990 to 149 in 2010, putting it well below the global average of 210. The PRC's MMR fell from 120 in 1990 to 37 in 2010. Bangladesh, India, Indonesia, and Pakistan, the other four most populous economies, also achieved large reductions, but their MMRs still were in the range of 200–260 for the latest year.

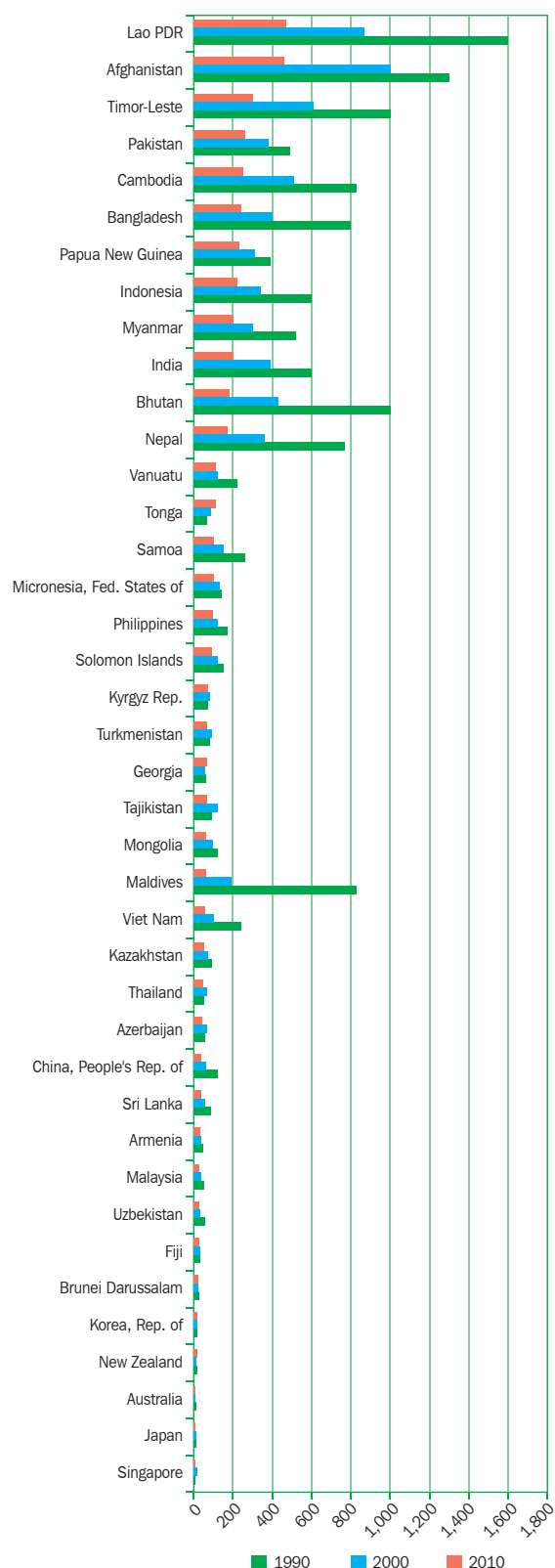
The Maldives achieved the sharpest reduction, a 93% cut in its MMR, from 830 in 1990 to 60 in

2010. Bhutan, Nepal, and Viet Nam also met the 75% reduction target. Box 5.1 shows that six others, including Bangladesh and the PRC, are on track to meet the target by 2015, leaving 28 expected to fall short.

Economies with the lowest rates of maternal deaths in 2010 were Singapore (3); Taipei, China (4); Japan (5); and Australia (7).

**The presence of a doctor, nurse, or midwife reduces the risk of maternal death or disability.** A birth attendant with the necessary training and medicines can administer assistance to prevent or manage life-threatening complications during deliveries and has the knowledge to decide if patients need a higher level of care.

Figure 5.1 **Maternal mortality ratio, 1990, 2000, and 2010**  
(deaths per 100,000 live births)



Lao PDR = Lao People's Democratic Republic.  
Source: Table 5.1.

Box 5.1 **Progress toward the target to reduce the maternal mortality ratio**

**Early achievers**

Bhutan	Nepal
Maldives	Viet Nam

**On track**

Bangladesh	Lao PDR
Cambodia	Taipei, China
China, People's Rep. of	Timor-Leste

**Slow progress**

Afghanistan	Myanmar
Armenia	Pakistan
Azerbaijan	Papua New Guinea
Brunei Darussalam	Philippines
Fiji	Samoa
Georgia	Singapore
India	Solomon Islands
Indonesia	Sri Lanka
Kazakhstan	Tajikistan
Korea, Rep. of	Thailand
Kyrgyz Rep.	Turkmenistan
Malaysia	Uzbekistan
Micronesia, Fed. States of	Vanuatu
Mongolia	

**No progress/regressing**

Tonga
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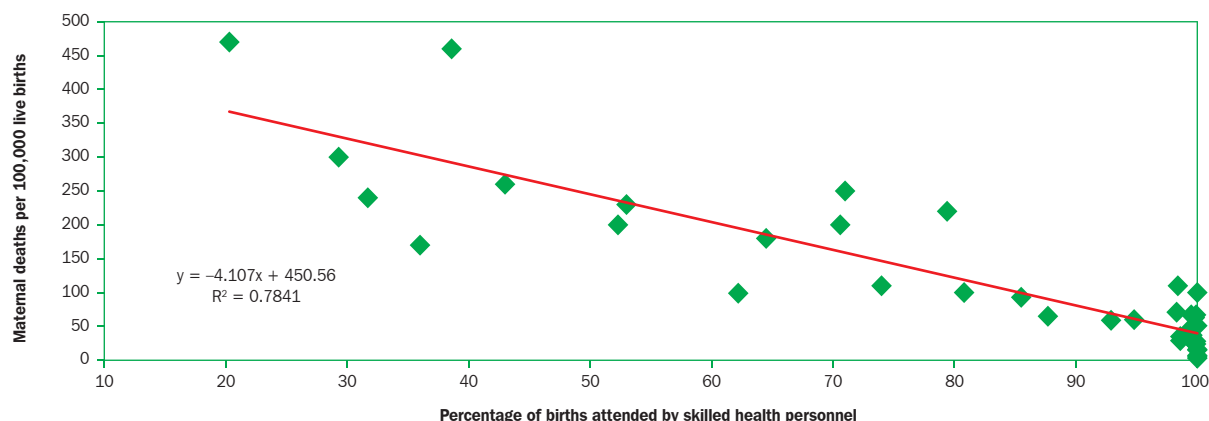
Lao PDR = Lao People's Democratic Republic.

Source: Table 5.1.

Figure 5.2 plots maternal deaths per 100,000 live births against the percentage of births attended by skilled health personnel in 40 economies that have data for both variables for recent years. The linear regression suggests that 78% of the variation in MMRs is explained by whether skilled health personnel were in attendance. The regression results also suggest that MMRs fall by 4.1 per 100,000 live births for every percentage point increase in the share of births attended by skilled health personnel.

Table 5.1 presents the proportion of births attended by trained health workers. At least 50% of births take place in the presence of such personnel in 40 of the 46 economies with data. For 28 of these economies, more than 90% of births are in the presence of trained attendants.

Figure 5.2 Maternal deaths versus births attended by skilled health personnel, 2010 or latest year



Source: Table 5.1.

The MDG target is to reduce, by three-quarters between 1990 and 2015, the percentage of births that are not attended by skilled health personnel. Box 5.2 shows that 15 of 41 economies, including the PRC, have achieved the target. Indonesia and two others are on track to reach the target in the next 2 years. At current rates of progress, though, 23 economies will miss the target, including Bangladesh, India, and Pakistan. Some that might not meet the goal already have high rates of coverage by skilled birth attendants—coverage already exceeds 99% in Armenia, Fiji, and Thailand (Table 5.1).

Economies with the lowest percentage of births in the presence of trained health professionals were the Lao People's Democratic Republic (Lao PDR) (20%), Timor-Leste (29%), Bangladesh (32%), Nepal (36%), Afghanistan (39%), and Pakistan (43%).

Box 5.2 Progress toward the target for birth attendance by skilled health personnel

**Early achievers**

Brunei Darussalam	Micronesia, Fed. States of
China, People's Rep. of	Mongolia
Cook Islands	Palau
Georgia	Sri Lanka
Kazakhstan	Tonga
Korea, Rep. of	Turkmenistan
Malaysia	Uzbekistan
Marshall Islands	

**On track**

Bhutan	Viet Nam
Indonesia	

**Slow progress**

Afghanistan	Nepal
Armenia	Pakistan
Azerbaijan	Philippines
Bangladesh	Samoa
Cambodia	Solomon Islands
India	Tajikistan
Maldives	Timor-Leste
Myanmar	

**No progress/regressing**

Fiji	Papua New Guinea
Kiribati	Thailand
Kyrgyz Rep.	Tuvalu
Lao PDR	Vanuatu

Lao PDR = Lao People's Democratic Republic.

Source: Table 5.1.

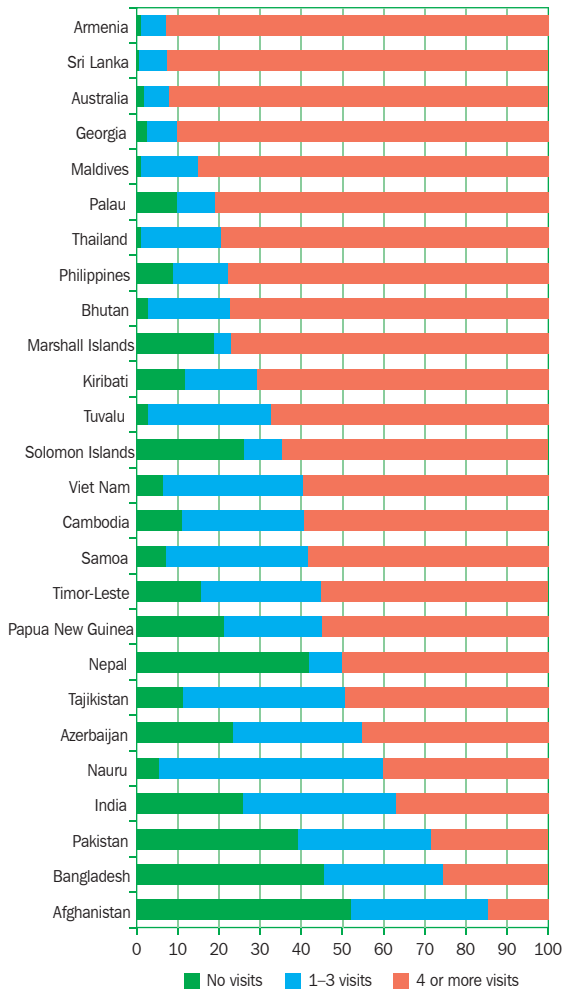
**Many women do not receive adequate antenatal care.** Good quality care during pregnancy supports the health and survival of mothers and their babies. The World Health Organization (WHO) recommends a minimum of four antenatal care visits, which should include tetanus toxoid vaccination, treatment to prevent malaria in countries where it is endemic, and screening and treatment for infections. Antenatal care also involves advice on diet, exercise, feeding, and childbirth techniques from a doctor, nurse, or midwife. The MDG target is considered attained when 95% of births are preceded by at least one antenatal care visit.

Figure 5.3 charts 26 economies with data on the number of antenatal care visits as a percentage of live births. Economies toward the top half of the figure

had more antenatal care visits, with a high proportion of pregnant women benefiting from four or more visits to skilled health personnel. Antenatal coverage was low in countries toward the bottom of the figure. Indeed, more than 40% of mothers received no antenatal care from skilled personnel in Afghanistan, Bangladesh, and Nepal.

Box 5.3 shows progress toward the target of at least one antenatal care visit. Of 32 economies for which an assessment is possible, 19 have attained the target or are expected to do so by 2015, including the PRC and Indonesia. Among the 13 that could fall short at their current rates of progress are five with large populations—Bangladesh, India, Myanmar, Pakistan, and the Philippines.

Figure 5.3 Antenatal care coverage as a percentage of live births, latest year



Source: Table 5.2.

Box 5.3 Progress toward the target for antenatal care coverage

Early achievers

Armenia	Maldives
Bhutan	Mongolia
Brunei Darussalam	Sri Lanka
Cook Islands	Thailand
Georgia	Turkmenistan
Kazakhstan	Uzbekistan
Kyrgyz Rep.	

On track

China, People's Rep. of	Malaysia
Indonesia	Tajikistan
Kiribati	Viet Nam

Slow progress

Afghanistan	Myanmar
Azerbaijan	Nepal
Bangladesh	Pakistan
Cambodia	Papua New Guinea
India	Philippines
Lao PDR	Timor-Leste

No progress/regressing

Palau
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Lao PDR = Lao People's Democratic Republic.  
Source: Table 5.2.

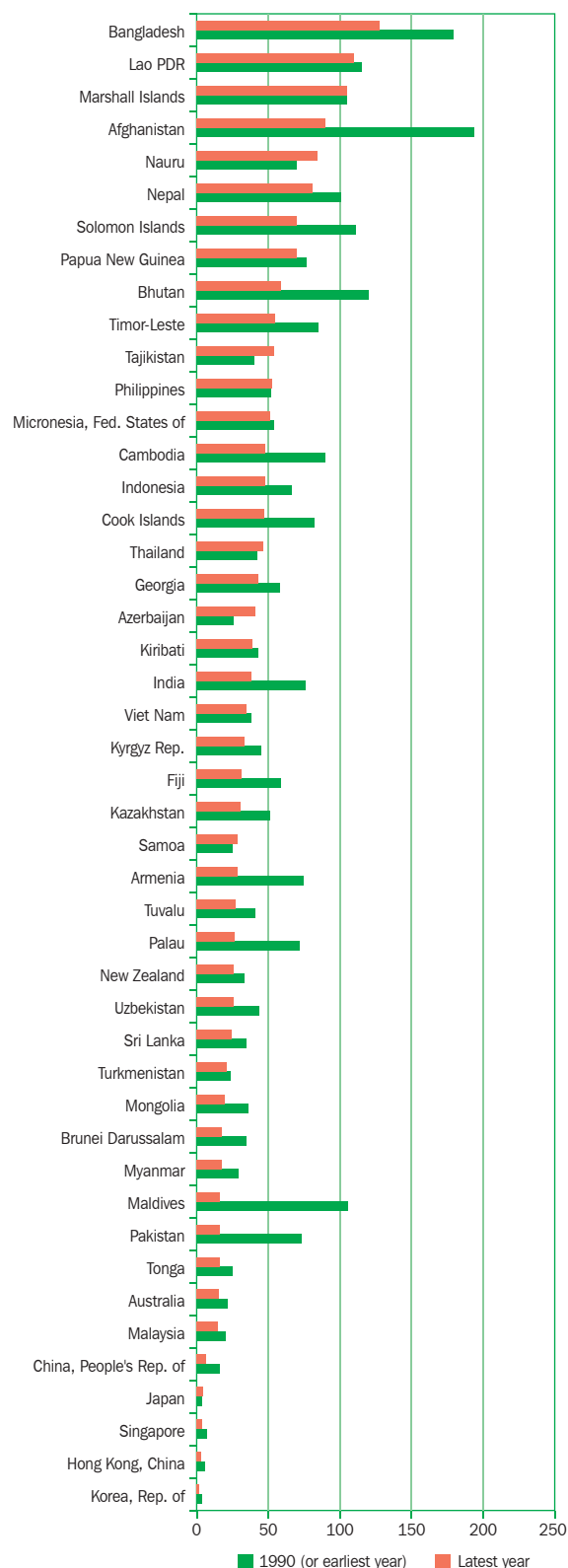
**Early childbearing heightens risks for both mother and child.** The WHO notes that adolescent mothers face higher risks of maternal deaths and of health problems during and after pregnancy, and a greater likelihood of stillbirths, preterm births, and children with low birth weights.

Figure 5.4 shows the number of live births per thousand women aged 15–19 years for 47 economies. The birth rate among adolescents fell, often sharply, in all but seven economies since the 1990s. In the Maldives, the number of adolescent births fell from 106 to 16, in Pakistan from 73 to 16, and in the PRC from 16 to 6. However, increases were seen in Azerbaijan, Japan, Nauru, the Philippines, Samoa, Tajikistan, and Thailand.

Economies with the highest rates of births to adolescents in the latest year were Bangladesh (128), the Lao PDR (110), the Marshall Islands (105), Vanuatu (92), Afghanistan (90), Nauru (84), and Nepal (81).

**Part of the strategy to improve maternal health is to prevent unintended or closely spaced pregnancies through universal access to reproductive health.** The contraceptive prevalence rate, or the percentage of married women aged 15 to 49 years who practice any form of contraception, is a proxy indicator for access to reproductive health. Table 5.2 shows that at least half the married women in 22 of 43 reporting economies had used contraception in the latest year. By subregion, rates of contraception were high in East Asia (85% of married women in the PRC) and generally low in the Pacific (22% in Kiribati and Timor-Leste).

Figure 5.4 Adolescent birth rate per 1,000 women 15–19 years, 1990 or earliest and latest year



Lao PDR = Lao People's Democratic Republic.  
Source: Table 5.2.

Figure 5.5 presents the average annual change in the contraceptive prevalence rate for 36 economies. Afghanistan recorded the highest growth, although its contraceptive prevalence rate was still low at 22% of married women in 2010. Use of contraception in Cambodia increased from just 13% in 1995 to 51% in 2011. Fourteen economies showed a decline in use of contraceptives.



## Data issues and comparability

The most reliable information on maternal mortality comes from vital registration records or other administrative sources. In many developing economies, however, registration records are not well maintained, with many births taking place at home rather than in health facilities, and many not being attended by trained health personnel. Mortality ratios for these economies are based on household surveys of varying reliability. The estimates presented are point estimates and the lower and upper bounds will reflect the range of uncertainty in the estimates.

Data on the proportion of births attended by skilled health personnel and on the proportion preceded by an antenatal care visit are usually collected through household surveys. It is difficult to achieve a standardized definition of skilled health personnel due to differences in training.

Data on adolescent birth rates are derived from vital registration systems or household surveys. The data may suffer from limitations such as misreporting of the mother's age and exclusion of previous births.

Data on contraceptive prevalence rates are obtained mostly from demographic, health, or socioeconomic surveys.

## MDG 5 Targets and Indicators

Table 5.1 **Target 5.A: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio**

Regional Member	5.1 Maternal Mortality Ratio (per 100,000 live births)			5.2 Proportion of Births Attended by Skilled Health Personnel (%)	
	1990	2000	2010	Earliest Year	Latest Year
<b>Developing Member Economies</b>					
<b>Central and West Asia<sup>a</sup></b>	<b>450</b>	<b>407</b>	<b>239</b>		
Afghanistan	1300	1000	460	14.3 (2003)	38.6 (2011)
Armenia	46	38	30	99.7 (1990)	99.5 (2010)
Azerbaijan	56	65	43	97.3 (1990)	99.4 (2010)
Georgia	63	58	67	96.6 (1990)	99.9 (2009)
Kazakhstan	92	70	51	99.0 (1990)	100.0 (2010)
Kyrgyz Republic	73	82	71	98.9 (1990)	98.3 (2010)
Pakistan	490	380	260	18.8 (1991)	43.0 (2011)
Tajikistan	94	120	65	90.3 (1991)	87.7 (2010)
Turkmenistan	82	91	67	95.8 (1996)	99.5 (2006)
Uzbekistan	59	33	28	97.5 (1996)	99.9 (2006)
<b>East Asia<sup>a</sup></b>	<b>116</b>	<b>59</b>	<b>36</b>		
China, People's Rep. of	120	61	37	94.0 (1990)	99.6 (2010)
Hong Kong, China	...	...	...	...	...
Korea, Rep. of	18	19	16	98.0 (1990)	100.0 (1997)
Mongolia	120	96	63	93.6 (1998)	99.8 (2011)
Taipei, China	12	8	4	...	...
<b>South Asia<sup>a</sup></b>	<b>622</b>	<b>387</b>	<b>201</b>		
Bangladesh	800	400	240	9.5 (1994)	31.7 (2011)
Bhutan	1000	430	180	14.9 (1994)	64.5 (2010)
India	600	390	200	34.2 (1993)	52.3 (2008)
Maldives	830	190	60	90.0 (1994)	94.8 (2009)
Nepal	770	360	170	7.4 (1991)	36.0 (2011)
Sri Lanka	85	58	35	94.1 (1993)	98.6 (2007)
<b>Southeast Asia<sup>a</sup></b>	<b>407</b>	<b>236</b>	<b>157</b>		
Brunei Darussalam	29	24	24	98.0 (1994)	99.9 (2009)
Cambodia	830	510	250	34.0 (1998)	71.0 (2010)
Indonesia	600	340	220	31.7 (1991)	79.4 (2007)
Lao PDR	1600	870	470	19.4 (2000)	20.3 (2006)
Malaysia	53	39	29	92.8 (1990)	98.6 (2009)
Myanmar	520	300	200	46.3 (1991)	70.6 (2010)
Philippines	170	120	99	52.8 (1993)	62.2 (2008)
Singapore	6	15	3	...	100.0 (1998)
Thailand	54	66	48	99.3 (2000)	99.5 (2009)
Viet Nam	240	100	59	77.1 (1997)	92.9 (2011)
<b>The Pacific<sup>a</sup></b>	<b>416</b>	<b>309</b>	<b>212</b>		
Cook Islands	...	...	...	99.0 (1991)	100.0 (2008)
Fiji	32	31	26	100.0 (1998)	99.7 (2010)
Kiribati	...	...	...	72.0 (1994)	79.8 (2009)
Marshall Islands	...	...	...	94.9 (1998)	99.0 (2010)
Micronesia, Fed. States of	140	130	100	92.8 (1999)	100.0 (2009)
Nauru	...	...	...	...	97.4 (2007)
Palau	...	...	...	99.0 (1990)	100.0 (2010)
Papua New Guinea	390	310	230	53.2 (1996)	53.0 (2006)
Samoa	260	150	100	76.0 (1990)	80.8 (2009)
Solomon Islands	150	120	93	83.5 (1994)	85.5 (2007)
Timor-Leste	1000	610	300	25.8 (1997)	29.3 (2010)
Tonga	67	87	110	92.0 (1991)	98.4 (2010)
Tuvalu	...	...	...	100.0 (1990)	97.9 (2007)
Vanuatu	220	120	110	87.0 (1994)	74.0 (2007)
<b>Developed Member Economies<sup>a</sup></b>	<b>12</b>	<b>10</b>	<b>6</b>		
Australia	10	9	7	100.0 (1991)	100.0 (1999)
Japan	12	10	5	100.0 (1990)	100.0 (1996)
New Zealand	18	12	15	95.0 (1994)	100.0 (1995)
<b>DEVELOPING MEMBER ECONOMIES<sup>a</sup></b>	<b>395</b>	<b>280</b>	<b>152</b>		
<b>REGIONAL MEMBERS<sup>a</sup></b>	<b>388</b>	<b>274</b>	<b>149</b>		
<b>WORLD</b>	<b>400</b>	<b>320</b>	<b>210</b>		

... = Data not available at cutoff date.

a Aggregates are derived for reporting economies only.

Sources: Millennium Indicators Database Online (UNSD 2013); for Taipei, China: Directorate-General of Budget, Accounting and Statistics.

## MDG 5 Targets and Indicators

Table 5.2 **Target 5.B: Achieve, by 2015, universal access to reproductive health**

Regional Member	5.3 Contraceptive Prevalence Rate (% of married women 15–49 years)		5.4 Adolescent Birth Rate (per 1,000 women 15–19 years)	
	Earliest Year	Latest Year	1990	Latest Year
<b>Developing Member Economies</b>				
<b>Central and West Asia</b>				
Afghanistan	4.9 (2000)	21.8 (2010)	194.0 (1993)	90.0 (2008)
Armenia	56.0 (1991)	54.9 (2010)	74.6	28.3 (2010)
Azerbaijan	55.1 (2000)	51.1 (2006)	25.6	40.7 (2009)
Georgia	40.5 (2000)	53.4 (2010)	58.1	43.0 (2011)
Kazakhstan	59.1 (1995)	51.0 (2011)	51.0	30.7 (2008)
Kyrgyz Republic	59.5 (1997)	47.8 (2006)	45.3	33.5 (2010)
Pakistan	11.8 (1991)	27.0 (2008)	73.3 (1992)	16.1 (2007)
Tajikistan	33.9 (2000)	27.9 (2012)	40.0	54.0 (2011)
Turkmenistan	...	61.8 (2000)	24.0	21.0 (2006)
Uzbekistan	55.6 (1996)	64.9 (2006)	44.0	25.5 (2006)
<b>East Asia</b>				
China, People's Rep. of	84.6 (1992)	84.6 (2006)	16.0	6.2 (2009)
Hong Kong, China	86.2 (1992)	79.5 (2007)	5.8	3.0 (2011)
Korea, Rep. of	79.4 (1991)	80.0 (2009)	4.0	1.8 (2009)
Mongolia	57.3 (1994)	55.0 (2010)	36.4	19.8 (2008)
Taipei, China	...	...	16.7	3.6 (2011)
<b>South Asia</b>				
Bangladesh	39.9 (1991)	61.2 (2011)	179.0	128.0 (2009)
Bhutan	18.8 (1994)	65.6 (2010)	120.0 (1993)	59.0 (2009)
India	40.7 (1993)	54.8 (2008)	76.0 (1991)	38.5 (2009)
Maldives	29.0 (1991)	34.7 (2009)	106.0	16.1 (2010)
Nepal	24.1 (1992)	49.7 (2011)	101.0	81.0 (2009)
Sri Lanka	66.1 (1993)	68.4 (2007)	35.0 (1991)	24.3 (2006)
<b>Southeast Asia</b>				
Brunei Darussalam	...	...	34.5	17.8 (2008)
Cambodia	12.6 (1995)	50.5 (2011)	90.0 (1993)	48.0 (2008)
Indonesia	49.7 (1991)	61.9 (2012)	66.2 (1992)	48.0 (2010)
Lao PDR	18.6 (1993)	38.4 (2005)	115.0 (1992)	110.0 (2005)
Malaysia	55.1 (1994)	49.0 (2004)	20.0 (1991)	15.0 (2009)
Myanmar	16.8 (1991)	46.0 (2010)	29.0	17.4 (2001)
Philippines	40.0 (1993)	48.9 (2011)	52.0 (1991)	53.0 (2006)
Singapore	65.0 (1992)	62.0 (1997)	7.5	3.6 (2010)
Thailand	73.9 (1993)	79.6 (2009)	42.3	46.7 (2009)
Viet Nam	65.0 (1994)	77.8 (2011)	38.0 (1991)	35.0 (2009)
<b>The Pacific</b>				
Cook Islands	63.2 (1996)	43.2 (1999)	82.0 (1996)	47.0 (2001)
Fiji	...	...	58.6	31.1 (2004)
Kiribati	36.1 2000	22.3 (2009)	43.0	39.0 (2005)
Marshall Islands	...	44.6 (2007)	105.2 (1995)	104.8 (2006)
Micronesia, Fed. States of	...	...	54.0 (1994)	51.6 (2003)
Nauru	...	35.6 (2007)	69.6 (1992)	84.0 (2005)
Palau	...	32.8 (2003)	72.2	26.5 (2005)
Papua New Guinea	25.9 (1997)	32.4 (2007)	77.0 (1994)	70.0 (2000)
Samoa	24.5 (1998)	28.7 (2009)	25.0 (1991)	28.6 (2006)
Solomon Islands	...	34.6 (2007)	111.0	70.0 (2005)
Timor-Leste	25.1 (1991)	22.3 (2010)	85.0 (1992)	54.4 (2007)
Tonga	...	...	25.3	15.9 (2006)
Tuvalu	...	30.5 (2007)	41.3 (1991)	27.5 (2005)
Vanuatu	39.0 (1995)	38.4 (2007)	...	92.0 (1999)
<b>Developed Member Economies</b>				
Australia	66.7 (1995)	72.3 (2005)	21.5	15.5 (2010)
Japan	57.9 (1990)	54.3 (2005)	3.6	4.6 (2011)
New Zealand	...	75.0 (1995)	33.5	25.6 (2011)

continued

## MDG 5 Targets and Indicators

Table 5.2 **Target 5.B: Achieve, by 2015, universal access to reproductive health** (continued)

Regional Member	5.5 Antenatal Care Coverage (% of live births )		5.6 Unmet Need for Family Planning (% of women aged 15–49 years who are married or in consensual union)	
	≥ One Visit	≥ Four Visits	Earliest Year	Latest Year
<b>Developing Member Economies</b>				
<b>Central and West Asia</b>				
Afghanistan	47.9 (2011)	14.6 (2011)	...	...
Armenia	99.1 (2010)	92.8 (2010)	18.1 (2000)	13.5 (2010)
Azerbaijan	76.6 (2006)	45.2 (2006)	11.5 (2001)	15.4 (2006)
Georgia	97.6 (2010)	90.2 (2010)	23.8 (2000)	12.3 (2010)
Kazakhstan	99.9 (2006)	70.0 (1999)	16.3 (1995)	11.6 (2011)
Kyrgyz Republic	96.9 (2006)	81.1 (1997)	...	11.8 (1997)
Pakistan	60.9 (2007)	28.4 (2007)	30.5 (1991)	25.2 (2007)
Tajikistan	88.8 (2007)	49.4 (2007)	...	...
Turkmenistan	99.1 (2006)	82.8 (2000)	...	13.1 (2000)
Uzbekistan	99.0 (2006)	78.5 (1996)	...	13.7 (1996)
<b>East Asia</b>				
China, People's Rep. of	94.1 (2010)	...	3.3 (1992)	2.3 (2001)
Hong Kong, China	...	...	...	...
Korea, Rep. of	...	...	...	...
Mongolia	99.0 (2010)	...	9.9 (1998)	22.0 (2010)
Taipei, China	...	...	...	...
<b>South Asia</b>				
Bangladesh	54.6 (2011)	25.5 (2011)	21.6 (1994)	13.5 (2011)
Bhutan	97.3 (2010)	77.3 (2010)	...	11.7 (2010)
India	74.2 (2006)	37.0 (2006)	20.3 (1993)	20.5 (2008)
Maldives	99.1 (2009)	85.1 (2009)	...	28.6 (2009)
Nepal	58.3 (2011)	50.1 (2011)	27.7 (1992)	27.5 (2011)
Sri Lanka	99.4 (2007)	92.5 (2007)	18.2 (2000)	7.3 (2007)
<b>Southeast Asia</b>				
Brunei Darussalam	99.0 (2009)	...	...	...
Cambodia	89.1 (2010)	59.4 (2010)	33.0 (2000)	16.9 (2011)
Indonesia	92.7 (2010)	81.5 (2007)	17.0 (1991)	11.4 (2012)
Lao PDR	35.1 (2006)	...	39.5 (2000)	27.3 (2005)
Malaysia	90.7 (2009)	...	...	...
Myanmar	83.1 (2010)	73.4 (2007)	20.6 (1991)	19.1 (2001)
Philippines	91.1 (2008)	77.8 (2008)	30.2 (1993)	22.0 (2008)
Singapore	...	...	...	...
Thailand	99.1 (2009)	79.6 (2009)	...	3.1 (2006)
Viet Nam	93.7 (2011)	59.6 (2011)	8.4 (1997)	4.3 (2011)
<b>The Pacific</b>				
Cook Islands	100.0 (2008)	...	...	...
Fiji	100.0 (2008)	...	...	...
Kiribati	88.4 (2009)	70.8 (2009)	...	28.0 (2009)
Marshall Islands	81.2 (2007)	77.1 (2007)	...	8.1 (2007)
Micronesia, Fed. States of	80.0 (2008)	...	...	...
Nauru	94.5 (2007)	40.2 (2007)	...	23.5 (2007)
Palau	90.3 (2010)	81.0 (2010)	...	...
Papua New Guinea	78.8 (2006)	54.9 (2006)	...	27.4 (2007)
Samoa	93.0 (2009)	58.4 (2009)	...	47.7 (2009)
Solomon Islands	73.9 (2007)	64.6 (2007)	...	11.1 (2007)
Timor-Leste	84.4 (2010)	55.1 (2010)	18.3 (1991)	31.5 (2010)
Tonga	97.9 (2010)	...	...	...
Tuvalu	97.4 (2007)	67.3 (2007)	...	24.2 (2007)
Vanuatu	84.3 (2007)	...	...	...
<b>Developed Member Economies</b>				
Australia	98.3 (2008)	92.0 (2008)	...	...
Japan	...	...	...	...
New Zealand	95.0 (1994)	...	...	...

... = Data not available at cutoff date, ≥ = Greater than or equal to.

Sources: Millennium Indicators Database Online (UNSD 2013); for Taipei, China: Directorate-General of Budget, Accounting and Statistics.

## MDG 6: Combat HIV/AIDS, Malaria, and Other Diseases

### Snapshots

- HIV prevalence in the Asia and Pacific region declined between 2001 and 2011 in countries with relatively high rates of the infection. Of the 27 reporting economies, 18 have already met or are expected to meet the target to halt and start to reverse the spread of HIV/AIDS, but 9 are not making progress.
- In 2011, most economies increased access to antiretroviral drugs to people with advanced HIV infection; only two economies reached 80% coverage, though.
- Of 44 reporting economies, 40 have either met the target to reverse the incidence of tuberculosis or are expected to do so by 2015.
- Malaria remains a problem and deaths from the disease are relatively high in the Pacific.

### Introduction

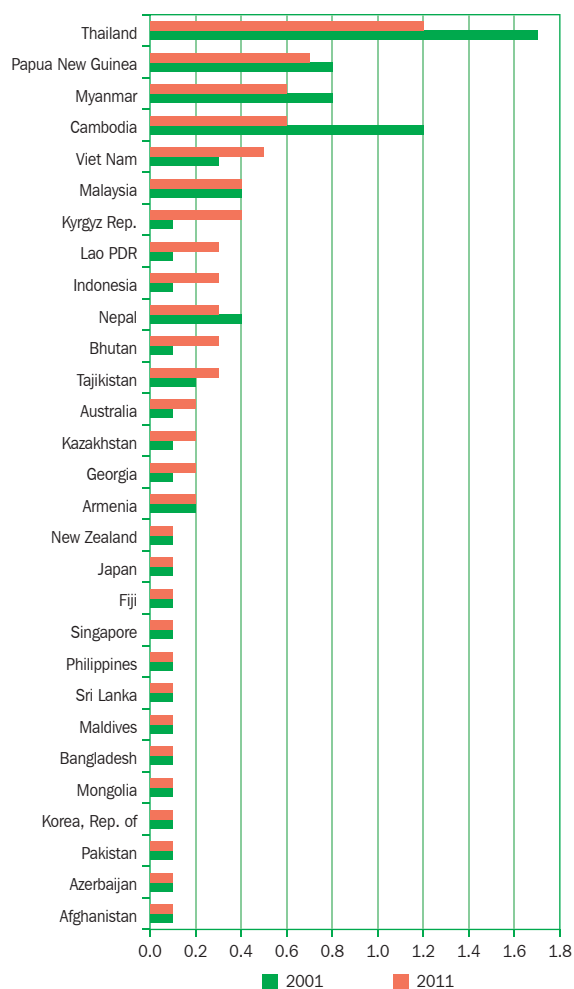
Millennium Development Goal (MDG) 6 has three targets:

- 6.A: *Have halted by 2015 and begun to reverse the spread of HIV/AIDS.* This is targeted at the 15–24 age group, but most economies have comparable data on HIV prevalence only for people in the 15–49 age group.
- 6.B: *Achieve, by 2010, universal access to treatment for HIV/AIDS for those who need it.*
- 6.C: *Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases, including tuberculosis.*

### Key trends

**HIV prevalence declined in countries with relatively high rates of the infection.** Figure 6.1 shows that in Cambodia, Myanmar, Papua New Guinea, and Thailand—the four countries with the highest rates of HIV measured as a percentage of the population aged 15–49 years—HIV prevalence declined between 2001 and 2011. The declines were particularly steep in Cambodia (from 1.2% to 0.6%) and Thailand (from 1.7% to 1.2%). Nepal also reduced HIV prevalence during this period.

Figure 6.1 HIV prevalence (percent of population 15–49 years), 2001 and 2011



Lao PDR = Lao People's Democratic Republic.  
Source: Table 6.1.

**However, HIV prevalence increased in nine countries for which data are available.** Four of these countries are in Central and West Asia and three are in Southeast Asia. The Kyrgyz Republic reported a steep rise, from 0.1% to 0.4%. Among the most populous countries, Indonesia had a relatively high HIV rate at 0.3%, up from 0.1% in 2001.

Box 6.1 shows progress on the MDG target to halt by 2015 and start to reverse the spread of HIV/AIDS. The box covers 27 economies with enough data to make an assessment. Eighteen have achieved or are expected to meet the target. The remaining nine are likely to fall short unless they accelerate their efforts, including Indonesia, the Lao People's Democratic Republic (Lao PDR), and Viet Nam in Southeast Asia and five economies in Central and West Asia.

A basic understanding of HIV and how it spreads is crucial to changing, in ways that reduce HIV infections, the behavior of those infected or at risk of becoming infected. Yet surveys showed that, across developing Asia and the Pacific, the share of the population aged 15–24 years that had a good understanding of HIV was low, generally in the range of 20%–40% (Table 6.1).

Box 6.1 **Progress toward target for HIV prevalence**

**Early achievers**

Cambodia	Nepal
Malaysia	Papua New Guinea
Myanmar	Thailand

**On track**

Afghanistan	Maldives
Azerbaijan	Mongolia
Bangladesh	Pakistan
China, People's Rep. of	Philippines
Fiji	Singapore
Korea, Rep. of	Sri Lanka

**No progress/regressing**

Armenia	Kyrgyz Rep.
Bhutan	Lao PDR
Georgia	Tajikistan
Indonesia	Viet Nam
Kazakhstan	

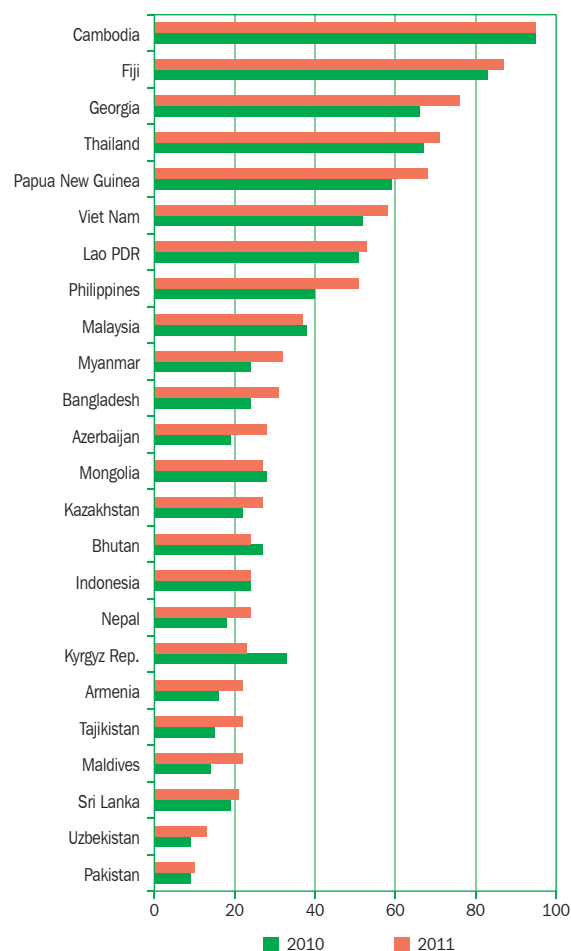
Lao PDR = Lao People's Democratic Republic.

Source: Table 6.1.

**Most countries increased access to antiretroviral drugs to people with advanced HIV infection between 2010 and 2011** (Figure 6.2). Notably, the Philippines raised access to such drugs from 40% of those in need in 2010 to 51% in 2011. Nevertheless, only two countries—Cambodia and Fiji—provided antiretroviral therapy to at least 80% of the people who needed it. Georgia, Thailand, and Papua New Guinea were approaching the 80% mark, but other countries fell far short of it.

Bhutan and the Kyrgyz Republic reported reduced access to antiretroviral drugs in 2011 compared with 2010, even though both reported increases in HIV prevalence between 2001 and 2011. Malaysia and Mongolia reported marginal reductions in access to antiretroviral drugs.

Figure 6.2 **Proportion of population with advanced HIV infection with access to antiretroviral drugs, 2010 and 2011**



Lao PDR = Lao People's Democratic Republic.

Source: Table 6.1.

**The incidence and prevalence of and deaths from tuberculosis declined in all but a few economies.**

Figure 6.3, with data from 46 countries, shows the changes in incidence rates (new tuberculosis cases per 100,000 population). The incidence of tuberculosis fell or was unchanged between 1990 and 2011 in 38 countries and rose in eight. Figure 6.4 presents the prevalence of tuberculosis (the total number of tuberculosis cases per 100,000 people). Prevalence of tuberculosis fell in all but eight countries. The increases were in Central and West Asia and the Pacific. In the most populous countries, the People's Republic of China (PRC) reduced the tuberculosis prevalence rate from 215 per 100,000 population in 1990 to a relatively low 104 in 2011, and prevalence rates also fell in Bangladesh (to 411 per 100,000 population), India (249), Indonesia (281), and Pakistan (350).

Six countries had tuberculosis prevalence rates of over 500 cases per 100,000 population—the Marshall Islands, Papua New Guinea, and Timor-Leste in the Pacific, and Cambodia, the Lao PDR, and Myanmar in Southeast Asia.

Figure 6.3 Change in tuberculosis incidence rates, 1990 and 2011



Lao PDR = Lao People's Democratic Republic.  
Source: Table 6.2.

Figure 6.4 Prevalence of tuberculosis, per 100,000 population, 1990 and 2011



Lao PDR = Lao People's Democratic Republic.  
Source: Table 6.2.

Box 6.2 shows progress on halting by 2015 and starting to reverse the incidence of tuberculosis in 44 economies with data to make an assessment. Forty have met the target or are expected to do so in the next 2 years, including the five most populous economies. Regarding the prevalence of tuberculosis, 40 countries have already achieved the target. However, the remaining four—the Marshall Islands, Nauru, Nepal, and Palau—appear to be making no progress on reducing prevalence.

Deaths from tuberculosis also declined across the region between 1990 and 2011, again except in eight countries of Central and West Asia and the Pacific (Figure 6.5). Progress in detecting and curing tuberculosis is attributed to the implementation since 1995 of the Directly Observed Treatment Short Course (DOTS) strategy and its 2006 successor, the Stop TB Strategy, with support from the World Health Organization (WHO).

Box 6.2 Progress toward target for incidence of tuberculosis

#### Early achievers

Armenia	Maldives
Azerbaijan	Micronesia, Fed. States of
Bhutan	Mongolia
Brunei Darussalam	Myanmar
Cambodia	Papua New Guinea
China, People's Rep. of	Philippines
Hong Kong, China	Samoa
Cook Islands	Singapore
Fiji	Solomon Islands
Georgia	Tajikistan
India	Thailand
Indonesia	Tonga
Kazakhstan	Turkmenistan
Kiribati	Tuvalu
Kyrgyz Rep.	Uzbekistan
Lao PDR	Vanuatu
Malaysia	Viet Nam

#### On track

Afghanistan	Pakistan
Bangladesh	Sri Lanka
Nepal	Timor-Leste

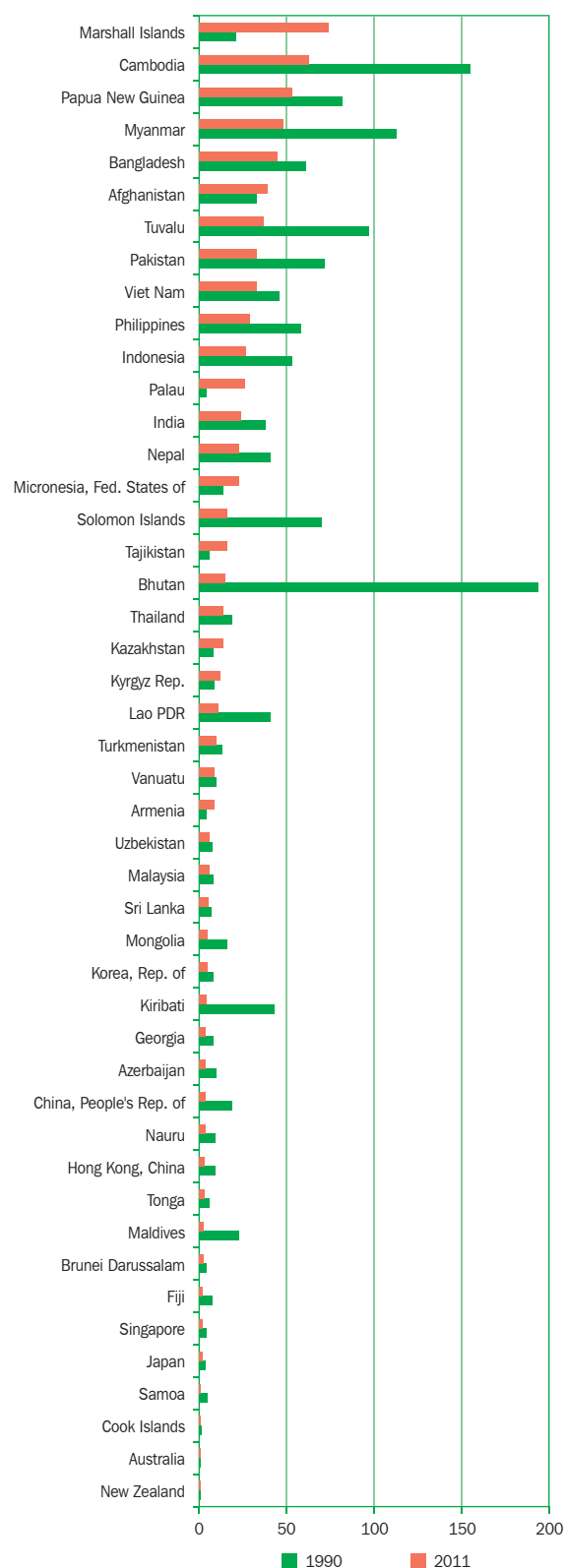
#### No progress/regressing

Korea, Rep. of	Nauru
Marshall Islands	Palau

Lao PDR = Lao People's Democratic Republic.

Source: Table 6.2.

Figure 6.5 **Death rates associated with tuberculosis, per 100,000 population, 1990 and 2011**



Lao PDR = Lao People's Democratic Republic.  
Source: Table 6.2.

**Malaria remains a danger in some subregions.** Box 6.3 groups economies for which data are available into four categories based on the incidence of malaria (new cases reported each year) per 100,000 population in 2010. Thirteen countries reported a high incidence, with 1,000 or more cases per 100,000 population. Five are in Southeast Asia (Cambodia, Indonesia, the Lao PDR, Malaysia, and Myanmar); four are in the Pacific (Papua New Guinea, Solomon Islands, Timor-Leste, and Vanuatu); and the remaining four are Afghanistan, Bangladesh, India, and Pakistan.

Table 6.2 shows that death rates associated with malaria in 2010 were below 15 per 100,000 population, except for Papua New Guinea (46), Timor-Leste (25), and Solomon Islands (24). Mortality rates from malaria worldwide have declined, largely owing to the greater use of insecticide-treated mosquito nets and artemisinin-based combination therapy. Worryingly, resistance to artemisinin has been detected in four Southeast Asian countries, and mosquito resistance to insecticides has been found in 64 countries globally (UN 2013).

Box 6.3 **Incidence of malaria, 2010** (per 100,000 population)

**Less than 1**

Georgia 0

**1–99**

China, People's Rep. of	4	Azerbaijan	56
Tajikistan	10	Sri Lanka	93
Uzbekistan	13		

**100–999**

Viet Nam	104	Bhutan	240
Philippines	145	Korea, Rep. of	258
Nepal	147	Thailand	703
Kyrgyz Rep.	166		

**1000 or more**

Malaysia	1,632	Bangladesh	6,095
Pakistan	1,800	Myanmar	6,556
Lao PDR	2,343	Vanuatu	10,783
Cambodia	2,790	Timor-Leste	11,724
India	3,555	Solomon Islands	12,203
Afghanistan	3,599	Papua New Guinea	18,498
Indonesia	5,830		

Lao PDR = Lao People's Democratic Republic.

Source: Table 6.2.

## Data issues and comparability

Data for estimating trends in HIV/AIDS, malaria, and tuberculosis are difficult to compare because of the varied practices and methods, changing processes, and assumptions used to arrive at the desired data. This results in widening data gaps and more volatile data, and difficulty reconciling data and applying corrective policies. Data may not be comparable as a result.

For HIV/AIDS, the quality of data varies among countries, with the range of uncertainty depending on the actual HIV prevalence, concentration of HIV epidemic levels, and the number of steps or assumptions used to arrive at the estimate. Data on the prevalence of HIV are only available until 2011, with a 2-year lag in reported data, which makes it difficult to assess the current progress of the disease.

The proportion of the population with comprehensive correct knowledge of HIV/AIDS (Table 6.1) is gender-related. However, the data are not comparable across the years due to the variation in the years for which data are observed. HIV trends by gender cannot be determined for a specific year, and there are fewer data points for males than females. The latest year for both sexes is 2011, while the earliest data for females is 2005 and for males it is 2006.

Estimating the number of people receiving or having access to antiretroviral therapy is difficult because there are no established regular reporting systems on

patients who underwent treatment for the first time, received or discontinued treatment, were not followed up, or died. Hence, data may be underreported. Data for 2010 and 2011 are not comparable to that of 2004 because of the revised guidelines for estimating the number of people receiving antiretroviral therapy.

Malaria estimates are mostly based on reporting systems that are not firmly established, tested, or accepted. Health facilities are therefore unable to report a complete, accurate, and scientific estimate of the actual counts of malaria cases. The latest available data on the incidence and death rates of malaria are for 2010, which may not be applicable to the current situation.

The DOTS course is the internationally recommended strategy for controlling tuberculosis, and has been recognized as highly efficient and cost effective. Data on tuberculosis cases treated through DOTS and other strategies are not comparable because the data are mostly sourced from administrative records of health agencies or services, which may not have established reporting systems. These agencies may not have established patterns of measuring accurate information, which may result in the delay of reporting data. Using 2012 as a reference year, the data for DOTS tuberculosis cases are available for 2011 (a 1-year lag in reported data), while the data for cases cured through DOTS are for 2010 (a 2-year lag).

## MDG 6 Targets and Indicators

Table 6.1 **Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS and Target 6.B: Achieve by 2010, universal access to treatment for HIV/AIDS for all those who need it**

Regional Member	6.1 HIV Prevalence (% of population 15–49 years)		6.3 Proportion of Population Aged 15–24 Years with Comprehensive Correct Knowledge of HIV/AIDS (%)		6.5 Proportion of Population with Advanced HIV infection with Access to Antiretroviral Drugs (%)		
	2001	2011	Female	Male	2004 <sup>a</sup>	2010	2011
<b>Developing Member Economies</b>							
<b>Central and West Asia</b>							
Afghanistan	0.1	0.1	...	...	...	...	6
Armenia	0.2	0.2	15.8 (2010)	8.9 (2010)	8 (2006)	16	22
Azerbaijan	0.1	0.1	4.8 (2006)	5.3 (2006)	1 (2006)	19	28
Georgia	0.1	0.2	15.0 (2005)	...	16	66	76
Kazakhstan	0.1	0.2	36.2 (2011)	34.1 (2011)	1	22	27
Kyrgyz Republic	0.1	0.4	20.3 (2006)	...	9 (2005)	33	23
Pakistan	0.1	0.1	3.4 (2007)	...	1	9	10
Tajikistan	0.2	0.3	13.9 (2010)	12.8 (2010)	2 (2006)	15	22
Turkmenistan	...	...	4.8 (2006)	...	...	...	...
Uzbekistan	...	...	31.0 (2006)	...	30 (2006)	9	13
<b>East Asia</b>							
China, People's Rep. of	...	0.1	...	...	19 (2006)	...	...
Hong Kong, China	...	...	...	...	...	...	...
Korea, Rep. of	0.1	0.1	...	...	...	...	...
Mongolia	0.1	0.1	31.6 (2010)	29.3 (2010)	3 (2006)	28	27
Taipei, China	...	...	...	...	...	...	...
<b>South Asia</b>							
Bangladesh	0.1	0.1	11.9 (2011)	14.4 (2011)	1	24	31
Bhutan	0.1	0.3	21.0 (2010)	...	10	27	24
India	...	...	19.9 (2006)	36.1 (2006)	...	...	...
Maldives	0.1	0.1	35.0 (2009)	...	6 (2006)	14	22
Nepal	0.4	0.3	25.8 (2011)	33.9 (2011)	2 (2006)	18	24
Sri Lanka	0.1	0.1	...	...	5	19	21
<b>Southeast Asia</b>							
Brunei Darussalam	...	...	...	...	...	...	...
Cambodia	1.2	0.6	44.4 (2010)	43.7 (2010)	...	95	95
Indonesia	0.1	0.3	9.5 (2007)	14.7 (2007)	12	24	24
Lao PDR	0.1	0.3	...	...	26	51	53
Malaysia	0.4	0.4	...	...	12	38	37
Myanmar	0.8	0.6	31.8 (2010)	...	2	24	32
Philippines	0.1	0.1	20.7 (2008)	...	10	40	51
Singapore	0.1	0.1	...	...	...	...	...
Thailand	1.7	1.2	46.1 (2006)	...	17	67	71
Viet Nam	0.3	0.5	51.1 (2011)	44.1 (2009)	1	52	58
<b>The Pacific</b>							
Cook Islands	...	...	...	...	...	...	...
Fiji	0.1	0.1	...	...	22 (2007)	83	87
Kiribati	...	...	44.4 (2009)	48.6 (2009)	...	...	...
Marshall Islands	...	...	26.6 (2007)	39.4 (2007)	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...
Nauru	...	...	13.3 (2007)	9.6 (2007)	...	...	...
Palau	...	...	...	...	...	...	...
Papua New Guinea	0.8	0.7	...	...	3	59	68
Samoa	...	...	3.0 (2009)	5.8 (2009)	...	...	...
Solomon Islands	...	...	29.3 (2007)	35.1 (2007)	...	...	...
Timor-Leste	...	...	12.2 (2010)	19.7 (2010)	...	...	...
Tonga	...	...	...	...	...	...	...
Tuvalu	...	...	39.4 (2007)	60.7 (2007)	...	...	...
Vanuatu	...	...	15.4 (2007)	...	...	...	...
<b>Developed Member Economies</b>							
Australia	0.1	0.2	...	...	...	...	...
Japan	0.1	0.1	...	...	...	...	...
New Zealand	0.1	0.1	...	...	...	...	...

... = Data not available at cutoff date, HIV = human immunodeficiency virus, AIDS = acquired immunodeficiency syndrome.

a Data in 2004 may not be consistent with the later years because of the change in the WHO guidelines for treatment of adults and adolescents with HIV, including pregnant women in 2010. As a consequence, the number of people needing the antiretroviral therapy expanded.

Sources: Millennium Indicators Database Online (UNSD 2013), World Health Organization Online (WHO 2013).

## MDG 6 Targets and Indicators

Table 6.2 **Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases**

Regional Member	6.6 Incidence of Malaria (per 100,000 population)	6.6 Death Rates Associated with Malaria (per 100,000 population)	6.9 Incidence of Tuberculosis (per 100,000 population)		6.9 Prevalence of Tuberculosis (per 100,000 population)	
	2010	2010	1990	2011	1990	2011
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	3599	1	189	189	326	351
Armenia	...	0	17	55	25	78
Azerbaijan	56	0	305	113	711	177
Georgia	0	0	280	125	675	159
Kazakhstan <sup>a</sup>	...	...	79	129	107	168
Kyrgyz Republic	166	0	92	128	163	175
Pakistan	1800	2	231	231	566	350
Tajikistan	10	0	70	193	115	350
Turkmenistan	...	0	101	74	165	96
Uzbekistan	13	0	125	101	248	177
<b>East Asia</b>						
China, People's Rep. of	4	0	153	75	215	104
Hong Kong, China <sup>a</sup>	...	...	127	78	163	99
Korea, Rep. of	258	0	167	100	223	149
Mongolia <sup>a</sup>	...	...	405	223	934	348
Taipei, China	...	...	...	...	...	...
<b>South Asia</b>						
Bangladesh	6095	14	225	225	501	411
Bhutan	240	0	784	192	1782	230
India	3555	4	216	181	465	249
Maldives <sup>a</sup>	...	...	150	34	299	44
Nepal	147	0	163	163	349	243
Sri Lanka	93	0	66	66	110	101
<b>Southeast Asia</b>						
Brunei Darussalam <sup>a</sup>	...	...	71	70	90	89
Cambodia	2790	6	580	424	1667	817
Indonesia	5830	9	206	187	445	281
Lao PDR	2343	7	492	213	1490	540
Malaysia	1632	2	127	81	227	101
Myanmar	6556	14	393	381	894	506
Philippines	145	0	393	270	1003	484
Singapore <sup>a</sup>	...	...	63	37	79	46
Thailand	703	1	138	124	199	161
Viet Nam	104	0	204	199	403	323
<b>The Pacific</b>						
Cook Islands <sup>a</sup>	...	...	11	6	14	8
Fiji	...	...	112	26	232	33
Kiribati <sup>a</sup>	...	...	116	356	257	462
Marshall Islands <sup>a</sup>	...	...	137	536	261	924
Micronesia, Fed. States of <sup>a</sup>	...	...	379	200	455	294
Nauru <sup>a</sup>	...	...	89	33	114	42
Palau <sup>a</sup>	...	...	45	153	57	256
Papua New Guinea	18498	46	308	346	678	534
Samoa <sup>a</sup>	...	...	36	10	53	13
Solomon Islands	12203	24	312	103	615	162
Timor-Leste	11724	25	...	498	...	701
Tonga <sup>a</sup>	...	...	38	16	59	27
Tuvalu <sup>a</sup>	...	...	536	228	933	381
Vanuatu	10783	14	127	67	146	97
<b>Developed Member Economies</b>						
Australia <sup>a</sup>	...	...	7	6	8	8
Japan <sup>a</sup>	...	...	49	20	63	26
New Zealand <sup>a</sup>	...	...	11	8	14	10

continued

## MDG 6 Targets and Indicators

Table 6.2 **Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases**  
(continued)

Regional Member	6.9 Death Rates Associated with Tuberculosis		6.10 Proportion of Tuberculosis Cases under DOTS (%)			
	(per 100,000 population)		Detected		Cured	
	1990	2011	1995	2011	1995	2010
Developing Member Economies						
Central and West Asia						
Afghanistan	33	39	3 (1997)	46	33 (1998)	90
Armenia	4	9	79	74	55	72
Azerbaijan	10	4	3	62	65	77
Georgia	8	4	12	84	58	76
Kazakhstan <sup>a</sup>	8	14	22	87	74 (1997)	61
Kyrgyz Republic	9	12	44	80	50 (1996)	82 (2009)
Pakistan	72	33	5	64	70	91
Tajikistan	6	16	24	47	88	80
Turkmenistan	13	10	31	71 (2010)	73	84 (2009)
Uzbekistan	8	6	22	52	78	81
East Asia						
China, People's Rep. of	19	4	33	89	93	96
Hong Kong, China <sup>a</sup>	9	3	83	86	85 (1998)	68
Korea, Rep. of	8	5	94	88	76	89
Mongolia <sup>a</sup>	16	5	38	68	74	86
Taipei, China	...	...	...	...	...	...
South Asia						
Bangladesh	61	45	21	45	71	92
Bhutan	194	15	45	87	97	90
India	38	24	58	59	25	88
Maldives <sup>a</sup>	23	3	88	81	97	82
Nepal	41	23	56	71	73	90
Sri Lanka	7	5	49	70	79	86
Southeast Asia						
Brunei Darussalam <sup>a</sup>	4	3	...	81	85 (1998)	81
Cambodia	155	63	23	64	91	94
Indonesia	53	27	9	70	91	90
Lao PDR	41	11	4	32	70	91
Malaysia	8	6	53	85	69	80
Myanmar	113	48	11	74	67	86
Philippines	58	29	48	76	60	91
Singapore <sup>a</sup>	5	2	86	86	86	80
Thailand	19	14	59	76	64	85
Viet Nam	46	33	37	56	89	92
The Pacific						
Cook Islands <sup>a</sup>	1	1	62	82	100	50 (2008)
Fiji	8	2	34	92	86	67
Kiribati <sup>a</sup>	43	4	71 (1996)	95	87	93
Marshall Islands <sup>a</sup>	21	74	57 (1996)	47	25	80
Micronesia, Fed. States of <sup>a</sup>	14	23	49	66	80	97
Nauru <sup>a</sup>	9	3	68 (1999)	150	83 (1998)	67
Palau <sup>a</sup>	5	26	75	38	67	88
Papua New Guinea	82	53	53	61	56	58
Samoa <sup>a</sup>	5	1	90	110	80	100
Solomon Islands	70	16	41	70	65	87
Timor-Leste	...	63	62	76	81 (2002)	88
Tonga <sup>a</sup>	6	3	63 (2002)	55	75	83
Tuvalu <sup>a</sup>	97	37	89	53	100 (1999)	100
Vanuatu	10	9	75	67	85	80
Developed Member Economies						
Australia <sup>a</sup>	0	0	88	90	55 (1996)	80
Japan <sup>a</sup>	3	2	83	86	80 (1998)	52
New Zealand <sup>a</sup>	1	0	97	91	30 (2000)	74

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed, DOTS = directly observed treatment short course.

a The indicators incidence and death rates associated with malaria, as defined for the global monitoring, do not apply to the circumstances of the economy.

Source: Millennium Indicators Database Online (UNSD 2013).

## MDG 7: Ensure Environmental Sustainability

### Snapshots

- The Millennium Development Goal (MDG) target to provide households with improved drinking water has been met by twenty five of 42 reporting economies the Asia and Pacific region, including People's Republic of China (PRC) and India.
- Progress on the sanitation target is less encouraging. Twenty five of 42 economies are expected to fall short of the target to halve the proportion of people using unimproved sanitation by 2015, including four of the five most populous countries.
- The percentage of slum dwellers in urban populations declined in most economies that report data on slums.
- The region has increased protected areas, which are dedicated to safeguarding and maintaining biological diversity and natural or cultural resources, and some progress is being made on forest cover. However, sustained economic growth has driven increases in emissions of carbon dioxide.

### Introduction

Millennium Development Goal (MDG) 7 has four targets:

- 7.A: *Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources.*
- 7.B: *Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss.*
- 7.C: *Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.*
- 7.D: *By 2020, have achieved a significant improvement in the lives of at least 100 million slum dwellers.*

### Key trends

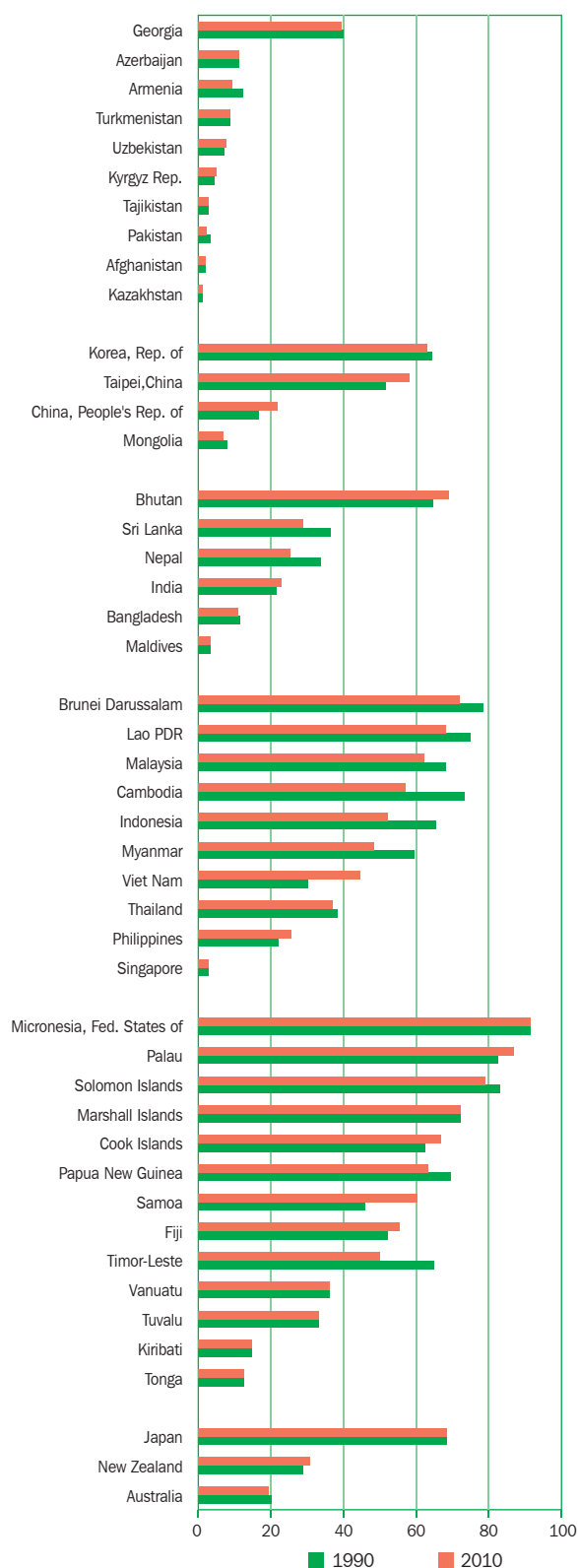
**Forest cover has increased in about one-third of regional economies since 1990, with the PRC among economies expanding forests.** Figure 7.1 shows the percentage of land area covered by forests in 2010 compared with 1990. Fourteen economies increased their forested area, 12 reported no change, and 20 suffered from deforestation across the 20 years. Loss of forests destroys habitats that support biodiversity, eliminates an important carbon sink that helps moderate climate change, and threatens the livelihood of the rural poor (World Bank 2013).

Losses of more than 20% of forested areas were recorded in Armenia, Cambodia, Indonesia, Nepal,

Pakistan, Sri Lanka, and Timor-Leste (Table 7.1). While forests were depleted throughout Southeast Asia, often to expand the area under cultivation for food or agricultural commodities such as palm oil, the Philippines and Viet Nam achieved increased forests areas.

The PRC reported a 30% increase in its forested area, which raised the forest coverage to about 22% of the country. India's forested area rose slightly, to 23% of its total area. Twenty-five economies are expected to make progress on forest coverage by 2015, but 19, including Indonesia, Papua New Guinea, and others with substantial forest areas, are making no progress or are regressing.

Figure 7.1 Percentage of land area covered by forest, 1990 and 2010



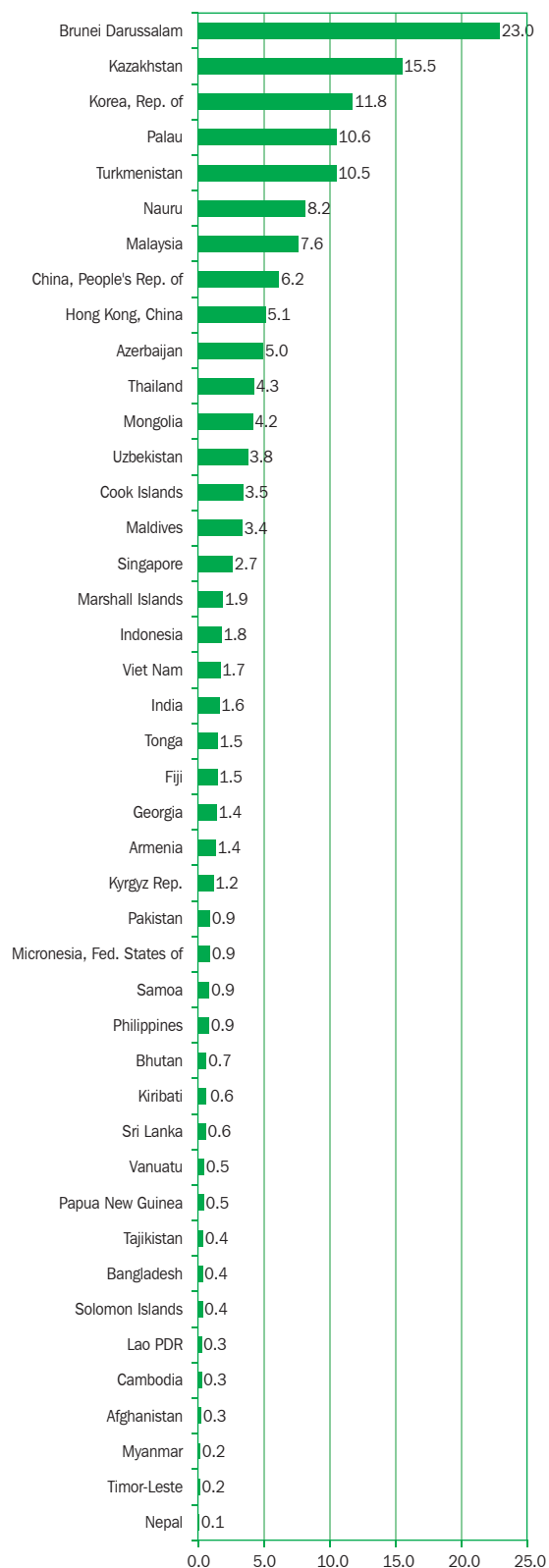
Lao PDR = Lao People's Democratic Republic.  
 Note: Latest data for Taipei, China refer to 2011.  
 Source: Table 7.1.

**Good progress was achieved with protecting terrestrial and marine areas.** Between 1990 and 2010, nearly 90% of regional economies increased their protected areas, which are dedicated to safeguarding and maintaining biological diversity and natural resources (Table 7.2). Protected areas range from less than 1% of total areas in Afghanistan and some Pacific islands to at least 20% in Cambodia; Bhutan; Brunei Darussalam; Hong Kong, China; Kiribati; and New Zealand. Despite the progress, the Asia and Pacific region lags behind Latin America in conserving land and coastal areas. Extra efforts are required to increase the coverage and improve the management of protected areas.

**Per capita emissions of CO<sub>2</sub> increased in the region but remained well below those of developed countries.** Most economies in Asia and the Pacific emit from 6 tons of CO<sub>2</sub> per person yearly to less than 1 ton. By contrast, yearly per capita emissions in developed regions of the world average about 11 tons. Figure 7.2 shows that per capita emissions vary greatly, from a high of 23.0 tons in Brunei Darussalam, which produces oil and gas and subsidizes fuel prices for consumers, to below 1 ton in economies such as Nepal that have low levels of industrialization and vehicle ownership.

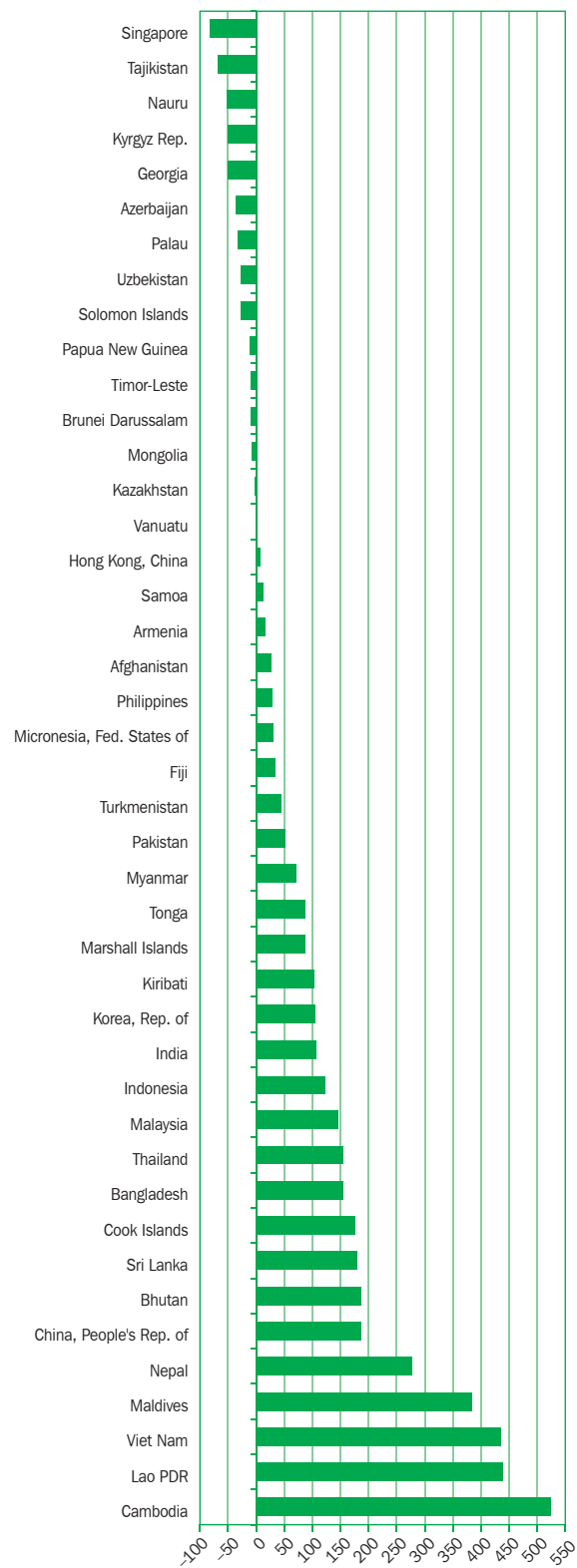
About 70% of the region's economies reported increases in per capita emissions of CO<sub>2</sub> between 1990 and 2010, with emissions at least doubling in over one-third of the economies (Figure 7.3). Thus, a majority of the region's economies are considered to be making no progress or regressing in CO<sub>2</sub> emissions. Economies that recorded the biggest increases started with low per capita emissions and most still had relatively low emissions by 2010, except for the PRC (6.2 tons per person). The other 30% of regional economies lowered their per capita CO<sub>2</sub> emissions in the 20 years to 2010. Steep price increases for oil and natural gas contributed to reductions in Central and West Asia, and phasing down higher polluting fuels helped to reduce emissions in Singapore and some other economies.

Figure 7.2 **Carbon dioxide emissions, 2010**  
(per capita, metric tons)



Lao PDR = Lao People's Democratic Republic.  
Source: Table 7.1.

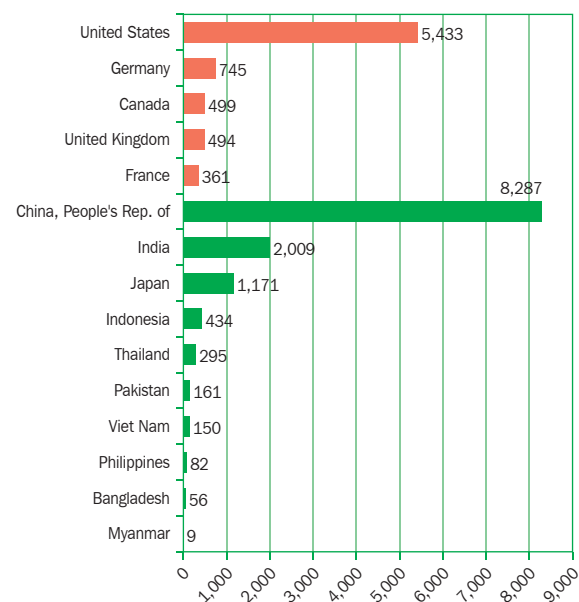
Figure 7.3 **Percentage change of per capita emission of carbon dioxide, 2010 vs. 1990 (%)**



Lao PDR = Lao People's Democratic Republic.  
Source: Table 7.1.

**Asia is a major contributor to global CO<sub>2</sub> emissions.** The PRC now emits more CO<sub>2</sub> each year (8.3 billion tons) than the combined total of Canada, France, Germany, the United Kingdom, and the United States (Figure 7.4). Both India and Japan emit higher tonnages of CO<sub>2</sub> than Germany. These emissions contribute to global climate change, which is expected to have particularly severe impacts in parts of Asia and the Pacific (see Part III, Energy and environment).

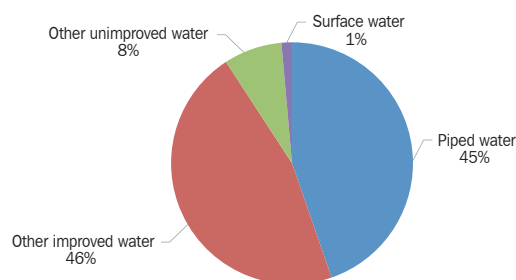
Figure 7.4 **Carbon dioxide emissions in five industrialized countries and in the 10 most populous economies of Asia, 2010** (million tons)



Sources: Table 7.1 and Millennium Indicators Database Online (UNSD 2012) for Canada, France, Germany, United Kingdom, and United States.

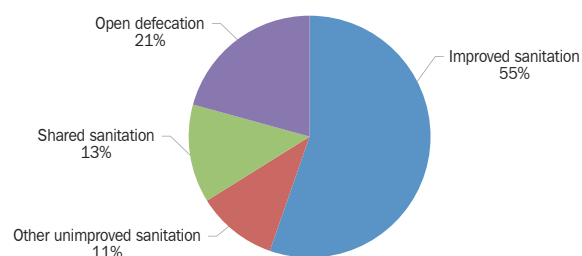
**In the region, 9% of the population do not have access to safe water and 45% lack access to improved sanitation.** Figures 7.5 and 7.6 show the water and sanitation facilities available to people in Asia and the Pacific. The proportion of the region's population with access to piped and other improved water increased to 91% in 2011. This left 9%, or 318 million people, without access to improved drinking water. Improved sanitation facilities such as flush toilets connected to a sewer or pit and composting toilets were available to 55% of the region's population. The remaining 45%, or 1.7 billion people, depended on open defecation, shared or public facilities, and other unimproved sanitation that can cause water and ground pollution leading to diseases and deaths. Rural areas had much lower rates of improved sanitation than urban areas (Figure 7.7).

Figure 7.5 **Proportion of the population using different sources of drinking water, 2011**



Source: WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation.

Figure 7.6 **Proportion of the population using different types of sanitation facilities, 2011**



Source: WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation.

Figure 7.7 Proportion of the population using improved sanitation facilities, urban and rural, 2011



Lao PDR = Lao People's Democratic Republic.  
Source: Table 7.3.

Solid progress has been achieved in meeting the target for providing households with improved drinking water. Box 7.1 shows that 25 economies have halved the proportion of their populations without sustainable access to improved drinking water and another two are expected to do so by 2015. Among those likely to miss the target at their current rates of progress are two of the most populous economies—Bangladesh and Pakistan. The United Nations has cautioned that even though many countries worldwide significantly increased access to improved water, there are concerns about the quality and safety of many of their water sources.

In Papua New Guinea, only 40% of the population used improved water sources in 2011. Others with low levels of access to safe water were Afghanistan (61%), Kiribati and Tajikistan (66%), Cambodia (67%), Timor-Leste (69%), and the Lao People's Democratic Republic (70%).

Box 7.1 Progress toward the target for proportion of population with access to improved drinking water

#### Early achievers

Afghanistan	Maldives
Armenia	Mongolia
Bhutan	Myanmar
Cambodia	Nepal
China, People's Rep. of	Palau
Cook Islands	Samoa
Fiji	Singapore
Georgia	Sri Lanka
India	Thailand
Korea, Rep. of	Tuvalu
Kyrgyz Rep.	Vanuatu
Lao PDR	Viet Nam
Malaysia	

#### On track

Indonesia	Philippines
-----------	-------------

#### Slow progress

Azerbaijan	Papua New Guinea
Bangladesh	Solomon Islands
Kiribati	Tajikistan
Marshall Islands	Timor-Leste
Nauru	Tonga
Pakistan	

#### No progress/regressing

Kazakhstan	Turkmenistan
Micronesia, Fed. States of	Uzbekistan

Lao PDR = Lao People's Democratic Republic.

Source: Table 7.3.

**Progress toward the sanitation target is less encouraging.** Fifteen economies have achieved the goal to halve the proportion of their populations using unimproved sanitation, and another two are expected to do so (Box 7.2). However, as many as 25 could miss this target—18 are making slow progress (including heavily populated Bangladesh, India, Indonesia, Pakistan, and the Philippines) and another seven appear to be making no progress.

Countries with the lowest availability of improved sanitation were Papua New Guinea, where only 19% of the people used improved sanitation in 2011, Solomon Islands (27%), Afghanistan (28%), Cambodia (33%), India and Nepal (35%), and Kiribati and Timor-Leste (39%).

Box 7.2 Progress toward the target for proportion of population using improved sanitation facilities

**Early achievers**

Azerbaijan	Singapore
China, People's Rep. of	Sri Lanka
Fiji	Tajikistan
Korea, Rep. of	Thailand
Lao PDR	Turkmenistan
Malaysia	Uzbekistan
Maldives	Viet Nam
Palau	

**On track**

Micronesia, Fed. States of	Myanmar
----------------------------	---------

**Slow progress**

Afghanistan	Marshall Islands
Armenia	Mongolia
Bangladesh	Nepal
Bhutan	Pakistan
Cambodia	Philippines
India	Solomon Islands
Indonesia	Timor-Leste
Kazakhstan	Tuvalu
Kiribati	Vanuatu

**No progress/regressing**

Cook Islands	Papua New Guinea
Georgia	Samoa
Kyrgyz Rep.	Tonga
Nauru	

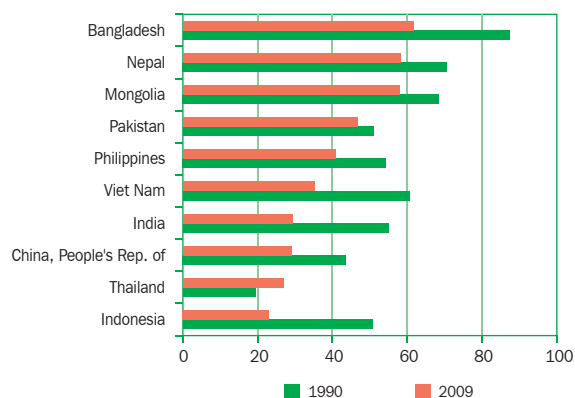
Lao PDR = Lao People's Democratic Republic.  
Source: Table 7.3.

**The proportion of slum dwellers in urban populations declined in most reporting economies in the region.**

Slums are defined as dwellings in urban areas with at least one of the following characteristics: (i) lack of access to improved water supply, (ii) lack of access to improved sanitation, (iii) three or more people per room, and (iv) dwellings made of nondurable materials. Figure 7.8 shows that of 10 countries with data, nine achieved substantial reductions in the proportion of slum dwellers in urban areas between 1990 and 2009. Indonesia reduced its proportion of slum dwellers by over half. Still, more than 40% of urban populations were classified as living in slums in Bangladesh, Nepal, Mongolia, Pakistan, and the Philippines.

Between 2000 and 2010, over 200 million slum dwellers globally gained access to improved water sources, sanitation facilities, durable housing, or sufficient living space, which exceeded the MDG target. Partly owing to rapid urbanization, however, the number of slum dwellers in developing countries continued to increase, to an estimated 863 million in 2012 (UN 2013).

Figure 7.8 Proportion of slum population (% of urban population) 1990 and 2009 (or latest year)



Source: Table 7.4.

## Data issues and comparability

Countries have different methods for collecting data on national forest inventories, which causes problems with comparisons. Also, forest inventories are done at infrequent intervals in some countries because of the expense. New technologies such as remote sensing imagery should facilitate assessments of forest cover.

The data on CO<sub>2</sub> emissions come mainly from international agencies and are derived by applying emission coefficients to estimates of fuel consumption, cement production, and gas flaring. However, the impact on the climate may be underestimated because CO<sub>2</sub> is only one of the greenhouse gases.

The statistics for protected terrestrial and marine areas have gaps for some countries due to difficulties determining whether a site conforms to the International

Union for Conservation of Nature definition of a protected area.

The internationally and nationally reported data for the proportion of population using improved drinking water or improved sanitation facilities can vary because of varying definitions of what comprises access to safe drinking water and sanitation facilities and due to different data for population estimates.

Data on housing conditions come mainly from population or housing censuses or from socio-demographic and living standard surveys. Currently, there is no mechanism to monitor security of housing tenure as part of 7.D, on improving the lives of slum dwellers.

## MDG 7 Targets and Indicators

Table 7.1 **Target 7.A: Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources**

Regional Member	7.1 Proportion of Land Area Covered by Forest (%)		7.2 Carbon Dioxide Emissions			
			(thousand metric tons)		(per capita, metric tons)	
	1990	2010	1990	2010	1990	2010
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	2.1	2.1	2677	8236	0.2	0.3
Armenia	12.3	9.3	4052 (1992)	4221	1.2 (1992)	1.4
Azerbaijan	11.3	11.3	57682 (1992)	45731	7.7 (1992)	5.0
Georgia	40.0	39.5	15335 (1992)	6241	2.9 (1992)	1.4
Kazakhstan	1.3	1.2	261307 (1992)	248729	15.9 (1992)	15.5
Kyrgyz Republic	4.4	5.0	10862 (1992)	6399	2.4 (1992)	1.2
Pakistan	3.3	2.2	68566	161396	0.6	0.9
Tajikistan	2.9	2.9	7220 (1992)	2860	1.3 (1992)	0.4
Turkmenistan	8.8	8.8	28067 (1992)	53054	7.2 (1992)	10.5
Uzbekistan	7.2	7.7	114014 (1992)	104443	5.3 (1992)	3.8
<b>East Asia</b>						
China, People's Rep. of	16.7	21.9	2460744	8286892	2.1	6.2
Hong Kong, China <sup>a</sup>	...	...	27660	36289	4.8	5.1
Korea, Rep. of	64.5	63.0	246943	567567	5.7	11.8
Mongolia	8.0	7.0	10044	11511	4.6	4.2
Taipei, China <sup>b,c,d</sup>	51.5	58.1 (2011)	175729 (1996)	265078	8.2 (1996)	11.4
<b>South Asia</b>						
Bangladesh	11.5	11.1	15533	56153	0.1	0.4
Bhutan	64.6	69.1	128	477	0.2	0.7
India	21.5	23.0	690577	2008823	0.8	1.6
Maldives	3.3	3.3	154	1074	0.7	3.4
Nepal	33.7	25.4	634	3755	0.0	0.1
Sri Lanka	36.4	28.8	3773	12710	0.2	0.6
<b>Southeast Asia</b>						
Brunei Darussalam	78.4	72.1	6421	9160	25.5	23.0
Cambodia	73.3	57.2	451	4180	0.0	0.3
Indonesia	65.4	52.1	149566	433989	0.8	1.8
Lao PDR	75.0	68.2	235	1874	0.1	0.3
Malaysia	68.1	62.3	56593	216804	3.1	7.6
Myanmar	59.6	48.3	4276	8995	0.1	0.2
Philippines	22.0	25.7	41763	81591	0.7	0.9
Singapore	2.9	2.9	46941	13520	15.6	2.7
Thailand	38.3	37.1	95833	295282	1.7	4.3
Viet Nam	30.2	44.5	21408	150230	0.3	1.7
<b>The Pacific</b>						
Cook Islands	62.5	66.7	22	70	1.2	3.5
Fiji	52.2	55.5	818	1291	1.1	1.5
Kiribati	14.8	14.8	22	62	0.3	0.6
Marshall Islands	72.2	72.2	48	103	1.0	1.9
Micronesia, Fed. States of	91.4	91.4	77 (1997)	103	0.7 (1997)	0.9
Nauru	—	—	158	84	17.3	8.2
Palau	82.6	87.0	235	216	15.6	10.6
Papua New Guinea	69.6	63.4	2142	3135	0.5	0.5
Samoa	45.9	60.4	125	161	0.8	0.9
Solomon Islands	83.0	79.1	161	202	0.5	0.4
Timor-Leste	65.0	49.9	161 (2002)	183	0.2 (2002)	0.2
Tonga	12.5	12.5	77	158	0.8	1.5
Tuvalu	33.3	33.3	...	...	...	...
Vanuatu	36.1	36.1	70	117	0.5	0.5
<b>Developed Member Economies</b>						
Australia <sup>d</sup>	20.1	19.4	287331	373081	16.8	16.9
Japan <sup>d</sup>	68.4	68.5	1094834	1170715	8.9	9.1
New Zealand <sup>d</sup>	28.8	30.9	23663	31551	7.1	7.2

continued

## MDG 7 Targets and Indicators

Table 7.1 **Target 7.A: Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources** (continued)

Regional Member	7.3 Consumption of All Ozone-Depleting Substances (ODP metric tons)		7.5 Proportion of Total Water Resources Used (%)	
	1990	2011	1990	2010
<b>Developing Member Economies</b>				
<b>Central and West Asia</b>				
Afghanistan	– (1991)	24.0	...	31.0 (2000)
Armenia	– (1991)	7.5	45.1	36.8 (2005)
Azerbaijan	2.8 (1991)	7.6	44.9	34.8 (2005)
Georgia	94.8 (1991)	4.3	5.5	2.9 (2005)
Kazakhstan	2355.9	96.8	33.4	19.3 (2005)
Kyrgyz Republic	133.5 (1991)	3.0	47.6	32.6 (2005)
Pakistan	1455.8	276.1	63.1	74.4
Tajikistan	93.3 (1991)	2.9	75.2	51.1 (2005)
Turkmenistan	145.2	5.8	100.1	111.1 (2005)
Uzbekistan	4.4 (1991)	4.1	124.0	100.6 (2005)
<b>East Asia</b>				
China, People's Rep. of	59674.0	21299.4	17.6	19.5 (2005)
Hong Kong, China <sup>a</sup>	...	...	...	...
Korea, Rep. of	– (1991)	2119.3	34.0 (1995)	36.5 (2000)
Mongolia	– (1991)	1.2	1.2 (1995)	1.6 (2005)
Taipei, China <sup>b,c,d</sup>	...	...	15.8 (2001)	18.1
<b>South Asia</b>				
Bangladesh	202.1	136.4	...	2.9
Bhutan	– (1991)	0.3	...	0.4
India	– (1991)	1484.6	26.2	33.9
Maldives	4.5	3.7	...	15.7
Nepal	25.0 (1991)	1.2	4.5 (2000)	4.5 (2005)
Sri Lanka	218.2	16.3	18.5	24.5 (2005)
<b>Southeast Asia</b>				
Brunei Darussalam	– (1991)	8.1	0.9	...
Cambodia	– (1991)	13.7	... (2000)	0.5 (2005)
Indonesia	80.8 (1991)	337.5	3.7	5.6 (2000)
Lao PDR	–	2.7	...	1.0 (2005)
Malaysia	4193.7	485.8	1.7	1.9 (2005)
Myanmar	– (1991)	5.8	...	2.8 (2000)
Philippines	3477.2	164.9	5.8 (1995)	17.0
Singapore	4855.2	111.6	...	...
Thailand	6984.2	832.0	...	13.1 (2005)
Viet Nam	430.0 (1991)	292.9	6.1	9.3 (2005)
<b>The Pacific</b>				
Cook Islands	0.1 (1991)	0.1	...	...
Fiji	41.8	14.5	...	0.3 (2000)
Kiribati	– (1991)	0.0	...	...
Marshall Islands	1.2	0.2	...	...
Micronesia, Fed. States of	– (1991)	0.1	...	...
Nauru	– (1991)	0.0	...	...
Palau	– (1991)	0.2	...	...
Papua New Guinea	28.5 (1991)	1.7	...	– (2005)
Samoa	4.0 (1991)	0.3	...	...
Solomon Islands	2.1	2.0	...	...
Timor-Leste	0.3 (1991)	0.2	...	...
Tonga	0.4 (1991)	0.1	...	...
Tuvalu	– (1991)	0.0	...	...
Vanuatu	– (1991)	0.1	...	...
<b>Developed Member Economies</b>				
Australia <sup>d</sup>	7434.4	46.8	4.5	4.6 (2000)
Japan <sup>d</sup>	120074.2	618.7	21.3	20.9 (2000)
New Zealand <sup>d</sup>	1195.4	11.5	...	1.5 (2000)

– = Magnitude equals zero, ... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, CO<sub>2</sub> = carbon dioxide, ODP = ozone-depleting potential.

a The proportion of land area covered by forest in Hong Kong, China is included in the data of the People's Republic of China.

b On proportion of total water resources used, Taipei, China data are equal to the percentage of available resources, that is the proportion of total amount of water above ground to the annual runoff.

c On CO<sub>2</sub> emissions, Taipei, China data include emissions from fuel combustion only.

d Derived per capita emission using available data on CO<sub>2</sub> emission and population.

Sources: Food and Agriculture Organization (FAOStat and AquaStat); Carbon Dioxide Information Analysis Center (CDIAC); United Nations Environment Program (UNEP); Millennium Indicators Database Online (UNSD 2013); for Taipei, China: economy sources.

## MDG 7 Targets and Indicators

Table 7.2 **Target 7.B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss**

Regional Member	7.6 Proportion of Terrestrial and Marine Areas Protected (%)		7.6a Terrestrial Areas Protected to Total Surface Area (%)		7.6b Marine Areas Protected to Territorial Waters (%)	
	1990	2010	1990	2010	1990	2010
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	0.4	0.4	0.4	0.4	—	—
Armenia	6.9	8.0	6.9	8.0	—	—
Azerbaijan	6.2	7.2	6.2	7.2	—	—
Georgia	2.6	3.4	2.8	3.7	0.2	0.5
Kazakhstan	2.4	2.5	2.4	2.5	—	—
Kyrgyz Republic	6.4	6.9	6.4	6.9	—	—
Pakistan	9.8	9.8	10.1	10.1	1.8	1.8
Tajikistan	1.9	4.1	1.9	4.1	—	—
Turkmenistan	3.0	3.0	3.0	3.0	—	—
Uzbekistan	2.1	2.3	2.1	2.3	—	—
<b>East Asia</b>						
China, People's Rep. of	13.0	16.0	13.5	16.6	0.4	1.3
Hong Kong, China	41.1	41.8	41.1	41.8	—	—
Korea, Rep. of	3.9	5.0	4.3	5.9	3.5	3.9
Mongolia	4.1	13.4	4.1	13.4	—	—
Taipei, China <sup>a</sup>	9.2	19.2 (2011)	...	...	...	...
<b>South Asia</b>						
Bangladesh	1.4	1.6	1.7	1.8	0.4	0.8
Bhutan	14.3	28.4	14.3	28.4	—	—
India	4.5	4.8	4.7	5.0	1.6	1.7
Maldives	—	—	—	—	—	—
Nepal	7.7	17.0	7.7	17.0	—	—
Sri Lanka	13.8	15.0	20.3	21.5	0.1	1.1
<b>Southeast Asia</b>						
Brunei Darussalam	24.8	29.6	36.7	44.0	1.4	1.4
Cambodia	0.0	23.4	0.0	25.8	—	0.4
Indonesia	4.0	6.4	10.0	14.2	0.5	2.0
Lao PDR	1.5	16.6	1.5	16.6	—	—
Malaysia	12.8	13.7	17.1	18.1	1.5	2.0
Myanmar	2.6	5.2	3.1	6.3	0.3	0.3
Philippines	3.0	5.0	8.7	10.9	0.5	2.5
Singapore	2.5	3.4	5.0	5.4	—	1.4
Thailand	12.8	17.3	14.7	20.1	4.0	4.4
Viet Nam	3.0	4.6	4.5	6.2	0.3	1.7
<b>The Pacific</b>						
Cook Islands	0.0	0.1	0.1	0.8	—	—
Fiji	0.2	0.2	1.1	1.3	0.1	0.1
Kiribati	0.3	22.6	5.0	23.2	0.3	22.6
Marshall Islands	—	0.6	—	3.1	—	0.6
Micronesia, Fed. States of	0.1	0.1	2.7	4.0	—	0.1
Nauru	—	—	—	—	—	—
Palau	0.5	4.8	0.3	2.0	0.5	5.3
Papua New Guinea	0.9	1.4	1.9	3.1	0.3	0.3
Samoa	0.9	1.2	2.4	3.4	0.5	0.6
Solomon Islands	0.0	0.1	0.1	0.1	—	0.1
Timor-Leste	—	6.4	—	6.1	—	6.7
Tonga	0.1	9.4	1.4	14.5	—	9.4
Tuvalu	—	0.2	—	0.4	—	0.2
Vanuatu	0.4	0.5	3.7	4.3	—	0.1
<b>Developed Member Economies</b>						
Australia	7.8	12.5	7.5	10.6	10.9	28.3
Japan	7.6	10.9	13.4	16.5	2.0	5.6
New Zealand	15.4	20.0	25.4	26.2	0.4	10.8

— = Magnitude equals zero, ... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Total size of nature-protected areas (including marine area) as percentage of national territory (excluding maritime area).

Sources: Millennium Indicators Database Online (UNSD 2013); IUCN and UNEP-WCMC (2012); The World Database on Protected Areas (WDPA); and Directorate-General of Budget, Accounting, and Statistics (DGBAS) for Taipei, China.

## MDG 7 Targets and Indicators

**Table 7.3 Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation**

Regional Member	7.8 Population Using Improved Water Sources					
	(%)					
	1990			2011		
	Total	Urban	Rural	Total	Urban	Rural
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	5 (1991)	14 (1991)	3 (1991)	61	85	53
Armenia	91 (1992)	98 (1992)	75 (1992)	99	100	98
Azerbaijan	70	88	49	80	88	71
Georgia	85	95	72	98	100	96
Kazakhstan	96	99	92	95	99	90
Kyrgyz Republic	77 (1991)	97 (1991)	66 (1991)	89	96	85
Pakistan	85	95	81	91	96	89
Tajikistan	61 (1993)	93 (1993)	47 (1993)	66	92	57
Turkmenistan	86 (1994)	99 (1994)	76 (1994)	71	89	54
Uzbekistan	90	97	85	87	98	81
<b>East Asia</b>						
China, People's Rep. of	67	97	56	92	98	85
Hong Kong, China	...	...	...	...	...	...
Korea, Rep. of	90 (1991)	97 (1991)	67 (1991)	98	100	88
Mongolia	54	74	27	85	100	53
Taipei, China	...	...	...	...	...	...
<b>South Asia</b>						
Bangladesh	76	87	74	83	85	82
Bhutan	86 (1997)	99 (1997)	82 (1997)	97	100	96
India	70	89	64	92	96	89
Maldives	93	100	91	99	100	98
Nepal	67	96	64	88	91	87
Sri Lanka	68	92	63	93	99	92
<b>Southeast Asia</b>						
Brunei Darussalam	...	...	...	...	...	...
Cambodia	31	48	28	67	90	61
Indonesia	70	90	61	84	93	76
Lao PDR	40 (1994)	70 (1994)	33 (1994)	70	83	63
Malaysia	88	94	82	100	100	99
Myanmar	56	80	48	84	94	79
Philippines	85	93	77	92	93	92
Singapore <sup>a</sup>	100	100	na	100	100	na
Thailand	86	96	82	96	97	95
Viet Nam	58	88	50	96	99	94
<b>The Pacific</b>						
Cook Islands	100	100	100	100	100	100
Fiji	85	94	79	96	100	92
Kiribati	50	74	36	66	87	50
Marshall Islands	92	91	94	94	93	97
Micronesia, Fed. States of	91	94	90	90	95	88
Nauru	93 (1996)	93 (1996)	na	96	96	na
Palau	90	98	72	95	97	86
Papua New Guinea	33	87	24	40	89	33
Samoa	89	97	87	98	97	98
Solomon Islands	78 (2000)	93 (2000)	76 (2000)	79	93	76
Timor-Leste	53 (1995)	67 (1995)	49 (1995)	69	93	60
Tonga	99	98	99	99	99	99
Tuvalu	90	92	89	98	98	97
Vanuatu	62	94	55	91	98	88
<b>Developed Member Economies</b>						
Australia	100	100	100	100	100	100
Japan	100	100	100	100	100	100
New Zealand	100	100	100	100	100	100

continued

## MDG 7 Targets and Indicators

Table 7.3 **Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation** (*continued*)

Regional Member	7.9 Population Using Improved Sanitation Facilities					
	(%)					
	Total	Urban	Rural	Total	Urban	Rural
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	21 (1991)	26 (1991)	20 (1991)	28	46	23
Armenia	89 (1992)	95 (1992)	75 (1992)	90	96	81
Azerbaijan	57 (1994)	70 (1994)	43 (1994)	82	86	78
Georgia	96	97	96	93	96	91
Kazakhstan	96	96	97	97	97	98
Kyrgyz Republic	93 (1991)	94 (1991)	93 (1991)	93	94	93
Pakistan	27	72	7	47	72	34
Tajikistan	89 (1993)	93 (1993)	87 (1993)	95	95	94
Turkmenistan	98	99	97	99	100	98
Uzbekistan	84	95	76	100	100	100
<b>East Asia</b>						
China, People's Rep. of	24	48	15	65	74	56
Hong Kong, China	...	...	...	...	...	...
Korea, Rep. of	100	100	100	100	100	100
Mongolia	50 (1994)	66 (1994)	28 (1994)	53	64	29
Taipei, China	...	...	...	...	...	...
<b>South Asia</b>						
Bangladesh	38	54	34	55	55	55
Bhutan	38 (1997)	66 (1997)	30 (1997)	45	74	29
India	18	50	7	35	60	24
Maldives	68	98	58	98	97	98
Nepal	7	36	4	35	50	32
Sri Lanka	68	78	65	91	83	93
<b>Southeast Asia</b>						
Brunei Darussalam	...	...	...	...	...	...
Cambodia	9	36	3	33	76	22
Indonesia	35	61	24	59	73	44
Lao PDR	20 (1994)	61 (1994)	12 (1994)	62	87	48
Malaysia	84	88	81	96	96	95
Myanmar	55 (1991)	77 (1991)	47 (1991)	77	84	74
Philippines	57	69	45	74	79	69
Singapore <sup>a</sup>	99	99	na	100	100	na
Thailand	82	87	79	93	89	96
Viet Nam	37	64	30	75	93	67
<b>The Pacific</b>						
Cook Islands	100	100	100	95	95	95
Fiji	57	85	37	87	92	82
Kiribati	28	43	20	39	51	30
Marshall Islands	65	77	41	76	84	55
Micronesia, Fed. States of	19	49	9	45	74	37
Nauru	66	66	na	66	66	na
Palau	46	63	8	100	100	100
Papua New Guinea	20	62	13	19	57	13
Samoa	93	94	92	92	93	91
Solomon Islands	25 (2000)	81 (2000)	15 (2000)	27	81	15
Timor-Leste	37 (1995)	51 (1995)	33 (1995)	39	68	27
Tonga	95	98	95	92	99	89
Tuvalu	73	75	71	83	86	80
Vanuatu	35 (1992)	50 (1992)	32 (1992)	58	65	55
<b>Developed Member Economies</b>						
Australia	100	100	100	100	100	100
Japan	100	100	100	100	100	100
New Zealand	...	...	88	...	...	88 (1996)

... = Data not available at cutoff date, na = Not applicable.

a No data for the rural area since the country is 100% urban.

Sources: Millennium Indicators Database Online (UNSD) 2013; WHO / UNICEF Joint Monitoring Program for Water Supply and Sanitation (JMP 2013).

## MDG 7 Targets and Indicators

Table 7.4 **Target 7.D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers**

Regional Member	7.10 Slum Population as Percentage of Urban Population		
	1990	2005	2009
<b>Developing Member Economies</b>			
<b>Central and West Asia</b>			
Afghanistan <sup>a</sup>	98.5	98.5 (2001)	...
Armenia	...	...	...
Azerbaijan	...	...	...
Georgia	...	...	...
Kazakhstan	...	...	...
Kyrgyz Republic	...	...	...
Pakistan <sup>b</sup>	51.0	47.5	46.6
Tajikistan	...	...	...
Turkmenistan	...	...	...
Uzbekistan	...	...	...
<b>East Asia</b>			
China, People's Rep. of <sup>a</sup>	43.6	32.9	29.1
Hong Kong, China	...	...	...
Korea, Rep. of	...	...	...
Mongolia <sup>c</sup>	68.5	57.9	57.9 (2007)
Taipei, China	...	...	...
<b>South Asia</b>			
Bangladesh <sup>b</sup>	87.3	70.8	61.6
Bhutan <sup>a</sup>	70.0	44.0 (2001)	...
India <sup>b</sup>	54.9	34.8	29.4
Maldives	...	...	...
Nepal <sup>d</sup>	70.6	60.7	58.1
Sri Lanka <sup>a</sup>	24.8	13.6 (2001)	...
<b>Southeast Asia</b>			
Brunei Darussalam	...	...	...
Cambodia <sup>a</sup>	71.7	78.9	...
Indonesia <sup>e</sup>	50.8	26.3	23.0
Lao PDR <sup>c</sup>	66.1	79.3	...
Malaysia	...	...	...
Myanmar <sup>c</sup>	31.1	45.6	...
Philippines <sup>d</sup>	54.3	43.7	40.9
Singapore	...	...	...
Thailand <sup>f</sup>	19.5	26.0	27.0
Viet Nam	60.5	41.3	35.2
<b>The Pacific</b>			
Cook Islands	...	...	...
Fiji	...	...	...
Kiribati	...	...	...
Marshall Islands	...	...	...
Micronesia, Fed. States of	...	...	...
Nauru	...	...	...
Palau	...	...	...
Papua New Guinea	...	...	...
Samoa	...	...	...
Solomon Islands	...	...	...
Timor-Leste	...	...	...
Tonga	...	...	...
Tuvalu	...	...	...
Vanuatu	...	...	...
<b>Developed Member Economies</b>			
Australia	...	...	...
Japan	...	...	...
New Zealand	...	...	...

... = Data not available at cutoff date.

<sup>a</sup> Estimation based on two components: water and sanitation.<sup>b</sup> Trend analysis was used to estimate the percentage of slum population.<sup>c</sup> In 1990, estimation was based on two components: water and sanitation from UNICEF/WHO. In 2005, estimation was based on four components: water, sanitation, sufficient living, and durable housing from MICS 2000.<sup>d</sup> Trend analysis was used to estimate 2005 and 2009 slum population.<sup>e</sup> Trend analysis was used to estimate 2005 slum population.<sup>f</sup> In 1990, estimation was based on two components: water and sanitation from UNICEF/WHO. In 2005, estimation was based on four components: water, sanitation, sufficient living, and durable housing from MICS 2000. In 2009, estimates were based on MICS 2006.

Sources: UN Human Settlements Programme (UN-Habitat); Millennium Indicators Database Online (UNSD 2013).

## MDG 8: Develop a Global Partnership for Development

### Snapshots

- Net official development assistance (ODA) to developing economies worldwide fell by 2% in real terms in 2011 and preliminary data indicate a further 4% decline in 2012.
- The proportion of untied official development assistance to total development assistance declined from 66% in 2008 to 49% in 2011.
- Although official flows from all sources to Asian Development Bank (ADB) developing members eased by 7% in 2011, they were up by 83% since 2006. Almost 20% of total disbursements of official flows to ADB members in 2011 went to Afghanistan.
- Growth of 19% in merchandise exports from Asia and the Pacific contributed to a general decline in debt-service to export ratios in 2011. Duty free access to developed country markets continued to improve.

### Introduction

Millennium Development Goal (MDG) 8 has six targets. The first three are the focus of this section. Two involve provision of official development assistance (ODA).

8.A: *Develop further an open, rule-based, predictable, nondiscriminatory trading and financial system.*

8.B: *Address the special needs of the least developed countries.*

8.C: *Address the special needs of landlocked developing countries and small island developing states.*

Target 8F, which refers to the availability of new technologies, especially information and communications, is discussed in Part III, the section “Transport, electricity, and communications.”

### Key trends

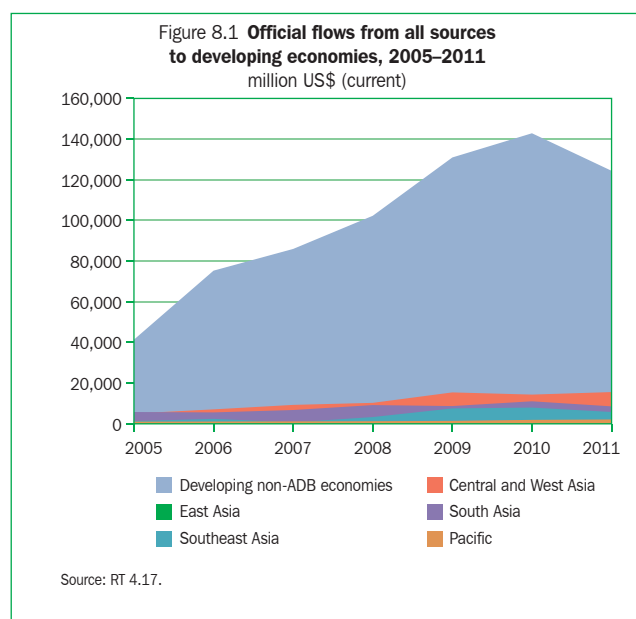
**Global net ODA fell by 2% in real terms to \$133.7 billion in 2011 and preliminary data indicate a further 4% decline in 2012.** The reductions reflected subdued economic conditions and tightened fiscal budgets in donor countries. ODA in 2012 represented 0.29% of combined gross national incomes (GNIs) of members of the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD), down from 0.32% in 2010 and less than half the United Nations target of 0.7% (OECD 2013). Members of the DAC, except Greece, are also members of the ADB, and four are regional members—Australia, Japan, New Zealand, and the Republic of Korea.

A survey of DAC members’ forward spending plans in 2013 suggested they expected to direct more ODA toward middle-income economies and less to the least developed countries, with a greater share offered in soft loans rather than grants (UN 2013).

**Official flows from all sources to developing ADB members fell by 7% to \$34.2 billion in 2011** (Figure 8.1). This covered total net flows of long-term public and publicly guaranteed debt from official creditors together with grants. Afghanistan received \$6.7 billion in net official flows in 2011, nearly 20% of total disbursements to the region. Pakistan received \$4.4 billion; Viet Nam, \$4.2 billion; India, almost

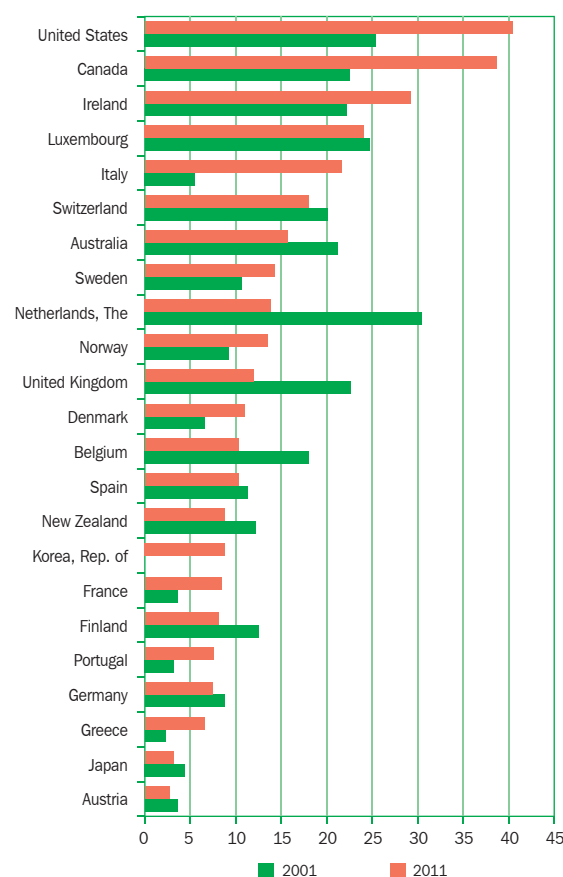
\$4 billion; Bangladesh, \$1.8 billion; and the People's Republic of China (PRC), \$1.7 billion (Regional Trends and Tables, Table 4.17).

Despite the decline in 2011, net official flows to the region rose by 83% between 2006 and 2011. During those 5 years, annual net flows more than doubled to Afghanistan, Azerbaijan, Bhutan, Fiji, Georgia, Kazakhstan, Kiribati, the Kyrgyz Republic, Myanmar, Nauru, Nepal, Papua New Guinea, Samoa, Tonga, Tuvalu, Uzbekistan, and Viet Nam. For the PRC, though, official net flows declined from \$2.3 billion in 2006 to \$1.7 billion in 2011, and flows to the Cook Islands, Palau, and the Philippines also fell. Reduced net inflows can reflect increased repayment of debt.



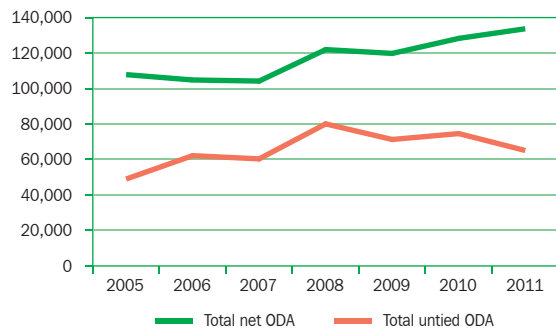
**Most DAC members allocate a small proportion of ODA to basic education, primary health care, nutrition, safe water, and sanitation.** Figure 8.2 shows that 16 of the 23 DAC members allocated less than 15% of their ODA for such basic social services in 2011. Five allocated more than 20%, compared with eight in 2001. The United States (US) and Canada had the highest allocations for basic social services, at about 40%. Instead of increasing ODA for social services, some countries increased their proportions of ODA to economic infrastructure and productive sectors to promote employment and economic growth.

**Figure 8.2 Donor allocation to basic social services, 2001 and 2011**  
(percentage of ODA)



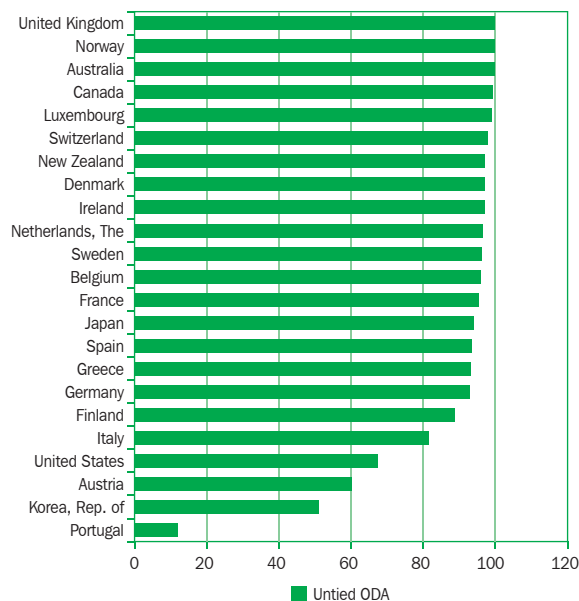
**The proportion of untied ODA has declined in recent years.** ODA is untied if the receiving country is free to use the funds to buy goods and services anywhere, rather than restricted to purchasing from the donor country. Figure 8.3 shows that untied aid fell by 13%, from \$74.6 billion in 2010 to \$65.1 billion in 2011. As a proportion of total aid, untied ODA fell from 66% in 2008 to 49% in 2011. Figure 8.4 shows the share of untied ODA to total ODA by donor country. All ODA from Australia, Norway, and the United Kingdom was untied in 2011 and aid from 17 DAC members was at least 90% untied.

Figure 8.3 Total and untied bilateral ODA, 2005–2011  
million \$ (current)



ODA = official development assistance.  
Source: Table 8.2.

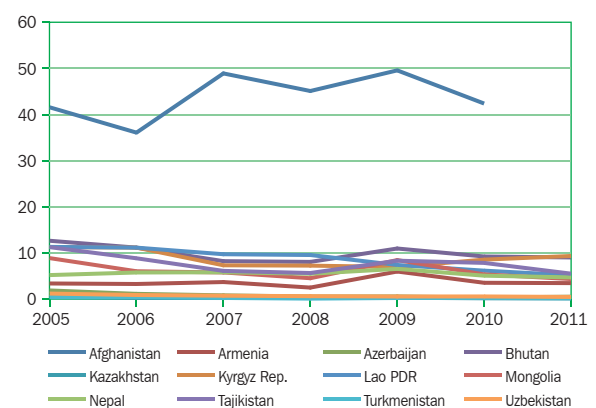
Figure 8.4 Share of untied ODA to total ODA, 2011 (%)



ODA = official development assistance.  
Source: Table 8.2.

The Asia and Pacific region includes 12 landlocked and 12 small island developing member economies (Figure 8.5). ODA to the landlocked members rose by 6% to \$10.5 billion between 2010 and 2011. The average annual rate of increase between 2005 and 2011 was 13%. ODA has contributed more than 40% of Afghanistan's GNI in recent years. ODA also has been a significant source of external financing in Bhutan, the Kyrgyz Republic, the Lao People's Democratic Republic, Mongolia, Nepal, and Tajikistan, accounting for 4%–9% of their GNIs in 2011. Nevertheless, ODA as a ratio to GNI declined in most of these landlocked economies from 2005 to 2011.

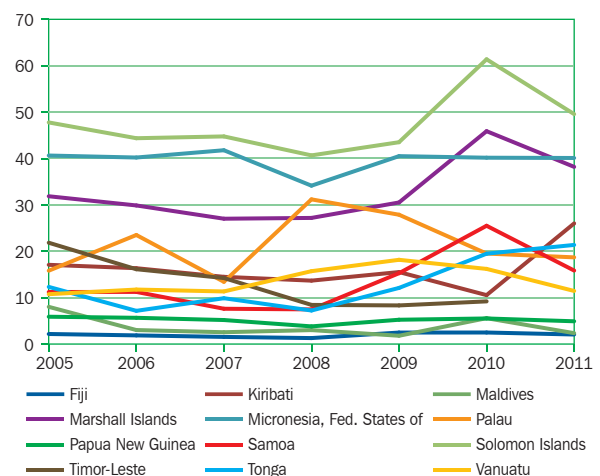
Figure 8.5 ODA received by landlocked developing economies as proportion of their GNI, 2005–2011 (%)



Lao PDR = Lao People's Democratic Republic.  
Source: Table 8.3.

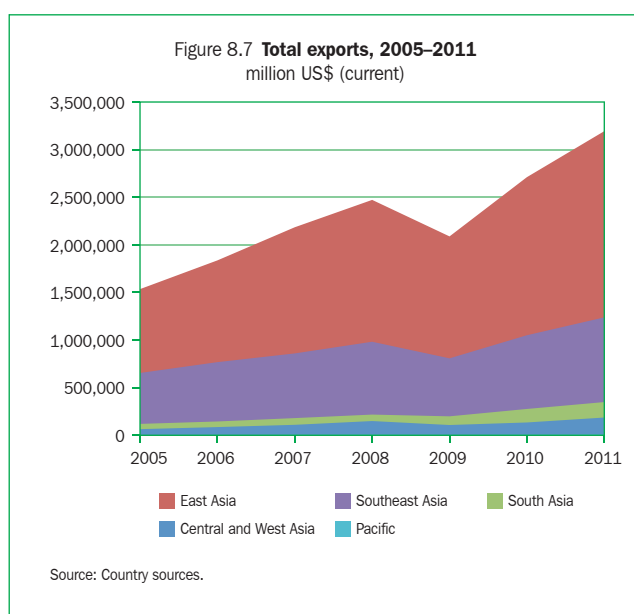
ODA to the small island economies rose by 1.0% to \$1.9 billion in 2011 from 2010. Despite this modest rise, the annual average rate of increase between 2005 and 2011 was 10%. ODA is a major source of external financing in many of these economies: in 2011, it comprised 50% of GNI in Solomon Islands, 40% in the Federated States of Micronesia, 38% in the Marshall Islands, 26% in Kiribati, 21% in Tonga, 19% in Palau, 16% in Samoa, and 11% in Vanuatu. Between 2005 and 2011, ODA as a ratio to GNI increased in just over half the small island economies (Figure 8.6 and Table 8.3).

Figure 8.6 ODA received by small island developing states as proportion of their GNI, 2005–2011 (%)



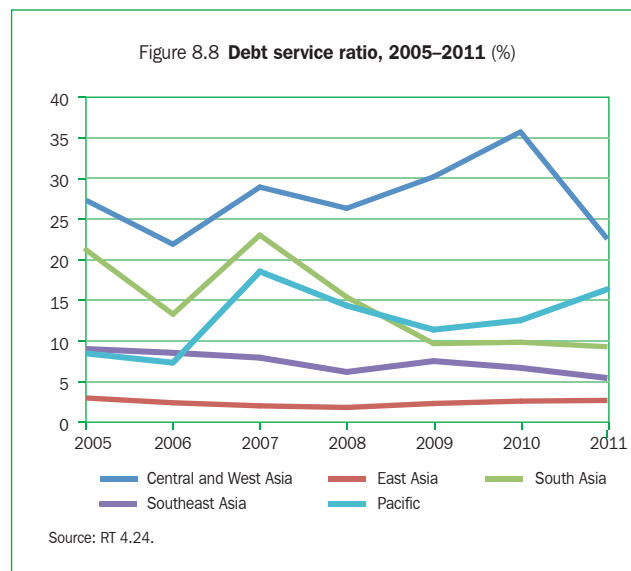
GNI = gross national income, ODA = official development assistance.  
Source: Table 8.3.

**Debt service to export ratios generally declined in 2011.** Lightening external debt burdens can enable governments to increase spending on social and economic development, improve national creditworthiness, and reduce vulnerability to external shocks. The debt burden can be relieved by increasing exports, improving debt management, and obtaining debt relief. Higher exports helped to lower debt service ratios in 2011. After falling during the global economic slump in 2009, merchandise exports rebounded by 30% in US dollars in 2010 and grew by 19% in 2011 (Figure 8.7).



Central and West Asia posted the sharpest falls in total debt service as a percentage of exports in 2011. The subregion's debt service ratio fell from 36% in 2010 to a still relatively high 23% in 2011 (Figure 8.8). The ratio for South Asia fell from 10% to 9% and that for Southeast Asia from 7% to 5%. East Asia's debt service ratio was little changed and remained at low levels. However, the debt service ratio for the Pacific rose from 13% to 16%.

**Duty-free access to developed country market continued to improve in 2011.** Developed countries provided duty-free access to 80% of exports from developing countries worldwide in 2011, maintaining an upward trend from about 60% of developing-country exports in 2000 (UN 2013). The European Union revised its rules of origin in its system of trade preferences, effective January 2011, which benefited exports from some developing countries. Average tariffs levied by developed countries continued to decline slightly in 2011.



## Data issues and comparability

Data on ODA are collected by the OECD–DAC Secretariat from its 23 members, then checked and aggregated by the Secretariat. Part of the difficulty in monitoring Millennium Development Goal (MDG) 8 is the lack of quantitative targets in some areas and of individual country data to track commitment adequately. Effective monitoring of commitments associated with or made under MDG 8 requires a methodology that helps to maintain a current inventory of the different international initiatives and that proposes ways to measure the degree of compliance with commitments.

For the proportion of ODA allocated to basic social services, data are compiled on a project basis according to the most relevant sectors, hence basic social services expenditures in other sectors are not captured. In addition, the data on the tying status of ODA and other official flows, as reported to the OECD, are incomplete.

## MDG 8 Targets and Indicators

Table 8.1 **Target 8.A: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system**

Development Assistance Committee Members	8.1 Net ODA to the least developed countries, as percentage of OECD/DAC donors' gross national income									
	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011
Australia	0.06	0.06	0.08	0.06	0.07	0.08	0.08	0.08	0.10	0.09
Austria	0.06	0.06	0.06	0.08	0.08	0.07	0.07	0.09	0.12	0.08
Belgium	0.19	0.10	0.11	0.16	0.18	0.17	0.19	0.20	0.31	0.21
Canada	0.13	0.08	0.05	0.10	0.10	0.11	0.13	0.11	0.15	0.11
Denmark	0.37	0.30	0.36	0.32	0.32	0.34	0.32	0.35	0.35	0.31
Finland	0.24	0.09	0.10	0.13	0.14	0.15	0.15	0.19	0.20	0.18
France	0.19	0.11	0.09	0.11	0.12	0.11	0.11	0.12	0.14	0.14
Germany	0.12	0.07	0.07	0.07	0.09	0.09	0.10	0.10	0.11	0.11
Greece <sup>a</sup>	...	...	0.03	0.04	0.04	0.04	0.05	0.04	0.04	0.03
Ireland	0.06	0.12	0.15	0.21	0.28	0.28	0.30	0.28	0.29	0.27
Italy	0.13	0.04	0.05	0.08	0.04	0.06	0.07	0.05	0.06	0.08
Japan	0.06	0.05	0.06	0.05	0.08	0.06	0.05	0.06	0.08	0.07
Korea, Rep. of	—	—	0.01	0.03	0.01	0.02	0.03	0.03	0.04	0.04
Luxembourg	0.08	0.12	0.22	0.28	0.34	0.36	0.38	0.39	0.40	0.37
Netherlands, The	0.30	0.23	0.22	0.27	0.20	0.24	0.24	0.21	0.24	0.18
New Zealand	0.04	0.05	0.07	0.07	0.08	0.07	0.09	0.09	0.08	0.08
Norway	0.51	0.35	0.27	0.35	0.35	0.34	0.33	0.33	0.34	0.30
Portugal	0.14	0.15	0.15	0.09	0.10	0.10	0.10	0.10	0.13	0.16
Spain	0.04	0.04	0.03	0.07	0.06	0.08	0.10	0.12	0.12	0.08
Sweden	0.35	0.22	0.24	0.31	0.29	0.30	0.32	0.35	0.30	0.36
Switzerland	0.13	0.10	0.10	0.10	0.10	0.11	0.10	0.13	0.11	0.12
United Kingdom	0.09	0.07	0.11	0.12	0.16	0.15	0.16	0.18	0.20	0.21
United States	0.04	0.03	0.02	0.05	0.05	0.04	0.06	0.07	0.07	0.07

... = Data not available at cutoff date, — = Magnitude equals zero, DAC = development assistance committee, ODA = official development assistance, OECD = Organisation for Economic Co-operation and Development.

a Greece is not an ADB member country.

Source: Millennium Indicators Database Online (UNSD 2013).

## MDG 8 Targets and Indicators

Table 8.2 **Target 8.B: Address the special needs of least developed countries**

8.2 Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water, and sanitation)									
Development Assistance Committee Members	1990	2000	2005	2006	2007	2008	2009	2010	2011
Australia	10.3	21.8	11.1	9.1	9.7	18.5	14.5	14.6	15.7
Austria	4.9	3.4	12.8	12.8	9.3	4.7	6.4	3.1	2.7
Belgium	10.6	17.9	19.3	21.2	21.2	16.7	13.2	12.2	10.3
Canada	6.3	18.3	32.3	30.9	32.0	19.2	30.4	18.1	38.7
Denmark	12.6	10.3	11.7	22.9	10.1	12.6	21.3	10.4	11.0
Finland	5.8	11.5	9.9	10.3	14.0	11.2	5.8	8.4	8.1
France	0.7	3.7	1.9	4.4	6.1	10.3	11.3	8.7	8.5
Germany	8.0	11.7	9.2	11.4	10.0	7.7	8.7	6.0	7.4
Greece <sup>a</sup>	...	...	19.0	20.4	15.1	3.7	11.2	6.6	...
Ireland	...	20.6	31.4	42.3	35.6	28.7	32.7	22.9	29.2
Italy	10.4	13.1	10.6	5.5	12.2	9.1	13.4	12.6	21.6
Japan	2.2	8.8	3.6	4.0	4.2	2.7	18.8	7.1	3.2
Korea, Rep. of	...	...	...	18.0	10.7	13.9	6.7	4.3	8.8
Luxembourg	...	...	26.2	32.0	33.9	34.4	36.1	35.3	24.1
Netherlands, The	14.0	23.6	23.3	38.5	18.9	25.9	11.9	7.6	13.9
New Zealand	...	...	35.8	18.3	32.0	22.8	27.7	16.6	8.8
Norway	13.2	10.2	13.6	21.7	21.0	13.6	22.5	11.2	13.5
Portugal	11.4	2.5	2.6	5.2	3.4	3.0	3.6	6.7	7.5
Spain	6.9	16.1	21.0	13.7	15.5	20.7	24.4	15.1	10.3
Sweden	10.3	16.9	15.6	19.7	13.3	11.7	10.8	12.4	14.2
Switzerland	5.9	18.8	6.7	5.8	5.6	9.4	9.5	11.0	18.0
United Kingdom	28.8	32.4	24.7	35.6	32.8	19.0	21.2	14.2	11.9
United States	25.0	18.6	23.5	26.6	33.4	33.2	34.9	34.2	40.4

... = Data not available at cutoff date, DAC = development assistance committee, ODA = official development assistance, OECD = Organisation for Economic Co-operation and Development.

a Greece is not an ADB member country.

Source: Millennium Indicators Database Online (UNSD 2013).

## MDG 8 Targets and Indicators

Table 8.2 **Target 8.B: Address the special needs of least developed countries**

Development Assistance Committee Members	8.3 Proportion of bilateral official development assistance of OECD/DAC donors that is untied									
	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011
Australia	32.8	...	77.4	71.9	91.7	98.4	96.7	90.8	...	100.0
Austria	32.1	25.0	59.2	88.6	89.4	86.4	81.6	55.2	67.7	60.3
Belgium	...	...	85.7	95.7	90.7	92.0	91.9	95.5	93.2	95.9
Canada	46.6	40.8	24.9	66.5	63.0	74.6	90.8	98.3	99.2	99.2
Denmark	...	61.3	80.5	94.5	95.3	95.5	98.5	96.6	93.5	97.2
Finland	31.5	75.8	89.5	95.1	86.5	90.7	92.3	90.3	84.3	88.9
France	63.6	58.4	68.0	94.7	95.6	92.6	81.9	89.5	96.6	95.3
Germany	61.8	60.3	93.2	93.0	93.3	93.4	98.2	97.1	96.0	92.9
Greece <sup>a</sup>	...	...	23.5	73.6	39.1	42.3	37.9	49.8	62.2	93.2
Ireland	...	...	...	100.0	100.0	100.0	100.0	100.0	100.0	97.1
Italy	21.7	59.8	38.2	92.1	77.0	59.8	78.0	56.2	58.5	81.7
Japan	88.9	96.3	86.4	89.7	95.6	95.1	96.5	94.8	93.7	94.1
Korea, Rep. of	...	...	0.8	2.6	1.9	24.7	35.8	48.4	35.7	51.1
Luxembourg	...	...	96.7	99.1	100.0	100.0	100.0	100.0	99.0	98.9
Netherlands, The	55.5	78.9	95.3	96.2	100.0	81.1	93.2	80.8	93.2	96.5
New Zealand	100.0	...	...	92.3	90.2	87.8	92.7	90.1	89.4	97.2
Norway	61.3	77.0	97.7	99.6	99.8	99.9	100.0	100.0	100.0	100.0
Portugal	...	98.1	98.2	60.7	61.3	43.2	76.4	28.1	32.9	11.9
Spain	...	...	47.2	86.6	82.8	89.1	69.1	76.6	76.2	93.5
Sweden	87.5	93.9	85.4	98.3	100.0	100.0	99.9	99.9	100.0	96.2
Switzerland	78.5	91.3	93.6	98.0	96.3	97.8	97.3	99.2	74.0	98.0
United Kingdom	...	86.2	91.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0
United States	...	...	...	...	63.5	68.5	74.7	69.8	69.5	67.4

... = Data not available at cutoff date, ODA = official development assistance, OECD = Organisation for Economic Co-operation and Development.

a Greece is not an ADB member country.

Source: Millennium Indicators Database Online (UNSD 2013).

## MDG 8 Targets and Indicators

Table 8.3 **Target 8.C Address the special needs of landlocked developing countries and small island developing states**

8.4 ODA received in landlocked developing countries and in small island developing states as a proportion of their gross national incomes										
ADB Regional Members	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011
<b>Landlocked Developing Countries</b>										
Afghanistan	...	...	...	41.57	36.08	48.91	45.10	49.57	42.38	...
Armenia	0.13 (1991)	14.84	10.99	3.38	3.27	3.69	2.49	5.97	3.53	3.46
Azerbaijan	0.60 (1993)	3.93	2.79	1.87	1.13	0.81	0.54	0.57	0.32	0.52
Bhutan	15.45	24.43	12.68	12.64	11.15	8.22	8.06	10.96	9.23	9.02
Kazakhstan	0.07 (1993)	0.32	0.00	0.44	0.24	0.23	0.29	0.29	0.17	0.13
Kyrgyz Republic	0.91 (1992)	17.51	16.67	11.29	11.15	7.32	7.25	6.96	8.55	9.34
Lao PDR	17.22	17.46	16.90	11.31	11.15	9.72	9.55	7.39	6.16	5.17
Mongolia	0.52	14.66	19.17	8.88	6.03	5.77	4.52	8.45	5.35	4.34
Nepal	11.62	9.73	7.00	5.20	5.76	5.81	5.49	6.54	5.07	4.70
Tajikistan	0.62 (1992)	5.50	14.99	11.26	8.84	6.11	5.65	8.32	7.84	5.51
Turkmenistan	0.97 (1993)	1.23	1.29	0.40	0.42	0.24	0.10	0.23	0.25	0.18
Uzbekistan	0.01 (1992)	0.63	1.37	1.19	0.88	0.73	0.63	0.56	0.57	0.46
<b>Small Island Developing Countries</b>										
Fiji	3.84	2.30	1.70	2.17	1.87	1.54	1.29	2.48	2.49	2.06
Kiribati	41.87	16.78	16.24	17.08	16.35	14.49	13.67	15.52	10.55	26.00
Maldives	10.76	15.24	3.22	8.02	3.02	2.55	3.01	1.79	5.58	2.35
Marshall Islands	...	25.44	38.88	31.86	29.88	27.02	27.19	30.52	45.89	38.20
Micronesia, Fed. States of	29.28 (1993)	32.97	42.32	40.64	40.21	41.78	34.14	40.51	40.17	40.11
Palau	0.01 (1992)	145.12	31.21	15.82	23.51	13.42	31.19	27.88	19.51	18.69
Papua New Guinea	13.32	8.47	8.33	5.89	5.66	5.18	3.81	5.24	5.52	4.91
Samoa	28.94	22.31	11.05	11.22	11.24	7.61	7.47	15.27	25.50	15.85
Singapore	-0.01	0.02	...	...	...	...	...	...	...	...
Solomon Islands	22.02	14.87	15.67	47.77	44.37	44.76	40.67	43.51	61.38	49.57
Timor-Leste	...	...	71.56	21.84	16.13	14.23	8.44	8.33	9.20	...
Tonga	25.54	18.83	9.85	12.32	7.16	9.88	7.23	12.10	19.48	21.37
Vanuatu	30.46	21.02	17.68	10.75	11.75	11.34	15.71	18.16	16.20	11.45

... = Data not available at cutoff date, 0.00 = Magnitude is less than half of unit employed, ODA = official development assistance.

Source: Millennium Indicators Database Online (UNSD 2013).

## References

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## PART III

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# Regional Trends and Tables





## Introduction to the Regional Trends and Tables

The 2013 issue of the *Key Indicators for Asia and the Pacific* contains 112 regional tables illustrating economic, social, and environmental developments in Asia and the Pacific. The regional trends and tables are grouped into seven themes containing several subtopics. Each theme has a brief analysis of key trends of selected indicators highlighting important recent developments. The analyses are illustrated by charts and figures that compare indicators for Asian Development Bank member economies for the latest year available, e.g., 2011 or later; and often, the latest year is compared with an earlier year such as 1990 or 2000.

The seven themes are: People; Economy and Output; Money, Finance, and Prices; Globalization; Transport, Electricity, and Communications; Energy and Environment; and Government and Governance.

**People** presents demographic indicators such as the size and growth of the population; birth, death, and fertility rates; and life expectancy, together with information on international migration, urbanization, employment and unemployment, and health and education resources. The section also includes statistics on the extent of poverty at \$2 a day in the region and the human development index, which combines a range of economic and social statistics into an index number reflecting the overall level of well-being in each economy.

The theme evaluates the distribution of population across and within the region and the share of the region's urban population in that of the world. Other issues discussed include population growth rates, population aging, urbanization, and the rankings in the human development index.

A discussion on poverty, a relevant part of this theme, is included in the earlier analysis of trends for *Millennium Development Goal 1: Eradicate extreme poverty and hunger*, which aims to halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day. Education, another important part of this theme, was discussed in the analysis of trends for *Millennium Development Goal 2: Achieve universal primary education*, which aims to make sure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

**Economy and Output** focuses on the levels and growth of gross domestic product (GDP); related statistics taken from the national accounts such as gross national income, value added, consumption expenditure, capital formation, exports and imports, and gross domestic saving; and related indicators on production.

This theme compares the relative size of economies both within the region and in the world as a whole using data on GDP adjusted by purchasing power parity. The "Economy and output" section shows how the GDP shares of agriculture, industry, and services changed since 1990, and which economies are consuming more and which are investing more in capital for future growth.

**Money, Finance, and Prices** contains tables on inflation and on monetary and financial statistics. These include data on money supply, interest rates, bank lending, and stock markets. The data also include official exchange rates and purchasing power parity conversion factors.

The discussion for this theme focuses on trends in inflation, exchange rates, money supply, interest rates, and the level of nonperforming bank loans.

**Globalization** gives the latest statistics on external trade, balance of payments, international reserves, capital flows, external indebtedness, and tourism. The expansion of trade with countries in other regions and within the region is an important aspect of globalization; international movements of labor and capital are also important.

The theme discusses trends in merchandise exports and imports, the increasing importance of services exports in some economies, remittances by migrant workers, which are significant sources of income for many countries in the region, and foreign direct investment.

**Transport, Electricity, and Communications** covers statistics on road and rail networks and on road motor vehicles and traffic injuries and fatalities. This theme also covers electricity consumption, electrification, electricity generation—which is growing rapidly in the region to support industrialization and household electrification—and the fuel sources used in generation. Statistics on telephone and internet subscriptions are given.

The discussion covers the expansion of road networks across the region, increase in vehicle ownership (and in road fatalities), demand for electricity, and the surge in cellular telephone subscriptions.

**Energy and Environment** comprises statistics on energy productivity; supply and use of primary energy; and indicators related to the environment, which includes land use, forest resources, and air and water pollution.

The discussion includes trends in demand for energy, dependence on energy imports, fossil fuel subsidies, and greenhouse gas emissions.

Discussion of deforestation, an important aspect of this theme, is included in the earlier analysis of key trends for *Millennium Development Goal 7: Ensure environmental stability*, which seeks to integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources. Millennium Development Goal 7 also includes data on forests, protected areas, carbon dioxide emissions, and consumption of ozone-depleting substances.

**Government and Governance** contains statistics on tax revenue, government fiscal balances, and government expenditure on health and education services and on social security and welfare, as ratios of GDP. It also includes statistics on the cost involved and the time required to register a new business, and the corruption perceptions index.

The theme discusses trends in fiscal performances, government spending and spending priorities, and tax revenue. It also presents the improvement in cost and time required to start a business in the region, and discusses the perceptions of corruption in the region.

## People

### Snapshots

- Asia and the Pacific accounts for nearly 55% of global population and 6 of the world's 10 most populous economies. The region's population is forecast to grow by almost 1 billion by 2050.
- Population growth rates have slowed in most economies, but remain high in some. India's population is expected to pass that of the People's Republic of China (PRC) in the next 15 years.
- The region's population is aging, which has implications for economic growth. Developed member economies already have a relatively high proportion of older people.
- More people are moving to cities and this trend will continue. Asia is home to 12 of the world's 23 biggest cities and eight of the 10 most densely populated cities.
- Based on the human development index, about half the economies are in the "medium human development" category and nearly all show some improvements.

### Key trends

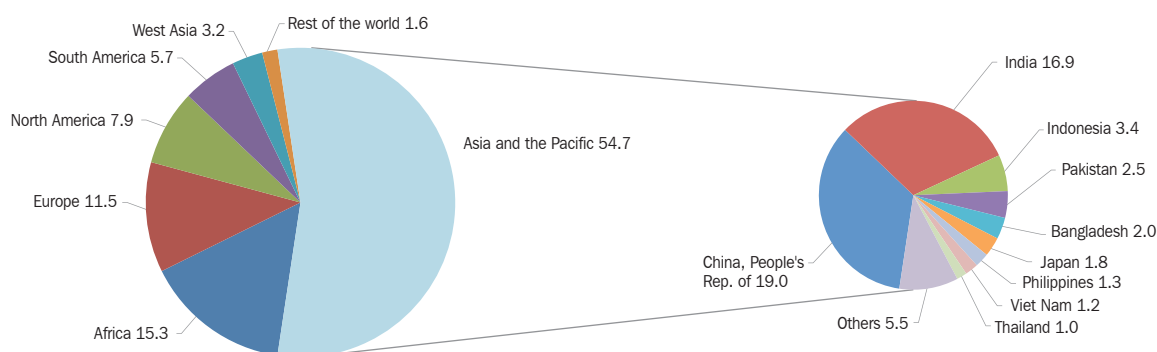
**Over half the world's population lives in Asia and the Pacific.** The population of the 48 regional members of the Asian Development Bank (ADB) was 3.9 billion in 2012, nearly 55% of the global total (Figure 1.1). Of the world's 10 most populous countries, six are in Asia—the PRC, India, Indonesia, Pakistan, Bangladesh, and Japan.

The populations of the PRC and India far surpass those of any other country. With 1.4 billion and 1.2 billion people, respectively, they account for 36% of the world's total. Nine other economies in Asia have populations of more than 50 million each, but many have small populations. More than half, or 28 economies, have fewer than 10 million people and most Pacific islands have fewer than 300,000 (Table 1.1).

The United Nations Population Division (UNPD) forecast that the population of the region will peak at about 4.7 billion in 2050, and then decline to 4.2 billion by 2100. It expects India will become the most populous country, passing the PRC in about 2028, when both will have populations of nearly 1.5 billion. After that, India's population is likely to continue to grow while the PRC's starts to fall (UNPD 2013).

**Population growth rates slowed in about three-fourths of developing members between 1990 and 2012, but still were high in some.** The average annual population growth rate of developing members declined from 1.8% in 1990 to 1.1% in 2012 (Table 1.2). Among the most populous economies, the PRC lowered its population

Figure 1.1 Percentage distribution of population by global region and by economy in Asia and the Pacific, 2012



Note: The aggregate for the West Asia region was adjusted to exclude estimates for Armenia, Azerbaijan, and Georgia, which are included in the total for Asia and the Pacific.  
Source: Table 1.1.

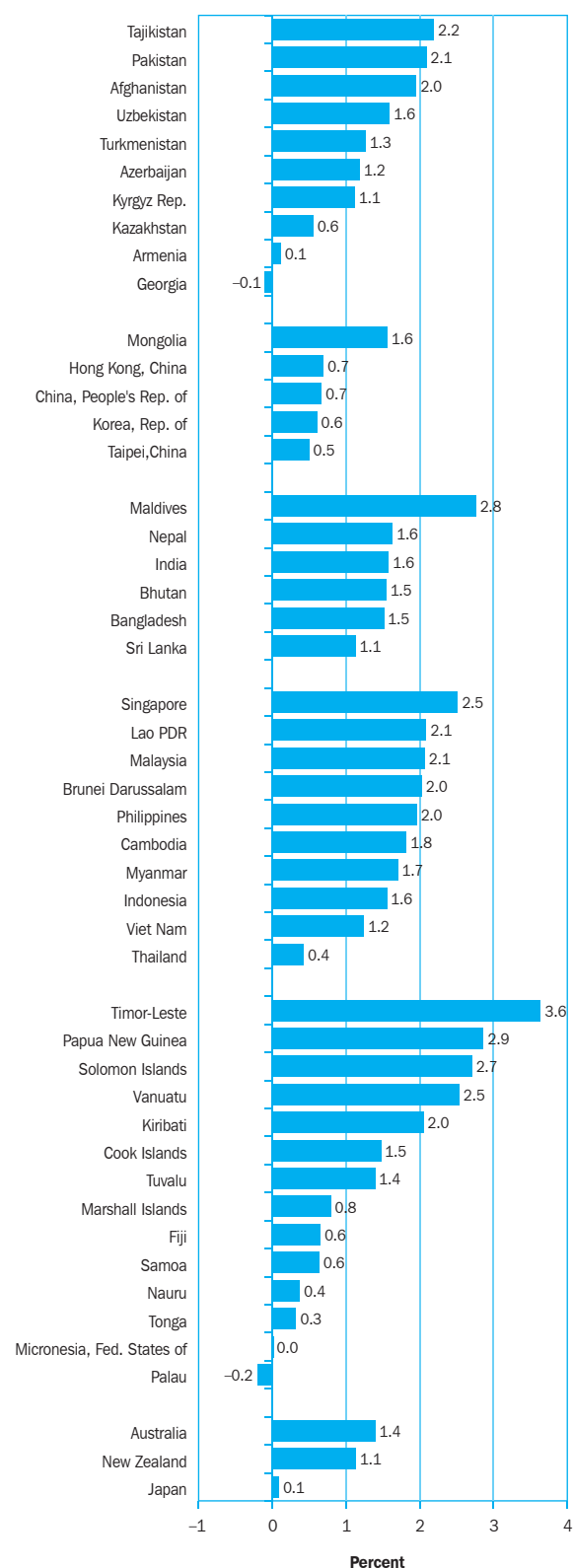
growth rate from 1.4% in 1990 to 0.5% in 2012 and India reduced its rate from 2.1% to 1.3%. The average annual population growth rate from 1990 to 2012 exceeded 2.0% in 10 economies: the Lao People's Democratic Republic, Malaysia, the Maldives, Pakistan, Papua New Guinea, Singapore (mainly owing to immigration), Solomon Islands, Tajikistan, Timor-Leste, and Vanuatu (Figure 1.2).

**Total fertility rates declined significantly in most economies.** The total fertility rate in the region fell from 4.2 children per woman in 1990 to 2.7 in 2011, with declines in all economies except Timor-Leste (Figure 1.3). Rates above 3 can result in rapid population growth. In this regard, total fertility rates were over 5 in Afghanistan, Nauru, and Timor-Leste and at least 4 in the Marshall Islands and Solomon Islands. At the other end of the scale, the lowest fertility rates were in Taipei, China (1.1); Hong Kong, China (1.2); the Republic of Korea (1.2); Singapore (1.2); and Japan (1.4). The PRC's total fertility rate at 1.6 was well below those for the other four most populous developing members (in the range 2.1–3.3).

**Asia's population is aging, which has implications for economic growth.** The share of older people in the population is rising, which reflects the decline in fertility and rising life expectancy. Figure 1.4a shows the age profile of Asia and the Pacific in 2012 and the projected profile in 2050, when an increasing proportion will be of older age groups. Economies with a still relatively young age structure, such as India and Pakistan, should benefit from a rising share of the working-age population in their total population, a development described as the demographic dividend. By contrast, aging will act as a drag on economic growth in economies where it is most advanced, such as in Japan and the Republic of Korea. Overall, demographic factors are expected to be a less important source of growth for the region than in past decades (ADB 2011).

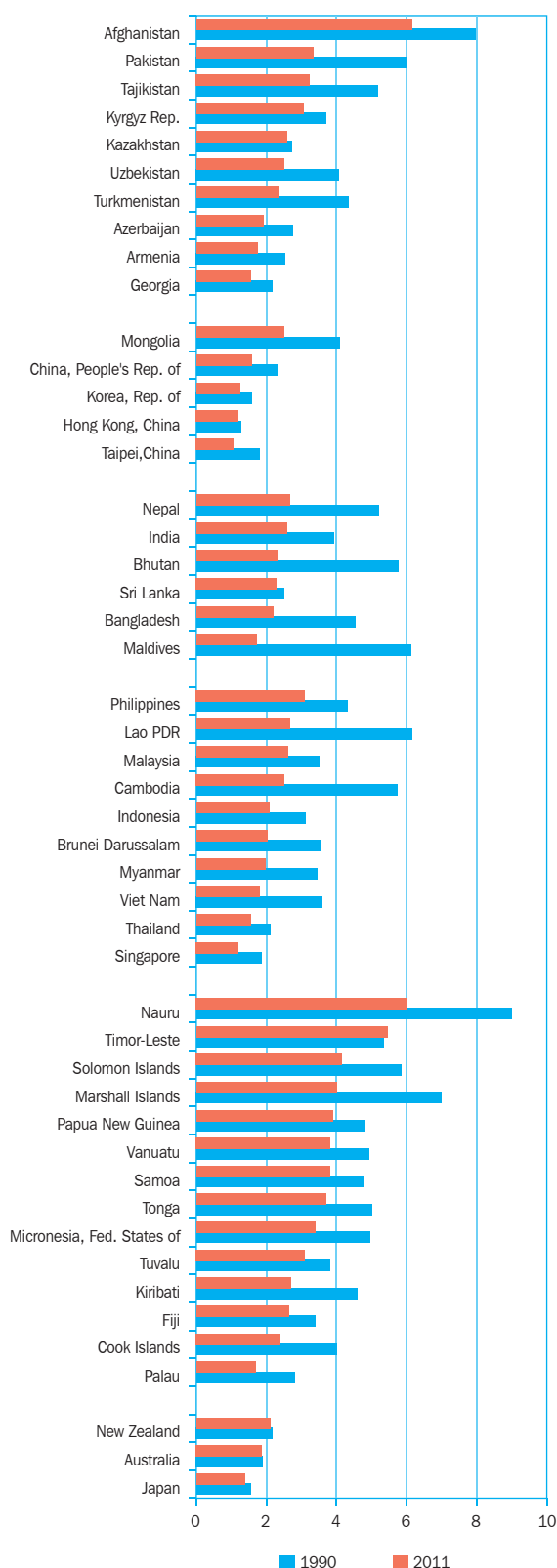
Developed member economies have a relatively high proportion of people aged 65 and above. Japan stands out in this regard with 24.3%, while in Australia and New Zealand the proportion is about 14% (Figure 1.4b). Among developing members, those with more than 10% are Armenia; Georgia; Hong Kong, China; the Republic of Korea; and Taipei, China. Conversely, economies with a high ratio of children in their total populations

Figure 1.2 Average annual population growth rate, 1990–2012, (%)



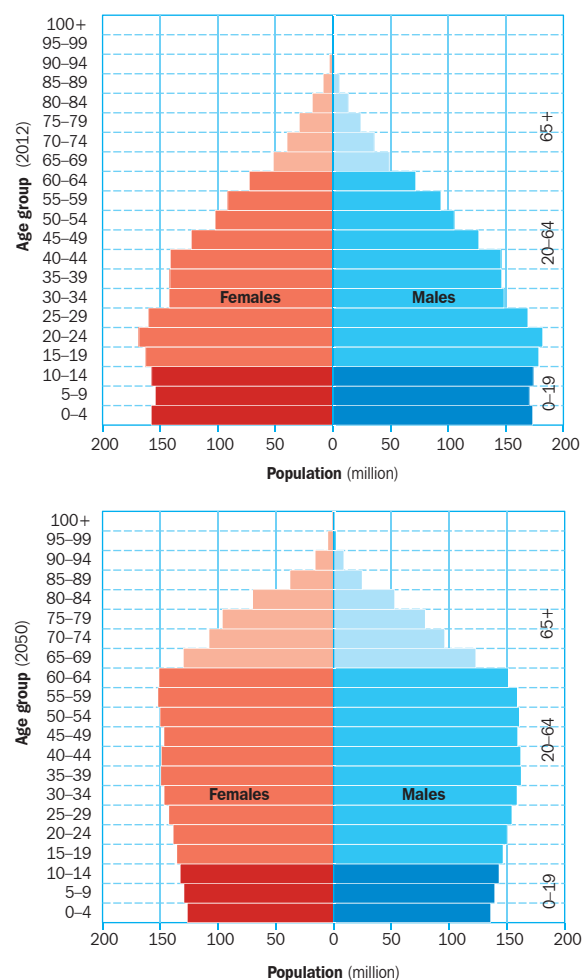
Lao PDR = Lao People's Democratic Republic.  
Source: Table 1.2.

Figure 1.3 Total fertility rate, 1990 and 2011 or latest year



Lao PDR =Lao People's Democratic Republic.  
Source: Table 1.17.

Figure 1.4a Population pyramids in Asia and the Pacific, 2012 and 2050

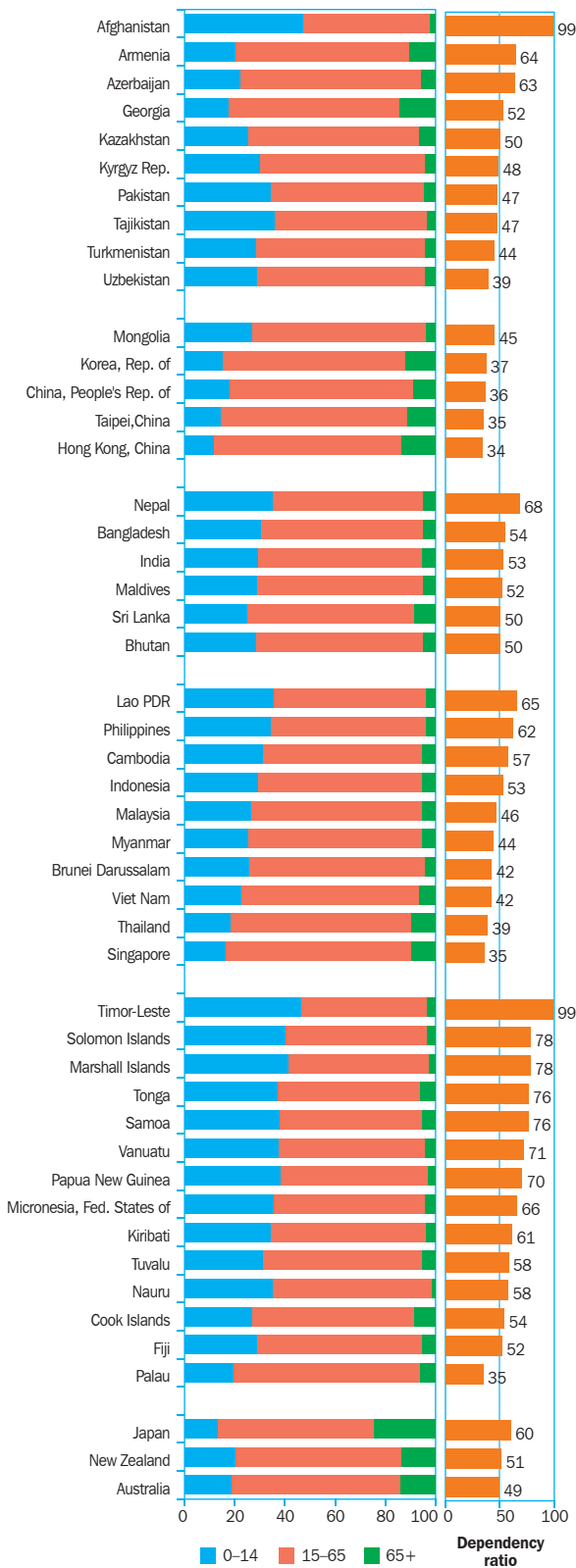


Source: World Population Prospects, The 2012 Revision (UN Population Division, Department of Economic and Social Affairs 2013).

are Afghanistan (47.4%) and most Pacific countries, particularly Timor-Leste (46.5%). These economies also have high age dependency ratios—the ratio of population aged less than 15 or older than 65 to the working-age population (population aged 15–65).

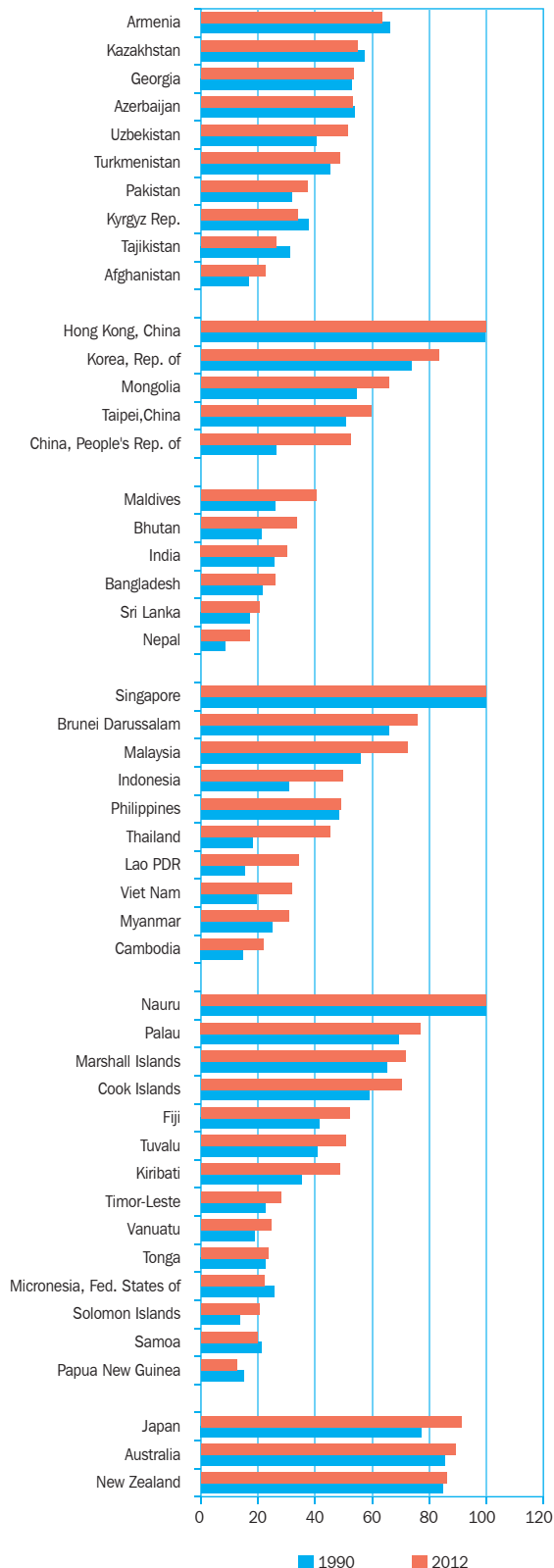
**The Asia and Pacific region has become more urbanized.** Migration from rural areas to cities has been driven in large part by the development of industry and services in cities, which attract workers. In the PRC and Thailand, for example, the proportion of people living in urban areas doubled to 53% and 45%, respectively, between 1990 and 2012. Figure 1.5 shows that at least half the population lives in cities in 46% of the region's economies. Asia now is home to 12 of the world's 23 megacities—which have populations exceeding 10 million (Table 1.a)—and has 8 of the 10 most densely populated cities, measured by people per square kilometer (ADB 2012).

Figure 1.4b Population by age group, 2012



Lao PDR = Lao People's Democratic Republic.  
Sources: Tables 1.4–1.7.

Figure 1.5 Urbanization ratio, 1990 and 2012 or latest year



Lao PDR = Lao People's Democratic Republic.  
Source: Table 1.3.

Table 1a Largest urban agglomerations ranked by population size

Country	Urban Agglomeration	Population (millions)
Japan	Tokyo	37.22
India	Delhi	22.65
Mexico	Mexico City	20.45
United States	New York-Newark	20.35
China, People's Rep. of	Shanghai	20.21
Brazil	São Paulo	19.92
India	Mumbai	19.74
China, People's Rep. of	Beijing	15.59
Bangladesh	Dhaka	15.39
India	Kolkata	14.40
Pakistan	Karachi	13.88
Argentina	Buenos Aires	13.53
United States	Los Angeles-Long Beach-Santa Ana	13.40
Brazil	Rio de Janeiro	11.96
Philippines	Manila	11.86

Country	Urban Agglomeration	Population (millions)
Russian Federation	Moscow	11.62
Japan	Osaka-Kobe	11.49
Turkey	Istanbul	11.25
Nigeria	Lagos	11.22
Egypt	Cairo	11.17
China, People's Rep. of	Guangzhou	10.85
China, People's Rep. of	Shenzhen	10.63
France	Paris	10.62
China, People's Rep. of	Chongqing	9.98
Indonesia	Jakarta	9.77
Korea Rep. of	Seoul	9.74
United States	Chicago	9.68
China, People's Rep. of	Wuhan	9.16
Peru	Lima	9.13
United Kingdom	London	9.01

Source: World Urbanization Prospects: The 2011 Revision (UN Population Division, Department of Economic and Social Affairs 2013).

The percentage of population living in cities is projected to increase in all economies in the region by 2050, except for three that are already fully urbanized—Hong Kong, China; Nauru; and Singapore. In the PRC, the share is expected to rise by a further 25 percentage points to 77% in 2050, and in India by 22 percentage points to 52%. Some economies are expected to remain predominantly rural in 2050, with at least 60% of their populations in rural areas. They include Cambodia, Nepal, and Sri Lanka (UN 2011).

**The quality of life measured by the human development index (HDI) continued to improve.** This index was calculated by the United Nations Development Programme (UNDP) for 186 economies worldwide in 2012. It covered three important aspects of welfare: life expectancy at birth, average of mean years of schooling and expected years of schooling, and per capita gross national income. Table 1b shows the

HDI values and the average annual HDI increase during 2000–2012 for 43 economies in the region. In 2012, seven economies were in the top category of “very high human development” and another seven were classified as having “high human development.” Sri Lanka is a new addition in the latter group.

About half the regional economies were in the category of “medium human development,” including the PRC, India, and Indonesia. Two other populous economies—Bangladesh and Pakistan—were in the “low human development” group, along with five smaller economies. During 2000–2012, almost all the economies showed some improvements in their HDI. Afghanistan made the biggest improvement, and Bangladesh, Cambodia, Myanmar, and Timor-Leste also showed significant increases. On the other hand, HDIs for Azerbaijan, Turkmenistan, and Uzbekistan declined.

Table 1b Human development index in 2012 and growth, 2000–2012

HDI Global rank	Country	HDI 2012	Average annual HDI growth 2000–2012
VERY HIGH HUMAN DEVELOPMENT			
2	Australia	0.938	0.22
6	New Zealand	0.919	0.30
10	Japan	0.912	0.32
12	Korea, Rep. of	0.909	0.67
13	Hong Kong, China	0.906	0.89
18	Singapore	0.895	0.67
30	Brunei Darussalam	0.855	0.25
HIGH HUMAN DEVELOPMENT			
52	Palau	0.791	0.28
64	Malaysia	0.769	0.64
68	Kazakhstan	0.754	1.08
72	Georgia	0.745	0.03
82	Azerbaijan	0.734	-0.08
87	Armenia	0.729	0.99
92	Sri Lanka	0.715	0.76
MEDIUM HUMAN DEVELOPMENT			
95	Tonga	0.710	0.25
96	Fiji	0.702	0.39
96	Samoa	0.702	0.48
101	China, People's Rep. of	0.699	1.42
102	Turkmenistan	0.698	-0.50
103	Thailand	0.690	0.83
104	Maldives	0.688	1.26
MEDIUM HUMAN DEVELOPMENT			
108	Mongolia	0.675	1.51
114	Philippines	0.654	0.58
114	Uzbekistan	0.654	-0.88
117	Micronesia, Fed. States of	0.645	...
121	Indonesia	0.629	1.28
121	Kiribati	0.629	...
124	Vanuatu	0.626	1.21
125	Kyrgyz Rep.	0.622	0.56
125	Tajikistan	0.622	1.36
127	Viet Nam	0.617	1.21
134	Timor-Leste	0.576	2.71
136	India	0.554	1.51
138	Cambodia	0.543	1.69
138	Lao PDR	0.543	1.52
140	Bhutan	0.538	0.71
LOW HUMAN DEVELOPMENT			
143	Solomon Islands	0.530	0.72
146	Pakistan	0.515	1.46
146	Bangladesh	0.515	1.73
149	Myanmar	0.498	2.23
156	Papua New Guinea	0.466	0.97
157	Nepal	0.463	1.21
175	Afghanistan	0.374	3.91

... = no data available, HDI = human development index, Lao PDR = Lao People's Democratic Republic.

Source: Table 1.15.

## Data issues and comparability

Demographic data are either based on vital registration records or on censuses and surveys. In many developing members, vital registration records are incomplete and therefore cannot be used for statistical purposes. In most countries, population censuses are conducted every 10 years. For this reason, the growth rates are probably more reliable than the levels. The United Nations Population Division, Department of Economics and Social Affairs used future trends on fertility, mortality, and international migration to project population numbers until 2100. The medium-fertility variant used assumes the fertility rates above 2.1 children per woman in 2005–2010.

Statistics on the urban population are compiled according to each economy's national definition, as there is no agreed international standard for defining an urban area. National estimates are used for urban ratios. If national estimates are not available, the data of the World Urbanization Prospects 2011 are used.

Data on numbers of physicians and health resources are compiled by the World Health Organization and data on pupils, teachers, and education resources are compiled by the UNESCO Institute of Statistics from country sources.

Household surveys are the best source for labor force data but these are not carried out in all countries. Some rely on census data supplemented by enterprise surveys and unemployment registration records. Unemployment registration records are often incomplete and breakdown by economic activities may not be available.

The statistics on the number of people infected with HIV/AIDS are estimates based on methods and on parameters developed by the UNAIDS Reference Group on HIV/AIDS Estimates, Modelling, and Projections. The estimates are presented together with ranges, called "plausibility bounds," where the wider the bound, the greater the uncertainty surrounding an estimate.

Table 1.1 **Midyear Population**  
(millions)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>	<b>190.0</b>	<b>212.6</b>	<b>232.3</b>	<b>251.8</b>	<b>256.0</b>	<b>263.4</b>	<b>268.3</b>	<b>273.5</b>	<b>279.0</b>	<b>284.8</b>	<b>290.0</b>
Afghanistan	17.6	19.4	21.5	23.7	24.2	24.5	25.0	25.5	26.0	26.5	27.0
Armenia	...	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.3	3.3	3.3
Azerbaijan	7.2	7.7	8.1	8.5	8.6	8.7	8.8	8.9	9.1	9.2	9.3
Georgia	5.4	4.8	4.4	4.3	4.4	4.4	4.4	4.4	4.4	4.5	4.5
Kazakhstan	16.4	15.8	14.9	15.1	15.3	15.5	15.7	15.9	16.1	16.6	16.8
Kyrgyz Republic	4.4	4.5	4.9	5.1	5.2	5.3	5.3	5.4	5.4	5.5	5.6
Pakistan	109.7	124.5	140.0	154.0	156.8	162.9	166.4	169.9	173.5	177.1	180.7
Tajikistan	5.3	5.7	6.2	6.9	7.0	7.1	7.3	7.5	7.6	7.8	8.0
Turkmenistan	3.7	4.2	4.5	4.7	4.8	4.9	4.9	5.0	5.0	5.1	5.2
Uzbekistan	20.4	22.7	24.7	26.2	26.5	26.9	27.3	27.8	28.6	29.3	29.8
<b>East Asia</b>	<b>1214.5</b>	<b>1286.1</b>	<b>1345.8</b>	<b>1387.8</b>	<b>1395.2</b>	<b>1402.4</b>	<b>1409.6</b>	<b>1416.5</b>	<b>1423.2</b>	<b>1430.2</b>	<b>1437.3</b>
China, People's Rep. of <sup>a</sup>	1143.3	1211.2	1267.4	1307.6	1314.5	1321.3	1328.0	1334.5	1340.9	1347.4	1354.0
Hong Kong, China	5.7	6.2	6.7	6.8	6.9	6.9	7.0	7.0	7.0	7.1	7.2
Korea, Rep. of	42.9	45.1	47.0	48.1	48.4	48.6	48.9	49.2	49.4	49.8	50.0
Mongolia	2.2	2.2	2.4	2.6	2.6	2.6	2.6	2.7	2.7	2.8	2.8
Taipei, China	20.4	21.4	22.3	22.8	22.9	23.0	23.0	23.1	23.2	23.2	23.3
<b>South Asia</b>	<b>980.7</b>	<b>1082.1</b>	<b>1188.1</b>	<b>1284.7</b>	<b>1304.1</b>	<b>1322.9</b>	<b>1341.7</b>	<b>1360.3</b>	<b>1378.7</b>	<b>1397.0</b>	<b>1414.2</b>
Bangladesh	109.8	120.2	129.3	138.6	140.6	142.6	144.7	146.7	148.6	150.6	152.5
Bhutan	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7
India	835.0	923.0	1016.0	1101.0	1117.7	1134.0	1150.2	1166.2	1182.1	1197.8	1213.4
Maldives	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Nepal	18.1	20.0	22.6	24.5	24.8	25.2	25.5	25.9	26.3	26.6	26.9
Sri Lanka	17.0	18.1	19.4	19.6	19.9	20.0	20.2	20.5	20.7	20.9	20.3
<b>Southeast Asia</b>	<b>437.1</b>	<b>478.3</b>	<b>517.9</b>	<b>554.5</b>	<b>562.1</b>	<b>570.1</b>	<b>577.6</b>	<b>584.8</b>	<b>595.4</b>	<b>603.5</b>	<b>613.4</b>
Brunei Darussalam	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Cambodia	8.6	10.5	12.5	13.3	13.5	13.7	13.9	14.1	14.3	14.5	14.8
Indonesia	179.4	194.8	206.3	219.9	222.7	225.6	228.5	231.4	237.6	241.6	247.2
Lao PDR	4.1	4.6	5.1	5.6	5.7	5.9	6.0	6.1	6.3	6.4	6.5
Malaysia	18.1	20.7	23.5	26.0	26.6	27.1	27.6	28.1	28.6	29.0	29.3
Myanmar	40.8	44.7	50.1	55.4	56.5	57.5	58.4	59.1	59.8	60.4	61.0
Philippines	60.9	68.4	76.8	84.7	86.3	87.9	89.4	91.0	92.6	94.2	95.8
Singapore	3.0	3.5	4.0	4.3	4.4	4.6	4.8	5.0	5.1	5.2	5.3
Thailand	55.8	59.4	62.2	63.0	63.2	63.3	63.5	63.6	63.8	64.1	64.4
Viet Nam	66.0	71.4	77.1	81.9	82.9	84.2	85.1	86.0	86.9	87.8	88.8
<b>The Pacific<sup>b</sup></b>	<b>6.1</b>	<b>7.1</b>	<b>7.9</b>	<b>9.0</b>	<b>9.2</b>	<b>9.4</b>	<b>9.6</b>	<b>9.9</b>	<b>10.1</b>	<b>10.4</b>	<b>10.7</b>
Cook Islands	17.0	19.4	18.0	21.5	23.8	21.0	21.9	22.6	23.7	20.6	19.2
Fiji	737.0	772.0	802.0	827.0	830.0	834.5	841.4	845.5	850.7	854.3	858.0
Kiribati	72.3	77.7	84.5	92.5	94.6	96.7	98.8	100.8	103.1	105.3	107.6
Marshall Islands	44.6	48.0	51.3	51.6	52.0	52.3	53.0	53.6	54.2	55.0	55.5
Micronesia, Fed. States of	97.6	105.8	107.0	105.6	105.0	104.5	103.9	103.4	102.8	103.6	104.4
Nauru	9.4	10.0	10.1	9.5	9.1	9.2	9.4	9.5	9.7	9.9	10.2
Palau	15.1	17.2	19.1	19.9	19.5	19.2	18.8	18.5	18.1	17.8	17.4
Papua New Guinea	3690.0	4426.7	5156.7	5920.2	6086.0	6256.4	6431.5	6611.6	6796.8	7000.0	7259.8
Samoa	160.3	167.3	175.1	178.7	180.7	181.6	183.5	185.0	186.4	187.8	189.3
Solomon Islands	294.9	353.2	418.6	470.1	481.2	492.5	504.0	515.9	527.7	539.9	552.3
Timor-Leste	747.0	832.0	779.0	945.4	968.2	991.6	1015.5	1039.9	1066.6	1092.1	1118.4
Tonga	96.0	97.4	99.1	101.2	101.6	102.0	102.3	102.5	102.8	103.0	103.3
Tuvalu	9.0	9.2	9.5	10.3	10.4	11.1	11.0	11.1	11.1	11.2	11.3
Vanuatu	147.3	168.4	191.7	217.8	223.5	229.4	235.4	238.9	245.4	251.8	258.2
<b>Developed Member Economies</b>	<b>143.9</b>	<b>147.2</b>	<b>149.9</b>	<b>152.3</b>	<b>152.7</b>	<b>153.2</b>	<b>153.7</b>	<b>154.1</b>	<b>154.5</b>	<b>154.5</b>	<b>154.7</b>
Australia	17.1	18.1	19.2	20.4	20.7	21.0	21.4	21.8	22.1	22.3	22.7
Japan	123.5	125.5	126.8	127.8	127.9	128.0	128.1	128.0	128.1	127.8	127.6
New Zealand	3.3	3.7	3.9	4.1	4.2	4.2	4.3	4.3	4.4	4.4	4.4
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>	<b>2828.3</b>	<b>3066.1</b>	<b>3292.0</b>	<b>3487.8</b>	<b>3526.5</b>	<b>3568.1</b>	<b>3606.9</b>	<b>3645.0</b>	<b>3686.4</b>	<b>3725.9</b>	<b>3765.7</b>
<b>REGIONAL MEMBERS<sup>c</sup></b>	<b>2972.2</b>	<b>3213.3</b>	<b>3441.9</b>	<b>3640.1</b>	<b>3679.2</b>	<b>3721.4</b>	<b>3760.6</b>	<b>3799.1</b>	<b>3840.9</b>	<b>3880.4</b>	<b>3920.4</b>
<b>WORLD</b>	<b>5320.8</b>	<b>5741.8</b>	<b>6127.7</b>	<b>6514.1</b>	<b>6593.2</b>	<b>6673.1</b>	<b>6753.6</b>	<b>6834.7</b>	<b>6916.2</b>	<b>6998.0</b>	<b>7080.1</b>

... = Data not available at cutoff date.

a Population figures for People's Republic of China refer to end-of-year populations.

b Population figures for the Pacific developing member economies are in thousands while the regional total for the Pacific are in millions.

c For reporting economies only.

Sources: Country sources; for World: World Population Prospects, The 2012 Revision (UN Population Division, Department of Economic and Social Affairs 2013).

## Population

Table 1.2 **Growth Rates in Population**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9
Armenia	...	...	-0.3	0.1	0.1	0.1	0.2	0.2	0.4	0.4	0.4
Azerbaijan	1.4	1.2	1.1	1.2	1.3	1.3	1.4	1.2	1.2	1.3	1.3
Georgia	0.4	-2.8	-0.8	0.1	1.8	-0.1	-0.3	0.1	1.2	0.7	0.6
Kazakhstan	-1.6	-2.0	-0.3	0.9	1.1	1.1	1.2	1.3	1.7	2.5	1.5
Kyrgyz Republic	2.0	0.6	1.4	1.2	1.0	1.1	0.6	2.1	0.3	1.1	1.4
Pakistan	2.7	2.5	2.3	1.9	1.8	1.8	2.1	2.1	2.1	2.1	2.0
Tajikistan	3.9	1.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.4	2.4
Turkmenistan	1.7	2.3	1.2	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3
Uzbekistan	...	1.8	1.4	1.2	1.2	1.4	1.6	1.7	2.9	2.7	1.5
<b>East Asia</b>											
China, People's Rep. of	1.4	1.1	0.8	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Hong Kong, China	0.3	2.0	0.9	0.4	0.6	0.9	0.6	0.2	0.7	0.7	1.2
Korea, Rep. of	1.0	1.0	0.8	0.2	0.5	0.5	0.7	0.5	0.5	0.7	0.5
Mongolia	2.4	1.4	1.7	1.2	1.2	1.9	1.5	1.9	1.8	1.7	1.9
Taipei, China	1.2	0.9	0.8	0.4	0.5	0.4	0.3	0.4	0.2	0.3	0.4
<b>South Asia</b>											
Bangladesh	2.2	1.9	1.4	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.3
Bhutan	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.8	1.8	1.8	1.8
India	2.1	2.1	1.8	1.5	1.4	1.5	1.4	1.4	1.4	1.3	1.3
Maldives	2.5	2.0	1.5	3.3	4.7	5.8	4.1	-1.4	2.3	3.2	3.4
Nepal	2.1	2.5	2.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.9
Sri Lanka	1.5	1.1	1.3	0.9	1.2	0.8	0.9	1.2	1.0	1.1	0.7
<b>Southeast Asia</b>											
Brunei Darussalam	2.9	4.0	2.5	1.8	1.7	1.5	1.4	1.4	1.8	1.7	1.6
Cambodia	3.6	5.2	1.3	1.3	1.3	1.3	1.3	1.6	1.5	1.5	1.7
Indonesia	2.0	1.7	1.2	1.3	1.3	1.3	1.3	1.2	2.7	1.7	2.3
Lao PDR	2.1	2.2	2.0	2.0	2.2	2.1	2.2	2.1	2.1	2.1	2.0
Malaysia	2.5	2.6	2.5	2.1	2.0	2.0	2.0	1.9	1.8	1.3	1.3
Myanmar	1.9	1.9	2.0	2.0	2.0	1.8	1.5	1.3	1.1	1.0	1.0
Philippines	2.3	2.3	2.3	1.9	1.9	1.8	1.8	1.8	1.7	1.7	1.7
Singapore	2.9	3.1	1.7	2.4	3.2	4.3	5.5	3.1	1.8	2.1	2.5
Thailand	1.1	1.2	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.4
Viet Nam	1.9	1.7	1.4	1.2	1.1	1.1	1.1	1.1	1.1	1.0	1.1
<b>The Pacific</b>											
Cook Islands	3.0	-0.5	9.1	5.9	10.7	-11.8	4.3	3.2	4.9	-13.1	-6.8
Fiji	0.7	1.7	0.6	0.7	0.4	0.5	0.8	0.5	0.6	0.4	0.4
Kiribati	3.5	1.5	1.3	2.4	2.2	2.2	2.1	2.1	2.2	2.2	2.2
Marshall Islands	1.5	1.5	0.9	1.6	0.7	0.7	1.3	1.1	1.1	1.5	1.0
Micronesia, Fed. States of	2.0	0.2	0.2	-0.3	-0.5	-0.5	-0.5	-0.5	-0.5	0.8	0.8
Nauru	2.2	0.1	1.0	-2.2	-2.4	1.5	1.6	1.8	1.9	2.3	2.2
Palau	2.2	2.6	1.3	0.8	-1.9	-1.9	-1.9	-1.9	-1.9	-1.9	-1.9
Papua New Guinea	2.2	3.1	3.1	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.7
Samoa	0.5	0.9	0.9	0.3	0.5	0.5	1.0	0.8	0.8	0.8	0.8
Solomon Islands	3.6	3.8	2.8	2.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Timor-Leste	6.7	1.7	9.0	2.4	2.4	2.4	2.4	2.4	2.6	2.4	2.4
Tonga	0.3	0.3	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2
Tuvalu	2.1	0.5	1.3	3.1	1.4	6.7	-0.9	0.5	0.5	0.5	0.5
Vanuatu	2.7	2.6	2.7	2.6	2.6	2.6	2.6	1.5	2.7	2.6	2.6
<b>Developed Member Economies</b>											
Australia	1.5	1.2	1.2	1.3	1.5	1.5	1.8	1.8	1.3	1.2	1.6
Japan	0.3	0.2	0.2	0.0	0.1	0.1	0.0	0.0	0.0	-0.2	-0.2
New Zealand	0.9	1.5	0.6	1.1	1.2	1.0	1.0	1.1	1.2	0.9	0.6
<b>DEVELOPING MEMBER ECONOMIES<sup>a</sup></b>	<b>1.8</b>	<b>1.6</b>	<b>1.3</b>	<b>1.0</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>1.0</b>	<b>1.1</b>	<b>1.0</b>	<b>1.0</b>
<b>REGIONAL MEMBERS<sup>a</sup></b>	<b>1.7</b>	<b>1.5</b>	<b>1.2</b>	<b>1.0</b>	<b>1.0</b>	<b>1.1</b>	<b>1.0</b>	<b>1.0</b>	<b>1.1</b>	<b>1.0</b>	<b>1.0</b>
<b>WORLD</b>	<b>1.7</b>	<b>1.4</b>	<b>1.3</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a For reporting economies only.

Sources: ADB staff estimates derived from country sources; For World estimates, World Population Prospects, The 2012 Revision (UN Population Division, Department of Economic and Social Affairs 2013).

Table 1.3 **Migration and Urbanization**

Regional Member	Net International Migration Rate <sup>a</sup> (per 1,000 population)					Urban Population (as % of total population)				
	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	1990	1995	2000	2005	2012
<b>Developing Member Economies</b>										
<b>Central and West Asia</b>										
Afghanistan	-23.1	51.2	-3.5	7.7	-2.6	16.7	18.1	19.8	20.2	22.6
Armenia	-3.9	-29.6	-14.3	-6.5	-4.9	...	66.3	64.8	64.1	63.3
Azerbaijan	-4.4	-3.1	-3.2	1.3	1.2	53.7	52.3	51.1	52.5	53.1
Georgia	-2.4	-20.7	-15.9	-13.4	-6.8	...	...	52.0	52.2	53.3
Kazakhstan	-7.4	-18.6	-17.1	-2.9	0.1	...	55.7	56.3	57.1	54.7
Kyrgyz Republic	-7.4	-12.2	-1.1	-10.0	-5.1	37.6	35.6	34.7	34.8	33.9
Pakistan	0.3	-2.5	-0.3	-2.3	-2.4	30.8 (1991)	31.8	33.0	34.0	37.4
Tajikistan	-3.4	-10.7	-11.2	-13.4	-8.9	31.3	27.4	26.6	26.4	26.4
Turkmenistan	-2.0	2.5	-2.3	-4.9	-2.2	45.1	44.8	45.9	47.0	48.7 (2011)
Uzbekistan	-4.7	-3.1	-3.4	-6.0	-3.9	40.3	38.3	37.2	36.1	51.4 (2011)
<b>East Asia</b>										
China, People's Rep. of	0.0	-0.1	-0.1	-0.4	-0.3	26.4	29.0	36.2	43.0	52.6
Hong Kong, China	5.7	5.2	17.0	-0.3	5.1	99.5	100.0	100.0	100.0	100.0 (2010)
Korea, Rep. of	2.1	-2.9	-2.3	-0.4	-0.1	73.8	78.2	79.6	81.3	83.2 (2011)
Mongolia	0.0	-7.9	-4.9	-1.2	-1.1	54.6	51.6	57.2	60.2	65.9
Taipei, China <sup>b</sup>	...	...	...	...	...	50.6	53.1	55.8	57.7	59.7
<b>South Asia</b>										
Bangladesh	-0.6	-1.9	-1.5	-2.2	-4.0	...	21.4	23.1	24.2	25.9 (2011)
Bhutan	0.6	-37.5	0.1	11.4	4.9	...	...	21.0	30.9	33.7
India	0.0	0.0	-0.1	-0.4	-0.5	25.6	26.6	27.7	28.8	30.2
Maldives	-2.6	-2.6	-0.8	-0.1	0.0	26.0	25.6	27.0	35.0	40.5 (2010)
Nepal	-1.6	-1.0	-0.9	-0.8	-0.7	8.3	...	14.2 (2001)	16.7 (2006)	17.0 (2011)
Sri Lanka	-1.6	-2.9	-4.3	-1.0	-2.5	17.2	16.6	15.8	17.8	20.5 (2011)
<b>Southeast Asia</b>										
Brunei Darussalam	2.2	3.1	3.5	2.0	1.8	65.8	68.6	71.2	73.5	76.0 (2011)
Cambodia	3.4	3.0	1.6	-1.8	-3.7	...	14.8 (1998)	16.0	17.7	22.0
Indonesia	-0.3	-0.8	-0.8	-1.1	-1.1	30.9	35.9	42.1	43.1	49.8 (2010)
Lao PDR	0.0	-1.3	-3.5	-4.2	-2.5	15.4	17.4	22.0	27.4	34.2 (2011)
Malaysia	5.4	3.3	3.8	3.2	0.6	51.1 (1991)	56.0	62.0	66.5	72.4
Myanmar	-0.7	-0.6	0.0	-4.4	-2.1	24.8	26.1	29.1	30.4	30.8
Philippines	-1.0	-2.1	-2.1	-2.8	-2.8	51.9 (1993)	48.3	48.0	48.0	48.9 (2011)
Singapore	8.5	14.3	13.7	11.4	30.9	100.0	100.0	100.0	100.0	100.0
Thailand	1.8	-3.8	1.9	3.4	1.5	18.0	18.0	31.1	32.5	45.1
Viet Nam	-1.0	-0.9	-0.8	-1.1	-1.0	19.5	20.7	24.2	27.1	31.9
<b>The Pacific</b>										
Cook Islands	...	...	...	...	...	58.5 (1991)	58.8 (1996)	67.6 (2001)	70.2 (2003)	...
Fiji	-18.6	-9.5	-10.6	-15.1	-6.8	41.6	45.5	47.9	49.9	52.2 (2011)
Kiribati	...	...	...	...	...	35.1	36.5	43.5	43.6	48.5 (2010)
Marshall Islands	...	...	...	...	...	65.1	66.7	68.4	70.0	71.8 (2010)
Micronesia, Fed. States of	-5.4	-4.4	-25.4	-17.9	-16.3	...	25.5 (1994)	22.3	...	...
Nauru	...	...	...	...	...	100.0	100.0	100.0	100.0	100.0
Palau	...	...	...	...	...	69.4	71.4	69.5	77.4	77.0 (2010)
Papua New Guinea	...	...	...	...	...	15.0	14.1	13.2	12.6	12.5 (2011)
Samoa	-20.6	-15.8	-17.4	-20.1	-17.3	21.2	21.5	22.0	21.2	19.9 (2011)
Solomon Islands	-1.3	-0.6	-0.4	...	...	13.7	14.7	15.8	17.8	20.5 (2011)
Timor-Leste	1.0	-1.1	-38.6	8.8	-9.4	...	22.5	24.3	26.1	28.0 (2010)
Tonga	-23.1	-23.2	-18.0	-16.4	-16.0	22.7	22.9	23.0	23.2	23.4 (2011)
Tuvalu	...	...	...	...	...	40.7	44.0	46.1	48.1	50.6 (2011)
Vanuatu	-3.7	-0.1	-8.0	...	...	18.7	20.2	21.7	23.5	24.6
<b>Developed Member Economies</b>										
Australia	8.1	4.2	5.0	6.7	10.5	85.4	86.1	87.2	88.2	89.2 (2011)
Japan	-1.0	0.7	0.0	0.1	0.4	77.3	78.0	78.6	86.0	91.1 (2011)
New Zealand	-0.5	6.8	2.3	6.8	3.1	84.7	85.3	85.7	86.2	86.2

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Refers to annual average.

b For urban population, refers to localities of 100,000 or more inhabitants.

Sources: Country sources; for net international migration rate: World Population Prospects, The 2012 Revision; for urban population: World Population Prospects, The 2011 Revision (UN Population Division, Department of Economic and Social Affairs 2013).

## Population

**Table 1.4 Population Aged 0–14 Years**  
(% of total population)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011 <sup>a</sup>	2012 <sup>a</sup>
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	48.7	48.2	49.5	49.3	49.3	49.3	49.2	49.0	48.6	48.1	47.4
Armenia	30.4	29.5	25.9	21.9	21.5	21.2	20.9	20.6	20.5	20.4	20.3
Azerbaijan	34.2	33.9	31.1	26.0	25.2	24.4	23.7	23.1	22.7	22.5	22.3
Georgia	24.6	24.1	21.9	18.4	18.0	17.7	17.4	17.3	17.3	17.5	17.7
Kazakhstan	31.5	29.7	27.7	24.7	24.5	24.5	24.6	24.7	24.9	25.3	25.5
Kyrgyz Republic	37.6	37.6	35.0	31.3	30.8	30.5	30.3	30.1	30.0	30.1	30.2
Pakistan	43.6	43.3	41.5	38.2	37.5	36.9	36.5	36.0	35.4	35.0	34.5
Tajikistan	43.6	44.3	42.9	38.4	37.6	37.0	36.6	36.2	35.9	35.9	35.9
Turkmenistan	40.5	39.6	36.3	32.7	32.1	31.3	30.4	29.7	29.2	28.8	28.6
Uzbekistan	41.0	40.1	37.3	33.2	32.4	31.7	31.0	30.3	29.8	29.4	29.0
<b>East Asia</b>											
China, People's Rep. of	29.3	28.5	25.6	20.5	19.8	19.2	18.7	18.4	18.1	18.0	18.0
Hong Kong, China	21.5	19.4	17.3	14.2	13.6	13.0	12.6	12.3	12.1	11.9	11.8
Korea, Rep. of	25.6	23.0	21.0	19.1	18.5	17.9	17.3	16.8	16.2	15.8	15.3
Mongolia	40.5	38.6	34.8	28.9	28.1	27.6	27.3	27.1	27.0	27.1	27.2
Taipei, China	27.1	23.8	21.1	18.7	18.1	17.6	17.0	16.3	15.6	15.1	14.6
<b>South Asia</b>											
Bangladesh	42.1	39.8	37.0	34.3	34.0	33.5	33.0	32.4	31.9	31.1	30.5
Bhutan	43.6	43.9	40.6	34.0	33.1	32.2	31.3	30.5	29.8	29.2	28.6
India	37.5	36.1	34.2	32.2	31.8	31.4	31.0	30.6	30.2	29.8	29.4
Maldives	46.8	46.1	41.3	34.3	33.1	32.1	31.3	30.6	30.0	29.5	29.1
Nepal	42.2	41.2	40.4	39.5	39.0	38.6	38.1	37.6	37.1	36.3	35.5
Sri Lanka	32.1	29.5	26.9	25.4	25.3	25.3	25.2	25.1	25.1	25.1	25.1
<b>Southeast Asia</b>											
Brunei Darussalam	34.5	33.0	30.4	28.9	28.6	28.1	27.6	27.0	26.6	26.1	25.7
Cambodia	44.2	46.4	40.8	36.1	35.3	34.3	33.3	32.4	31.8	31.4	31.1
Indonesia	36.4	33.6	30.7	30.0	29.8	29.7	29.8	29.8	29.8	29.6	29.3
Lao PDR	44.2	44.4	43.5	40.4	39.5	38.8	38.1	37.5	36.8	36.4	35.8
Malaysia	37.1	35.7	33.3	30.2	29.8	29.3	28.8	28.2	27.7	27.0	26.5
Myanmar	37.7	34.5	30.7	28.1	27.6	27.2	26.8	26.5	26.1	25.7	25.3
Philippines	40.9	39.8	38.5	37.1	36.8	36.4	36.0	35.6	35.3	34.8	34.5
Singapore	21.5	22.3	21.5	19.1	18.8	18.5	18.2	17.7	17.3	16.9	16.5
Thailand	30.2	27.3	24.2	22.3	21.7	21.0	20.4	19.8	19.3	18.9	18.5
Viet Nam	37.4	35.6	31.6	27.1	26.5	25.6	24.8	24.0	23.5	23.1	22.9
<b>The Pacific</b>											
Cook Islands	...	...	34.7	31.4	30.7	30.0	29.3	28.6	28.0	27.4	26.9
Fiji	38.4	36.6	35.1	30.6	30.5	30.2	29.8	29.4	29.0	29.0	28.9
Kiribati	...	...	40.6	37.0	36.5	36.1	35.8	35.5	35.2	34.9	34.5
Marshall Islands	...	...	42.3	41.3	41.4	41.6	41.5	41.8	41.8	41.6	41.3
Micronesia, Fed. States of	44.1	43.5	40.3	38.8	38.4	38.0	37.7	37.3	36.9	36.3	35.7
Nauru	...	...	40.1	37.1	36.8	36.6	36.2	35.9	35.6	35.4	35.2
Palau	...	...	23.9	24.1	23.4	22.7	21.9	21.1	20.5	20.0	19.7
Papua New Guinea	42.2	40.8	40.2	40.0	39.8	39.7	39.6	39.3	39.1	38.8	38.4
Samoa	40.4	40.7	40.7	39.6	39.3	39.0	38.8	38.5	38.3	38.2	38.0
Solomon Islands	45.5	43.3	41.9	41.3	41.2	41.1	41.0	40.9	40.8	40.6	40.4
Timor-Leste	39.7	42.4	49.8	48.0	47.8	47.8	47.8	47.7	47.3	47.1	46.5
Tonga	39.4	39.5	38.4	38.1	38.1	38.0	37.8	37.6	37.5	37.4	37.3
Tuvalu	...	...	37.1	34.3	33.9	32.4	32.5	32.3	32.0	31.7	31.4
Vanuatu	43.8	42.7	41.5	39.7	39.1	38.7	38.6	38.5	38.2	38.1	37.7
<b>Developed Member Economies</b>											
Australia	22.0	21.5	20.7	19.8	19.6	19.4	19.2	19.1	18.9	19.0	19.0
Japan	18.3	16.0	14.6	13.8	13.7	13.6	13.5	13.4	13.3	13.2	13.1
New Zealand	23.3	23.0	22.7	21.5	21.3	21.1	20.9	20.7	20.5	20.4	20.3
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>34.2</b>	<b>33.0</b>	<b>30.7</b>	<b>27.6</b>	<b>27.1</b>	<b>26.7</b>	<b>26.3</b>	<b>25.9</b>	<b>25.6</b>	<b>25.3</b>	<b>25.1</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	<b>33.5</b>	<b>32.3</b>	<b>30.1</b>	<b>27.1</b>	<b>26.6</b>	<b>26.2</b>	<b>25.8</b>	<b>25.5</b>	<b>25.2</b>	<b>24.9</b>	<b>24.7</b>
<b>WORLD</b>	<b>32.9</b>	<b>31.9</b>	<b>30.1</b>	<b>28.0</b>	<b>27.6</b>	<b>27.3</b>	<b>27.1</b>	<b>26.8</b>	<b>26.6</b>	<b>26.5</b>	<b>26.3</b>

... = Data not available at cutoff date.

a From 2011, the United Nations Population Division projected the country's population based on the medium-fertility variant where fertility is above 2.1 children per woman in 2005–2010 censuses.

b For reporting economies only.

Sources: World Population Prospects, The 2012 Revision (UN Population Division, Department of Economic and Social Affairs 2013); Statistics and Demography website ([www.spc.int/sdp/index.php](http://www.spc.int/sdp/index.php)); for Taipei, China: Monthly Bulletin of Statistics Online (Directorate-General of Budget, Accounting and Statistics 2013).

**Table 1.5 Population Aged 15–64 Years**  
(% of total population)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011 <sup>a</sup>	2012 <sup>a</sup>
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	49.5	49.7	48.5	48.7	48.6	48.6	48.7	48.9	49.2	49.7	50.3
Armenia	64.0	62.1	64.1	66.5	67.0	67.5	68.1	68.6	68.9	69.1	69.3
Azerbaijan	61.6	61.4	63.3	67.6	68.4	69.3	70.1	70.8	71.4	71.7	72.0
Georgia	66.0	64.6	65.6	67.0	67.3	67.7	68.1	68.4	68.5	68.3	68.0
Kazakhstan	62.6	63.1	65.5	67.7	68.0	68.2	68.4	68.5	68.4	68.1	67.8
Kyrgyz Republic	57.4	57.0	59.6	63.1	63.7	64.3	64.8	65.2	65.5	65.6	65.6
Pakistan	52.6	52.8	54.6	57.7	58.4	58.8	59.3	59.7	60.2	60.6	61.2
Tajikistan	52.5	51.8	53.6	57.9	58.7	59.4	59.9	60.4	60.8	60.8	60.9
Turkmenistan	55.7	56.3	59.4	62.7	63.4	64.3	65.2	66.1	66.6	67.1	67.4
Uzbekistan	55.0	55.6	58.4	62.0	62.9	63.7	64.5	65.2	65.8	66.3	66.7
<b>East Asia</b>											
China, People's Rep. of	64.9	65.3	67.5	71.8	72.4	72.9	73.2	73.4	73.5	73.5	73.3
Hong Kong, China	69.8	70.9	71.7	73.6	74.2	74.7	75.0	75.1	75.0	74.9	74.7
Korea, Rep. of	69.4	71.1	71.7	71.6	71.9	72.1	72.3	72.5	72.7	72.8	72.9
Mongolia	55.4	57.6	61.5	67.3	68.1	68.6	68.9	69.1	69.2	69.1	69.0
Taipei, China	66.7	68.6	70.3	71.6	71.9	72.2	72.6	73.0	73.6	74.0	74.2
<b>South Asia</b>											
Bangladesh	54.2	56.3	59.0	61.4	62.3	62.7	63.2	63.7	64.2	64.3	64.8
Bhutan	53.5	52.7	55.6	61.9	62.8	63.6	64.4	65.1	65.7	66.2	66.7
India	58.6	59.9	61.4	63.1	63.4	63.7	64.1	64.4	64.8	65.1	65.4
Maldives	50.3	50.7	54.9	61.1	62.2	63.0	63.7	64.4	65.0	65.5	65.9
Nepal	54.3	55.2	55.8	56.1	56.4	56.8	57.1	57.5	58.0	58.7	59.4
Sri Lanka	62.4	64.5	66.9	67.5	67.5	67.4	67.4	67.3	67.1	66.9	66.6
<b>Southeast Asia</b>											
Brunei Darussalam	62.8	64.4	66.8	67.9	68.2	68.5	69.0	69.4	69.7	70.1	70.3
Cambodia	52.6	50.1	55.4	59.5	60.2	61.1	61.9	62.7	63.1	63.5	63.6
Indonesia	59.8	62.2	64.7	65.1	65.3	65.3	65.2	65.2	65.2	65.3	65.6
Lao PDR	52.3	52.0	52.9	55.9	56.7	57.5	58.1	58.8	59.5	59.9	60.4
Malaysia	59.3	60.6	62.8	65.4	65.7	66.1	66.5	67.0	67.5	68.0	68.3
Myanmar	58.1	61.0	64.5	67.0	67.4	67.8	68.1	68.5	68.8	69.2	69.5
Philippines	55.9	57.1	58.3	59.5	59.7	60.0	60.4	60.7	61.0	61.4	61.7
Singapore	72.9	71.4	71.2	72.6	72.7	72.8	73.1	73.4	73.6	73.8	73.8
Thailand	65.3	67.2	69.3	70.0	70.4	70.8	71.2	71.5	71.8	72.0	72.1
Viet Nam	56.9	58.5	62.0	66.3	67.0	67.8	68.7	69.4	70.0	70.4	70.6
<b>The Pacific</b>											
Cook Islands	...	...	59.1	61.3	61.9	62.4	63.0	63.5	64.0	64.5	64.9
Fiji	58.7	60.4	61.5	65.3	65.3	65.4	65.6	65.9	66.1	66.0	65.8
Kiribati	...	...	55.9	59.5	60.0	60.4	60.7	61.0	61.3	61.6	62.0
Marshall Islands	...	...	55.5	56.5	56.4	56.3	56.3	56.0	55.9	56.0	56.2
Micronesia, Fed. States of	52.3	52.9	56.0	57.2	57.6	58.0	58.4	58.9	59.3	59.8	60.3
Nauru	...	...	58.6	61.2	61.9	62.1	62.5	62.8	63.1	63.3	63.4
Palau	...	...	70.7	70.2	70.9	71.7	72.5	73.2	73.7	74.1	74.2
Papua New Guinea	55.4	56.8	57.3	57.4	57.5	57.6	57.7	57.9	58.2	58.4	58.7
Samoa	55.8	55.1	54.8	55.6	55.8	56.0	56.3	56.5	56.7	56.7	56.9
Solomon Islands	51.8	54.0	55.3	55.7	55.8	55.8	55.8	55.9	56.0	56.0	56.2
Timor-Leste	58.4	55.4	47.9	49.3	49.4	49.3	49.2	49.3	49.6	49.8	50.3
Tonga	56.1	55.1	55.9	55.9	55.9	56.0	56.2	56.4	56.7	56.7	56.8
Tuvalu	...	...	57.0	60.1	60.5	62.2	62.1	62.4	62.7	63.0	63.3
Vanuatu	52.6	53.8	55.2	57.0	57.5	57.8	57.8	57.7	57.9	57.9	58.4
<b>Developed Member Economies</b>											
Australia	66.9	66.6	66.9	67.3	67.5	67.6	67.7	67.7	67.6	67.3	67.0
Japan	69.7	69.6	68.2	66.3	65.9	65.5	64.9	64.4	63.8	63.2	62.5
New Zealand	65.7	65.5	65.5	66.4	66.5	66.6	66.6	66.6	66.5	66.3	66.1
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>61.0</b>	<b>61.9</b>	<b>63.8</b>	<b>66.4</b>	<b>66.8</b>	<b>67.2</b>	<b>67.5</b>	<b>67.8</b>	<b>68.0</b>	<b>68.2</b>	<b>68.3</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	<b>61.4</b>	<b>62.2</b>	<b>64.0</b>	<b>66.4</b>	<b>66.8</b>	<b>67.1</b>	<b>67.4</b>	<b>67.7</b>	<b>67.9</b>	<b>68.0</b>	<b>68.1</b>
<b>WORLD</b>	<b>60.9</b>	<b>61.5</b>	<b>63.0</b>	<b>64.7</b>	<b>65.0</b>	<b>65.2</b>	<b>65.4</b>	<b>65.6</b>	<b>65.7</b>	<b>65.8</b>	<b>65.8</b>

... = Data not available at cutoff date.

a From 2011, the United Nations Population Division projected the country's population based on the medium-fertility variant where fertility is above 2.1 children per woman in 2005–2010 censuses.

b For reporting economies only.

Sources: World Population Prospects, The 2012 Revision (UN Population Division, Department of Economic and Social Affairs 2013); Statistics and Demography website ([www.spc.int/sdp/index.php](http://www.spc.int/sdp/index.php)); for Taipei, China: Monthly Bulletin of Statistics Online (Directorate-General of Budget, Accounting and Statistics 2013).

## Population

**Table 1.6 Population Aged 65 Years and Over**  
(% of total population)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011 <sup>a</sup>	2012 <sup>a</sup>
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	1.9	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.3
Armenia	5.6	8.4	10.0	11.6	11.5	11.3	11.0	10.8	10.5	10.4	10.4
Azerbaijan	4.2	4.7	5.6	6.4	6.4	6.3	6.2	6.1	5.9	5.8	5.7
Georgia	9.3	11.3	12.5	14.6	14.7	14.6	14.4	14.3	14.2	14.2	14.3
Kazakhstan	5.8	7.2	6.8	7.6	7.5	7.3	7.0	6.8	6.7	6.6	6.6
Kyrgyz Republic	5.0	5.4	5.5	5.6	5.4	5.2	4.9	4.7	4.4	4.3	4.2
Pakistan	3.8	3.9	3.9	4.1	4.2	4.2	4.3	4.3	4.3	4.3	4.4
Tajikistan	3.8	3.8	3.5	3.7	3.7	3.6	3.5	3.4	3.3	3.3	3.2
Turkmenistan	3.8	4.1	4.3	4.6	4.5	4.4	4.3	4.2	4.1	4.1	4.1
Uzbekistan	4.0	4.2	4.3	4.7	4.7	4.6	4.6	4.5	4.4	4.3	4.3
<b>East Asia</b>											
China, People's Rep. of	5.8	6.2	6.9	7.7	7.8	7.9	8.1	8.2	8.4	8.5	8.7
Hong Kong, China	8.7	9.6	11.0	12.1	12.2	12.3	12.4	12.6	12.9	13.2	13.6
Korea, Rep. of	5.0	5.9	7.3	9.3	9.6	10.0	10.3	10.7	11.1	11.4	11.8
Mongolia	4.1	3.8	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Taipei, China	6.2	7.6	8.6	9.7	10.0	10.2	10.4	10.6	10.7	10.9	11.2
<b>South Asia</b>											
Bangladesh	3.7	3.9	4.1	4.3	3.7	3.8	3.8	3.9	3.9	4.7	4.7
Bhutan	3.0	3.4	3.8	4.1	4.2	4.2	4.3	4.4	4.5	4.6	4.7
India	3.9	4.1	4.4	4.7	4.8	4.9	4.9	5.0	5.1	5.1	5.2
Maldives	2.9	3.1	3.8	4.6	4.7	4.8	4.9	5.0	5.0	5.0	5.0
Nepal	3.5	3.6	3.8	4.4	4.5	4.7	4.8	4.9	4.9	5.0	5.1
Sri Lanka	5.5	6.1	6.3	7.0	7.2	7.3	7.4	7.6	7.8	8.0	8.2
<b>Southeast Asia</b>											
Brunei Darussalam	2.7	2.7	2.8	3.2	3.2	3.3	3.4	3.5	3.7	3.8	4.0
Cambodia	3.2	3.5	3.8	4.4	4.5	4.6	4.8	4.9	5.0	5.1	5.2
Indonesia	3.8	4.2	4.7	4.9	4.9	5.0	5.0	5.0	5.0	5.1	5.1
Lao PDR	3.5	3.5	3.6	3.7	3.8	3.8	3.7	3.7	3.7	3.7	3.8
Malaysia	3.6	3.7	3.8	4.4	4.5	4.6	4.7	4.8	4.8	5.0	5.2
Myanmar	4.2	4.5	4.7	4.9	5.0	5.0	5.0	5.1	5.1	5.1	5.2
Philippines	3.1	3.1	3.2	3.4	3.5	3.5	3.6	3.7	3.7	3.8	3.8
Singapore	5.6	6.3	7.3	8.2	8.4	8.6	8.8	8.9	9.0	9.3	9.7
Thailand	4.5	5.5	6.6	7.7	7.9	8.2	8.4	8.6	8.9	9.1	9.4
Viet Nam	5.7	5.9	6.4	6.6	6.6	6.6	6.6	6.5	6.5	6.5	6.5
<b>The Pacific</b>											
Cook Islands	...	...	6.2	7.3	7.4	7.6	7.7	7.9	8.0	8.1	8.2
Fiji	2.9	3.0	3.4	4.1	4.3	4.4	4.5	4.7	4.8	5.0	5.2
Kiribati	...	...	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Marshall Islands	...	...	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.5
Micronesia, Fed. States of	3.6	3.5	3.7	4.0	4.0	3.9	3.9	3.9	3.8	3.9	4.0
Nauru	...	...	1.3	1.7	1.3	1.3	1.2	1.2	1.3	1.3	1.4
Palau	...	...	5.4	5.7	5.7	5.7	5.7	5.7	5.8	5.9	6.0
Papua New Guinea	2.3	2.4	2.5	2.6	2.7	2.7	2.7	2.8	2.8	2.8	2.9
Samoa	3.9	4.2	4.5	4.8	4.9	4.9	5.0	5.0	5.1	5.1	5.1
Solomon Islands	2.8	2.7	2.8	3.0	3.0	3.1	3.2	3.2	3.3	3.3	3.3
Timor-Leste	1.9	2.1	2.4	2.7	2.8	2.9	3.0	3.0	3.1	3.1	3.2
Tonga	4.5	5.4	5.7	6.0	6.0	6.0	6.0	5.9	5.9	5.9	5.9
Tuvalu	...	...	5.9	5.6	5.6	5.4	5.4	5.4	5.3	5.3	5.3
Vanuatu	3.6	3.5	3.3	3.3	3.4	3.5	3.6	3.8	3.9	4.0	3.9
<b>Developed Member Economies</b>											
Australia	11.1	11.9	12.4	12.9	13.0	13.1	13.1	13.3	13.4	13.7	14.0
Japan	11.9	14.4	17.2	19.8	20.4	21.0	21.6	22.2	23.0	23.6	24.3
New Zealand	11.1	11.5	11.8	12.0	12.2	12.3	12.5	12.7	13.0	13.3	13.6
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>4.7</b>	<b>5.0</b>	<b>5.5</b>	<b>6.0</b>	<b>6.0</b>	<b>6.1</b>	<b>6.2</b>	<b>6.3</b>	<b>6.4</b>	<b>6.5</b>	<b>6.6</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	<b>5.1</b>	<b>5.4</b>	<b>5.9</b>	<b>6.5</b>	<b>6.6</b>	<b>6.7</b>	<b>6.8</b>	<b>6.9</b>	<b>7.0</b>	<b>7.1</b>	<b>7.2</b>
<b>WORLD</b>	<b>6.2</b>	<b>6.6</b>	<b>6.9</b>	<b>7.3</b>	<b>7.4</b>	<b>7.5</b>	<b>7.5</b>	<b>7.6</b>	<b>7.7</b>	<b>7.8</b>	<b>7.9</b>

... = Data not available at cutoff date.

a From 2011, the United Nations Population Division projected the country's population based on the medium-fertility variant where fertility is above 2.1 children per woman in 2005–2010 censuses.

b For reporting economies only.

Sources: World Population Prospects, The 2012 Revision (UN Population Division, Department of Economic and Social Affairs 2013); Statistics and Demography website ([www.spc.int/sdp/index.php](http://www.spc.int/sdp/index.php)); for Taipei, China: Monthly Bulletin of Statistics Online (Directorate-General of Budget, Accounting and Statistics 2013).

Table 1.7 Age Dependency Ratio

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011 <sup>a</sup>	2012 <sup>a</sup>
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	102.1	101.1	106.2	105.5	105.7	105.6	105.3	104.5	103.1	101.2	98.7
Armenia	56.2	60.9	55.9	50.4	49.3	48.1	46.9	45.8	45.1	44.6	44.3
Azerbaijan	62.2	62.9	57.9	48.0	46.1	44.3	42.7	41.3	40.1	39.4	38.9
Georgia	51.4	54.8	52.5	49.1	48.5	47.7	46.8	46.2	46.0	46.4	47.0
Kazakhstan	59.6	58.5	52.6	47.7	47.1	46.6	46.2	46.0	46.1	46.8	47.4
Kyrgyz Republic	74.1	75.5	67.9	58.4	56.9	55.5	54.3	53.4	52.6	52.4	52.5
Pakistan	90.1	89.3	83.2	73.3	71.4	69.9	68.8	67.5	66.0	64.9	63.4
Tajikistan	90.4	92.9	86.7	72.7	70.2	68.4	66.9	65.6	64.5	64.3	64.2
Turkmenistan	79.4	77.5	68.4	59.4	57.7	55.6	53.3	51.4	50.0	49.0	48.5
Uzbekistan	81.9	79.7	71.2	61.2	59.1	57.0	55.1	53.4	51.9	50.9	49.9
<b>East Asia</b>											
China, People's Rep. of	54.0	53.2	48.1	39.2	38.1	37.3	36.6	36.2	36.0	36.1	36.4
Hong Kong, China	43.2	40.9	39.4	35.8	34.8	33.9	33.3	33.2	33.4	33.5	33.9
Korea, Rep. of	44.1	40.6	39.5	39.6	39.1	38.7	38.3	37.9	37.6	37.4	37.2
Mongolia	80.5	73.7	62.5	48.5	46.9	45.8	45.2	44.8	44.4	44.7	44.9
Taipei, China	49.9	45.8	42.3	39.7	39.1	38.4	37.7	36.9	35.8	35.1	34.7
<b>South Asia</b>											
Bangladesh	84.5	77.5	69.6	62.9	60.6	59.4	58.1	56.9	55.7	55.6	54.4
Bhutan	87.1	89.6	79.9	61.5	59.3	57.3	55.4	53.7	52.1	51.0	49.9
India	70.6	67.0	62.8	58.6	57.8	57.0	56.1	55.2	54.4	53.6	53.0
Maldives	98.9	97.1	82.1	63.7	60.8	58.6	56.9	55.3	53.8	52.8	51.7
Nepal	84.2	81.2	79.1	78.1	77.2	76.2	75.1	73.9	72.5	70.4	68.3
Sri Lanka	60.2	55.2	49.5	48.1	48.2	48.3	48.4	48.7	49.0	49.5	50.1
<b>Southeast Asia</b>											
Brunei Darussalam	59.1	55.4	49.7	47.2	46.7	45.9	44.9	44.0	43.4	42.7	42.3
Cambodia	90.2	99.7	80.6	67.9	66.0	63.7	61.4	59.6	58.4	57.5	57.2
Indonesia	67.3	60.8	54.6	53.5	53.2	53.2	53.3	53.4	53.5	53.1	52.5
Lao PDR	91.4	92.1	89.0	79.0	76.3	74.0	72.0	70.1	68.1	67.0	65.4
Malaysia	68.7	65.1	59.1	52.9	52.3	51.4	50.3	49.2	48.2	47.1	46.4
Myanmar	72.1	63.9	55.0	49.3	48.3	47.5	46.8	46.0	45.3	44.6	43.9
Philippines	78.8	75.2	71.7	68.1	67.4	66.6	65.6	64.8	63.9	62.9	62.1
Singapore	37.1	40.0	40.4	37.7	37.5	37.3	36.9	36.3	35.8	35.5	35.5
Thailand	53.2	48.8	44.4	43.0	42.1	41.2	40.4	39.8	39.3	38.9	38.7
Viet Nam	75.8	71.0	61.3	50.8	49.3	47.4	45.6	44.0	42.9	42.1	41.7
<b>The Pacific</b>											
Cook Islands	...	...	69.3	63.1	61.6	60.2	58.8	57.4	56.2	55.0	54.1
Fiji	70.5	65.6	62.6	53.2	53.1	52.8	52.3	51.8	51.2	51.6	51.9
Kiribati	...	...	79.0	68.0	66.6	65.5	64.6	63.9	63.1	62.3	61.3
Marshall Islands	...	...	80.0	76.9	77.2	77.7	77.5	78.5	78.8	78.4	77.8
Micronesia, Fed. States of	91.2	88.9	78.7	74.8	73.6	72.3	71.1	69.9	68.8	67.2	65.7
Nauru	...	...	70.7	63.4	61.5	60.9	60.0	59.1	58.5	58.0	57.7
Palau	...	...	41.4	42.5	41.1	39.5	38.0	36.7	35.7	35.0	34.7
Papua New Guinea	80.4	76.0	74.7	74.1	73.9	73.6	73.2	72.7	71.9	71.3	70.3
Samoa	79.3	81.4	82.5	79.9	79.1	78.4	77.7	77.1	76.4	76.4	75.8
Solomon Islands	93.2	85.1	81.0	79.5	79.3	79.2	79.1	78.9	78.7	78.4	77.9
Timor-Leste	71.3	80.3	108.9	102.9	102.5	102.9	103.2	102.9	101.7	100.8	98.8
Tonga	78.2	81.5	78.8	79.0	78.9	78.6	77.9	77.2	76.5	76.3	76.1
Tuvalu	...	...	75.4	66.5	65.2	60.7	61.1	60.4	59.5	58.7	58.0
Vanuatu	90.2	85.9	81.2	75.4	73.8	73.1	73.1	73.2	72.9	72.7	71.4
<b>Developed Member Economies</b>											
Australia	49.5	50.2	49.6	48.6	48.2	48.0	47.8	47.8	47.9	48.6	49.3
Japan	43.4	43.8	46.6	50.7	51.7	52.8	54.0	55.3	56.9	58.3	59.9
New Zealand	52.3	52.8	52.7	50.5	50.3	50.2	50.1	50.2	50.4	50.8	51.4
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>63.8</b>	<b>61.5</b>	<b>56.7</b>	<b>50.6</b>	<b>49.7</b>	<b>48.8</b>	<b>48.1</b>	<b>47.5</b>	<b>47.0</b>	<b>46.7</b>	<b>46.4</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	<b>62.8</b>	<b>60.7</b>	<b>56.3</b>	<b>50.6</b>	<b>49.7</b>	<b>48.9</b>	<b>48.3</b>	<b>47.7</b>	<b>47.3</b>	<b>47.1</b>	<b>46.8</b>
<b>WORLD</b>	<b>64.2</b>	<b>62.5</b>	<b>58.8</b>	<b>54.5</b>	<b>53.9</b>	<b>53.4</b>	<b>52.9</b>	<b>52.5</b>	<b>52.2</b>	<b>52.1</b>	<b>52.0</b>

... = Data not available at cutoff date.

a From 2011, the United Nations Population Division projected the country's population based on the medium-fertility variant where fertility is above 2.1 children per woman in 2005–2010 censuses.

b For reporting economies only.

Sources: ADB staff estimates from the World Population Prospects, The 2012 Revision (UN Population Division, Department of Economic and Social Affairs 2013); Statistics and Demography website ([www.spc.int/sdp/index.php](http://www.spc.int/sdp/index.php)); for Taipei, China: Monthly Bulletin of Statistics Online (Directorate-General of Budget, Accounting and Statistics 2013).

## Labor Force and Employment

Table 1.8 **Labor Force Participation Rate**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	49.8	49.3	48.4	48.6	48.6	48.7	48.9	49.0	49.2	49.2	49.3
Armenia	...	74.2	61.4	57.7	55.9	54.5	60.8	60.4	62.5	63.0	62.7
Azerbaijan	93.2	85.8	77.6	68.4	67.1	66.4	65.4	65.1	64.8	64.5	64.5
Georgia	...	...	65.2	64.0	62.2	63.3	62.6	63.6	64.2	65.2	66.9
Kazakhstan	...	66.8	66.0	69.4	69.7	70.4	71.1	70.7	71.2	71.6	71.7
Kyrgyz Republic	66.0	65.7	64.9	64.7	65.6	65.7	65.9	66.1	66.4	66.7	67.1
Pakistan	...	41.3	42.8	43.7	46.0	45.2	45.2	45.7	45.9	45.7	45.7
Tajikistan	77.3	66.4	56.3	55.0	53.9	52.6	51.4	51.0	50.3	49.4	...
Turkmenistan	60.2	60.1	60.5	60.5	60.5	60.5	60.5	60.5	60.6	60.8	61.1
Uzbekistan	59.3	59.1	59.6	59.8	59.9	60.1	60.3	60.5	60.8	61.0	61.3
<b>East Asia</b>											
China, People's Rep. of	78.7	78.5	77.0	75.3	75.1	74.9	74.5	74.4	74.2	74.1	73.9
Hong Kong, China	63.2	62.0	61.4	60.9	61.2	61.2	60.9	60.8	59.6	60.1	60.5
Korea, Rep. of	60.0	61.9	61.0	62.0	61.9	61.8	61.5	60.8	61.0	61.1	61.3
Mongolia	...	68.5	62.9	63.5	64.4	64.2	61.2	61.4	61.6	62.5	63.5
Taipei, China	59.2	58.7	57.7	57.8	57.9	58.3	58.3	57.9	58.1	58.2	58.4
<b>South Asia</b>											
Bangladesh	...	...	54.9	...	58.5	...	...	...	59.3	...	...
Bhutan	64.4	...	...	...	61.8	67.3	...	68.5	68.6	67.4	64.4
India <sup>a</sup>	...	...	37.6	39.2	...	...	...	37.4	...	36.4	...
Maldives	49.9	51.3	54.7	62.4	64.2	64.5	64.9	65.3	65.8	66.3	66.8
Nepal	85.2	85.3	85.9	84.6	84.4	84.1	83.9	83.9	83.9	83.9	83.9
Sri Lanka	51.9	47.9	50.3	49.3	51.2	49.8	50.2	49.2	48.6	47.8	47.2
<b>Southeast Asia</b>											
Brunei Darussalam	...	66.5	65.5	68.3	68.4	67.8	67.8	68.2	66.6	66.5	66.2
Cambodia	...	59.2	65.2	...	...	...	81.8	84.4	87.0	87.5	...
Indonesia	54.7	...	67.8	66.8	66.2	67.0	67.2	67.2	67.7	68.3	67.9
Lao PDR	81.5	81.1	80.1	78.9	78.7	78.5	78.3	78.2	78.0	77.9	77.9
Malaysia	66.5	64.7	65.4	63.3	63.1	63.2	62.6	62.9	63.7	64.4	65.5
Myanmar	...	...	...	65.0	65.4	65.8	66.2	66.6	66.1	66.0	66.3
Philippines	64.4	65.8	64.9	64.6	64.2	64.0	63.6	64.0	64.1	64.6	64.2
Singapore <sup>b</sup>	63.2	63.7	63.2	63.0	65.0	65.0	65.6	65.4	66.2	66.1	66.6
Thailand	81.9	74.5	71.5	72.5	72.2	72.4	72.6	72.8	72.3	72.0	72.3
Viet Nam	...	...	49.6	52.5	71.0	74.7	75.5	76.5	77.4	77.0	76.8
<b>The Pacific</b>											
Cook Islands	...	...	...	...	70.2	...	...	...	...	71.0	...
Fiji	56.5	58.9	59.0	59.9	59.8	59.8	59.7	59.8	59.7	59.7	59.7
Kiribati	76.0	...	80.9	63.6	...	...	...	...	...	...	...
Marshall Islands	...	...	51.1	51.1	51.1	51.1	...	...	...	...	...
Micronesia, Fed. States of	...	...	58.6	...	...	...	...	...	57.3	...	...
Nauru	...	...	...	...	75.8	...	...	...	...	63.0	...
Palau	59.3	69.1	67.5	69.1	...	...	...	...	...	...	68.1
Papua New Guinea	72.4	70.7	72.2	72.9	72.9	72.8	72.6	72.6	72.4	72.4	72.3
Samoa	59.1	61.1	61.8	61.7	61.6	61.5	61.3	61.1	61.0	60.7	60.6
Solomon Islands	65.3	65.3	66.2	66.9	66.9	66.9	66.8	66.8	66.9	67.0	67.1
Timor-Leste	67.0	71.8	...	...	...	...	...	...	41.7	...	...
Tonga	55.7	60.5	61.3	64.0	64.2	64.3	64.2	64.2	64.2	64.1	64.0
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	83.5	80.5	77.0	73.6	72.8	72.1	71.4	70.6	70.6	70.7	70.7
<b>Developed Member Economies</b>											
Australia	63.8	63.7	63.3	64.4	64.8	65.2	65.5	65.5	65.5	65.6	65.2
Japan	63.3	63.4	62.4	60.4	60.4	60.4	60.2	59.9	59.6	59.3	59.1
New Zealand	63.9	64.7	65.3	67.8	68.3	68.5	68.5	68.3	68.1	68.4	68.2

... = Data not available at cutoff date.

a Figures are computed using data on total labor force and total population.

b Refers to Singapore residents only.

Sources: Country sources; Key Indicators of the Labour Market Online (ILO 2013); and for Nauru and Tuvalu, the National Minimum Development Indicator Database – Secretariat of the Pacific Community website (<http://www.spc.int/nmdi/>).

Table 1.9 **Unemployment Rate**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	3.4	...	...	...	...	...	...	...	...	...	...
Armenia <sup>a</sup>	...	6.7	11.7	8.2	7.5	7.0	16.4	18.7	19.0	18.4	17.3
Azerbaijan <sup>b</sup>	...	0.8	11.8	7.3	6.6	6.3	5.9	5.7	5.6	5.4	5.2
Georgia	...	...	10.3	13.8	13.6	13.3	16.5	16.9	16.3	15.1	15.0
Kazakhstan	...	11.0	12.8	8.1	7.8	7.3	6.6	6.6	5.8	5.4	5.3
Kyrgyz Republic	...	5.7	7.5	8.1	8.3	8.1	8.2	8.4	8.7	8.5	...
Pakistan	3.1	5.3	7.8	7.7	6.1	5.2	5.3	5.4	5.6	5.9	5.9
Tajikistan <sup>c</sup>	...	2.0	2.7	1.9	2.2	2.3	2.2	2.0	2.1	2.3	...
Turkmenistan	2.4	...	2.4	...	...	...	...	...	...	...	...
Uzbekistan <sup>c</sup>	...	0.3	0.4	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1
<b>East Asia</b>											
China, People's Rep. of <sup>d</sup>	2.5	2.9	3.1	4.2	4.1	4.0	4.2	4.3	4.1	4.1	4.1
Hong Kong, China	1.3	3.2	4.9	5.6	4.8	4.0	3.5	5.3	4.3	3.4	3.3
Korea, Rep. of	2.4	2.1	4.1	3.7	3.5	3.2	3.2	3.6	3.7	3.4	3.2
Mongolia <sup>e</sup>	5.5	5.5	4.6	3.3	3.2	2.8	10.0	11.6	9.9	7.7	8.2
Taipei, China	1.7	1.8	3.0	4.1	3.9	3.9	4.1	5.9	5.2	4.4	4.2
<b>South Asia</b>											
Bangladesh	...	...	4.3	...	4.2	...	...	...	4.5	...	...
Bhutan	...	...	...	3.1	3.1	3.7	...	4.0	3.3	3.1	2.1
India	...	...	2.7	3.1	...	...	...	2.5	...	2.7	...
Maldives	0.9	0.8	2.0	...	14.4	...	...	...	11.7	...	...
Nepal <sup>f</sup>	...	4.5	1.8	...	...	...	2.7	...	...	...	...
Sri Lanka	15.9	12.3	7.6	7.4	6.5	6.0	5.2	5.7	4.9	4.2	4.0
<b>Southeast Asia</b>											
Brunei Darussalam	...	4.9	4.7	4.3	4.0	3.4	3.7	3.5	2.9	1.9	1.1
Cambodia	...	2.5	2.5	...	...	...	0.4	0.1	0.3	0.2	...
Indonesia	2.5	7.2	6.1	11.2	10.3	9.1	8.4	7.9	7.1	6.6	6.1
Lao PDR	...	3.6	...	1.4	...	...	...	...	1.9	...	...
Malaysia	5.1	3.1	3.0	3.5	3.3	3.2	3.3	3.7	3.3	3.1	3.0
Myanmar	4.2	4.2	...	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Philippines	8.4	9.5	11.2	7.9	8.0	7.3	7.4	7.5	7.3	7.0	7.0
Singapore	1.7	2.7	4.4	4.2	3.4	2.9	2.8	4.1	2.8	2.7	2.6
Thailand	2.2	1.7	3.6	1.8	1.5	1.4	1.4	1.5	1.0	0.7	0.7
Viet Nam	...	...	2.3	2.5	4.9	4.1	3.6	3.2	2.7	2.0	1.8
<b>The Pacific</b>											
Cook Islands	...	...	...	...	8.9	...	...	...	...	8.2	...
Fiji	6.4	5.4	8.4	7.7	8.3	8.6	8.6	...	...	...	...
Kiribati	2.8	0.2	1.6	6.1	...	...	...	...	...	...	...
Marshall Islands	...	...	30.9	30.9	30.9	30.9	30.9	...	...	...	...
Micronesia, Fed. States of	13.5	...	22.0	...	...	...	...	...	16.2	...	...
Nauru	...	...	...	...	36.3	...	...	...	...	...	...
Palau	7.8	7.0	2.3	4.2	...	...	...	...	...	...	4.1
Papua New Guinea	7.7	...	...	...	...	...	...	...	...	...	...
Samoa	...	...	...	...	1.3	...	...	...	...	...	...
Solomon Islands <sup>g</sup>	...	...	12.0	...	...	...	...	2.0	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	3.6	...	...
Tonga	4.1	...	...	...	1.1	...	...	...	...	...	...
Tuvalu	...	...	...	6.5	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	4.6	...	...	...
<b>Developed Member Economies</b>											
Australia	6.9	8.5	6.3	5.0	4.8	4.4	4.3	5.6	5.2	5.1	5.2
Japan	2.1	3.2	4.7	4.4	4.1	3.8	4.0	5.1	5.0	4.6	4.3
New Zealand	8.0	6.5	6.1	3.8	3.8	3.7	4.2	6.1	6.5	6.5	6.9

... = Data not available at cutoff date, – = Magnitude equals zero.

a Before 2008, data were based on administrative sources. From 2008, estimates were derived from Annual Household Labour Force Survey within the framework of the Households Integrated Living Condition Survey.

b Based on the International Labour Organization's methodology starting 2000.

c Based on officially registered unemployed only.

d Refers to urban areas only.

e From 2008, data were based on results of the Labour Force Survey. Unemployment data prior to 2008 were taken from administrative data on the number of registered unemployed people.

f Data for 1995 and 2000 refer to 1996 and 1999, respectively.

g Data for 2000 refer to 1999 figure.

Sources: Country sources; Key Indicators of the Labour Market Online (ILO 2013); and for Nauru, Papua New Guinea and Solomon Islands, the National Minimum Development Indicator Database – Secretariat of the Pacific Community website (<http://www.spc.int/nmdi/>).

## Labor Force and Employment

Table 1.10 **Unemployment Rate of 15–24-Year-Olds**  
(%)

Regional Member	Total		Female		Male	
	1995	2011	1995	2011	1995	2011
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	...	...	...	...	...
Armenia	48.2 (2001)	45.5 (2008)	56.4 (2001)	54.7 (2008)	41.9 (2001)	37.4 (2008)
Azerbaijan	18.4 (1999)	14.7	19.9 (1999)	15.2	17.0 (1999)	14.2
Georgia	24.6 (1999)	35.6	24.8 (1999)	40.7 (2008)	24.4 (1999)	32.4 (2008)
Kazakhstan	17.3 (2002)	4.6	19.3 (2002)	5	15.7 (1999)	4.2
Kyrgyz Republic	20.1 (2002)	14.6 (2006)	21.2 (2002)	16.2 (2006)	19.3 (2002)	13.6 (2006)
Pakistan	8.9	7.7 (2008)	18.1	10.5 (2008)	7.6	7.0 (2008)
Tajikistan	...	...	...	...	...	...
Turkmenistan	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...
<b>East Asia</b>						
China, People's Rep. of	2.9	3.1 (2000)	...	...	...	...
Hong Kong, China	6.9	9.4	5.9	7.9	7.7	11.0
Korea, Rep. of	6.3	9.6	5.3	8.1	7.8	12.1
Mongolia	...	20.0 (2003)	...	20.7 (2003)	...	19.5 (2003)
Taipei, China	5.3	14.5 (2009)	...	...	...	...
<b>South Asia</b>						
Bangladesh	7.0 (1996)	9.3 (2005)	5.7 (1996)	13.6 (2005)	8.0 (1996)	8.0 (2005)
Bhutan	6.3 (2005)	12.9 (2009)	7.2 (2005)	14.7 (2009)	5.5 (2005)	10.7 (2009)
India	8.2 (1994)	10.2 (2010)	8.0 (1994)	11.5 (2010)	8.3 (1994)	9.8 (2010)
Maldives	1.9	22.2 (2006)	2.9	30.5 (2006)	1.4	15.5 (2006)
Nepal	3.0 (1999)	...	2.2 (1999)	...	4.0 (1999)	...
Sri Lanka	35.2	19.4 (2010)	41.3	24.7 (2010)	27.0	16.3 (2010)
<b>Southeast Asia</b>						
Brunei Darussalam	...	...	...	...	...	...
Cambodia	12.2 (1998)	3.4 (2008)	12.0 (1998)	3.3 (2008)	12.3 (1998)	3.5 (2008)
Indonesia	15.5 (1996)	22.2 (2010)	17.0 (1996)	23.0 (2009)	14.3 (1996)	21.6 (2009)
Lao PDR	5.0	5.0 (2005)	3.9	...	6.4	...
Malaysia	8.7 (1998)	11.3 (2010)	8.8 (1998)	11.8 (2008)	8.6 (1998)	10.3 (2008)
Myanmar	...	...	...	...	...	...
Philippines	16.1	17.4 (2009)	19.1	19.3 (2009)	14.4	16.2 (2009)
Singapore	5	6.7	5.5	6.3 (2005)	4.5	4.1 (2005)
Thailand	2.5 (1996)	2.7	2.3 (1996)	3.0	2.6 (1996)	2.5
Viet Nam	3.1 (1996)	4.6 (2004)	2.9 (1996)	4.9 (2004)	3.4 (1996)	4.4 (2004)
<b>The Pacific</b>						
Cook Islands	14.9 (1991)	19.9 (2006)	18.5 (1991)	20.4 (2006)	12.5 (1991)	19.4 (2006)
Fiji	13.1 (1996)	18.7 (2007)	16.7 (1996)	25.4 (2007)	11.3 (1996)	14.8 (2007)
Kiribati	3.63 (1990)	54 (2010)	2.54 (1990)	61.8 (2010)	4.74 (1990)	47.6 (2010)
Marshall Islands	62.6 (1999)	62.64 (2005)	67 (1999)	48.75 (2000)	59.8 (1999)	59.81 (2005)
Micronesia, Fed. States of	32.7 (1994)	11.3 (2010)	44.3 (1994)	10.4 (2010)	24.7 (1994)	12.2 (2010)
Nauru	29.3 (1992)	58.2 (2006)	38.3 (1992)	65.9 (2006)	22.9 (1992)	51.7 (2006)
Palau	17.4 (1990)	5.7 (2000)	17.2 (1990)	6.0 (2000)	17.6 (1990)	5.5 (2000)
Papua New Guinea	21.1 (1990)	13.6 (2001)	16.6 (1990)	9.5 (2001)	24.2 (1990)	17.4 (2001)
Samoa	12.2 (2001)	4.0 (2006)	15.4 (2001)	6.1 (2006)	10.6 (2001)	4.0 (2006)
Solomon Islands	46.0 (1999)	...	48.7 (1999)	...	44.4 (1999)	...
Timor-Leste	...	...	...	...	...	...
Tonga	30.3 (1996)	2.3 (2006)	27.0 (1996)	2.6 (2006)	32.0 (1996)	2.2 (2006)
Tuvalu	...	31.2 (2002)	...	43.3 (2002)	...	22.5 (2002)
Vanuatu	3.1 (2000)	8.9 (2009)	2.1 (2000)	9.2 (2009)	4.0 (2000)	8.6 (2009)
<b>Developed Member Economies</b>						
Australia <sup>a</sup>	15.4	11.3	14.8	10.8	15.9	11.9
Japan <sup>b</sup>	6.1	8.0	6.1	7.1	6.1	8.9
New Zealand <sup>c</sup>	12.3	17.3	12.2	16.1	12.3	18.2

... = Data not available at cutoff date.

<sup>a</sup> Excludes Jervis Bay Territory beginning 1993.<sup>b</sup> Data are averages of monthly estimates.<sup>c</sup> Excludes Chathams, Antarctic Territory, and other minor offshore islands. Data are averages of quarterly estimates.Sources: Key Indicators of the Labour Market Online (ILO 2013); The Pacific Islands Regional Millennium Development Goals Report (The Secretariat of the Pacific Community 2004); and the National Minimum Development Indicator Database – Secretariat of the Pacific Community website (<http://www.spc.int/nmdi/>).

**Table 1.11 Employment in Agriculture**  
(% of total employment)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	69.6	...	...	...	...	...	...	...	...	...	...
Armenia	...	37.4	44.4	46.2	46.2	46.0	37.6	39.5	38.6	38.9	37.3
Azerbaijan	30.9	30.8	39.1	38.7	38.5	38.4	38.2	38.1	38.2	37.9	37.7
Georgia	...	...	52.1	54.3	55.3	53.4	54.7	53.9	52.2	53.0	52.7
Kazakhstan	18.8	...	31.5	32.2	31.1	30.8	29.7	29.0	28.3	26.5	25.5
Kyrgyz Republic	32.7	47.0	53.1	38.5	36.3	34.5	34.0	32.4	31.2	30.7	...
Pakistan	51.1	46.7	48.4	43.0	43.5	43.6	44.6	45.0	45.1	45.1	45.1
Tajikistan	43.0	59.1	64.9	67.5	67.0	66.5	66.7	66.2	65.9	67.0	...
Turkmenistan	41.8	44.8	47.6	...	...	...	...	...	...	...	...
Uzbekistan	39.3	41.2	34.4	29.1	28.0	27.9	27.5	25.5	26.8	27.2	27.2
<b>East Asia</b>											
China, People's Rep. of	60.1	52.2	50.0	44.8	42.6	40.8	39.6	38.1	36.7	34.8	33.6
Hong Kong, China	0.7	0.7	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.0	0.0
Korea, Rep. of	17.9	11.8	10.6	7.9	7.7	7.4	7.2	7.0	6.6	6.4	6.2
Mongolia	33.0	46.1	48.6	39.9	38.8	37.7	40.0	34.7	33.5	33.0	35.0
Taipei, China	12.8	10.5	7.8	5.9	5.5	5.3	5.1	5.3	5.2	5.1	5.0
<b>South Asia</b>											
Bangladesh	...	...	50.8	...	48.1	...	...	...	47.5	...	...
Bhutan	...	...	...	...	62.8	66.6	...	65.4	59.4	60.2	62.2
India	...	...	59.9	56.1	...	...	...	53.2	...	48.9	...
Maldives	25.2	22.2	13.7	...	11.5	...	...	...	4.3	...	...
Nepal <sup>a</sup>	81.2	...	76.1	...	...	...	...	...	...	...	...
Sri Lanka	46.8	36.7	36.0	32.8	32.2	31.3	32.7	32.5	32.5	33.0	31.0
<b>Southeast Asia</b>											
Brunei Darussalam	...	2.5	...	...	...	...	...	...	...	...	...
Cambodia	...	81.4	73.7	60.3	72.3	72.3	72.3	72.3	72.3	71.3	71.1
Indonesia	55.9	44.0	45.3	44.0	42.0	41.2	40.3	39.7	38.3	35.9	35.1
Lao PDR	...	85.4	...	76.3	...	...	...	...	72.2	...	...
Malaysia	26.0	20.0	16.7	14.6	14.6	14.8	14.0	13.5	13.6	11.5	12.6
Myanmar	65.6	64.1	...	...	...	...	...	...	...	...	...
Philippines	44.9	43.4	37.1	36.0	35.8	35.1	35.3	34.4	33.2	33.0	32.1
Singapore <sup>b</sup>	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Thailand	63.3	46.7	44.2	38.6	39.7	39.5	39.7	39.0	38.2	38.0	38.9
Viet Nam	72.1	71.3	64.4	57.1	54.3	52.9	52.3	51.5	49.5	48.4	47.4
<b>The Pacific</b>											
Cook Islands	6.1	...	...	...	4.9	...	...	...	...	4.3	...
Fiji	2.5	...	1.6	1.4	1.3	1.3	1.3	...	...	...	...
Kiribati	...	...	2.8	...	...	...	...	...	...	...	...
Marshall Islands	...	...	20.5	...	...	...	4.7	7.2	11.0	12.0	...
Micronesia, Fed. States of	48.0	...	52.2	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	8.0	9.3	7.1	7.8	...	...	...	...	...	...	...
Papua New Guinea	...	...	72.3	...	...	...	...	...	...	...	...
Samoa	...	...	...	...	35.4	...	...	...	...	...	...
Solomon Islands	28.7	26.0	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	50.8	...	...
Tonga	38.1	...	...	...	27.9	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	60.5	...	...	...
<b>Developed Member Economies</b>											
Australia	5.6	4.9	4.9	3.6	3.4	3.3	3.3	3.3	3.3	2.9	2.9
Japan	7.2	5.7	5.1	4.4	4.3	4.2	4.2	4.2	4.0	4.0	3.8
New Zealand	10.2	9.7	8.8	6.9	6.9	7.0	6.7	6.6	6.8	6.9	6.8

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Data for 1990 and 2000 refer to 1991 and 1999, respectively.

b Based on total employed residents only.

Sources: Country sources; Key Indicators of the Labour Market, Seventh Edition Online (ILO 2013).

## Labor Force and Employment

Table 1.12 **Employment in Industry<sup>a</sup>**  
(% of total employment)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	15.3	...	...	...	...	...	...	...	...	...	...
Armenia <sup>b</sup>	...	20.5	14.1	12.8	12.9	15.1	19.8	17.1	17.4	16.7	17.7
Azerbaijan	12.7	9.7	5.9	5.9	6.0	6.0	6.1	6.0	5.8	5.7	5.8
Georgia	...	...	...	3.8	4.9	5.2	6.0	6.1	6.5	6.7	6.5
Kazakhstan	21.0	...	13.9	12.3	12.2	11.9	11.7	11.7	11.7	11.6	11.8
Kyrgyz Republic	27.9	16.5	10.5	17.6	19.4	20.3	20.7	21.2	21.1	21.0	...
Pakistan	13.0	10.6	11.6	13.8	14.0	13.7	13.1	13.2	13.4	13.7	13.7
Tajikistan	20.1	9.9	6.9	5.7	5.5	5.3	4.8	4.7	4.2	4.0	...
Turkmenistan	10.8	10.1	13.0	...	...	...	...	...	...	...	...
Uzbekistan	15.1	12.9	12.7	13.2	13.4	13.5	13.5	13.4	13.2	13.1	13.0
<b>East Asia</b>											
China, People's Rep. of	21.4	23.0	22.5	23.8	25.2	26.8	27.2	27.8	28.7	29.5	30.3
Hong Kong, China	27.7	18.2	10.3	6.6	6.5	5.8	4.8	4.3	3.7	3.6	3.6
Korea, Rep. of	27.6	23.7	20.4	18.1	17.6	17.2	16.9	16.4	17.0	16.9	16.7
Mongolia <sup>c</sup>	16.8	14.1	11.2	11.8	11.8	12.0	10.2	11.2	11.5	12.3	12.6
Taipei, China	32.3	27.2	28.1	27.5	27.5	27.7	27.8	27.2	27.3	27.6	27.4
<b>South Asia</b>											
Bangladesh	...	...	10.0	...	11.2	...	...	...	12.6	...	...
Bhutan	...	...	...	...	7.5	14.6	...	6.4	6.6	9.2	8.6
India <sup>a</sup>	...	...	16.3	18.8	...	...	...	21.5	...	24.3	...
Maldives	16.0	18.6	13.4	...	17.5	...	...	...	9.4	...	...
Nepal <sup>d</sup>	2.7	...	9.8	...	...	...	...	...	...	...	...
Sri Lanka	19.4	22.2	23.6	25.4	26.6	26.6	26.3	25.5	24.6	24.1	26.1
<b>Southeast Asia</b>											
Brunei Darussalam	...	8.9	...	...	...	...	...	...	...	...	...
Cambodia	...	2.3	7.0	9.7	9.2	9.2	9.2	9.2	9.2	9.5	9.7
Indonesia	10.8	13.4	13.5	13.7	13.4	13.4	13.3	13.3	13.9	14.6	15.3
Lao PDR	...	3.5	...	...	...	...	...	...	...	...	...
Malaysia	20.5	23.7	23.8	20.2	20.7	19.1	18.8	17.2	18.2	18.7	18.1
Myanmar	7.7	9.1	...	...	...	...	...	...	...	...	...
Philippines	10.6	10.6	10.4	10.0	9.8	9.6	9.0	8.7	9.0	8.8	9.0
Singapore <sup>e</sup>	25.9	21.5	19.5	16.7	16.8	16.9	16.9	15.8	15.3	14.8	14.3
Thailand	9.9	15.1	15.0	16.0	15.6	15.7	14.9	14.4	14.2	14.4	14.9
Viet Nam	8.8	8.6	10.1	18.2	18.2	18.9	19.3	20.0	21.0	21.3	14.4
<b>The Pacific</b>											
Cook Islands	8.2	...	...	...	4.9	...	...	...	...	3.9	...
Fiji	33.1	...	30.7	30.3	30.7	30.7	30.3	...	...	...	...
Kiribati	...	...	7.4	...	...	...	...	...	...	...	...
Marshall Islands	...	...	7.8	...	...	...	0.9	0.8	0.7	1.0	...
Micronesia, Fed. States of	6.0	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	1.7	1.0	0.7	2.6	...	...	...	...	...	...	...
Papua New Guinea	...	...	3.6	...	...	...	...	...	...	...	...
Samoa	...	...	...	...	21.8	...	...	...	...	...	...
Solomon Islands	8.8	12.4	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	8.7	...	...
Tonga	15.3	...	...	...	27.8	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	7.0	...	...	...
<b>Developed Member Economies</b>											
Australia	15.7	14.1	12.9	11.6	11.3	11.2	11.3	10.8	10.6	10.4	10.7
Japan	24.2	22.6	20.6	18.0	18.3	18.3	18.0	17.2	16.9	16.7	16.5
New Zealand <sup>f</sup>	15.3	14.8	12.6	13.4	12.8	12.5	12.4	11.5	11.4	11.3	11.1

... = Data not available at cutoff date.

a Refers to manufacturing and mining. Also includes construction sector for the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan. Total industry only refers to the People's Republic of China, Fiji, the Maldives, Nepal, and Timor-Leste. Meanwhile, New Zealand includes only the manufacturing sector and Afghanistan includes transportation and communication.

b Before 2008, data were based on administrative sources. From 2008, estimates were derived from the Annual Household Labour Force Survey within the framework of the Households Integrated Living Condition Survey.

c Employment data prior to 2008 were based on administrative data on the "Number of registered unemployed people". From 2008, data were revised based on results of the Labour Force Survey.

d Data for 1990 and 2000 refer to 1991 and 1999, respectively.

e Based on total employed residents only.

f Data for 1990, 1995, and 2000–2002 refer to filled jobs only.

Sources: Country sources; Key Indicators of the Labour Market, Seventh Edition Online (ILO 2013).

**Table 1.13 Employment in Services<sup>a</sup>**  
(% of total employment)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	15.1	...	...	...	...	...	...	...	...	...	...
Armenia <sup>b</sup>	...	42.1	41.6	41.0	40.9	38.9	42.5	43.5	44.0	44.4	45.0
Azerbaijan	56.4	59.5	54.9	55.3	55.5	55.6	55.7	55.9	56.0	56.4	56.6
Georgia	...	...	...	41.9	39.8	41.4	39.3	40.0	41.3	40.3	40.8
Kazakhstan	60.2	...	54.7	55.5	56.8	57.3	58.6	59.3	60.0	62.0	62.7
Kyrgyz Republic	39.4	36.5	36.5	43.9	44.3	45.2	45.3	46.3	47.7	48.3	...
Pakistan	36.0	42.6	40.0	43.2	42.6	42.6	42.3	41.8	41.5	41.2	41.2
Tajikistan	37.0	31.0	28.1	26.8	27.5	28.2	28.5	29.2	29.9	29.0	...
Turkmenistan	47.4	45.1	39.4	...	...	...	...	...	...	...	...
Uzbekistan	45.6	45.8	52.8	57.7	58.6	58.7	59.1	61.1	59.9	59.7	59.8
<b>East Asia</b>											
China, People's Rep. of	18.5	24.8	27.5	31.4	32.2	32.4	33.2	34.1	34.6	35.7	36.1
Hong Kong, China	71.5	80.9	89.2	92.9	93.5	94.0	95.2	95.5	96.1	96.2	96.2
Korea, Rep. of	54.5	64.5	69.0	73.9	74.7	75.4	75.9	76.6	76.4	76.7	77.1
Mongolia <sup>c</sup>	50.2	39.8	40.1	48.4	49.5	50.3	49.8	54.1	54.9	54.6	52.4
Taipei, China	54.9	62.2	64.1	66.5	67.0	67.1	67.1	67.5	67.5	67.4	67.6
<b>South Asia</b>											
Bangladesh	...	...	39.2	...	40.7	...	...	...	39.9	...	...
Bhutan	...	...	...	...	29.6	18.8	...	28.2	34.0	30.6	29.1
India	...	...	23.7	25.1	...	...	...	25.3	...	26.8	...
Maldives	58.8	59.2	72.9	...	78.7	...	...	...	86.3	...	...
Nepal <sup>d</sup>	14.7	...	14.1	...	...	...	...	...	...	...	...
Sri Lanka	33.8	41.1	40.3	41.8	41.2	42.1	41.0	42.0	42.9	42.8	42.9
<b>Southeast Asia</b>											
Brunei Darussalam	...	88.6	...	...	...	...	...	...	...	...	...
Cambodia	...	16.3	19.3	30.0	18.5	18.6	18.6	18.6	18.6	19.2	19.3
Indonesia	33.3	42.6	41.2	42.3	44.5	45.4	46.4	47.0	47.7	49.5	49.6
Lao PDR	...	11.1	...	...	...	...	...	...	19.7	...	...
Malaysia	53.5	56.3	59.5	65.2	64.7	66.1	67.3	69.3	68.2	69.8	69.3
Myanmar	26.7	26.8	...	...	...	...	...	...	...	...	...
Philippines	44.4	46.0	52.5	54.1	54.4	55.3	55.7	56.9	57.8	58.2	58.9
Singapore <sup>e</sup>	73.8	78.2	80.3	83.1	83.0	82.9	82.9	84.0	84.5	85.1	85.5
Thailand	26.7	38.2	40.8	45.4	44.7	44.9	45.4	46.6	47.6	47.6	46.2
Viet Nam	19.0	20.1	25.5	24.7	27.6	28.1	28.4	28.4	29.5	30.3	38.3
<b>The Pacific</b>											
Cook Islands	87.8	...	...	...	90.2	...	...	...	...	91.8	...
Fiji	64.4	...	67.7	68.4	68.0	68.0	68.4	...	...	...	...
Kiribati	...	...	89.8	...	...	...	...	...	...	...	...
Marshall Islands	...	...	72.3	...	...	...	94.3	92.0	88.2	87.0	...
Micronesia, Fed. States of	46.0	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	90.4	89.7	92.2	89.6	...	...	...	...	...	...	...
Papua New Guinea	...	...	22.7	...	...	...	...	...	...	...	...
Samoa	...	...	...	...	42.8	...	...	...	...	...	...
Solomon Islands	62.5	61.6	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	39.7	...	...
Tonga	46.6	...	...	...	44.3	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	78.8	81.0	82.1	84.9	85.3	85.5	85.4	85.9	86.1	86.7	86.4
Japan	68.6	71.7	74.4	77.5	77.5	77.5	77.8	78.6	79.1	79.3	79.7
New Zealand <sup>f</sup>	60.7	62.0	66.3	79.7	80.3	80.5	80.9	81.9	81.8	81.8	82.1

... = Data not available at cutoff date.

a Includes construction and electricity, gas, and water. For the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan, includes only electricity, gas, and water. For New Zealand, also includes mining sector.

b Before 2008, data were based on administrative sources. From 2008, estimates were derived from the Annual Household Labour Force Survey within the framework of the Households Integrated Living Condition Survey.

c From 2008, data were based on results of the Labour Force Survey. Unemployment data prior to 2008 were taken from administrative data on number of registered unemployed people.

d Data for 1990 and 2000 refer to 1991 and 1999, respectively.

e Based on total employed residents only.

f Data for 1990, 1995, and 2000–2002 refer to filled jobs only.

Sources: Country sources; Key Indicators of the Labour Market Online (ILO 2013).

## Poverty Indicators

Table 1.14 **Poverty and Inequality**

Regional Member	Proportion of Population below \$2 (PPP) a Day (%)		Income Ratio of Highest 20% to Lowest 20% <sup>a</sup>		Gini Coefficient	
	1995	Latest year	1995	Latest year	1995	Latest year
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	...	...	4.0 (2008)	...	0.278 (2008)
Armenia	38.9 (1996)	19.9 (2010)	9.2 (1996)	4.6 (2010)	0.444 (1996)	0.313 (2010)
Azerbaijan	39.1	2.8 (2008)	6.1	5.3 (2008)	0.350	0.337 (2008)
Georgia	14.0 (1996)	35.6 (2010)	7.1 (1996)	9.5 (2010)	0.371 (1996)	0.421 (2010)
Kazakhstan	18.8 (1996)	1.1 (2009)	6.2 (1996)	4.2 (2009)	0.353 (1996)	0.290 (2009)
Kyrgyz Republic	30.1 (1993)	21.6 (2011)	12.4	5.4 (2011)	0.537	0.334 (2011)
Pakistan	83.3 (1997)	60.2 (2008)	3.9 (1997)	4.2 (2008)	0.287 (1997)	0.300 (2008)
Tajikistan	83.7 (1999)	27.7 (2009)	4.5 (1999)	4.7 (2009)	0.290 (1999)	0.308 (2009)
Turkmenistan	85.7 (1993)	49.7 (1998)	6.2 (1993)	7.7 (1998)	0.354 (1993)	0.408 (1998)
Uzbekistan	...	...	12.7 (1998)	6.2 (2003)	0.453 (1998)	0.367 (2003)
<b>East Asia</b>						
China, People's Rep. of <sup>b</sup>	74.1	27.2 (2009)	6.0 (1996)	9.6 (2005)	0.357 (1996)	0.425 (2005)
Hong Kong, China	...	...	...	9.6 (1996)	...	0.434 (1996)
Korea, Rep. of	...	2.0 (1998)	5.4 (2006)	5.7 (2008)	0.306 (2006)	0.352 (2009)
Mongolia	45.5	49.1 (2005)	5.5	6.2 (2008)	0.332	0.365 (2008)
Taipei, China	...	...	5.3	6.2 (2002)	...	0.345 (2002)
<b>South Asia</b>						
Bangladesh	85.5 (1996)	76.5 (2010)	4.9 (1996)	4.7 (2010)	0.335 (1996)	0.321 (2010)
Bhutan	...	29.8 (2007)	...	6.8 (2007)	...	0.381 (2007)
India <sup>b</sup>	81.7 (1994)	68.8 (2010)	4.4 (1994)	5.0 (2010)	0.314 (1994)	0.339 (2010)
Maldives	37.0 (1998)	12.2 (2004)	46.6 (1998)	6.8 (2004)	0.627 (1998)	0.374 (2004)
Nepal	89.0 (1996)	57.3 (2004)	5.5 (1996)	5.0 (2010)	0.367	0.328 (2010)
Sri Lanka	46.7 (1996)	23.9 (2010)	5.5 (1996)	5.8 (2010)	0.344	0.364 (2010)
<b>Southeast Asia</b>						
Brunei Darussalam	...	...	...	...	...	...
Cambodia	75.2 (1994)	49.5 (2009)	5.8 (1994)	7.9 (2007)	0.383 (1994)	0.379 (2008)
Indonesia <sup>b</sup>	77.0 (1996)	43.3 (2011)	4.5 (1996)	6.3 (2011)	0.326 (1996)	0.381 (2011)
Lao PDR	79.9 (1997)	66.0 (2008)	5.4 (1997)	5.9 (2008)	0.349 (1997)	0.367 (2008)
Malaysia	11.0	2.3 (2009)	12.0	11.3 (2009)	0.485	0.462 (2009)
Myanmar	...	...	...	...	...	...
Philippines	52.6 (1994)	41.5 (2009)	8.3 (1994)	8.3 (2009)	0.429 (1994)	0.430 (2009)
Singapore	...	...	...	9.7 (1998)	...	0.425 (1998)
Thailand	14.6 (1996)	4.1 (2010)	8.1 (1996)	6.9 (2010)	0.429 (1996)	0.394 (2010)
Viet Nam	85.7 (1993)	43.4 (2008)	5.5 (1998)	5.9 (2008)	0.355 (1998)	0.356 (2008)
<b>The Pacific</b>						
Cook Islands	...	...	...	...	...	...
Fiji	...	22.9 (2009)	12.6 (2003)	8.0 (2009)	0.468 (2003)	0.428 (2009)
Kiribati	...	...	...	7.8 (2006)	...	0.400 (2006)
Marshall Islands	...	...	...	...	...	...
Micronesia, Fed. States of <sup>c</sup>	...	44.7 (2000)	...	40.2 (2000)	...	0.611 (2000)
Nauru	...	...	...	16.2 (2006)	...	0.480 (2006)
Palau	...	...	...	7.6 (2006)	...	0.420 (2006)
Papua New Guinea	...	57.4 (1996)	...	12.5 (1996)	...	0.509 (1996)
Samoa	...	...	9.2 (2002)	7.9 (2008)	0.450 (2002)	0.430 (2008)
Solomon Islands	...	...	...	10.3 (2006)	...	0.450 (2006)
Timor-Leste	77.5 (2001)	72.8 (2007)	7.0 (2001)	4.6 (2007)	0.395 (2001)	0.319 (2007)
Tonga	...	...	...	6.0 (2001)	...	0.340 (2001)
Tuvalu	...	...	8.9 (1994)	6.2 (2004)	0.450 (1994)	0.370 (2004)
Vanuatu	...	...	...	10.4 (2006)	...	0.460 (2006)
<b>Developed Member Economies</b>						
Australia	...	...	5.0 (1994)	5.7 (2007)	0.302	0.328 (2009)
Japan	...	...	5.7 (1994)	6.0 (2006)	0.323 (1994)	0.329 (2006)
New Zealand	...	...	6.8 (1997)	5.3 (2008)	0.310 (1994)	0.323 (2009)

... = Data not available at cutoff date.

a Derived from income or expenditure share of the highest 20% and lowest 20% groups.

b Values are weighted averages of urban and rural.

c Urban estimates for the proportion of population below 2\$ a day.

Sources: PovcalNet Database Online (World Bank 2013); World Development Indicators Online (World Bank 2013); ADB staff estimates; Country sources; for Taipei, China: Monthly Bulletin of Statistics Online (Directorate-General of Budget, Accounting and Statistics 2013).

Table 1.15 Human Development Index

Regional Member	1990	2000	2005	2006	2007	2008	2009	2010	2011	2012	Rank in 2012 <sup>a</sup>
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	0.246	0.236	0.322	0.339	0.346	0.343	0.361	0.368	0.371	0.374	175
Armenia	0.628	0.648	0.695	0.709	0.723	0.727	0.720	0.722	0.726	0.729	87
Azerbaijan	...	0.741	0.655	0.677	0.691	0.703	0.710	0.734	0.732	0.734	82
Georgia	...	0.742	0.713	0.719	0.732	0.730	0.732	0.735	0.740	0.745	72
Kazakhstan	0.767	0.663	0.721	0.728	0.734	0.736	0.739	0.744	0.750	0.754	68
Kyrgyz Republic	0.609	0.582	0.601	0.606	0.612	0.616	0.617	0.615	0.621	0.622	125
Pakistan	0.383	0.419	0.485	0.488	0.498	0.502	0.508	0.512	0.513	0.515	146
Tajikistan	0.615	0.529	0.582	0.571	0.587	0.605	0.608	0.612	0.618	0.622	125
Turkmenistan	0.408	0.741	0.642	0.649	0.652	0.658	0.685	0.688	0.693	0.698	102
Uzbekistan	0.728	0.727	0.617	0.621	0.630	0.636	0.639	0.644	0.649	0.654	114
<b>East Asia</b>											
China, People's Rep. of	0.495	0.59	0.637	0.650	0.662	0.672	0.680	0.689	0.695	0.699	101
Hong Kong, China	0.788	0.815	0.857	0.865	0.877	0.892	0.894	0.900	0.904	0.906	13
Korea, Rep. of	0.749	0.839	0.875	0.882	0.890	0.895	0.898	0.905	0.907	0.909	12
Mongolia	0.559	0.564	0.622	0.632	0.638	0.644	0.653	0.657	0.668	0.675	108
Taipei, China	...	...	...	...	...	...	...	...	...	...	...
<b>South Asia</b>											
Bangladesh	0.361	0.433	0.472	0.481	0.488	0.495	0.502	0.508	0.511	0.515	146
Bhutan	0.882	0.494	0.579	...	...	...	...	0.525	0.532	0.538	140
India	0.410	0.463	0.507	0.515	0.525	0.533	0.540	0.547	0.551	0.554	136
Maldives	0.400	0.592	0.639	0.653	0.663	0.674	0.676	0.683	0.687	0.688	104
Nepal	0.341	0.401	0.429	0.435	0.440	0.447	0.453	0.458	0.460	0.463	157
Sri Lanka	0.608	0.653	0.683	0.688	0.693	0.697	0.700	0.705	0.711	0.715	92
<b>Southeast Asia</b>											
Brunei Darussalam	0.782	0.830	0.848	0.853	0.853	0.852	0.853	0.854	0.854	0.855	30
Cambodia	0.337	0.444	0.501	0.511	0.520	0.526	0.528	0.532	0.538	0.543	138
Indonesia	0.479	0.540	0.575	0.582	0.595	0.601	0.611	0.620	0.624	0.629	121
Lao PDR	0.379	0.453	0.494	0.500	0.510	0.517	0.525	0.534	0.538	0.543	138
Malaysia	0.635	0.712	0.742	0.748	0.753	0.757	0.758	0.763	0.766	0.769	64
Myanmar	0.305	0.382	0.435	0.445	0.464	0.472	0.481	0.490	0.494	0.498	149
Philippines	0.581	0.610	0.630	0.632	0.636	0.642	0.643	0.649	0.651	0.654	114
Singapore	0.756	0.826	0.852	0.832	0.836	0.839	0.877	0.892	0.894	0.895	18
Thailand	0.569	0.625	0.662	0.668	0.676	0.679	0.679	0.686	0.686	0.690	103
Viet Nam	0.439	0.534	0.573	0.581	0.590	0.597	0.601	0.611	0.614	0.617	127
<b>The Pacific</b>											
Cook Islands	0.700	...	...	...	...	...	...	...	...	...	...
Fiji	0.614	0.670	0.693	0.692	0.695	0.697	0.700	0.699	0.700	0.702	96
Kiribati	0.434	...	...	...	...	...	...	0.628	0.627	0.629	121
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	0.614	0.614	0.615	0.613	0.638	0.639	0.640	0.645	117
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	0.832	0.765	0.786	0.789	0.792	0.779	0.775	0.779	0.786	0.791	52
Papua New Guinea	0.368	0.415	0.429	0.408	0.415	0.421	0.454	0.458	0.462	0.466	156
Samoa	0.732	0.663	0.689	0.690	0.695	0.695	0.696	0.699	0.701	0.702	96
Solomon Islands	0.000	0.486	0.510	0.520	0.522	0.521	0.516	0.522	0.526	0.530	143
Timor-Leste	...	0.418	0.461	0.492	0.519	0.547	0.548	0.565	0.571	0.576	134
Tonga	0.656	0.689	0.704	0.704	0.705	0.708	0.708	0.709	0.709	0.710	95
Tuvalu	0.562	...	...	...	...	...	...	...	...	...	...
Vanuatu	0.523	0.542	0.674	...	...	...	...	0.623	0.625	0.626	124
<b>Developed Member Economies</b>											
Australia	0.880	0.914	0.927	0.929	0.931	0.933	0.934	0.935	0.936	0.938	2
Japan	0.837	0.878	0.896	0.900	0.903	0.905	0.904	0.909	0.910	0.912	10
New Zealand	0.835	0.887	0.908	0.909	0.912	0.912	0.914	0.917	0.918	0.919	6

... = Data not available at cutoff date.

<sup>a</sup> Rank among the 186 countries classified in UNDP's *Human Development Report 2012*.Source: Human Development Index (UNDP 2012, <http://hdrstats.undp.org/en/tables>).

## Social Indicators

Table 1.16 **Life Expectancy at Birth**  
(years)

Regional Member	Both Sexes			Female			Male		
	1990	2000	2011	1990	2000	2011	1990	2000	2011
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	42.3	45.3	48.7	42.3	45.4	48.8	42.4	45.2	48.5
Armenia	67.8	71.0	73.9	70.8	74.4	77.2	64.9	67.8	70.8
Azerbaijan	64.7	66.8	70.7	69.1	69.9	73.6	60.6	63.8	67.8
Georgia	70.2	71.6	73.3 (2010)	74.2	75.3	76.9 (2010)	66.5	68.0	69.9 (2010)
Kazakhstan	68.3	65.5	68.9	73.1	71.1	73.8	63.8	60.2	64.2
Kyrgyz Republic	68.3	68.6	69.6	72.6	72.4	73.7	64.2	64.9	65.7
Pakistan	60.8	63.2	65.4	61.5	64.0	66.4	60.1	62.4	64.5
Tajikistan	62.9	63.8	67.5	66.1	67.7	70.8	59.8	60.0	64.4
Turkmenistan	62.7	63.9	65.0	66.4	67.9	69.2	59.1	60.1	61.0
Uzbekistan	66.7	67.0	68.3	70.0	70.2	71.5	63.6	63.8	65.2
<b>East Asia</b>									
China, People's Rep. of	69.5	71.2	73.5	71.1	72.9	75.3	67.9	69.6	71.8
Hong Kong, China	77.4	80.9	83.4	80.3	83.9	86.7	74.6	78.0	80.3
Korea, Rep. of	71.3	75.9	80.9	75.5	79.6	84.4	67.3	72.3	77.5
Mongolia	60.5	63.1	68.5	63.3	66.3	72.5	57.9	60.1	64.6
Taipei, China	74.0	76.7	79.3	76.8	79.9	82.7	71.3	73.8	76.0
<b>South Asia</b>									
Bangladesh	59.5	64.7	68.9	59.2	64.8	69.7	59.8	64.6	68.2
Bhutan	52.6	61.4	67.3	54.2	63.1	69.3	51.1	59.7	65.4
India	58.4	61.6	65.5	58.7	62.6	67.1	58.1	60.6	63.9
Maldives	60.9	70.4	76.9	60.4	71.1	78.1	61.4	69.7	75.7
Nepal	54.0	61.5	68.7	53.7	61.9	69.6	54.2	61.1	67.9
Sri Lanka	69.7	71.0	74.9	73.2	74.9	78.1	66.3	67.3	71.9
<b>Southeast Asia</b>									
Brunei Darussalam	73.7	76.2	78.1	75.8	78.6	80.5	71.6	74.0	75.8
Cambodia	55.4	57.5	63.0	57.1	58.4	64.4	53.8	56.5	61.6
Indonesia	62.1	65.6	69.3	63.8	67.3	71.1	60.5	64.1	67.7
Lao PDR	54.3	61.4	67.4	55.6	62.7	68.9	53.1	60.2	66.0
Malaysia	70.1	72.1	74.3	72.1	74.3	76.5	68.1	70.0	72.1
Myanmar	57.3	61.9	65.2	58.7	63.3	66.9	55.9	60.5	63.5
Philippines	65.2	66.8	68.8	68.0	70.0	72.2	62.5	63.7	65.5
Singapore	75.6	78.1	81.9	78.0	80.1	84.3	73.3	76.1	79.6
Thailand	72.5	72.5	74.1	75.8	76.5	77.5	69.3	68.8	70.8
Viet Nam	65.5	71.9	75.1	67.4	73.8	77.1	63.7	70.2	73.1
<b>The Pacific</b>									
Cook Islands	69.6 (1992)	71.9	74.9 (2012)	72.2 (1992)	74.7	77.9 (2012)	67.0 (1992)	69.2	72.1 (2012)
Fiji	65.6	67.6	69.3	67.6	70.2	72.2	63.6	65.2	66.6
Kiribati	56.9 (1992)	60.2	64.8 (2012)	59.3 (1992)	62.5	67.3 (2012)	54.5 (1992)	58.0	62.4 (2012)
Marshall Islands	65.0 (1992)	68.4	72.0 (2012)	66.5 (1992)	70.4	74.3 (2012)	63.5 (1992)	66.6	69.9 (2012)
Micronesia, Fed. States of	66.3 (1994)	68.2	71.8 (2012)	68.0 (1994)	69.9	73.9 (2012)	64.7 (1994)	66.5	69.8 (2012)
Nauru	57.7 (1992)	60.9	65.7 (2012)	61.2 (1992)	64.5	69.1 (2012)	54.4 (1992)	57.4	61.6 (2012)
Palau	66.8 (1992)	68.5	72.1 (2012)	70.0 (1992)	71.7	75.4 (2012)	63.8 (1992)	65.4	68.9 (2012)
Papua New Guinea	55.7	58.8	62.8	58.5	61.0	65.0	53.0	56.7	60.7
Samoa	65.0	69.5	72.5	68.4	72.8	75.7	61.8	66.3	69.5
Solomon Islands	56.7	62.8	67.9	57.1	64.1	69.3	56.4	61.6	66.5
Timor-Leste	45.8	56.2	62.5	46.6	57.0	63.5	45.0	55.4	61.5
Tonga	69.6	70.8	72.3	71.1	72.8	75.2	68.1	68.8	69.5
Tuvalu	61.6 (1992)	61.6	65.1 (2012)	63.6 (1992)	63.6	67.3 (2012)	59.7 (1992)	59.7	63.0 (2012)
Vanuatu	63.2	67.6	71.1	64.7	69.3	73.2	61.8	65.9	69.1
<b>Developed Member Economies</b>									
Australia	77.0	79.2	81.8	80.2	82.0	84.1	74.0	76.6	79.7
Japan	78.8	81.1	82.6	81.9	84.6	85.9	75.9	77.7	79.4
New Zealand	75.4	78.6	80.9	78.4	81.3	82.8	72.5	76.1	79.1
<b>WORLD</b>	<b>65.4</b>	<b>67.2</b>	<b>69.9</b>	<b>67.5</b>	<b>69.3</b>	<b>72.0</b>	<b>63.3</b>	<b>65.2</b>	<b>67.9</b>

Sources: World Development Indicators Online (World Bank 2013); US Census Bureau Online (USCB 2013); for Taipei, China: Social Indicators (Directorate-General of Budget, Accounting and Statistics 2013).

Table 1.17 **Births, Deaths, and Fertility Rates**

Regional Member	Crude Birth Rate (per 1,000 people)			Crude Death Rate (per 1,000 people)			Total Fertility Rate (births per woman)		
	1990	2000	2010	1990	2000	2010	1990	2000	2010
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	52.4	50.6	43.1	22.1	19.3	15.6	8.0	7.7	6.2
Armenia	21.2	13.3	15.2	7.7	8.4	9.0	2.5	1.7	1.7
Azerbaijan	25.9	14.8	19.2	6.1	5.9	5.9	2.7	2.0	1.9
Georgia	16.7	12.1	11.9 (2010)	9.2	10.0	11.3 (2010)	2.2	1.6	1.6 (2010)
Kazakhstan	21.7	14.7	22.5	7.7	10.1	8.7	2.7	1.8	2.6
Kyrgyz Republic	29.3	19.8	27.1	7.0	7.0	6.5	3.7	2.4	3.1
Pakistan	40.4	31.4	26.9	10.3	8.4	7.4	6.0	4.5	3.3
Tajikistan	39.1	30.8	27.8	8.2	7.7	6.1	5.2	4.0	3.2
Turkmenistan	34.7	23.4	21.4	8.4	7.7	7.8	4.3	2.8	2.4
Uzbekistan	33.7	21.4	21.4	6.1	5.5	4.9	4.1	2.6	2.5
<b>East Asia</b>									
China, People's Rep. of	21.1	14.0	11.9	6.7	6.5	7.1	2.3	1.7	1.6
Hong Kong, China	12.0	8.1	13.5	5.2	5.1	6.0	1.3	1.0	1.2
Korea, Rep. of	15.4	13.4	9.5	5.8	5.2	5.1	1.6	1.5	1.2
Mongolia	32.4	19.9	23.3	10.2	7.6	6.4	4.1	2.2	2.5
Taipei, China	16.6	13.8	8.5	5.2	5.7	6.6	1.8	1.7	1.1
<b>South Asia</b>									
Bangladesh	35.7	27.2	20.0	10.3	7.4	6.0	4.5	3.1	2.2
Bhutan	38.0	27.0	20.1	13.8	8.8	6.9	5.8	3.7	2.3
India	31.3	25.9	21.8	10.6	9.0	8.0	3.9	3.1	2.6
Maldives	41.1	21.8	16.6	9.3	4.6	3.6	6.1	2.9	1.7
Nepal	38.6	33.1	23.7	12.9	8.7	5.8	5.2	4.1	2.7
Sri Lanka	20.5	18.1	17.8	6.6	7.1	6.6	2.5	2.2	2.3
<b>Southeast Asia</b>									
Brunei Darussalam	29.2	22.7	18.8	3.7	3.0	3.3	3.5	2.4	2.0
Cambodia	43.6	27.1	22.1	12.1	9.6	7.9	5.7	3.8	2.5
Indonesia	25.9	21.4	17.9	8.4	7.4	6.9	3.1	2.5	2.1
Lao PDR	41.6	30.5	22.3	13.2	8.6	6.2	6.2	4.2	2.7
Malaysia	28.2	24.2	20.0	5.1	4.6	4.7	3.5	3.1	2.6
Myanmar	27.1	20.7	17.0	11.1	9.1	8.5	3.4	2.4	2.0
Philippines	32.9	29.7	24.8	6.6	6.0	5.8	4.3	3.8	3.1
Singapore	18.4	11.8	9.5	4.8	3.9	4.5	1.9	...	1.2
Thailand	19.1	14.7	11.9	5.0	6.3	7.5	2.1	1.7	1.6
Viet Nam	29.8	17.5	16.4	7.9	5.4	5.2	3.6	2.0	1.8
<b>The Pacific</b>									
Cook Islands	32.0 (1991)	23.0	15.0 (2012)	7.0 (1991)	6.0	8.0 (2012)	4.0 (1991)	3.1	2.4 (2012)
Fiji	28.9	24.8	21.2	6.3	6.1	6.8	3.4	3.1	2.6
Kiribati	37.0	32.0	22.0 (2012)	11.0	9.0	7.0 (2012)	4.6	4.3	2.7 (2012)
Marshall Islands	41.0	35.0	28.0 (2012)	7.0	5.0	4.0 (2012)	7.0	5.0	4.0 (2012)
Micronesia, Fed. States of	33.0 (1994)	28.0	22.0 (2012)	7.0 (1994)	6.0	4.0 (2012)	4.8 (1994)	3.9	2.7 (2012)
Nauru	31.0 (1992)	28.0	27.0 (2012)	9.0 (1992)	7.0	6.0 (2012)	9.0 (1992)	7.0	6.0 (2012)
Palau	21.0	14.0	11.0 (2012)	9.0	8.0	8.0 (2012)	2.8	2.0	1.7 (2012)
Papua New Guinea	35.1	35.0	29.7	10.5	9.1	7.5	4.8	4.5	3.9
Samoa	31.9	32.0	24.2	7.0	5.9	5.4	4.8	4.6	3.8
Solomon Islands	40.0	35.4	31.3	11.1	7.7	5.6	5.9	4.7	4.2
Timor-Leste	43.1	43.4	38.1	17.6	11.3	7.9	5.3	7.1	5.5
Tonga	33.0	31.0	25.0	5.0	5.0	5.0	5.0	4.5	3.7
Tuvalu	34.0	25.0	23.0 (2012)	11.0	11.0	9.0 (2012)	3.8	3.6	3.1 (2012)
Vanuatu	35.9	33.0	29.2	8.3	6.2	4.8	4.9	4.5	3.8
<b>Developed Member Economies</b>									
Australia	15.4	13.0	13.3	7.0	6.7	6.6	1.9	1.8	1.9
Japan	10.0	9.4	8.3	6.7	7.7	9.9	1.5	1.4	1.4
New Zealand	17.5	14.9	14.3	8.1	6.9	6.7	2.2	2.0	2.1
<b>WORLD</b>	<b>25.9</b>	<b>21.4</b>	<b>19.3</b>	<b>9.3</b>	<b>8.7</b>	<b>8.1</b>	<b>3.2</b>	<b>2.7</b>	<b>2.4</b>

Sources: World Development Indicators Online (World Bank 2013); International Database—US Census Bureau (USCB 2013); for Taipei, China: Social Indicators (Directorate-General of Budget, Accounting and Statistics 2013).

## Social Indicators

Table 1.18 **Primary Education Completion Rate<sup>a</sup>**  
(%)

Regional Member	Both Sexes		Female		Male	
	2000	2011	2000	2011	2000	2011
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	34.1 (2005)	...	18.7 (2005)	...	48.4 (2005)	...
Armenia	93.2 (2002)	101.3 (2007)	93.7 (2002)	103.0 (2007)	92.8 (2002)	99.8 (2007)
Azerbaijan	89.5	92.8	85.5	92.2	93.8	93.3
Georgia	98.0	116.2 (2010)	97.6	116.3 (2010)	98.3	116.2 (2010)
Kazakhstan	92.6	108.2 (2012)	93.1	108.6 (2012)	92.2	107.9 (2012)
Kyrgyz Republic	93.4	95.8	92.8	95.4	94.0	96.1
Pakistan	61.3 (2005)	66.8	50.6 (2005)	59.0	71.6 (2005)	74.3
Tajikistan	93.1	103.9	88.0	101.9	98.1	105.9
Turkmenistan	...	...	...	...	...	...
Uzbekistan	95.1	92.9	...	91.7	...	94.0
<b>East Asia</b>						
China, People's Rep. of	94.4 (1997)	...	92.6 (1997)	...	96.0 (1997)	...
Hong Kong, China	98.3 (2003)	91.3	97.8 (2003)	92.4	98.9 (2003)	90.3
Korea, Rep. of	104.1	101.2 (2010)	104.6	100.6 (2010)	103.6	101.8 (2010)
Mongolia	85.8	115.3	88.1	115.7	83.5	114.9
Taipei, China	...	...	...	...	...	...
<b>South Asia</b>						
Bangladesh	63.5	65.4 (2009)	66.0	68.8 (2009)	61.1	62.1 (2009)
Bhutan	51.5	103.1 (2012)	47.8	105.1 (2012)	55.1	101.1 (2012)
India	71.5	95.7 (2008)	63.3	95.1 (2008)	79.0	96.2 (2008)
Maldives	147.3 (2003)	107.2	151.6 (2003)	103.4	143.2 (2003)	110.8
Nepal	65.8	70.0 (2002)	56.9	...	74.1	...
Sri Lanka	107.1 (2001)	100.8 (2010)	106.4 (2001)	100.7 (2010)	107.7 (2001)	100.9 (2010)
<b>Southeast Asia</b>						
Brunei Darussalam <sup>b</sup>	120.0	119.5	116.5	119.5	123.2	119.5
Cambodia	...	89.9	...	89.7	...	90.1
Indonesia	92.7 (2001)	107.8	93.1 (2001)	106.7	92.3 (2001)	108.9
Lao PDR	69.4	92.6	63.4	89.9	75.1	95.3
Malaysia	95.0 (1999)	99.0 (2005)	94.3 (1999)	98.9 (2005)	95.6 (1999)	99.0 (2005)
Myanmar	80.8	103.6 (2010)	79.0	106.2 (2010)	82.6	101.1 (2010)
Philippines	101.4 (2001)	91.6 (2009)	106.5 (2001)	94.2 (2009)	96.5 (2001)	89.0 (2009)
Singapore	...	...	...	...	...	...
Thailand	87.6 (1999)	...	87.0 (1999)	...	88.2 (1999)	...
Viet Nam	98.4	104.3	95.9	96.6 (2003)	100.8	102.4 (2003)
<b>The Pacific</b>						
Cook Islands	87.9 (1999)	109.8	85.9 (1999)	118.0	89.8 (1999)	102.8
Fiji	95.3	105.0 (2009)	94.2	105.1 (2009)	96.3	104.9 (2009)
Kiribati	99.2	112.0 (2008)	94.7	113.1 (2008)	103.4	111.0 (2008)
Marshall Islands	92.5 (1999)	107.6 (2009)	84.2 (1999)	108.7 (2009)	100.4 (1999)	106.5 (2009)
Micronesia, Fed. States of	...	...	...	...	...	...
Nauru	87.0 (2001)	97.3 (2007)	90.1 (2001)	99.0 (2007)	84.3 (2001)	95.7 (2007)
Palau	98.8	104.5 (2004)	90.4	...	106.7	...
Papua New Guinea	55.1	...	50.5	...	59.5	...
Samoa	94.4	98.4	95.8	102.7	93.2	94.6
Solomon Islands	73.0 (1994)	...	...	...	...	...
Timor-Leste	...	72.5	...	73.6	...	71.4
Tonga	106.5 (2001)	104.0 (2006)	105.0 (2001)	106.5 (2006)	107.9 (2001)	101.7 (2006)
Tuvalu	109.9	99.2 (2006)	112.1	109.2 (2006)	107.9	89.3 (2006)
Vanuatu	92.1	83.4 (2010)	94.4	83.1 (2010)	90.0	83.7 (2010)
<b>Developed Member Economies</b>						
Australia	...	...	...	...	...	...
Japan	103.0	101.9 (2010)	103.0	101.9 (2010)	103.1	101.9 (2010)
New Zealand	...	...	...	...	...	...

... = Data not available at cutoff date.

a Percentage of students completing the last year of primary school. It is calculated as the total number of students in the last grade of primary school, minus the number of repeaters in that grade, divided by the total number of children of official graduation age.

Sources: UNESCO Statistics Institute 2013; World Development Indicators Online (World Bank 2013).

**Table 1.19 Adult Literacy Rate**  
(15 years and over, %)

Regional Member	Both Sexes		Female		Male	
	2000	2011	2000	2011	2000	2011
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	...	21.0	...	51.0	...
Armenia	99.4 (2001)	99.6	99.2 (2001)	99.4	99.7 (2001)	99.7
Azerbaijan	98.8 (1999)	99.8 (2009)	98.2 (1999)	99.7 (2009)	98.8 (1999)	99.8 (2009)
Georgia	99.7 (2002)	99.7	99.6 (2002)	99.7	99.8 (2002)	99.8
Kazakhstan	99.5 (1999)	99.7	99.3 (1999)	99.6	99.8 (1999)	99.8
Kyrgyz Republic	98.7 (1999)	99.2 (2009)	98.1 (1999)	99.0 (2009)	99.3 (1999)	99.5 (2009)
Pakistan	42.7 (1998)	54.9 (2009)	29.0 (1998)	40.3 (2009)	55.3 (1998)	68.6 (2009)
Tajikistan	99.5	99.7	99.2	99.6	99.7	99.8
Turkmenistan	98.8 (1995)	99.6	98.3 (1995)	99.5	99.3 (1995)	99.7
Uzbekistan	98.6	99.2	99.2	99.6	99.2	99.6
<b>East Asia</b>						
China, People's Rep. of	90.9	95.1	86.5	92.7	95.1	97.5
Hong Kong, China	...	...	91.0 (2003)	...	97.0 (2003)	...
Korea, Rep. of	...	...	96.6 (2004)	...	99.1 (2004)	...
Mongolia	97.8	97.4	97.5	97.9	98.0	96.9
Taipei, China	...	...	...	...	...	...
<b>South Asia</b>						
Bangladesh	47.5 (2001)	56.8	40.8 (2001)	52.2	53.9 (2001)	61.3
Bhutan	52.8 (2005)	...	38.7 (2005)	...	65.0 (2005)	...
India	61.0 (2001)	62.8 (2006)	47.8 (2001)	50.8 (2006)	73.4 (2001)	75.2 (2006)
Maldives	96.3	98.4 (2006)	96.4	98.4 (2006)	96.2	98.4 (2006)
Nepal	48.6 (2001)	60.3	34.9 (2001)	48.3	62.7 (2001)	73.0
Sri Lanka	90.7 (2001)	91.2	89.1 (2001)	90.0	92.3 (2001)	92.6
<b>Southeast Asia</b>						
Brunei Darussalam	92.7 (2001)	95.2	90.2 (2001)	93.6	95.2 (2001)	96.8
Cambodia	67.3 (1998)	73.9 (2009)	57.0 (1998)	65.9 (2009)	79.5 (1998)	82.8 (2009)
Indonesia	90.4 (2004)	90.4	86.8 (2004)	86.8	94.0 (2004)	94.0
Lao PDR	69.6	72.7 (2005)	58.5	63.2 (2005)	81.4	82.5 (2005)
Malaysia	88.7	93.1	85.4	90.7	92.0	95.4
Myanmar	89.9	92.3	86.4	89.9	93.9	94.8
Philippines	92.6	95.4 (2008)	92.7	95.8 (2008)	92.5	95.0 (2008)
Singapore	92.5	95.9	88.6	93.8	96.6	98.0
Thailand	92.6	93.5 (2005)	90.5	91.5 (2005)	94.9	95.6 (2005)
Viet Nam	90.2	93.2	86.6	91.1	93.9	95.3
<b>The Pacific</b>						
Cook Islands	...	...	99.0 (2002)	...	100.0 (2002)	...
Fiji	...	...	91.9 (2003)	...	95.5 (2003)	...
Kiribati	...	...	91.0	...	94.4	...
Marshall Islands	...	...	92.4	...	92.4	...
Micronesia, Fed. States of	...	...	94.0	...	96.0	...
Nauru	...	...	99.0 (1990)	...	99.0 (1990)	...
Palau	...	...	97.0	...	90.0	...
Papua New Guinea	57.3	60.6	50.9	57.3	63.4	63.9
Samoa	98.6 (2004)	98.8	98.2 (2004)	98.6	98.8 (2004)	99.0
Solomon Islands	76.6 (1999)	...	69.0 (1999)	...	83.7 (1999)	...
Timor-Leste	37.6 (2001)	58.3	30.0 (2001)	53.0	45.3 (2001)	63.6
Tonga	98.9 (1997)	99.0 (2006)	99.0 (1997)	99.1 (2006)	98.8 (1997)	99.0 (2006)
Tuvalu	...	...	...	...	...	...
Vanuatu	78.1 (2004)	82.6	76.0 (2004)	80.8	80.1 (2004)	84.3
<b>Developed Member Economies</b>						
Australia	...	...	...	...	...	...
Japan	...	...	...	...	...	...
New Zealand	...	...	...	...	...	...

... = Data not available at cutoff date.

Sources: Institute for Statistics (UNESCO 2013); UN Economic and Social Commission for Asia and the Pacific, Statistical Yearbook for Asia and the Pacific 2011, website <http://www.unescap.org/stat/data/syb2011/> (UNESCAP 2013).

## Social Indicators

Table 1.20 Education Resources

Regional Member	Primary Pupil-Teacher Ratio			Secondary Pupil-Teacher Ratio		
	1990	2000	2011	1990	2000	2011
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	41.2	64.0	44.7	24.8	28.0 (1995)	15.6
Armenia	20.6 (1994)	20.3 (2001)	19.3 (2007)	10.5 (1994)	6.9 (2002)	13.3
Azerbaijan	19.3 (1994)	18.7	11.2	10.3 (1995)	7.8	8.1 (2007)
Georgia	17.2 (1991)	16.8	8.2 (2010)	6.9 (1991)	7.5	7.6 (2009)
Kazakhstan	21.6	18.7	16.4	13.3	11.3	8.6 (2012)
Kyrgyz Republic	15.9	24.1	24.9	13.8	13.3	15.2 (2010)
Pakistan	41.1	33.0	39.8	19.5	19.8 (1996)	41.9 (2004)
Tajikistan	21.3 (1991)	21.8	23.3	10.6 (1995)	16.4	15.4
Turkmenistan	...	...	...	...	...	...
Uzbekistan	24.1	21.4	15.6	10.9	11.5	13.3
<b>East Asia</b>						
China, People's Rep. of	22.3	22.2 (2001)	16.8	14.6	17.1	15.2
Hong Kong, China	27.2	21.5	14.8	20.7 (1991)	20.1 (1996)	17.5 (2006)
Korea, Rep. of	36.3	32.1	20.9 (2010)	27.7	21.0	17.6 (2010)
Mongolia	29.8	32.6	29.3	18.8	19.9	14.5 (2010)
Taipei, China	28.5	19.0	15.3 (2010)	21.9	17.6	16.4 (2010)
<b>South Asia</b>						
Bangladesh	63.0	57.1	43.0 (2010)	27.4	38.4	28.3 (2010)
Bhutan	30.5 (1993)	41.1	24.0	38.6 (1998)	32.5	19.9 (2012)
India	46.0	40.0	40.2 (2004)	28.7	33.6	25.3 (2010)
Maldives	26.2 (1998)	22.7	12.3	17.0 (1998)	15.3	13.7 (2003)
Nepal	39.2	38.0	27.5 (2012)	31.1	30.2	29.6 (2012)
Sri Lanka	29.1	26.3 (2001)	23.9 (2010)	19.1	19.6 (2002)	19.5 (2004)
<b>Southeast Asia</b>						
Brunei Darussalam	11.8 (1991)	10.9	11.3	11.8 (1991)	10.9	10.5 (2009)
Cambodia	35.0	50.1	47.3	20.1	18.5	28.9 (2007)
Indonesia	23.3	22.4	16.0 (2010)	12.9	15.8	12.2 (2010)
Lao PDR	28.2	30.1	26.8	11.8	21.3	19.9
Malaysia	20.4	19.6	12.7 (2010)	19.3	18.4	13.7 (2010)
Myanmar	44.9	32.8	28.2 (2010)	12.5	31.9	34.1 (2010)
Philippines	32.7	35.2 (2001)	31.4 (2009)	33.3	36.4 (2001)	34.8 (2009)
Singapore	25.8	25.6	17.4 (2009)	17.9 (1991)	19.4 (1999)	14.9 (2009)
Thailand	20.3	20.8	16.0 (2008)	16.2	24.0 (2001)	21.2 (2008)
Viet Nam	34.2	29.5	19.6	18.0	28.0	18.6 (2010)
<b>The Pacific</b>						
Cook Islands	19.4 (1998)	17.8	15.9	...	13.9	13.8
Fiji	33.6	28.1	30.8	...	20.2	26.5
Kiribati	28.6	31.7	25.0 (2008)	12.2	17.6	17.4 (2008)
Marshall Islands	14.9 (1999)	16.9 (2002)	14.5 (2003)	21.6 (1999)	...	14.9 (2003)
Micronesia, Fed. States of	...	...	16.6 (2007)	...	...	...
Nauru	...	21.5	22.4 (2008)	...	17.4	20.9 (2007)
Palau	15.0 (1999)	15.7	...	12.9 (1999)	15.1	...
Papua New Guinea	31.7	35.4	35.8 (2006)	21.7	...	...
Samoa	24.0	24.0	30.2 (2010)	18.2 (1991)	21.2	21.5 (2010)
Solomon Islands	19.4	19.2 (1999)	24.9 (2010)	17.5 (1991)	10.1	28.1 (2010)
Timor-Leste	...	61.9 (2001)	31.4	...	...	24.3
Tonga	24.0	22.1	25.4 (2007)	17.7	14.6	14.4 (2002)
Tuvalu	18.9 (1999)	19.7	19.2 (2004)	...	...	...
Vanuatu	27.2	22.5	21.7 (2010)	15.8	24.7	13.9 (2002)
<b>Developed Member Economies</b>						
Australia	16.6 (1991)	17.9 (1999)	...	11.6	12.6 (1995)	...
Japan	21.2	20.7	17.8 (2010)	17.1	14.0	11.9 (2010)
New Zealand	18.0	18.4	14.5 (2010)	15.4	15.5	14.5 (2010)

... = Data not available at cutoff date.

Sources: Institute for Statistics Data Centre(UNESCO 2013); World Development Indicators Online (World Bank 2013); for Taipei,China: Monthly Bulletin of Statistics Online (Directorate-General of Budget, Accounting and Statistics 2013).

**Table 1.21 Health Care Resources**  
(per 1,000 population)

Regional Member	Physicians			Hospital Beds		
	1990	2000	Latest year	1990	2000	Latest year
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	0.11	0.19 (2001)	0.19 (2010)	0.25	0.40 (2001)	0.40 (2010)
Armenia	3.92	2.99	2.85 (2011)	9.09	5.47	3.95 (2011)
Azerbaijan	3.92	3.61	3.38 (2011)	10.10	8.68	4.55 (2011)
Georgia	4.93	4.73	4.24 (2011)	9.80	4.77	2.91 (2011)
Kazakhstan	3.98	3.29	3.84 (2011)	13.67	7.19	7.61 (2009)
Kyrgyz Republic	3.37	2.82	2.47 (2011)	11.98	7.40	4.79 (2011)
Pakistan	0.46	...	0.81 (2010)	0.64	0.70 (2003)	0.60 (2010)
Tajikistan	2.55	2.13	1.90 (2011)	10.66	6.54	5.20 (2009)
Turkmenistan	3.61	4.18 (2002)	2.39 (2010)	11.48	7.11 (1997)	4.00 (2009)
Uzbekistan	3.39	2.95	2.54 (2010)	12.48	5.33	4.49 (2010)
<b>East Asia</b>						
China, People's Rep. of	1.55	1.64	1.82 (2011)	2.58	2.52	3.81 (2011)
Hong Kong, China	1.20 (1993)	1.32 (1995)	...	...	...	...
Korea, Rep. of	0.80	1.30	2.02 (2010)	3.10	6.10	10.25 (2009)
Mongolia	2.54	2.54 (1999)	2.76 (2010)	11.49 (1991)	7.50 (2002)	6.75 (2011)
Taipei, China	1.09	1.50	1.96 (2011)	4.38	5.68	6.91 (2011)
<b>South Asia</b>						
Bangladesh	0.18	0.23 (2001)	0.36 (2011)	0.30	0.30 (2001)	0.58 (2011)
Bhutan	0.33	0.05 (1999)	0.02 (2010)	0.85	1.60 (2001)	1.80 (2011)
India	0.48 (1992)	0.51 (1998)	0.65 (2010)	0.79 (1991)	0.69 (2002)	0.90 (2005)
Maldives	0.07	0.78	1.60 (2010)	0.76	1.70	4.30 (2009)
Nepal	0.05	0.05 (2001)	0.21 (2004)	0.24	0.20 (2001)	0.15 (2006)
Sri Lanka	0.15 (1993)	0.43	0.49 (2010)	2.74	2.90	3.10 (2004)
<b>Southeast Asia</b>						
Brunei Darussalam	0.75 (1991)	1.01	1.36 (2010)	...	2.60	2.60 (2009)
Cambodia	0.11 (1992)	0.16	0.23 (2010)	2.07	0.60 (2001)	0.72 (2011)
Indonesia	0.14	0.16	0.29 (2010)	0.67	0.60 (1998)	0.60 (2010)
Lao PDR	0.23	0.59 (1996)	0.27 (2010)	2.57	0.90 (2002)	0.72 (2010)
Malaysia	0.39	0.70	1.20 (2010)	2.13	1.80 (2001)	1.79 (2011)
Myanmar	0.08	0.30	0.50 (2010)	0.64	0.70	0.60 (2006)
Philippines	0.12	0.59	1.15 (2004)	1.39	1.00 (2001)	1.00 (2011)
Singapore	1.27	1.40 (2001)	1.92 (2010)	3.61	2.90 (2001)	2.71 (2011)
Thailand	0.23	0.29	0.32 (2010)	1.63	2.20	2.10 (2011)
Viet Nam	0.40	0.53 (2001)	1.22 (2010)	3.83	2.40 (2001)	2.17 (2010)
<b>The Pacific</b>						
Cook Islands	...	...	...	...	...	...
Fiji	0.47 (1992)	0.34 (1999)	0.43 (2010)	...	2.60 (1999)	2.08 (2009)
Kiribati	0.19	0.30 (1998)	0.38 (2010)	4.27	1.80 (1998)	1.26 (2011)
Marshall Islands	0.42 (1996)	0.47	0.44 (2010)	2.27	2.10 (1999)	2.68 (2010)
Micronesia, Fed. States of	0.45 (1993)	0.60	0.18 (2010)	...	2.80	3.22 (2009)
Nauru	1.45 (1995)	0.77 (2004)	0.71 (2008)	...	5.90 (2005)	...
Palau	1.11 (1998)	1.58	...	...	4.40 (1998)	4.90
Papua New Guinea	0.07	0.05	0.05 (2010)	4.02	...	...
Samoa	0.36 (1992)	0.70 (1999)	0.48 (2010)	...	3.30	0.97 (2005)
Solomon Islands	... (1992)	0.13 (1999)	0.22 (2010)	0.83	2.20 (2003)	1.40 (2005)
Timor-Leste	...	...	0.10 (2004)	...	...	5.90 (2010)
Tonga	0.51 (1991)	0.50	0.29 (2002)	...	3.20 (2001)	2.57 (2010)
Tuvalu	...	0.55 (2002)	1.09 (2010)	...	5.56 (2001)	...
Vanuatu	0.10 (1991)	0.11 (1997)	0.12 (2010)	...	3.10 (2001)	1.70 (2008)
<b>Developed Member Economies</b>						
Australia	2.20	2.50	3.85 (2010)	9.20 (1991)	7.80	3.86 (2010)
Japan	1.70	1.90	2.14 (2010)	15.60 (1993)	14.70	13.65 (2009)
New Zealand	1.90	2.20	2.74 (2010)	8.50	6.20 (1998)	6.18 (2002)

... = Data not available at cutoff date.

Sources: World Development Indicators Online (World Bank 2013); for Taipei, China: Statistical Yearbook Online (Directorate-General of Budget, Accounting and Statistics 2013).

## Social Indicators

**Table 1.22 Estimated Number of Adults Living with HIV**  
(aged 15 years and over, thousands)

Regional Member	Adults		Women <sup>a</sup>	
	2001	2011	2001	2009
<b>Developing Member Economies</b>				
<b>Central and West Asia</b>				
Afghanistan	2.0	5.6	...	...
Armenia	3.5	3.6	0.5	1.0
Azerbaijan	3.0	6.7	1.0	2.1
Georgia	1.1	4.9	0.5 <sup>b</sup>	1.5
Kazakhstan	9.1	19.0	1.1	7.7
Kyrgyz Republic <sup>b</sup>	1.0 <sup>b</sup>	12.0	0.5 <sup>b</sup>	2.8
Pakistan	12.0	130.0	11.0	28.0
Tajikistan	5.2	9.9	1.1	2.7
Turkmenistan	...	...	...	...
Uzbekistan <sup>a</sup>	1.0	28.0	0.5 <sup>b</sup>	8.0
<b>East Asia</b>				
China, People's Rep. of <sup>c</sup>	470.0 <sup>c</sup>	771.0	130.0	230.0 <sup>c</sup>
Hong Kong, China	...	...	...	...
Korea, Rep. of	7.2	15.0	1.6	2.9
Mongolia <sup>b</sup>	0.1 <sup>b</sup>	1.0 <sup>b</sup>	0.1 <sup>b</sup>	0.2 <sup>b</sup>
Taipei, China	...	...	...	...
<b>South Asia</b>				
Bangladesh	2.1	7.7	0.5 <sup>b</sup>	1.9
Bhutan <sup>b</sup>	0.1 <sup>b</sup>	1.2	0.1 <sup>b</sup>	0.5 <sup>b</sup>
India	2500.0	2300.0 (2009)	880.0	880.0
Maldives <sup>b</sup>	0.1 <sup>b</sup>	0.1 <sup>b</sup>	0.1 <sup>b</sup>	0.1 <sup>b</sup>
Nepal	42.0	47.0	19.0	20.0
Sri Lanka	1.9	4.1	0.5 <sup>b</sup>	1.0
<b>Southeast Asia</b>				
Brunei Darussalam	...	...	...	...
Cambodia	77.0	56.0	51.0	35.0
Indonesia	11.0	370.0	3.2	88.0
Lao PDR	3.1	9.7	0.5 <sup>b</sup>	3.5
Malaysia	57.0	80.0	6.1	11.0
Myanmar	220.0	210.0	67.0	81.0
Philippines	2.4	19.0	0.5 <sup>b</sup>	2.6
Singapore	2.6	3.3	1.0	1.0
Thailand	620.0	480.0	220.0	210.0
Viet Nam	110.0	240.0	39.0	81.0
<b>The Pacific</b>				
Cook Islands <sup>b</sup>	...	...	...	...
Fiji	0.1 <sup>b</sup>	0.5 <sup>b</sup>	0.1 <sup>b</sup>	0.2 <sup>b</sup>
Kiribati	...	...	...	...
Marshall Islands	...	...	...	...
Micronesia, Fed. States of	...	...	...	...
Nauru	...	...	...	...
Palau	...	...	...	...
Papua New Guinea	22.0	24.0	7.6	18.0
Samoa	...	...	...	...
Solomon Islands	...	...	...	...
Timor-Leste	...	...	...	...
Tonga	...	...	...	...
Tuvalu	...	...	...	...
Vanuatu	...	...	...	...
<b>Developed Member Economies</b>				
Australia	13.0	22.0	3.9	6.2
Japan	6.2	7.9	2.2	2.7
New Zealand	1.6	2.6	1.0	1.0

... = Data not available at cutoff date.

a Drawn from the 2010 Global AIDS Epidemic report.

b Less than the estimated number of adults affected with HIV.

c Refers to maximum estimates drawn from the 2010 Global AIDS report.

Source: Report on the Global AIDS Epidemic (UNAIDS/WHO 2010 and 2012).

## Economy and Output

### Snapshots

- Asia and the Pacific generated 36% of global gross domestic product (GDP) in 2012, using purchasing power parity (PPP) terms. Together, the People's Republic of China (PRC), India, and Japan accounted for 70% of the region's output.
- GDP growth moderated in nearly two-thirds of the region's economies in 2012, dampened by weakness in exports.
- Over the latest 5 years, 10 of the region's economies expanded by an average of at least 7%, despite the global economic crisis during this period.
- Services continued to grow in importance and generated at least half of GDP in two-thirds of regional economies.
- Over half the region's economies raised investment spending in recent years, expanding productive capacity to pave the way for further growth in output.

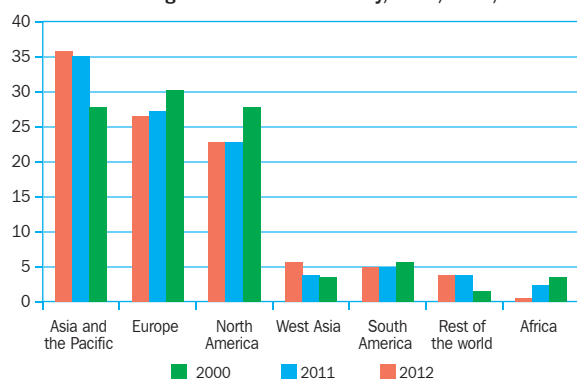
### Key trends

The share of global GDP generated by Asia and the Pacific rose to 36% in 2012, increasing by 8 percentage points between 2000 and 2012. Figure 2.1 divides global GDP into seven regions. Each country's GDP is converted into a common currency using PPPs to eliminate differences in price levels. The Asia and Pacific region includes both developed and developing Asian Development Bank regional members. Europe's share of global GDP fell by 4 percentage points to 26% over that period and the share of North America fell by 5 percentage points to 23%.

The PRC, India, and Japan accounted for 70% of regional GDP in 2012. Figure 2.2 shows that the PRC contributed 40.3% of regional GDP, India 15.5%, and Japan 14.5%. India became the region's second biggest economy in terms of PPP-adjusted GDP in 2011.

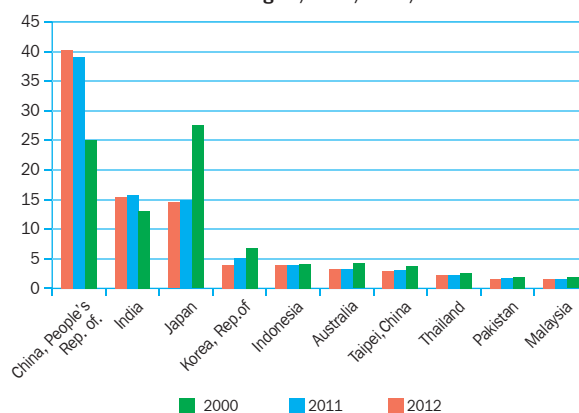
There are wide differences in per capita GDP in PPP terms within the region. Figure 2.3 shows per capita GDP in PPP terms in index form for 36 reporting economies for 2002 and 2012. The indexes are based on the average for all reporting economies in the region equated to 100, the

Figure 2.1 Percentage distribution of GDP at PPP:  
Asia and Pacific region in the world economy, 2000, 2011, and 2012

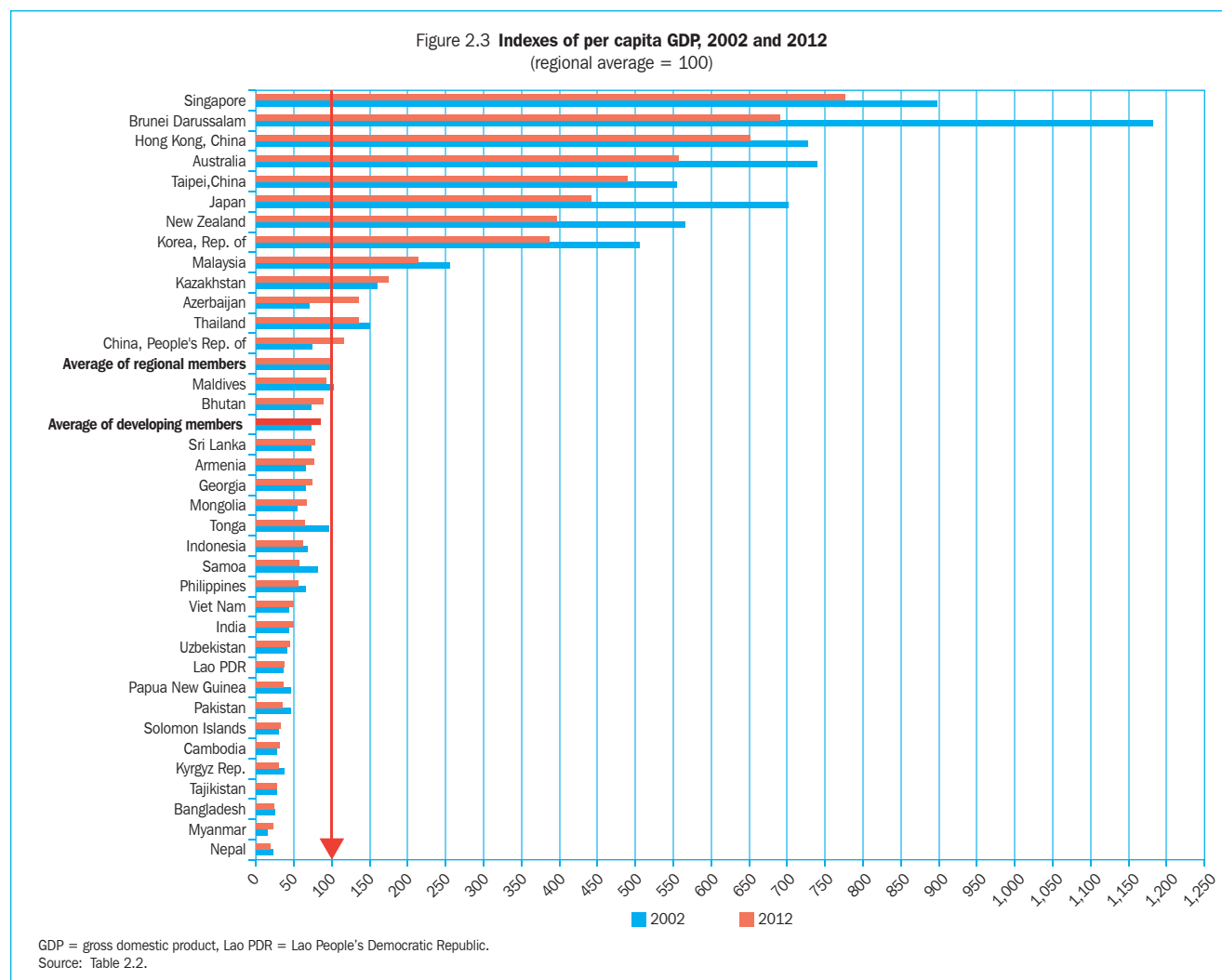


GDP = gross domestic product, PPP = purchasing power parity.  
Note: The aggregate for the West Asia region was adjusted to exclude estimates for Armenia, Azerbaijan, and Georgia, which are included in the total for Asia and the Pacific.  
Sources: Table 2.1 and World Development Indicators Online (World Bank 2013).

Figure 2.2 Percentage distribution of GDP at PPP:  
Asia and Pacific region, 2000, 2011, and 2012



GDP = gross domestic product, PPP = purchasing power parity.  
Sources: Table 2.1 and World Development Indicators Online (World Bank 2013).



red line in the figure. Economies with bars to the left of the red line had per capita GDP below that year's regional average, and those with bars that pass the red line had per capita GDP above that year's regional average.

The PPP-adjusted per capita GDP in Singapore, which topped the list in 2012, was 41 times greater than that of Nepal, at the bottom, and about eight times greater than the regional average. Apart from Singapore, the per capita GDPs of three other economies—Brunei Darussalam; Hong Kong, China; and Australia—were at least five times above the 2012 regional average.

Among the most populous developing members, only the PRC's per capita GDP in PPP terms was above the regional average in 2012, while per capita GDP of Bangladesh, India, Indonesia, and Pakistan remained below the average. All five economies were below the regional average in 2002.

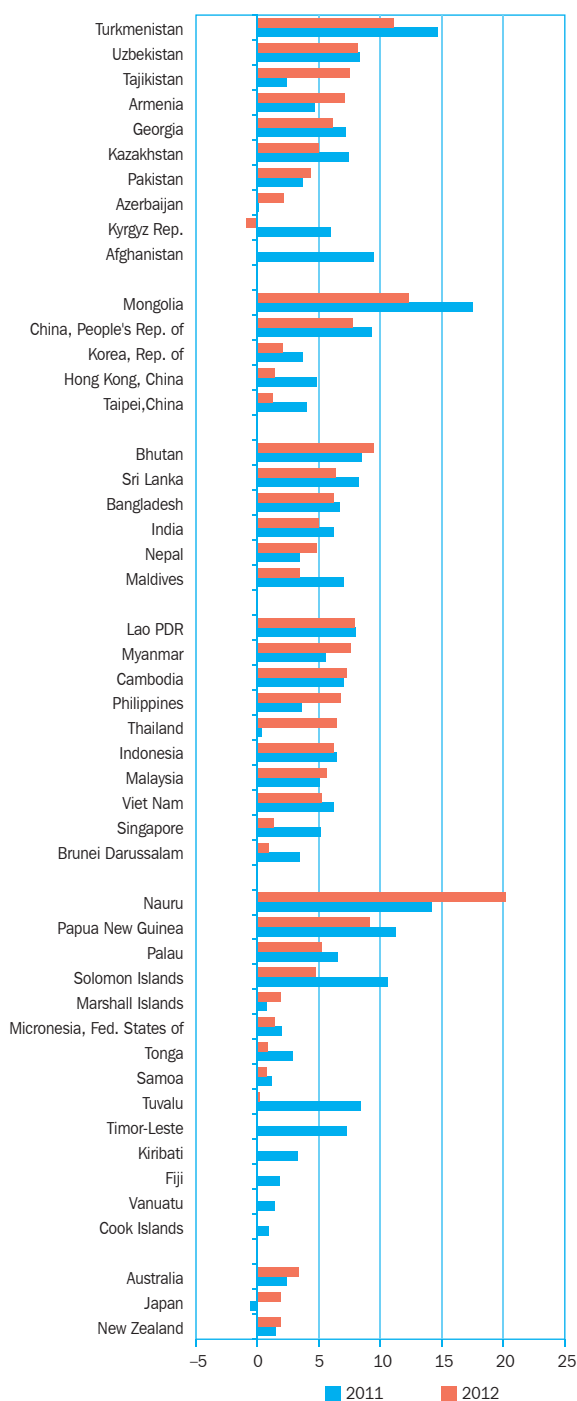
**In 2012, GDP growth moderated in most of the region's economies.** Sluggish demand for the region's exports from major industrial countries subdued economic growth across the region. Also, weakening growth momentum in the PRC and India spilled over to economies that have increasingly close links with those two regional giants. GDP growth slowed in nearly two-thirds of the region's economies (Figure 2.4). The unweighted average growth rate of the region eased to 5.0% in 2012 from 5.7% in 2011. In the PRC, GDP growth moderated from 9.3% in 2011 to 7.8% in 2012 and in India from 6.2% to 5.0%.

Marked declines in growth were seen in two economies—Hong Kong, China and Singapore—that are heavily dependent on global markets for goods and services. Two economies, however, rebounded in 2012: Thailand recovered strongly from the impact of severe floods in 2011 and the Philippines' economy accelerated in 2012, when government spending picked up from a slowdown.

Ten of the region's economies, including the PRC and India, expanded by an average of at least 7% over the latest 5 years, despite the global economic crisis during this period. Figure 2.5 shows that another 14 economies

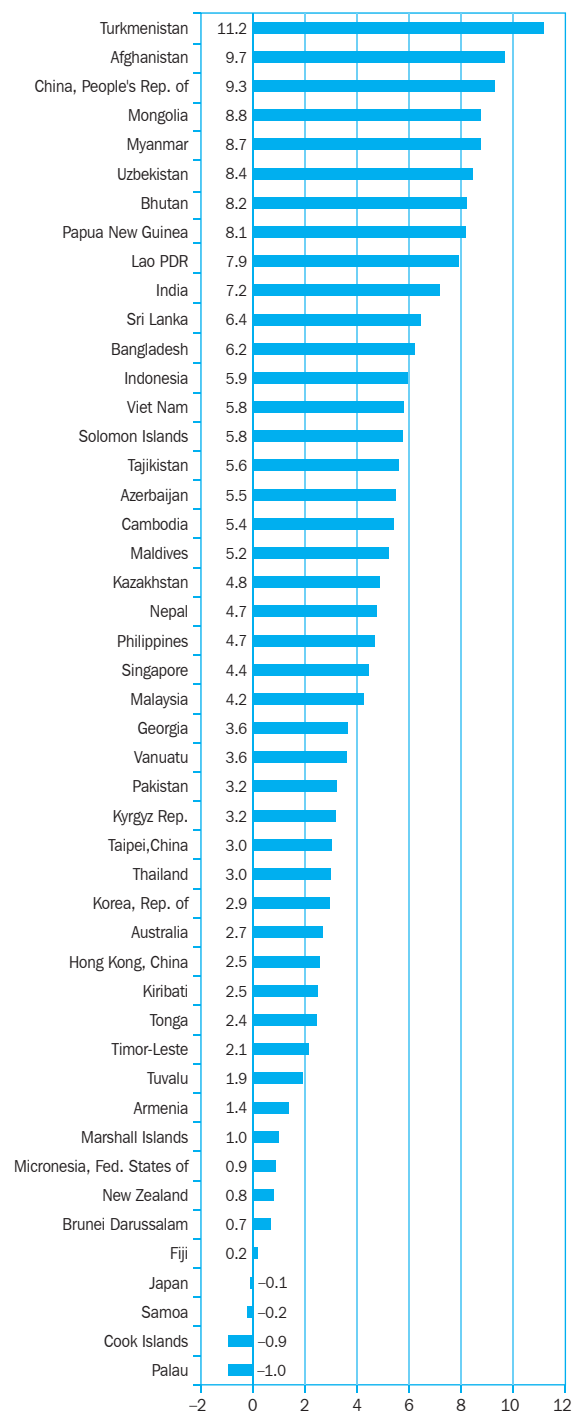
grew in the range of 4%–7% over 5 years. For several of the small economies near the top of the figure, their strong economic growth is attributed to expansion of export-focused resource industries.

Figure 2.4 Real GDP growth, 2011 and 2012 (%)



GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.  
Source: Table 2.13.

Figure 2.5 Average growth rates of real GDP, latest 5 years (%)



GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.  
Source: Table 2.13.

Pacific economies mostly recorded low rates of average growth, or in three cases economic contractions, over the 5 years. Developed economies Australia and New Zealand grew modestly, while Japan's economy shrank.

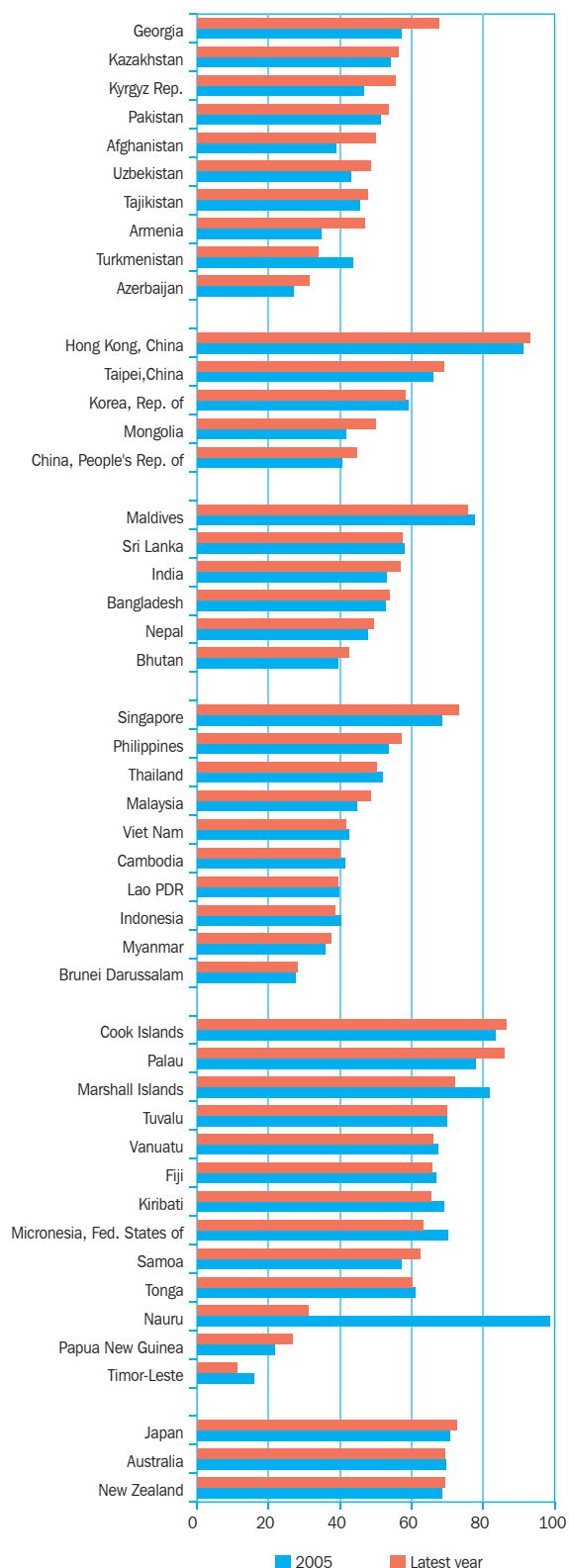
**The services sector contributed at least half of GDP in 63% of regional economies.** Services continued to grow in importance in most economies (Figure 2.6a). Rising incomes and migration to cities have generated demand for services such as communications, transport, retailing, and health. Structural changes in economies and declining labor intensity in agriculture and manufacturing have channelled more workers into services, which are often labor intensive. Consequently, services provided much of the growth in GDP and employment across Asia in recent years (ADB 2012b).

Services generate over 70% of GDP in the Maldives and some Pacific islands that rely on tourism. Hong Kong, China's economy is dominated by trade, finance, and tourism services, which have a 93% share of GDP. In the developed members (Australia, Japan, and New Zealand), services comprise about 70% of GDP.

The share of services in the PRC's GDP edged up from 40.5% in 2005 to 44.6% in 2012, but was still relatively low. In India, the services share of GDP was 56.9% and in Bangladesh it was 53.8%. Economies with the lowest shares of services include most of Southeast Asia (except the Philippines, Singapore, and Thailand), several in Central and West Asia (notably Azerbaijan and Turkmenistan), and Papua New Guinea and Timor-Leste in the Pacific.

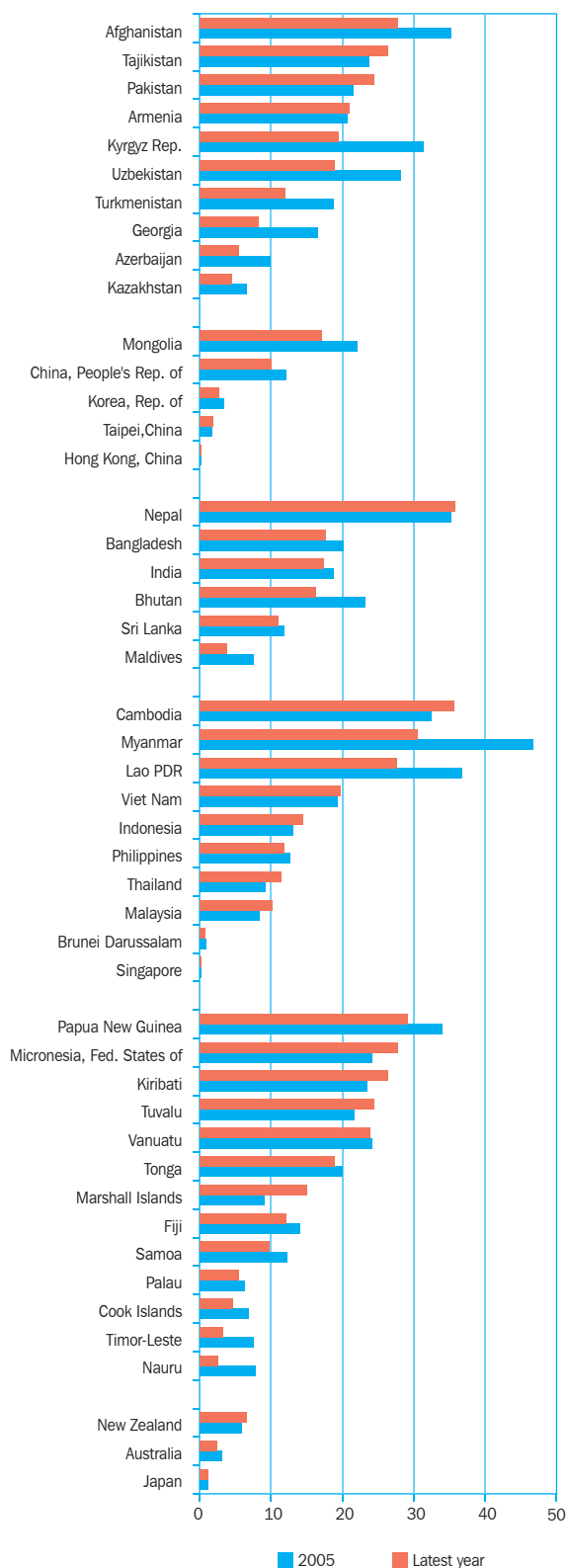
The share of agriculture in GDP declined in 31 of 46 economies between 2005 and the latest year (Figure 2.6b). The share of industry in GDP fell in just over half the economies during this period, including in the PRC: from 47.4% of GDP to 45.3% (Figure 2.6c).

Figure 2.6a Services value added as share of GDP, 2005 and latest year (%)



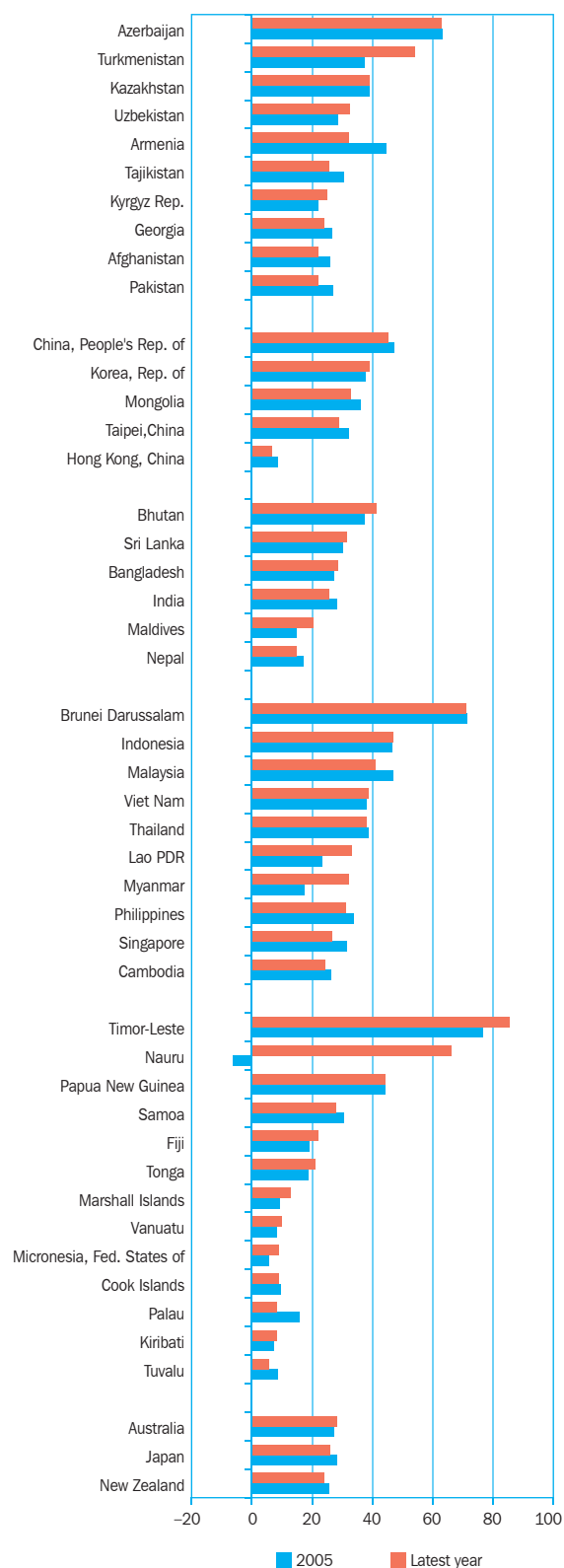
GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.  
Source: Table 2.6.

Figure 2.6b Agriculture value added as share of GDP, 2005 and latest year (%)



GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.  
Source: Table 2.4.

Figure 2.6c Industry value added as share of GDP, 2005 and latest year (%)



GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.  
Source: Table 2.5.

**Over half the regional economies have increased investment spending since 2005.** Figure 2.7a shows that gross domestic capital formation as a percentage of GDP rose in 57% of economies with available data between 2005 and the latest year. Capital formation consists of fixed investment in buildings, infrastructure, and equipment and machinery, as well as changes in inventories. Higher levels of fixed investment build productive capacity that enables an economy to sustain economic growth into the future. Gross domestic capital

formation in the PRC exceeded 40% of GDP from 2005 through 2012. Mongolia and Bhutan boosted capital formation to over 50% of GDP in 2011–2012.

**Private consumption spending as a percentage of GDP declined in about two-thirds of reporting economies between 2005 and 2012** (Figure 2.7b). Among the most populous developing economies, private consumption in the PRC fell from 39.3% of GDP in 2005 to 36.3% in 2012, in India from 58.3% to 56.8%, and in Indonesia

Figure 2.7a **Gross domestic capital formation as share of GDP, 2005 and latest year (%)**

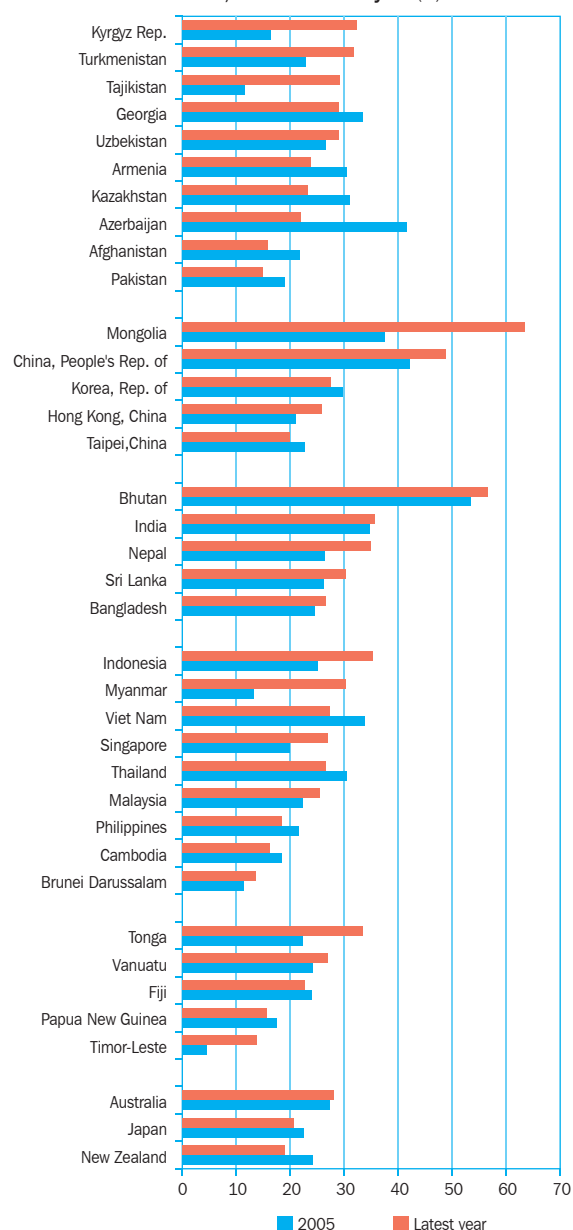
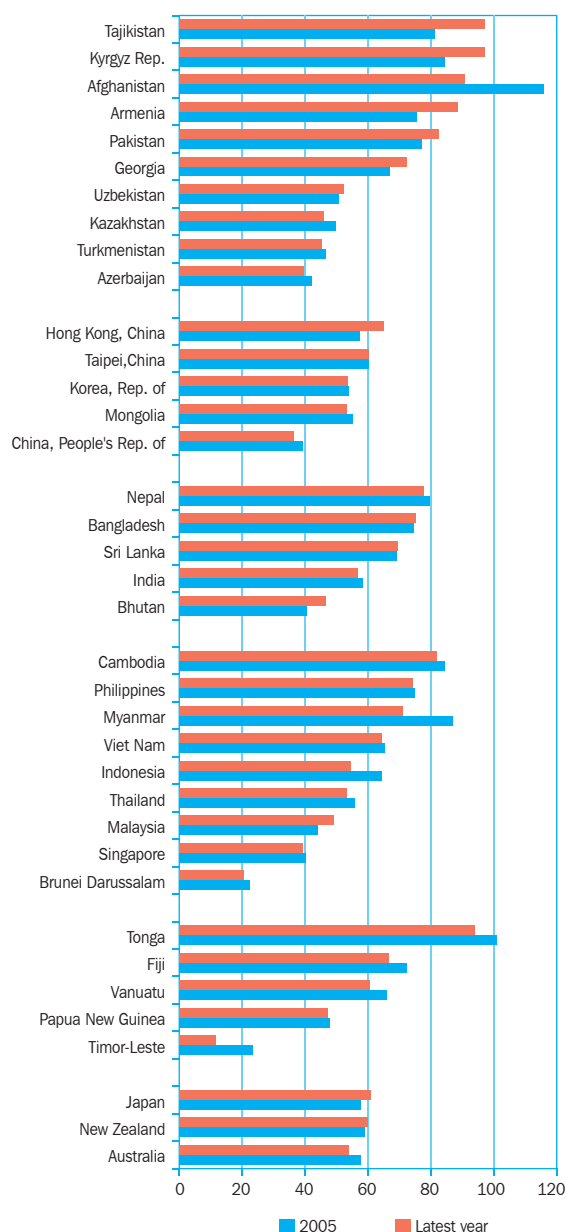


Figure 2.7b **Private consumption expenditure as share of GDP, 2005 and latest year (%)**



from 64.4% to 54.6%. In the higher-income economies of Japan; Hong Kong, China; and Taipei, China; private consumption usually accounts for about 60% of GDP, while it exceeds 80% of GDP in Afghanistan, Armenia, Cambodia, the Kyrgyz Republic, Pakistan, Tajikistan, and Tonga.

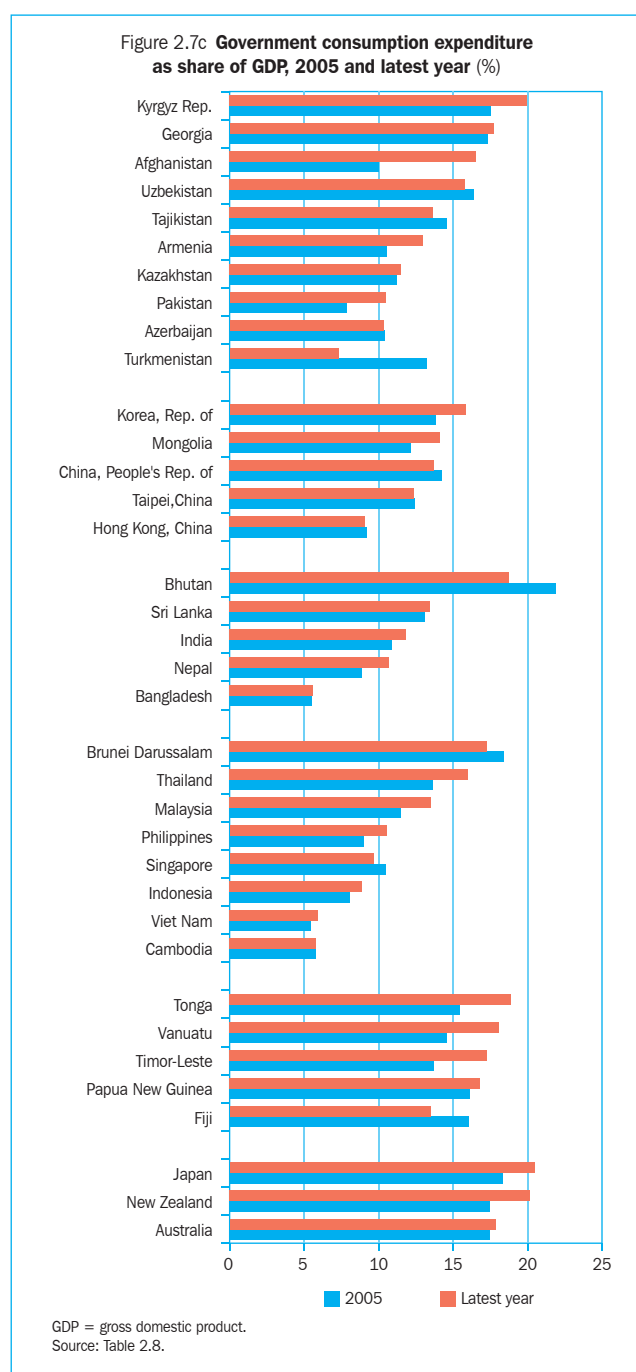
**Government consumption expenditure relative to GDP increased in two-thirds of reporting economies between 2005 and 2012 (Figure 2.7c).** Many governments boosted

public spending to support economic growth during the global economic slump in 2009 and for some the additional spending has only been gradually reined in since then. Government consumption expenditure ranged from 18% to 20% of GDP in developed members in 2012, above the 10%–18% range in most developing members.

## Data issues and comparability

Indicators in this theme are derived from national accounts compiled according to the United Nations System of National Accounts (SNA). These indicators may not be fully consistent across economies because of differences in their data compilation frameworks. While many economies have adopted the 1993 SNA framework, others are still using the 1968 SNA and a few have moved to the 2008 SNA that uses the chain volume measure as the valuation method.

Economies also have varying reference periods and price valuation methods. Some use the calendar year to compile national accounts while others use a fiscal year. Some economies with small statistical offices were not able to provide timely estimates.



## National Accounts

**Table 2.1 Gross Domestic Product at PPP**  
(current international dollars, million)

Regional Member	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	...	21659	23879	27755	28969	34906	38153	42610	...
Armenia	6264	12559	14676	17177	18769	16255	16817	17997	19810
Azerbaijan	17779	37731	52386	67406	76338	84170	89562	96096	101023
Georgia	9808	15747	17780	20554	21494	20865	22466	24539	26626
Kazakhstan	71377	131765	150570	168724	178146	181868	197756	217110	234488
Kyrgyz Republic	6547	8887	9458	10564	11704	12148	12252	13258	13450
Pakistan	236583	340262	401947	432061	437382	456572	463800	492377	503757
Tajikistan	5385	9682	10694	11884	13118	13754	14841	16278	17957
Turkmenistan	...	...	...	...	...	...	...	...	...
Uzbekistan	35696	50015	59015	65344	77010	81499	88076	96689	106931
<b>East Asia</b>									
China, People's Rep. of	2987949	5364251	6240535	7333305	8215041	9049668	10124485	11301489	12470993
Hong Kong, China	179100	248273	274306	300506	313687	308662	334040	357692	371315
Korea, Rep. of	808404	1096741	1172852	1268474	1306387	1312165	1413760	1482726	1536212
Mongolia	4724	7290	8169	9267	10315	10273	11074	13290	15275
Taipei, China	451264	607027	660654	720445	741784	734757	824707	876492	908492
<b>South Asia</b>									
Bangladesh	111490	163725	180215	197356	214210	228499	245610	267663	292368
Bhutan	1391	2294	2531	3071	3285	3537	4003	4436	5099
India	1560832	2517884	2839892	3208640	3407201	3728611	4176982	4535901	4793415
Maldives	1077	1562	1928	2193	2515	2445	2653	2900	3070
Nepal	20988	26022	27764	29543	32040	33787	35888	38257	40230
Sri Lanka	52131	69740	77510	85179	92243	96346	105462	116588	126993
<b>Southeast Asia</b>									
Brunei Darussalam	14065	17567	18931	19510	19555	19378	20148	21457	21992
Cambodia	11440	20143	23033	26121	28485	28767	30883	33770	37017
Indonesia	496572	705159	767949	840352	910589	961112	1034588	1125177	1223488
Lao PDR	6055	9687	11217	12082	12955	13856	14945	17145	19052
Malaysia	220635	313497	341683	373734	400456	397862	432027	463651	501249
Myanmar	...	49207	57437	66189	74591	83185	92419	99672	109813
Philippines	185003	260987	283532	311056	331137	337884	368537	389915	426577
Singapore	136012	193558	217031	243465	253198	253414	294760	316568	328324
Thailand	316563	476166	514999	553419	581709	571510	623880	634752	692326
Viet Nam	109999	193945	216772	242030	262539	279635	302155	328958	354953
<b>The Pacific</b>									
Cook Islands	...	...	...	...	...	...	...	...	...
Fiji	2798	3556	3739	3815	3982	3982	4033	4065	...
Kiribati	173	210	215	224	230	234	242	246	...
Marshall Islands	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	288	334	344	347	345	352	365	381	395
Nauru	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...
Papua New Guinea	9308	11299	11879	13289	14472	15765	17283	19577	20802
Samoa	478	724	729	821	797	777	808	842	856
Solomon Islands	538	728	850	895	1105	1195	1250	1349	1436
Timor-Leste <sup>a</sup>	1169	3840	6138	6277	8694	6202	7919	9886	...
Tonga	335	425	432	427	442	458	477	504	527
Tuvalu	...	...	...	...	...	...	...	...	...
Vanuatu	633	742	831	899	979	1020	1050	1088	...
<b>Developed Member Economies</b>									
Australia	503198	663350	706744	761067	794635	872940	862590	940263	1007590
Japan	3287034	3889583	4057923	4267103	4289493	4049391	4290995	4324512	4490681
New Zealand	77715	99797	108743	112777	123429	127621	127165	134401	139731
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>8080851</b>	<b>12994891</b>	<b>14704502</b>	<b>16694401</b>	<b>18107902</b>	<b>19387376</b>	<b>21470158</b>	<b>23483387</b>	<b>25326311</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	<b>11948797</b>	<b>17647620</b>	<b>19577911</b>	<b>21835348</b>	<b>23315460</b>	<b>24437329</b>	<b>26750908</b>	<b>28882564</b>	<b>30964312</b>

... = Data not available at cutoff date, GDP = gross domestic product, PPP = purchasing power parity.

a The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

b For reporting economies only.

Sources: ADB staff estimates using World Development Indicators Online (World Bank 2013), country sources, and CEIC data.

**Table 2.2 GDP Per Capita at PPP**  
(current international dollars)

Regional Member	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	...	914	988	1133	1159	1369	1467	1608	...
Armenia	1945	3902	4555	5325	5806	5016	5171	5511	6045
Azerbaijan	2202	4439	6085	7727	8637	9407	9892	10476	10874
Georgia	2211	3644	4040	4677	4905	4758	5064	5491	5920
Kazakhstan	4796	8704	9836	10897	11364	11452	12246	13116	13963
Kyrgyz Republic	1340	1727	1820	2009	2213	2250	2261	2420	2423
Pakistan	1690	2210	2564	2652	2628	2687	2673	2780	2788
Tajikistan	870	1413	1529	1664	1798	1846	1949	2087	2248
Turkmenistan	...	...	...	...	...	...	...	...	...
Uzbekistan	1448	1911	2228	2432	2821	2935	3084	3296	3591
<b>East Asia</b>									
China, People's Rep. of	2357	4102	4748	5550	6186	6781	7550	8388	9210
Hong Kong, China	26872	36440	40003	43449	45084	44267	47556	50581	51899
Korea, Rep. of	17197	22783	24247	26102	26689	26680	28613	29786	30722
Mongolia	1960	2845	3148	3517	3844	3755	3982	4770	5379
Taipei, China	20257	26659	28879	31381	32200	31780	35606	37739	38961
<b>South Asia</b>									
Bangladesh	862	1181	1282	1384	1480	1558	1653	1777	1917
Bhutan	2337	3613	3912	4661	4896	5176	5753	6263	7075
India	1536	2287	2541	2829	2962	3197	3534	3787	3950
Maldives	3986	4613	5441	5850	6443	6354	6740	7137	7310
Nepal	929	1063	1118	1173	1255	1305	1367	1437	1498
Sri Lanka	2693	3550	3898	4250	4563	4711	5106	5587	6247
<b>Southeast Asia</b>									
Brunei Darussalam	43303	49001	51937	52730	52146	50982	52089	54547	55007
Cambodia	918	1512	1706	1909	2054	2042	2159	2326	2505
Indonesia	2407	3207	3448	3724	3985	4154	4354	4657	4949
Lao PDR	1190	1723	1952	2059	2159	2264	2389	2687	2925
Malaysia	9393	12036	12869	13812	14526	14168	15112	16010	17084
Myanmar	...	888	1016	1151	1278	1407	1546	1651	1801
Philippines	2410	3082	3287	3541	3702	3712	3980	4140	4454
Singapore	33767	45374	49310	53059	52320	50809	58061	61070	61803
Thailand	5086	7557	8153	8740	9164	8981	9780	9905	10757
Viet Nam	1426	2368	2616	2874	3084	3251	3476	3745	3998
<b>The Pacific</b>									
Cook Islands	...	...	...	...	...	...	...	...	...
Fiji	3489	4300	4505	4571	4733	4710	4741	4758	...
Kiribati	2045	2270	2273	2316	2332	2317	2345	2333	...
Marshall Islands	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	2691	3163	3277	3320	3323	3402	3554	3676	...
Nauru	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...
Papua New Guinea	1805	1909	1952	2124	2250	2384	2543	2797	2865
Samoa	2729	4054	4034	4523	4345	4199	4334	4483	4519
Solomon Islands	1286	1548	1767	1817	2192	2317	2369	2498	2600
Timor-Leste <sup>a</sup>	1501	4061	6339	6330	8562	5964	7425	9052	...
Tonga	3376	4204	4256	4183	4317	4471	4646	4895	5106
Tuvalu	...	...	...	...	...	...	...	...	...
Vanuatu	3301	3408	3718	3921	4157	4269	4280	4321	...
<b>Developed Member Economies</b>									
Australia	26272	32525	34146	36214	37160	40082	39093	42119	44419
Japan	25914	30441	31739	33336	33495	31624	33505	33834	35204
New Zealand	20145	24141	25986	26672	28914	29571	29114	30510	31521
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>2513</b>	<b>3731</b>	<b>4176</b>	<b>4685</b>	<b>5027</b>	<b>5326</b>	<b>5832</b>	<b>6312</b>	<b>6788</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	<b>3550</b>	<b>4855</b>	<b>5328</b>	<b>5875</b>	<b>6208</b>	<b>6441</b>	<b>6974</b>	<b>7453</b>	<b>7969</b>

... = Data not available at cutoff date, GDP = gross domestic product, PPP = purchasing power parity.

a The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

b For reporting economies only.

Sources: ADB staff estimates using World Development Indicators Online (World Bank 2013), country sources, and CEIC data.

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**Table 2.3 GNI Per Capita, Atlas Method**  
(current dollars)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	250	270	330	360	460	510	570	...
Armenia	...	450	660	1500	1960	2650	3450	3180	3330	3490	3720
Azerbaijan	...	400	610	1270	1890	2710	3870	4800	5380	5290	6050
Georgia	...	540	750	1360	1680	2090	2460	2540	2680	2850	3280
Kazakhstan	...	1280	1260	2950	3860	4980	6150	6780	7440	8200	9730
Kyrgyz Republic	...	360	280	450	500	610	770	860	840	900	990
Pakistan	410	470	470	710	790	850	940	1000	1050	1120	1260
Tajikistan	...	200	170	320	370	440	570	650	730	780	860
Turkmenistan	...	610	600	1600	1960	2330	3050	3570	4110	4920	5550
Uzbekistan	...	580	630	530	600	760	960	1130	1310	1500	1720
<b>East Asia</b>											
China, People's Rep. of	330	530	930	1740	2040	2480	3040	3620	4240	4940	5740
Hong Kong, China	12660	23500	26930	28890	30290	32070	33950	32350	33630	35710	36560
Korea, Rep. of	6000	10770	9910	16900	18920	21140	21430	19650	19720	20870	22670
Mongolia	1430	460	470	900	1120	1400	1800	1790	1900	2340	3160
Taipei, China <sup>a</sup>	8174	13078	14700	16498	17564	18371	18221	17523	19240	20150	21036
<b>South Asia</b>											
Bangladesh	290	330	380	470	490	510	560	620	690	770	840
Bhutan	580	510	780	1230	1340	1640	1750	1850	1990	2210	2420
India	390	380	450	740	820	960	1050	1170	1290	1450	1530
Maldives	...	...	...	3360	4020	4040	4870	5050	5490	5800	5750
Nepal	220	210	230	320	350	380	440	490	540	610	700
Sri Lanka	470	700	860	1210	1350	1540	1770	1970	2260	2580	2920
<b>Southeast Asia</b>											
Brunei Darussalam <sup>a</sup>	12550	15800	14740	22920	27250	30400	33390	31590	32589	34351	39249
Cambodia	...	300	300	460	520	580	660	690	740	800	880
Indonesia	620	1000	570	1230	1390	1610	1950	2160	2500	2930	3420
Lao PDR	190	350	280	450	510	610	740	880	980	1110	1260
Malaysia	2370	4010	3420	5240	5810	6600	7500	7590	8130	8800	9800
Myanmar	...	...	...	...	...	...	...	...	...	...	...
Philippines	720	1030	1050	1210	1300	1510	1760	1870	2060	2200	2470
Singapore	11450	22420	24500	27240	30590	33800	34310	35200	42530	45690	47210
Thailand	1490	2750	1960	2600	2890	3280	3750	3860	4320	4620	5210
Viet Nam	130	260	390	630	700	790	920	1030	1160	1270	1400
<b>The Pacific</b>											
Cook Islands <sup>a</sup>	3852	5364	6288	8177	8182	9847	9806	10083	9833	12313	...
Fiji	1790	2460	2230	3590	3620	3830	4040	3900	3610	3720	4200
Kiribati	730	1180	1400	1780	1780	1820	1920	1820	2040	2060	2260
Marshall Islands	...	3040	2850	3560	3620	3760	3770	3720	3750	4080	4140
Micronesia, Fed. States of	...	2210	2210	2590	2610	2620	2600	2810	2890	3080	3310
Nauru <sup>a</sup>	...	3455	2130	2684	2490	2381	4774	4192	5554	7899	10277
Palau	...	5770	5490	8910	8950	9130	9020	8430	8590	9240	9860
Papua New Guinea	820	1040	620	680	720	940	1100	1190	1300	1480	1790
Samoa	1050	1000	1420	2100	2260	2400	2800	2680	2840	2970	3220
Solomon Islands	...	900	1010	900	970	1030	1060	970	1050	1120	1130
Timor-Leste	...	...	...	740	1180	1850	2900	2250	2730	3340	3670
Tonga	1220	2010	2030	2550	2780	2860	3210	3330	3470	3800	4240
Tuvalu <sup>a</sup>	...	...	...	3740	3970	4700	5070	5360	4790	4960	6070
Vanuatu	1200	1270	1430	1780	1990	2120	2510	2590	2700	2870	3080
<b>Developed Member Economies</b>											
Australia	17370	19350	21150	30290	34090	36910	41980	43660	46320	50120	59570
Japan	27580	41350	35040	39140	38600	37660	37870	37610	42190	45130	47870
New Zealand	13380	14930	13730	24950	25680	27540	27920	28990	28310	30620	34068

... = Data not available at cutoff date, GDP = gross domestic product, GNI = gross national income.

a Estimates based on GDP from the country source.

Sources: World Development Indicators Online (World Bank 2013); ADB staff estimates for Brunei Darussalam (2010–2012); the Cook Islands (1990–2011); Nauru (1995–2012); New Zealand (2012); and Taipei, China (1990–2012).

**Table 2.4 Agriculture Value Added**  
(% of GDP<sup>a</sup>)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	35.2	33.7	34.5	28.5	32.2	28.8	27.7	...
Armenia	...	40.8	25.1	20.6	20.2	20.0	18.1	18.6	18.8	22.2	20.9
Azerbaijan	29.3	26.9	17.0	9.8	7.4	6.9	5.9	6.5	5.9	5.4	5.5
Georgia	...	...	21.7	16.5	12.7	10.6	9.3	9.2	8.3	9.2	8.3
Kazakhstan	...	12.8	8.6	6.6	5.7	5.8	5.4	6.1	4.7	5.5	4.5
Kyrgyz Republic	33.6	43.1	36.6	31.3	32.0	30.2	26.2	20.3	18.7	18.0	19.5
Pakistan	26.0	26.1	25.9	21.5	23.0	23.1	23.1	23.9	24.3	26.0	24.4
Tajikistan	30.1	35.9	27.3	23.8	23.9	21.9	22.5	20.6	21.8	26.9	26.4
Turkmenistan	32.2	16.9	22.9	18.8	17.4	12.3	12.0	...	...	...	...
Uzbekistan	33.2	32.4	34.4	28.1	27.9	25.9	21.9	20.6	19.8	19.1	18.9
<b>East Asia</b>											
China, People's Rep. of	27.1	20.0	15.1	12.1	11.1	10.8	10.7	10.3	10.1	10.0	10.1
Hong Kong, China	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	...
Korea, Rep. of	8.7	6.2	4.6	3.3	3.2	2.9	2.7	2.8	2.6	2.7	2.6
Mongolia	15.2	34.4	30.9	22.1	19.6	20.5	21.4	19.6	16.2	14.5	17.1
Taipei, China	4.2	3.5	2.1	1.7	1.7	1.5	1.6	1.7	1.6	1.8	1.9
<b>South Asia</b>											
Bangladesh	30.2	26.4	25.5	20.1	19.6	19.2	19.0	18.7	18.6	18.3	17.7
Bhutan	34.9	31.7	27.4	23.2	22.1	19.2	19.0	18.7	17.5	16.5	16.2
India	29.3	26.5	23.4	18.8	18.3	18.3	17.8	17.7	18.0	17.5	17.4
Maldives	...	...	...	7.5	6.1	5.4	5.4	4.1	4.1	3.9	3.8
Nepal	48.4	38.9	37.8	35.2	33.6	32.5	31.7	33.0	35.4	36.8	35.7
Sri Lanka	24.2	19.5	17.6	11.8	11.3	11.7	13.4	12.7	12.8	12.1	11.1
<b>Southeast Asia</b>											
Brunei Darussalam	1.0	1.2	1.0	0.9	0.7	0.7	0.6	0.9	0.8	0.6	0.7
Cambodia	56.5	49.6	37.9	32.4	31.7	31.9	34.9	35.7	36.0	36.7	35.6
Indonesia	19.4	17.1	15.6	13.1	13.0	13.7	14.5	15.3	15.3	14.7	14.4
Lao PDR	61.2	55.0	48.5	36.7	32.4	33.4	32.2	32.5	30.6	28.9	27.6
Malaysia	15.0	12.7	8.3	8.4	8.7	10.1	10.1	9.3	10.5	12.0	10.2
Myanmar	57.3	60.0	57.2	46.7	43.9	43.3	40.3	38.1	36.9	32.5	30.5
Philippines	21.9	21.6	14.0	12.7	12.4	12.5	13.2	13.1	12.3	12.7	11.8
Singapore	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thailand	10.0	9.1	8.5	9.2	9.4	9.4	10.1	9.8	10.5	11.4	...
Viet Nam	38.7	27.2	24.5	19.3	18.7	18.7	20.4	19.2	18.9	20.1	19.7
<b>The Pacific</b>											
Cook Islands	20.7	9.5	10.3	6.9	5.5	5.7	4.9	5.2	5.1	4.6	...
Fiji	...	18.8	16.5	14.1	14.4	14.5	14.2	12.7	11.7	12.1	...
Kiribati	3.8	26.9	20.0	23.5	24.0	25.1	25.6	25.7	25.1	26.3	...
Marshall Islands	...	...	10.2	9.0	9.0	9.0	10.6	12.5	15.0	15.0	...
Micronesia, Fed. States of	...	25.0	25.5	24.1	24.0	26.6	27.5	26.4	26.1	27.8	...
Nauru	...	...	...	7.8	7.8	9.3	5.3	4.1	4.3	3.6	2.6
Palau	...	5.9	6.7	6.4	6.8	6.6	6.5	5.9	6.1	5.7	5.5
Papua New Guinea	29.7	35.1	35.2	34.0	32.1	32.2	32.8	33.1	31.5	31.2	29.1
Samoa	...	18.4	16.7	12.3	12.0	12.0	11.6	11.7	9.8	10.0	9.8
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste <sup>b</sup>	...	29.4	24.2	7.5	5.1	5.4	3.9	5.2	4.6	3.3	...
Tonga	34.7	23.7	22.2	20.0	18.0	19.2	17.4	17.2	18.2	18.9	18.8
Tuvalu	25.6	24.0	19.4	21.6	24.1	24.7	23.5	25.2	27.6	26.6	24.5
Vanuatu	20.7	16.6	25.4	24.1	22.7	22.6	22.3	21.5	21.9	23.9	...
<b>Developed Member Economies</b>											
Australia	4.6	3.3	3.4	3.2	3.0	2.4	2.5	2.5	2.4	2.5	2.4
Japan	2.4	1.8	1.7	1.2	1.2	1.1	1.1	1.2	1.2	1.2	...
New Zealand	6.6	7.1	6.8	5.9	4.9	5.5	6.8	5.3	6.6	...	...

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a Computed as a share of GDP at current prices.

b The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

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**Table 2.5 Industry Value Added**  
(% of GDP<sup>a</sup>)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	26.0	27.0	25.8	26.3	21.9	21.3	22.2	...
Armenia	...	31.0	38.3	44.7	44.1	43.2	42.8	35.3	36.3	32.9	32.2
Azerbaijan	33.7	32.9	45.1	63.2	68.0	70.0	69.2	60.0	64.1	65.6	63.1
Georgia	...	...	22.1	26.5	24.6	24.0	21.6	21.6	22.0	23.2	24.1
Kazakhstan	...	31.2	40.1	39.2	40.8	38.7	41.8	39.7	41.9	40.9	39.2
Kyrgyz Republic	35.5	19.4	31.3	22.0	19.6	18.7	22.8	25.6	28.2	29.8	25.1
Pakistan	25.2	23.8	23.3	27.1	20.9	21.1	22.3	20.2	20.6	21.3	22.0
Tajikistan	38.4	36.5	38.4	30.7	30.5	29.8	27.8	27.2	27.9	25.3	25.8
Turkmenistan	29.6	65.3	41.8	37.6	36.3	53.7	54.0	...	...	...	...
Uzbekistan	34.8	27.8	23.1	28.8	29.9	29.9	32.3	33.6	33.4	32.6	32.4
<b>East Asia</b>											
China, People's Rep. of	41.3	47.2	45.9	47.4	47.9	47.3	47.5	46.3	46.7	46.6	45.3
Hong Kong, China	24.4	15.2	12.6	8.7	8.2	7.1	7.4	7.2	7.0	6.8	...
Korea, Rep. of	39.9	39.3	38.1	37.7	37.2	37.1	36.5	36.8	38.8	39.3	39.1
Mongolia	40.6	34.7	25.0	36.2	43.0	41.9	34.4	33.0	37.5	36.3	32.9
Taipei, China	40.7	34.7	31.5	32.2	32.3	31.4	29.1	28.9	31.0	29.8	29.0
<b>South Asia</b>											
Bangladesh	21.5	24.6	25.3	27.2	27.9	28.4	28.5	28.7	28.5	28.2	28.5
Bhutan	24.6	33.5	36.0	37.3	39.0	45.4	44.5	43.2	44.6	42.6	41.3
India	26.9	27.8	26.2	28.1	28.8	29.0	28.3	27.8	27.6	26.7	25.8
Maldives	...	...	...	14.8	12.9	12.6	17.3	14.4	14.9	18.3	20.5
Nepal	12.3	17.7	17.3	17.1	16.7	16.6	16.8	15.9	15.1	15.5	14.9
Sri Lanka	28.9	29.3	29.9	30.2	30.6	29.9	29.4	29.7	29.4	29.9	31.5
<b>Southeast Asia</b>											
Brunei Darussalam	61.6	54.3	63.7	71.6	73.2	71.3	74.1	65.4	66.8	72.2	71.1
Cambodia	11.3	14.8	23.0	26.4	27.6	26.8	23.8	23.1	23.3	23.5	24.3
Indonesia	39.1	41.8	45.9	46.5	46.9	46.8	48.1	47.7	47.0	47.1	46.9
Lao PDR	14.5	19.0	19.1	23.5	29.8	28.3	27.7	26.2	29.8	32.4	33.1
Malaysia	41.5	40.5	46.8	46.9	47.0	45.0	45.6	41.4	41.5	40.7	41.2
Myanmar	10.5	9.9	9.7	17.5	19.2	20.4	22.7	24.5	26.5	31.3	32.1
Philippines	34.5	32.1	34.5	33.8	33.5	33.1	32.9	31.7	32.6	31.3	31.1
Singapore	31.9	33.3	34.5	31.6	31.2	28.9	26.5	27.4	27.5	26.7	26.7
Thailand	37.2	37.6	36.9	38.8	39.4	39.6	39.6	38.8	40.1	38.2	...
Viet Nam	22.7	28.8	36.7	38.1	38.6	38.5	37.1	37.4	38.2	37.9	38.6
<b>The Pacific</b>											
Cook Islands	7.4	7.6	8.3	9.6	8.7	8.7	9.0	9.0	8.4	9.0	...
Fiji	...	22.8	21.6	19.2	19.2	18.5	18.5	19.9	21.2	22.0	...
Kiribati	8.6	9.1	12.2	7.5	7.6	8.3	8.1	7.7	8.4	8.2	...
Marshall Islands	...	...	11.4	9.3	11.9	13.3	13.4	11.9	11.7	13.1	...
Micronesia, Fed. States of	...	7.2	8.7	5.6	4.3	3.4	3.9	7.4	8.1	9.1	...
Nauru	...	...	...	-6.5	2.1	17.6	38.0	50.8	47.8	53.8	66.2
Palau	...	9.4	14.2	15.7	13.3	11.9	9.2	8.7	9.2	9.3	8.4
Papua New Guinea	31.2	33.3	40.7	44.3	47.0	47.0	46.3	43.2	45.1	44.1	44.2
Samoa	...	29.4	26.8	30.5	29.6	30.9	28.4	25.8	27.4	27.7	27.9
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste <sup>b</sup>	...	25.5	32.4	76.6	85.0	83.6	87.1	79.9	82.3	85.6	...
Tonga	13.6	21.6	20.7	19.0	17.7	18.2	18.2	18.6	20.0	21.2	21.1
Tuvalu	14.5	14.0	7.8	8.5	6.0	8.3	13.7	11.9	5.7	9.2	5.6
Vanuatu	12.3	11.5	12.2	8.5	8.7	8.6	9.8	11.8	13.0	10.1	...
<b>Developed Member Economies</b>											
Australia	31.7	29.3	27.0	27.2	28.4	28.4	28.1	29.3	27.4	28.7	28.3
Japan	37.9	33.0	31.1	28.1	28.1	28.2	27.5	26.0	27.5	26.1	...
New Zealand	26.5	28.7	26.0	25.5	25.9	25.3	25.1	25.9	24.1	...	...

... = Data not available at cutoff date, GDP = gross domestic product.

a Computed as a share of GDP at current prices.

b The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

**Table 2.6 Services Value Added**  
(% of GDP<sup>a</sup>)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	38.8	39.3	39.7	45.2	45.9	49.8	50.1	...
Armenia	...	28.2	36.5	34.6	35.6	36.8	39.1	46.1	45.0	44.9	46.8
Azerbaijan	37.0	40.2	37.9	27.0	24.6	23.0	25.0	33.4	30.0	29.0	31.5
Georgia	...	...	56.1	57.0	62.7	65.4	69.2	69.2	69.8	67.5	67.6
Kazakhstan	...	56.0	51.3	54.2	53.5	55.6	52.8	54.2	53.4	53.6	56.3
Kyrgyz Republic	31.0	37.5	32.1	46.7	48.4	51.1	51.1	54.1	53.1	52.1	55.5
Pakistan	48.8	50.1	50.7	51.4	56.0	55.8	54.6	55.9	55.1	52.7	53.6
Tajikistan	31.5	27.6	34.3	45.6	45.6	48.3	49.7	52.2	50.3	47.8	47.8
Turkmenistan	38.2	17.9	35.2	43.6	46.3	34.0	34.0	...	...	...	...
Uzbekistan	32.0	39.8	42.5	43.1	42.2	44.2	45.9	45.8	46.8	48.3	48.7
<b>East Asia</b>											
China, People's Rep. of	31.5	32.9	39.0	40.5	40.9	41.9	41.8	43.4	43.2	43.4	44.6
Hong Kong, China	75.4	84.7	87.3	91.3	91.8	92.9	92.6	92.7	93.0	93.1	...
Korea, Rep. of	51.5	54.6	57.3	59.0	59.7	60.0	60.8	60.4	58.5	58.0	58.2
Mongolia	44.2	31.0	44.1	41.7	37.4	37.7	44.2	47.4	46.3	49.2	50.0
Taipei, China	55.0	61.8	66.4	66.1	66.1	67.1	69.4	69.4	67.4	68.4	69.2
<b>South Asia</b>											
Bangladesh	48.3	49.1	49.2	52.6	52.5	52.4	52.5	52.6	53.0	53.5	53.8
Bhutan	40.5	34.8	36.6	39.5	38.9	35.4	36.5	38.1	37.9	40.9	42.5
India	43.8	45.7	50.5	53.1	52.9	52.7	53.9	54.5	54.4	55.7	56.9
Maldives	...	...	...	77.7	80.9	82.1	77.3	81.5	81.0	77.8	75.7
Nepal	39.3	43.4	44.9	47.7	49.7	50.9	51.5	51.2	49.5	47.7	49.4
Sri Lanka	46.9	51.3	52.5	58.0	58.0	58.4	57.2	57.6	57.8	58.0	57.5
<b>Southeast Asia</b>											
Brunei Darussalam	37.5	44.6	35.3	27.5	26.1	28.0	25.3	33.7	32.5	27.1	28.2
Cambodia	32.2	35.5	39.1	41.2	40.8	41.3	41.3	41.3	40.7	39.8	40.1
Indonesia	41.5	41.1	38.5	40.3	40.1	39.5	37.5	37.1	37.7	38.2	38.6
Lao PDR	24.3	26.0	32.4	39.8	37.7	38.3	40.1	41.3	39.6	38.7	39.3
Malaysia	43.5	46.8	44.9	44.7	44.3	44.9	44.4	49.3	48.0	47.3	48.6
Myanmar	32.2	30.1	33.1	35.8	36.8	36.3	37.1	37.4	36.7	36.2	37.5
Philippines	43.6	46.3	51.6	53.5	54.1	54.5	53.9	55.2	55.1	55.9	57.1
Singapore	67.8	66.5	65.4	68.4	68.7	71.1	73.5	72.5	72.5	73.3	73.2
Thailand	52.8	53.3	54.6	52.0	51.2	51.0	50.2	51.4	49.3	50.3	...
Viet Nam	38.6	44.1	38.7	42.6	42.7	42.8	42.5	43.4	42.9	42.0	41.7
<b>The Pacific</b>											
Cook Islands	71.9	83.0	81.4	83.5	85.8	85.6	86.1	85.7	86.5	86.4	...
Fiji	...	58.3	61.9	66.8	66.4	67.0	67.4	67.4	67.1	65.9	...
Kiribati	87.6	64.0	67.8	69.0	68.4	66.6	66.3	66.6	66.5	65.5	...
Marshall Islands	...	...	78.4	81.7	79.2	77.7	76.0	75.5	73.4	72.0	...
Micronesia, Fed. States of	...	67.8	65.8	70.3	71.6	70.0	68.5	66.3	65.8	63.2	...
Nauru	...	...	...	98.7	90.1	73.1	56.7	45.1	47.9	42.7	31.2
Palau	...	84.7	79.1	77.9	79.9	81.5	84.3	85.4	84.7	85.1	86.1
Papua New Guinea	39.0	31.7	24.1	21.7	20.9	20.8	20.9	23.7	23.4	24.6	26.7
Samoa	...	52.2	56.6	57.2	58.4	57.1	60.0	62.5	62.8	62.2	62.3
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste <sup>b</sup>	...	45.1	43.5	15.9	9.9	11.0	9.0	14.9	13.1	11.1	...
Tonga	51.7	54.7	57.1	61.0	64.3	62.6	64.4	64.2	61.8	59.9	60.1
Tuvalu	59.8	62.0	72.8	69.9	69.9	66.9	62.8	62.8	66.7	64.3	70.0
Vanuatu	67.0	71.9	62.3	67.4	68.6	68.9	68.0	66.7	65.0	66.0	...
<b>Developed Member Economies</b>											
Australia	63.7	67.3	69.6	69.6	68.6	69.2	69.3	68.2	70.2	68.8	69.4
Japan	59.8	65.2	67.2	70.6	70.7	70.6	71.3	72.8	71.3	72.7	...
New Zealand	66.9	64.2	67.2	68.6	69.1	69.2	68.1	68.8	69.3	...	...

... = Data not available at cutoff date, GDP = gross domestic product.

a Computed as a share of GDP at current prices.

b The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

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**Table 2.7 Private Consumption Expenditure**  
(% of GDP<sup>a</sup>)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	115.7	109.5	109.2	113.2	98.5	97.4	90.7	...
Armenia	...	106.1	96.7	75.5	72.3	71.6	71.6	80.4	82.0	83.7	88.5
Azerbaijan	52.6	84.3	64.4	42.1	37.1	33.4	33.4	42.8	39.4	37.3	39.6
Georgia	...	...	90.5	66.9	78.7	70.7	76.9	81.6	74.9	74.0	72.2
Kazakhstan	...	71.1	61.9	49.9	45.7	45.1	44.2	47.4	45.4	42.8	45.9
Kyrgyz Republic	71.3	75.0	65.7	84.5	95.1	87.5	92.5	78.3	84.6	83.4	97.0
Pakistan	71.4	72.4	75.4	76.9	77.6	77.9	81.9	79.2	79.7	81.2	82.5
Tajikistan	63.0	68.5	94.6	81.1	82.9	84.2	87.6	86.3	84.7	97.1	...
Turkmenistan	49.3	60.6	36.5	46.6	32.3	36.1	45.4	...	...	...	...
Uzbekistan	61.4	50.6	61.9	50.9	48.2	47.9	47.4	48.7	49.0	51.1	52.2
<b>East Asia</b>											
China, People's Rep. of	50.6	46.7	46.2	39.3	38.0	36.2	35.6	36.3	35.1	35.7	36.3
Hong Kong, China	57.1	62.0	58.6	57.5	57.8	59.5	60.1	61.5	61.8	64.1	65.0
Korea, Rep. of	50.7	52.3	54.8	53.8	54.5	54.4	54.7	54.1	52.6	53.1	53.5
Mongolia	62.2	63.4	75.1	55.2	47.3	48.6	55.6	57.8	53.7	49.7	53.2
Taipei, China	53.9	57.2	58.8	60.4	59.2	58.1	60.3	60.7	58.5	60.2	60.3
<b>South Asia</b>											
Bangladesh	82.9	82.2	77.5	74.4	74.2	74.1	74.4	74.6	74.5	74.9	75.2
Bhutan	50.4	40.5	47.7	40.4	38.2	39.5	39.8	37.9	41.7	40.6	46.4
India	66.2	63.1	63.7	58.3	57.7	57.0	57.7	57.2	55.8	56.3	56.8
Maldives	...	...	...	...	...	...	...	...	...	...	...
Nepal	83.5	75.9	75.9	79.5	82.3	81.0	80.3	79.8	78.5	76.0	77.8
Sri Lanka	74.8	70.7	70.9	69.0	67.7	67.2	70.0	64.4	65.2	69.8	69.6
<b>Southeast Asia</b>											
Brunei Darussalam	26.5	36.6	24.8	22.5	19.8	20.2	17.7	24.4	23.2	19.5	20.5
Cambodia	90.4	92.6	86.7	84.3	81.0	78.1	79.4	76.1	81.3	82.9	81.9
Indonesia	58.9	61.6	61.7	64.4	62.7	63.5	60.6	58.7	56.5	54.6	54.6
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	51.8	47.9	43.8	44.2	44.3	45.2	44.7	48.8	47.5	47.5	49.1
Myanmar	88.3	86.6	87.7	86.9	84.8	85.1	82.6	84.2	78.8	72.5	70.9
Philippines	71.2	74.1	72.2	75.0	74.6	73.5	74.3	74.7	71.6	73.5	74.2
Singapore	45.4	41.4	41.9	40.1	38.6	37.0	39.8	38.9	37.2	38.3	39.2
Thailand	53.3	51.2	54.0	55.9	54.6	52.7	53.8	53.4	52.1	53.3	...
Viet Nam	89.6	73.6	66.5	65.5	65.1	68.1	70.9	68.5	66.6	66.3	64.5
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	60.9	70.4	72.2	77.4	78.9	81.7	72.5	72.2	66.7	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	59.0	42.7	44.6	48.0	47.1	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste <sup>b</sup>	...	...	74.9	23.5	13.8	15.8	11.5	17.2	15.1	11.8	...
Tonga	93.7	93.8	91.9	100.9	93.2	101.9	103.3	104.3	98.1	92.2	93.9
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	63.3	56.0	62.4	65.8	61.5	58.6	55.6	57.4	60.6	60.5	...
<b>Developed Member Economies</b>											
Australia	55.1	58.3	58.4	57.7	56.5	56.0	56.0	54.1	55.0	53.6	53.9
Japan	53.0	55.4	56.5	57.8	57.9	57.3	58.3	60.1	59.3	60.5	60.9
New Zealand	61.1	59.1	60.8	58.9	59.6	59.9	58.3	59.1	59.5	59.2	59.9

... = Data not available at cutoff date, GDP = gross domestic product.

a Computed as a share of GDP at current prices.

b The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

**Table 2.8 Government Consumption Expenditure**  
(% of GDP<sup>a</sup>)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	10.0	10.8	10.3	10.1	11.3	14.0	16.5	...
Armenia	...	11.3	12.2	10.5	10.1	10.2	10.2	13.3	13.1	12.9	13.0
Azerbaijan	17.6	12.8	15.2	10.4	8.5	9.7	8.5	11.1	10.9	10.1	10.3
Georgia	...	...	8.5	17.3	15.3	21.9	25.9	24.5	21.1	18.2	17.7
Kazakhstan	...	13.6	12.1	11.2	10.2	11.1	10.2	11.7	10.8	10.7	11.5
Kyrgyz Republic	25.0	19.5	20.0	17.5	18.0	17.1	17.5	18.4	18.1	18.2	19.9
Pakistan	15.1	11.7	8.6	7.8	10.4	9.9	9.8	10.5	10.3	9.7	10.5
Tajikistan	6.8	2.9	4.8	14.6	11.1	8.9	9.3	12.5	11.3	13.7	...
Turkmenistan	23.0	8.4	14.2	13.2	10.1	9.1	7.3	...	...	...	...
Uzbekistan	25.3	22.3	18.7	16.4	15.3	15.6	15.9	15.5	15.8	15.2	15.8
<b>East Asia</b>											
China, People's Rep. of	14.1	13.8	15.8	14.3	14.1	13.5	13.3	13.4	13.3	13.3	13.7
Hong Kong, China	7.2	8.4	9.4	9.2	8.8	8.4	8.7	9.2	8.9	8.7	9.1
Korea, Rep. of	11.8	11.2	12.0	13.9	14.5	14.7	15.3	16.0	15.2	15.3	15.8
Mongolia	29.8	13.1	15.3	12.1	11.7	13.1	15.3	14.7	13.7	13.0	14.1
Taipei, China	17.4	14.6	13.4	12.5	12.0	11.8	12.4	13.0	12.1	12.4	12.4
<b>South Asia</b>											
Bangladesh	4.2	4.6	4.6	5.5	5.5	5.5	5.3	5.3	5.4	5.8	5.6
Bhutan	16.3	18.0	21.9	21.9	21.3	19.1	19.0	21.4	20.0	19.5	18.7
India	11.7	10.9	12.6	10.9	10.3	10.3	10.9	11.9	11.4	11.6	11.8
Maldives	...	...	...	...	...	...	...	...	...	...	...
Nepal	8.7	9.2	8.9	8.9	8.7	9.2	9.9	10.8	10.0	9.6	10.7
Sri Lanka	13.2	14.7	13.7	13.1	15.4	15.3	16.2	17.6	15.6	14.8	13.5
<b>Southeast Asia</b>											
Brunei Darussalam	22.0	26.8	25.8	18.4	18.1	22.6	17.1	23.3	22.4	17.0	17.3
Cambodia	7.2	4.9	5.2	5.8	3.5	5.7	5.6	8.0	6.3	6.0	5.8
Indonesia	8.8	7.8	6.5	8.1	8.6	8.3	8.4	9.6	9.1	9.0	8.9
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	13.8	12.4	10.2	11.5	11.2	11.6	11.5	13.0	12.2	13.0	13.5
Myanmar	...	...	...	...	...	...	...	...	...	...	...
Philippines	10.1	11.4	11.4	9.0	9.2	9.3	8.8	9.9	9.7	9.7	10.5
Singapore	9.5	8.4	10.9	10.5	10.3	9.5	10.6	10.5	10.4	10.2	9.7
Thailand	10.0	11.3	13.5	13.7	13.5	13.9	14.4	15.9	15.7	16.0	...
Viet Nam	7.5	8.2	6.4	5.5	5.5	5.6	5.6	5.8	6.0	5.9	5.9
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	16.1	17.2	16.1	18.2	16.9	15.1	16.4	14.6	13.5	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	24.8	17.1	16.6	16.1	16.8	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste <sup>b</sup>	...	...	109.4	13.7	13.4	19.4	16.4	25.7	21.7	17.3	...
Tonga	18.7	16.5	18.2	15.5	20.9	18.1	18.5	19.8	18.1	17.3	18.9
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	30.9	27.1	16.4	14.6	15.6	17.1	16.2	17.3	18.9	18.1	...
<b>Developed Member Economies</b>											
Australia	17.1	17.9	17.6	17.4	17.3	17.2	17.1	17.6	18.1	17.9	17.9
Japan	13.3	15.2	16.9	18.4	18.2	18.1	18.6	19.9	19.7	20.4	20.5
New Zealand	18.9	17.2	18.0	17.5	18.0	18.5	18.6	20.2	20.3	20.1	20.2

... = Data not available at cutoff date, GDP = gross domestic product.

a Computed as a share of GDP at current prices.

b The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

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Table 2.9 **Gross Domestic Capital Formation**  
(% of GDP<sup>a</sup>)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	21.8	24.5	18.8	18.1	17.4	17.5	15.8	...
Armenia	...	18.4	18.6	30.5	35.9	37.8	40.9	34.7	32.9	27.3	23.8
Azerbaijan	26.5	23.8	20.7	41.5	29.9	21.5	18.7	18.9	18.1	20.3	22.0
Georgia	...	...	26.6	33.5	30.9	32.1	26.0	13.0	21.6	26.2	29.0
Kazakhstan	...	23.3	18.1	31.0	33.9	35.5	27.5	29.4	25.4	22.5	23.3
Kyrgyz Republic	24.1	18.3	20.0	16.4	24.2	26.6	28.9	27.3	27.4	25.5	32.4
Pakistan	18.9	18.5	17.2	19.1	19.3	18.8	19.2	17.5	15.8	14.1	14.9
Tajikistan	12.3	28.7	9.4	11.6	16.0	24.6	26.5	24.8	23.8	29.2	...
Turkmenistan	40.1	33.6	34.7	22.9	19.5	18.6	31.7	...	...	...	...
Uzbekistan	32.1	24.2	19.6	26.5	29.6	28.2	32.0	29.9	26.6	25.0	28.9
<b>East Asia</b>											
China, People's Rep. of	36.1	41.9	35.1	42.1	43.0	41.7	44.0	48.3	48.2	48.3	48.8
Hong Kong, China	27.0	34.1	27.6	21.1	22.3	21.4	21.0	21.8	23.9	24.1	25.9
Korea, Rep. of	38.1	36.9	30.6	29.7	29.6	29.4	31.2	26.3	29.5	29.5	27.6
Mongolia	34.3	26.8	29.0	37.5	35.9	38.7	43.6	34.4	40.8	62.5	63.5
Taipei, China	24.4	26.7	25.7	22.7	22.7	22.1	22.4	17.7	22.4	20.7	19.9
<b>South Asia</b>											
Bangladesh	17.1	19.1	23.0	24.5	24.7	24.5	24.2	24.4	24.4	25.2	26.5
Bhutan	32.4	45.4	48.2	53.4	48.0	37.7	41.4	42.3	52.1	61.0	56.7
India	26.0	26.2	24.3	34.7	35.7	38.1	34.3	36.5	36.8	35.0	35.6
Maldives	...	31.3	26.3	...	...	...	...	...	...	...	...
Nepal	17.2	23.5	22.6	26.5	26.9	28.7	30.3	31.7	38.3	38.3	34.9
Sri Lanka	20.7	25.6	25.4	26.1	27.4	27.3	27.1	24.3	27.2	29.4	30.3
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	13.1	11.4	10.4	13.0	13.7	17.6	15.9	13.1	13.6
Cambodia	8.3	14.3	16.9	18.5	22.5	21.2	18.6	21.4	17.4	17.1	16.2
Indonesia	30.7	31.9	22.2	25.1	25.4	24.9	27.8	31.0	32.3	32.9	35.3
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	32.4	43.6	26.9	22.4	22.7	23.4	21.5	17.8	23.1	23.6	25.5
Myanmar	13.4	14.2	12.4	13.2	13.7	14.8	15.6	18.9	23.2	29.1	30.3
Philippines	24.2	22.5	18.4	21.6	18.0	17.3	19.3	16.6	20.5	20.5	18.5
Singapore	35.1	33.3	33.2	20.0	21.1	22.2	29.3	25.0	21.4	22.2	27.0
Thailand	41.6	42.9	22.3	30.5	27.1	25.6	28.4	20.8	25.6	26.5	...
Viet Nam	14.4	27.1	29.6	33.8	34.5	39.6	36.5	37.2	35.7	29.8	27.2
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	22.6	21.3	24.0	24.1	20.5	24.8	20.9	19.1	22.7	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	24.4	21.9	21.9	17.5	15.7	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste <sup>b</sup>	...	...	30.2	4.5	2.1	3.4	4.6	14.9	13.0	13.8	...
Tonga	18.1	26.5	20.7	22.3	21.0	21.7	21.0	24.5	30.1	36.1	33.4
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	34.9	23.2	22.9	24.1	28.4	32.2	40.4	39.7	34.6	26.9	...
<b>Developed Member Economies</b>											
Australia	28.7	25.8	26.0	27.4	27.7	27.9	29.0	27.8	27.3	26.9	28.1
Japan	32.7	28.1	25.1	22.5	22.7	22.9	23.0	19.7	19.8	20.0	20.6
New Zealand	19.8	21.8	21.8	24.2	24.5	22.9	23.9	21.9	18.6	19.2	19.0

... = Data not available at cutoff date, GDP = gross domestic product.

a Computed as a share of GDP at current prices.

b The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

Table 2.10 **Exports of Goods and Services**  
(% of GDP<sup>a</sup>)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	26.0	24.9	16.9	17.3	14.3	9.8	8.5	...
Armenia	...	23.9	23.4	28.8	23.4	19.2	15.0	15.5	20.8	23.8	25.1
Azerbaijan	43.9	32.5	40.2	62.9	66.5	68.1	65.8	51.6	54.3	56.4	53.7
Georgia	...	...	23.0	33.7	32.9	31.2	28.6	29.7	35.0	36.2	38.4
Kazakhstan	...	39.0	56.6	53.5	51.2	49.4	57.3	42.0	44.0	49.5	47.9
Kyrgyz Republic	29.2	29.5	41.8	38.3	41.7	52.9	53.5	54.7	51.6	54.5	49.5
Pakistan	14.8	16.7	13.4	15.7	14.1	13.2	12.4	12.4	13.5	14.0	12.3
Tajikistan	...	112.0	92.4	54.3	58.2	51.0	32.7	24.5	26.8	17.7	...
Turkmenistan	111.2	142.5	95.5	65.0	73.1	75.4	64.1	...	...	...	...
Uzbekistan	29.0	31.6	26.5	39.7	37.0	40.4	38.9	35.0	33.1	33.1	27.7
<b>East Asia</b>											
China, People's Rep. of	19.0	20.2	23.3	37.1	39.1	38.4	35.0	26.7	29.4	28.5	27.2
Hong Kong, China	130.6	143.2	141.8	194.7	201.8	203.7	208.8	190.9	219.0	224.6	223.8
Korea, Rep. of	27.6	28.5	38.6	39.3	39.7	41.9	53.0	49.7	52.3	56.0	56.5
Mongolia	...	...	54.0	58.8	59.4	59.6	54.0	50.3	54.7	62.3	50.9
Taipei, China	45.7	47.0	52.9	62.5	68.0	72.1	73.0	62.5	73.8	76.1	73.7
<b>South Asia</b>											
Bangladesh	6.1	10.9	14.0	16.6	19.0	19.8	20.3	19.4	18.4	22.9	23.2
Bhutan	26.8	37.8	29.4	38.2	54.4	55.0	49.1	45.7	42.8	40.0	37.1
India	7.1	11.0	13.2	19.3	21.1	20.4	23.6	20.0	21.9	23.9	23.8
Maldives	...	...	...	...	...	...	...	...	...	...	...
Nepal	10.5	24.2	23.3	14.6	13.4	12.9	12.8	12.4	9.6	8.9	10.0
Sri Lanka	30.5	35.9	38.2	32.3	30.1	29.1	24.8	21.3	22.4	23.1	22.8
<b>Southeast Asia</b>											
Brunei Darussalam	61.8	59.7	67.4	70.2	71.7	67.9	78.3	72.8	81.4	79.7	81.4
Cambodia	2.4	31.2	49.9	64.1	68.6	65.3	65.5	59.9	54.1	54.1	54.6
Indonesia	25.3	26.3	41.0	34.1	31.0	29.4	29.8	24.2	24.6	26.3	24.3
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	74.5	94.1	119.8	112.9	112.2	106.2	99.5	91.4	93.7	91.6	87.5
Myanmar <sup>b</sup>	1.9	0.8	0.5	0.2	0.2	0.1	0.1	0.1	0.1	15.4	14.6
Philippines	27.5	36.4	51.4	46.1	46.6	43.3	36.9	32.2	34.8	32.0	30.8
Singapore	177.4	183.0	192.3	229.7	233.3	217.2	232.9	196.0	203.6	207.2	200.7
Thailand	33.1	41.6	65.0	68.7	69.0	69.2	71.8	64.5	66.7	71.4	...
Viet Nam	26.4	32.8	55.0	63.7	67.8	71.1	71.5	63.0	72.0	79.4	80.0
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	59.3	56.8	53.0	49.7	45.8	50.7	48.5	56.3	59.3	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	40.6	59.3	66.2	74.5	82.8	...	...	...	...	...	...
Samoa	39.3	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste <sup>c</sup>	...	...	29.6	81.6	96.9	98.9	95.9	93.0	93.9	92.3	...
Tonga	33.2	17.1	15.4	17.7	14.4	12.1	13.7	14.0	13.2	17.5	17.8
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	49.5	45.8	34.7	45.4	41.3	40.8	45.2	49.1	46.6	44.7	...
<b>Developed Member Economies</b>											
Australia	15.1	17.8	19.4	18.1	19.7	20.0	19.9	22.6	19.6	21.2	21.4
Japan	10.4	9.1	10.9	14.3	16.2	17.7	17.7	12.7	15.2	15.1	14.7
New Zealand	26.5	30.3	30.1	28.6	27.4	28.6	28.4	31.4	28.3	29.9	30.3

... = Data not available at cutoff date, GDP = gross domestic product.

a Computed as a share of GDP at current prices.

b Data from 2011 were provided by the Central Statistical Organization and not computed using data in the country table.

c The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

## National Accounts

Table 2.11 **Imports of Goods and Services**  
(% of GDP<sup>a</sup>)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	73.6	69.6	55.2	46.3	41.0	43.9	34.8	...
Armenia	...	62.2	50.5	43.2	39.3	39.2	40.7	43.0	45.3	47.4	49.3
Azerbaijan	39.2	53.4	38.4	52.9	38.8	28.5	23.5	23.1	20.7	24.1	25.6
Georgia	...	...	39.7	51.6	57.0	58.0	58.4	48.9	52.8	54.8	57.8
Kazakhstan	...	43.5	49.1	44.7	40.5	42.8	37.1	33.9	29.2	27.6	29.7
Kyrgyz Republic	49.5	42.4	47.6	56.8	79.0	84.1	92.6	78.7	81.7	81.6	99.7
Pakistan	20.2	19.4	14.7	19.6	21.5	19.8	23.2	19.7	19.4	19.0	20.3
Tajikistan	...	121.2	100.2	72.8	83.0	86.3	79.1	61.5	59.0	74.1	...
Turkmenistan	123.7	145.0	80.9	47.8	34.9	38.7	40.4	...	...	...	...
Uzbekistan	47.8	28.7	26.7	30.0	30.1	32.1	34.2	29.2	24.5	24.4	24.6
<b>East Asia</b>											
China, People's Rep. of	15.6	18.6	20.9	31.5	31.4	29.6	27.3	22.3	25.6	25.9	24.4
Hong Kong, China	122.0	147.6	137.4	182.4	190.6	193.0	198.6	183.4	213.5	221.5	223.8
Korea, Rep. of	28.3	29.0	35.7	36.6	38.3	40.4	54.2	46.0	49.7	54.0	53.4
Mongolia	...	...	67.9	63.6	53.5	58.3	67.2	57.5	62.4	86.8	76.9
Taipei, China	41.4	45.5	50.8	58.1	61.9	64.1	68.1	53.8	66.8	69.4	66.2
<b>South Asia</b>											
Bangladesh	13.5	17.3	19.2	23.0	25.2	26.7	28.8	26.6	25.0	31.6	32.1
Bhutan	31.9	42.6	48.3	58.7	55.3	54.9	56.3	61.0	63.1	61.7	60.7
India	8.5	12.2	14.2	22.0	24.2	24.4	28.7	25.4	26.3	30.3	31.5
Maldives	...	...	...	...	...	...	...	...	...	...	...
Nepal	21.1	34.6	32.4	29.5	31.3	31.7	33.3	34.7	36.4	32.8	33.4
Sri Lanka	38.5	45.5	48.4	41.3	41.1	39.5	38.5	27.8	30.7	37.6	36.5
<b>Southeast Asia</b>											
Brunei Darussalam	37.3	55.8	35.8	27.3	25.2	27.9	27.6	35.8	32.9	28.6	31.2
Cambodia	8.4	47.4	61.7	72.7	76.0	72.9	67.8	63.0	59.5	59.5	58.6
Indonesia	23.7	27.6	30.5	29.9	25.6	25.4	28.8	21.4	22.9	24.9	25.8
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	72.4	98.0	100.6	91.0	90.4	86.3	77.2	71.1	76.6	75.7	75.5
Myanmar <sup>b</sup>	3.6	1.7	0.6	0.1	0.1	0.1	0.1	0.1	0.1	15.7	14.9
Philippines	33.3	44.2	53.4	51.7	48.4	43.4	39.4	33.4	36.6	35.6	34.0
Singapore	167.4	166.2	179.5	200.3	203.6	186.2	211.2	170.8	174.1	179.6	178.5
Thailand	40.6	48.3	56.6	69.7	65.7	61.2	69.4	55.1	61.1	69.7	...
Viet Nam	35.7	41.9	57.5	67.0	70.7	84.7	85.2	73.3	80.2	83.5	76.5
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	58.8	65.7	65.3	69.5	62.1	72.2	58.3	62.2	62.3	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	48.9	41.1	49.2	56.1	62.4	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste <sup>c</sup>	...	...	144.2	23.3	26.1	37.5	28.4	50.7	43.8	34.5	...
Tonga	63.8	54.7	46.8	57.8	51.2	55.5	58.0	63.8	57.9	61.5	62.7
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	76.7	54.8	43.7	54.8	48.3	47.7	57.6	56.3	52.7	50.3	...
<b>Developed Member Economies</b>											
Australia	17.1	19.8	21.4	20.6	21.2	21.1	22.0	22.1	20.0	19.7	21.1
Japan	9.4	7.7	9.4	12.9	14.9	16.1	17.5	12.3	14.0	16.1	16.6
New Zealand	26.3	28.4	30.8	29.1	29.5	30.0	29.2	32.6	26.7	28.4	29.4

... = Data not available at cutoff date, GDP = gross domestic product.

a Computed as a share of GDP at current prices.

b Data from 2011 were provided by the Central Statistical Organization and not computed using data in the country table.

c The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

Table 2.12 **Gross Domestic Saving**  
(% of GDP<sup>a</sup>)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	-25.8	-20.2	-19.5	-23.3	-9.9	-11.4	-7.3	...
Armenia	...	-17.5	-8.9	14.0	17.7	18.2	18.2	6.3	4.9	3.4	-1.4
Azerbaijan	31.8	2.9	20.4	47.5	54.4	56.9	58.1	46.1	49.8	52.6	...
Georgia	...	...	0.9	15.7	5.9	7.4	-2.7	-6.1	4.1	7.8	10.1
Kazakhstan	...	15.3	26.0	38.9	44.1	43.8	45.7	41.0	43.8	46.6	42.6
Kyrgyz Republic	3.7	5.5	14.3	-2.1	-13.1	-4.6	-10.1	3.3	-2.7	-1.6	...
Pakistan	13.5	15.8	16.0	15.2	11.9	12.2	8.4	10.3	10.0	9.1	7.0
Tajikistan	0.3	28.7	0.6	4.3	6.0	6.9	3.1	1.2	4.0	-10.8	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	13.2	27.1	19.4	32.7	36.5	36.5	36.7	35.8	35.2	34.3	32.0
<b>East Asia</b>											
China, People's Rep. of	35.2	39.6	38.0	46.3	47.7	50.3	51.1	50.3	51.7	50.9	50.0
Hong Kong, China	35.7	29.6	32.0	33.3	33.4	32.1	31.2	29.3	29.3	27.2	25.9
Korea, Rep. of	37.6	36.5	33.3	32.3	31.0	30.9	30.0	29.9	32.2	31.6	30.7
Mongolia	8.0	19.8	9.6	32.7	41.0	38.3	29.1	27.5	32.6	37.3	32.7
Taipei, China	28.8	28.6	27.8	27.3	28.8	29.6	27.3	25.8	30.2	28.6	26.4
<b>South Asia</b>											
Bangladesh	12.9	13.1	17.9	20.0	20.3	20.4	20.3	20.1	20.1	19.3	19.3
Bhutan	33.4	41.5	30.3	37.7	40.5	41.4	41.3	40.7	38.4	39.9	34.8
India	22.8	24.4	23.7	33.4	34.6	36.8	32.0	33.7	34.0	30.8	31.3
Maldives	...	...	...	...	...	...	...	...	...	...	...
Nepal	7.3	13.8	14.1	11.6	9.0	9.8	9.8	9.4	11.5	14.5	11.5
Sri Lanka	12.0	14.6	15.4	17.9	17.0	17.6	13.9	17.9	19.3	15.4	17.0
<b>Southeast Asia</b>											
Brunei Darussalam	51.5	36.6	49.4	59.1	62.1	57.2	65.2	52.4	54.4	63.5	62.3
Cambodia	2.3	2.5	8.1	9.9	15.6	16.1	14.9	15.9	14.1	14.1	12.2
Indonesia	32.3	30.6	31.8	27.5	28.7	28.1	31.0	31.7	34.4	36.4	36.6
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	34.4	39.7	46.1	44.3	44.5	43.3	43.8	38.1	40.3	39.5	37.4
Myanmar	11.7	13.4	12.3	13.1	15.2	14.9	17.4	15.8	...	...	...
Philippines	18.7	14.5	16.4	15.9	16.2	17.2	16.8	15.5	18.7	16.8	15.3
Singapore	45.1	50.0	46.0	49.4	50.8	53.2	51.0	50.2	50.9	49.8	49.2
Thailand	34.1	36.2	30.7	29.5	30.4	33.5	30.8	30.2	31.2	28.3	...
Viet Nam	2.9	18.2	27.1	27.8	28.1	26.8	24.3	25.0	24.7	25.8	...
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	23.0	12.4	11.7	4.4	4.2	3.3	11.1	13.2	19.8	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	16.1	40.2	38.8	35.9	36.1	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste <sup>b</sup>	...	...	29.5	18.3	27.7	44.5	55.7	49.4	53.3	63.1	...
Tonga	-12.5	-10.3	-10.0	-16.3	-14.1	-20.0	-21.8	-24.2	-16.1	-9.6	-12.8
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	5.7	17.0	21.2	19.6	22.9	24.2	28.2	25.4	20.5	21.4	...
<b>Developed Member Economies</b>											
Australia	28.4	23.8	24.0	24.9	26.3	26.8	26.9	28.3	26.9	28.5	28.5
Japan	32.9	...	...	23.7	24.3	24.1	20.9	20.0	20.6	18.6	...
New Zealand	20.0	24.0	21.2	23.6	22.4	21.5	23.1	20.7	20.2	20.9	20.1

... = Data not available at cutoff date, GDP = gross domestic product.

a Computed as a share of GDP at current prices.

b The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

## National Accounts

Table 2.13 **Growth Rates of Real GDP**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	9.9	9.2	16.1	2.3	17.2	3.2	9.5	...
Armenia	...	...	5.9	13.9	13.2	13.7	7.0	-14.2	2.2	4.7	7.2
Azerbaijan	...	-12.0	11.1	26.4	34.5	25.1	10.8	9.3	5.0	0.1	2.2
Georgia	...	...	1.8	9.6	9.4	12.3	2.3	-3.8	6.3	7.2	6.1
Kazakhstan	...	-8.2	9.8	9.7	10.7	8.9	3.3	1.2	7.3	7.5	5.0
Kyrgyz Republic	...	-5.4	5.4	-0.2	3.1	8.5	8.4	2.9	-0.5	6.0	-0.9
Pakistan	4.6	5.1	3.9	9.0	5.8	5.5	5.0	0.4	2.6	3.7	4.4
Tajikistan	...	6.0	8.3	6.7	6.6	7.6	7.6	4.0	6.5	2.4	7.5
Turkmenistan	...	-7.2	5.5	13.0	11.4	11.8	14.7	6.1	9.2	14.7	11.1
Uzbekistan	...	-0.9	4.0	7.0	7.4	7.7	9.0	8.1	8.5	8.3	8.2
<b>East Asia</b>											
China, People's Rep. of	3.8	10.9	8.4	11.3	12.7	14.2	9.6	9.2	10.4	9.3	7.8
Hong Kong, China	3.9	...	...	7.4	7.0	6.5	2.1	-2.5	6.8	4.9	1.4
Korea, Rep. of	9.3	8.9	8.8	4.0	5.2	5.1	2.3	0.3	6.3	3.7	2.0
Mongolia	-2.5	6.4	1.1	7.3	8.6	10.2	8.9	-1.3	6.4	17.5	12.3
Taipei, China	6.9	6.4	5.8	4.7	5.4	6.0	0.7	-1.8	10.8	4.1	1.3
<b>South Asia</b>											
Bangladesh	5.9	4.9	6.0	6.0	6.6	6.4	6.2	5.7	6.1	6.7	6.2
Bhutan	2.4	7.1	6.9	7.1	6.8	17.9	4.7	6.7	11.7	8.5	9.4
India	5.3	7.3	4.4	9.5	9.6	9.3	6.7	8.6	9.3	6.2	5.0
Maldives	16.9	7.4	4.4	-8.7	19.6	10.6	12.2	-3.6	7.1	7.0	3.4
Nepal	4.7	3.4	6.0	3.5	3.4	3.4	6.1	4.5	4.8	3.4	4.9
Sri Lanka	6.2	5.5	6.0	6.2	7.7	6.8	6.0	3.5	8.0	8.3	6.4
<b>Southeast Asia</b>											
Brunei Darussalam	1.1	4.5	2.8	0.4	4.4	0.2	-1.9	-1.8	2.6	3.4	0.9
Cambodia	1.2	6.5	8.4	13.3	10.8	10.2	6.7	0.1	6.0	7.1	7.3
Indonesia	9.0	8.2	4.9	5.7	5.5	6.3	6.0	4.6	6.2	6.5	6.2
Lao PDR	6.7	7.1	6.3	6.8	8.6	7.8	7.8	7.5	8.1	8.0	7.9
Malaysia	9.0	9.8	8.9	5.3	5.6	6.3	4.8	-1.5	7.2	5.1	5.6
Myanmar	2.8	6.9	13.7	13.6	13.1	12.0	10.3	10.6	9.6	5.6	7.6
Philippines	3.0	4.7	4.4	4.8	5.2	6.6	4.2	1.1	7.6	3.6	6.8
Singapore	10.1	7.3	9.0	7.4	8.6	9.0	1.7	-0.8	14.8	5.2	1.3
Thailand	11.2	8.1	4.5	4.2	4.9	5.4	1.7	-0.9	7.3	0.3	6.5
Viet Nam	5.1	9.5	6.8	7.5	7.0	7.1	5.7	5.4	6.4	6.2	5.2
<b>The Pacific</b>											
Cook Islands	7.9	-4.4	13.9	-1.1	5.0	-0.2	-3.5	1.0	-2.9	1.0	...
Fiji	3.6	...	-1.7	-1.3	1.9	-0.9	1.0	-1.3	0.1	1.9	...
Kiribati	2.1	-0.6	5.3	-0.2	-4.5	7.5	2.8	-0.7	-0.5	3.3	...
Marshall Islands	9.8	-0.3	5.9	2.6	1.9	3.2	-1.9	-1.5	5.6	0.8	1.9
Micronesia, Fed. States of	4.0	4.6	4.5	2.1	-0.2	-2.0	-2.5	0.9	2.5	2.0	1.4
Nauru	...	...	...	-9.8	-20.3	-10.8	95.6	-20.3	20.1	14.2	20.2
Palau	...	10.9	...	3.5	-1.5	0.7	-5.3	-10.6	-0.8	6.6	5.3
Papua New Guinea	-0.4	-3.4	-2.5	3.9	2.3	7.2	6.6	6.1	7.6	11.3	9.2
Samoa	-7.5	6.6	7.0	5.2	0.5	5.8	-3.7	-1.4	2.1	1.2	0.8
Solomon Islands	2.9	10.0	-14.2	5.0	6.1	10.7	7.3	-1.8	7.9	10.6	4.8
Timor-Leste <sup>a</sup>	...	9.5	...	53.3	60.2	-0.6	12.1	-6.7	-1.4	7.3	...
Tonga	2.0	3.8	-0.8	1.6	-1.1	-4.5	1.9	3.2	3.3	2.9	0.8
Tuvalu	15.4	-5.0	...	-3.9	1.9	6.4	8.0	-4.4	-2.7	8.5	0.2
Vanuatu	0.0	0.0	5.9	5.3	8.5	5.2	6.5	3.3	1.6	1.4	...
<b>Developed Member Economies</b>											
Australia	3.6	4.0	3.8	3.2	3.0	3.8	3.8	1.6	2.1	2.4	3.4
Japan	5.6	1.9	2.3	1.3	1.7	2.2	-1.0	-5.5	4.7	-0.6	1.9
New Zealand	0.0	5.2	5.5	3.6	3.4	3.1	2.9	-1.9	-0.4	1.5	1.9

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

Table 2.14 **Growth Rates of Real GDP Per Capita**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	7.8	7.0	13.8	0.3	14.9	1.3	7.4	...
Armenia	...	...	6.2	13.7	13.1	13.6	6.7	-14.4	1.9	4.2	6.8
Azerbaijan	...	-13.0	9.9	24.9	32.7	23.5	9.3	7.9	3.8	-1.1	0.9
Georgia	...	...	2.6	9.4	7.4	12.5	2.6	-3.8	5.0	6.4	5.5
Kazakhstan	...	-6.3	10.2	8.7	9.5	7.7	2.0	-0.1	5.5	4.8	3.5
Kyrgyz Republic	...	-6.0	4.0	-1.4	2.1	7.3	7.7	0.8	-0.8	4.8	-2.2
Pakistan	1.9	2.5	1.6	6.9	3.9	3.7	2.8	-1.7	0.5	1.6	2.3
Tajikistan	...	4.9	6.1	4.5	4.4	5.4	5.3	1.8	4.2	-0.0	5.0
Turkmenistan	...	-9.2	4.3	11.8	10.1	10.5	13.3	4.8	7.9	13.3	9.7
Uzbekistan	...	-2.7	2.6	5.8	6.1	6.2	7.3	6.3	5.5	5.4	6.6
<b>East Asia</b>											
China, People's Rep. of	2.3	9.7	7.6	10.6	12.1	13.6	9.0	8.7	9.9	8.8	7.3
Hong Kong, China	3.6	...	...	6.9	6.3	5.5	1.5	-2.7	6.1	4.1	0.2
Korea, Rep. of	8.2	7.8	7.9	3.8	4.7	4.6	1.6	-0.2	5.8	2.9	1.6
Mongolia	-4.8	...	-0.5	6.0	7.3	8.2	7.3	-3.1	4.5	15.5	10.2
Taipei, China	5.6	5.5	4.9	4.3	4.9	5.6	0.4	-2.2	10.6	3.8	0.9
<b>South Asia</b>											
Bangladesh	3.6	3.0	4.5	4.4	5.1	4.9	4.7	4.3	4.6	5.3	4.9
Bhutan	1.1	5.7	5.6	5.7	4.9	15.8	2.8	4.8	9.7	6.6	7.6
India	3.1	5.1	2.6	7.9	8.0	7.8	5.2	7.1	7.9	4.8	3.6
Maldives	14.1	5.3	2.8	-11.6	14.3	4.5	7.8	-2.2	4.7	3.7	0.1
Nepal	2.6	0.8	3.4	2.1	1.9	2.0	4.6	3.1	3.4	2.0	3.9
Sri Lanka	4.7	4.4	4.6	5.3	6.4	6.0	5.0	2.4	7.0	7.1	5.7
<b>Southeast Asia</b>											
Brunei Darussalam	-1.7	0.4	0.3	-1.3	2.7	-1.3	-3.2	-3.1	0.8	1.7	-0.7
Cambodia	-2.4	1.3	7.0	11.7	9.3	8.7	5.3	-1.5	4.4	5.5	5.4
Indonesia	6.9	6.5	3.7	4.3	4.1	5.0	4.7	3.3	3.4	4.7	3.8
Lao PDR	4.5	4.8	4.2	4.7	6.3	5.6	5.4	5.3	5.9	5.9	5.8
Malaysia	6.4	7.0	6.2	3.2	3.5	4.2	2.8	-3.4	5.3	3.7	4.3
Myanmar	0.9	5.0	11.5	11.3	10.9	10.1	8.6	9.1	8.4	4.5	6.6
Philippines	0.7	2.3	2.0	2.8	3.3	4.7	2.3	-0.6	5.8	1.9	5.0
Singapore	7.0	4.1	7.1	4.9	5.3	4.5	-3.5	-3.7	12.8	3.0	-1.1
Thailand	9.9	6.9	3.7	3.9	4.7	5.2	1.4	-1.1	7.1	-0.1	6.0
Viet Nam	3.1	7.7	5.3	6.3	5.8	6.0	4.5	4.3	5.3	5.1	4.1
<b>The Pacific</b>											
Cook Islands	4.8	-3.9	4.3	-6.7	-5.1	13.1	-7.5	-2.1	-7.4	16.1	...
Fiji	2.9	...	-2.3	-2.0	1.5	-1.3	0.2	-1.8	-0.5	1.4	...
Kiribati	-1.3	-2.1	3.9	-2.5	-6.6	5.2	0.6	-2.7	-2.6	1.0	...
Marshall Islands	8.3	-1.7	5.0	1.0	1.2	2.4	-3.2	-2.5	4.4	-0.6	0.9
Micronesia, Fed. States of	2.0	4.4	4.2	2.4	0.4	-1.5	-2.0	1.5	3.1	1.2	0.7
Nauru	...	...	...	-7.8	-18.4	-12.1	92.5	-21.8	17.9	11.6	17.6
Palau	...	8.0	...	2.7	0.3	2.6	-3.5	-8.9	1.1	8.6	7.3
Papua New Guinea	-2.5	-6.4	-5.4	1.1	-0.5	4.2	3.7	3.2	4.6	8.2	5.3
Samoa	-7.9	5.6	6.0	4.9	0.0	5.3	-4.7	-2.2	1.3	0.4	-0.0
Solomon Islands	-0.7	6.0	-16.5	2.2	3.7	8.2	4.8	-4.1	5.4	8.1	2.4
Timor-Leste <sup>a</sup>	...	7.6	...	49.7	56.4	-2.9	9.5	-8.9	-3.9	4.8	...
Tonga	1.7	3.5	-1.2	1.1	-1.5	-4.7	1.7	3.0	3.1	2.7	0.6
Tuvalu	12.9	-5.5	...	-6.7	0.4	-0.3	8.9	-4.9	-3.2	7.9	-0.3
Vanuatu	-2.5	-2.5	3.1	2.6	5.7	2.5	3.7	1.8	-1.0	-1.2	...
<b>Developed Member Economies</b>											
Australia	2.1	2.7	2.6	1.8	1.5	2.2	2.0	-0.2	0.8	1.2	1.7
Japan	5.3	1.7	2.1	1.3	1.6	2.1	-1.1	-5.5	4.6	-0.4	2.1
New Zealand	-0.9	3.7	4.9	2.4	2.1	2.1	1.9	-2.9	-1.6	0.6	1.3

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

## National Accounts

Table 2.15 **Growth Rates of Agriculture Real Value Added**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	12.2	7.7	21.2	-11.7	23.3	-18.0	4.4	...
Armenia	...	...	-1.0	11.2	0.5	10.4	3.3	6.0	-16.0	14.0	9.5
Azerbaijan	...	-7.8	12.1	7.5	0.9	4.0	6.1	3.5	-3.1	5.8	5.8
Georgia	...	...	-12.0	12.0	-11.7	3.3	-4.4	-6.8	-4.8	8.0	-3.3
Kazakhstan	...	-24.4	-3.2	7.1	6.0	8.9	-7.6	13.2	-11.6	22.5	-17.5
Kyrgyz Republic	...	-2.0	2.6	-4.2	1.7	1.6	0.9	6.7	-2.6	1.8	1.2
Pakistan	3.0	6.6	6.1	6.5	6.3	3.4	1.8	3.5	0.2	2.0	3.5
Tajikistan	...	...	...	2.8	5.4	6.5	7.8	10.5	6.8	0.4	8.7
Turkmenistan	...	-54.0	-2.6	14.1	3.4	-33.4	6.9	...	...	...	...
Uzbekistan	...	2.0	3.2	5.9	7.1	6.5	4.7	5.8	6.6	6.6	7.0
<b>East Asia</b>											
China, People's Rep. of	7.3	5.0	2.4	5.2	5.0	3.7	5.4	4.2	4.3	4.3	4.5
Hong Kong, China	...	...	...	-1.1	-4.9	-6.3	-18.7	-3.2	5.1	0.3	-2.0
Korea, Rep. of	-5.9	6.7	1.1	1.3	1.5	4.0	5.6	3.2	-4.4	-2.1	-0.6
Mongolia	-1.0	0.2	-16.3	11.3	6.5	14.4	4.7	3.6	-16.6	-0.5	21.3
Taipei, China	0.6	2.9	1.7	-4.2	13.8	-2.4	0.1	-3.0	1.8	7.2	-5.8
<b>South Asia</b>											
Bangladesh	9.4	-0.3	7.4	2.2	4.9	4.6	3.2	4.1	5.2	5.1	3.1
Bhutan	5.1	1.5	5.4	1.1	2.5	0.8	0.7	2.7	0.3	1.5	3.1
India	4.0	-0.7	-0.2	5.1	4.2	5.8	0.1	0.8	7.9	3.6	1.9
Maldives	9.7	1.0	-0.2	5.9	4.4	-11.9	-3.4	-2.5	-0.7	0.9	4.8
Nepal	5.8	-0.9	4.9	3.5	1.8	1.0	5.8	3.0	2.0	4.5	5.0
Sri Lanka	8.8	3.4	2.3	1.8	6.3	3.4	7.5	3.2	7.0	1.4	5.8
<b>Southeast Asia</b>											
Brunei Darussalam	2.6	2.9	6.6	1.3	-9.9	-4.5	3.7	5.7	-5.9	4.6	11.8
Cambodia	1.2	3.5	-1.2	15.7	5.5	5.0	5.7	5.4	4.0	3.1	4.3
Indonesia	3.1	4.4	1.9	2.7	3.4	3.5	4.8	4.0	3.0	3.4	4.0
Lao PDR	8.7	3.1	4.2	0.7	2.5	8.6	3.7	2.8	3.2	2.7	3.3
Malaysia	-0.6	-2.5	6.1	2.6	5.8	1.4	3.8	0.1	2.4	5.9	0.8
Myanmar	1.8	4.8	11.0	12.1	9.7	7.9	5.6	5.6	4.7	-0.7	2.0
Philippines	0.5	0.9	3.4	2.2	3.6	4.7	3.2	-0.7	-0.2	2.6	2.8
Singapore	-8.3	-3.7	-4.9	2.1	3.6	1.2	-4.6	3.1	3.9	3.2	1.2
Thailand	-4.7	1.3	6.8	-0.1	3.9	1.9	2.9	-1.3	-0.8	5.8	...
Viet Nam	1.0	4.8	4.6	4.2	3.8	4.0	4.7	1.9	3.3	4.0	2.7
<b>The Pacific</b>											
Cook Islands	13.2	-2.5	0.1	-3.5	-6.8	5.2	-9.9	7.2	1.5	-6.6	...
Fiji	-4.6	...	-1.3	0.9	5.0	-4.9	4.9	-12.9	-4.1	11.5	...
Kiribati	-20.7	-3.0	-7.2	-7.4	7.3	2.6	15.0	-8.2	-2.5	5.7	...
Marshall Islands	...	...	23.2	-9.4	2.6	8.3	-1.8	12.7	24.3	4.8	...
Micronesia, Fed. States of	...	...	6.8	4.2	0.5	4.4	-0.2	-0.9	0.7	4.5	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	-21.3	...	39.6	9.2	-4.8	-8.0	-20.1	-7.9	-3.3	-0.8
Papua New Guinea	2.2	-0.7	2.1	5.6	1.0	4.2	4.3	0.7	2.9	8.6	0.2
Samoa	...	12.7	0.1	4.8	-3.5	3.6	-10.3	-0.2	-6.7	1.1	-5.6
Solomon Islands	-1.0	11.8	-17.1	5.2	5.7	12.0	6.7	-7.3	10.7	12.1	0.1
Timor-Leste <sup>a</sup>	...	-4.3	...	4.1	5.2	-3.3	0.3	8.1	-2.9	-19.6	...
Tonga	3.9	0.7	-2.5	-2.1	-5.8	1.0	-5.3	-1.4	0.5	2.0	0.5
Tuvalu	13.1	0.6	...	0.9	12.4	1.1	0.7	3.4	14.4	0.4	-6.3
Vanuatu	15.5	2.9	4.3	2.3	1.5	3.5	2.6	0.7	4.8	5.9	...
<b>Developed Member Economies</b>											
Australia	8.2	-14.6	6.3	4.0	2.8	-15.3	6.9	17.6	-1.9	7.0	6.3
Japan	-0.3	-4.6	2.1	1.0	-1.7	6.3	7.2	-9.4	-1.0	2.1	...
New Zealand	16.7	0.3	4.8	-3.1	5.2	0.7	-14.5	10.5	1.6	-5.2	23.0

... = Data not available at cutoff date.

a The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

Table 2.16 **Growth Rates of Industry Real Value Added**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	13.0	13.7	7.6	5.7	6.1	6.3	9.8	...
Armenia	...	...	12.8	14.8	16.6	11.7	7.8	-29.6	5.7	-0.0	5.4
Azerbaijan	...	-13.3	5.7	43.4	49.8	32.9	9.7	10.3	3.4	-3.9	-1.0
Georgia	...	...	3.9	12.0	13.5	14.5	-3.9	-3.5	9.1	9.4	9.9
Kazakhstan	...	-15.9	15.3	10.7	13.4	8.0	4.3	1.9	7.6	2.9	1.5
Kyrgyz Republic	...	-12.3	8.8	-9.8	-6.9	10.3	14.0	-0.3	2.5	7.0	-13.8
Pakistan	6.5	4.1	1.3	12.1	4.1	7.7	8.5	-5.2	3.4	4.7	2.7
Tajikistan	...	...	...	7.7	4.7	-4.5	0.3	-10.3	5.6	-15.1	-36.1
Turkmenistan	...	22.3	1.0	10.6	7.6	39.8	10.2	...	...	...	...
Uzbekistan	...	-5.2	1.8	5.3	7.5	6.6	6.5	4.4	4.5	4.5	5.8
<b>East Asia</b>											
China, People's Rep. of	3.2	13.9	9.4	12.1	13.4	15.1	9.9	9.9	12.3	10.3	8.1
Hong Kong, China	...	...	...	-2.7	-3.3	-0.3	1.8	-5.1	7.6	8.8	5.6
Korea, Rep. of	14.2	8.7	11.3	4.8	6.6	6.0	2.0	-0.6	10.7	5.1	1.7
Mongolia	-4.9	28.4	1.5	4.2	6.3	7.0	-0.8	-0.4	4.3	9.1	10.1
Taipei, China	-1.0	4.4	5.4	6.9	7.8	9.0	0.2	-4.2	23.1	5.7	0.9
<b>South Asia</b>											
Bangladesh	7.1	9.9	6.2	8.3	9.7	8.4	6.8	6.5	6.5	8.2	8.9
Bhutan	-1.7	16.0	7.3	3.8	8.8	40.7	6.1	3.6	12.6	4.1	8.8
India	7.1	11.6	6.4	9.7	12.2	9.7	4.4	9.2	9.2	3.5	2.1
Maldives	16.4	4.7	1.2	10.4	10.3	22.5	9.5	-26.2	4.3	14.6	14.0
Nepal	4.8	4.3	8.6	3.0	4.5	3.9	1.7	-0.6	4.0	4.3	3.0
Sri Lanka	8.0	8.3	9.0	8.0	8.1	7.6	5.9	4.2	8.4	10.3	10.3
<b>Southeast Asia</b>											
Brunei Darussalam	-0.3	5.4	3.0	-1.8	2.9	-5.6	-5.4	-5.0	1.7	3.2	-1.8
Cambodia	-2.1	18.9	31.2	12.7	18.3	8.4	4.0	-9.5	13.6	14.5	9.2
Indonesia	11.5	10.4	5.9	4.7	4.5	4.7	3.7	3.6	4.9	5.3	5.2
Lao PDR	16.2	13.3	9.3	10.6	14.1	4.4	10.4	18.5	17.5	14.6	11.4
Malaysia	11.0	14.9	13.6	3.6	4.3	3.2	0.3	-6.7	7.9	2.1	5.1
Myanmar	5.5	12.7	21.3	19.9	20.0	19.6	18.0	17.6	18.6	10.2	8.0
Philippines	2.6	6.7	6.5	4.2	4.6	5.8	4.8	-1.9	11.6	1.8	6.8
Singapore	9.3	9.6	12.4	8.2	10.7	6.8	-1.5	-1.3	24.7	7.4	1.2
Thailand	16.1	10.5	2.7	5.2	5.1	6.6	2.2	-2.1	10.3	-4.8	...
Viet Nam	2.3	13.6	10.1	8.4	7.3	7.4	4.1	6.0	7.2	6.7	5.7
<b>The Pacific</b>											
Cook Islands	20.2	-15.9	18.2	-6.3	3.0	4.6	2.5	-2.2	-8.7	8.7	...
Fiji	3.0	...	-5.5	-6.7	0.7	-5.2	-1.4	-0.4	5.7	1.4	...
Kiribati	1.3	2.6	-6.4	6.7	-28.3	38.6	-25.2	21.3	-9.9	11.8	...
Marshall Islands	...	...	-14.4	4.5	22.5	-2.7	3.3	-7.4	-6.2	-6.4	...
Micronesia, Fed. States of	...	...	6.3	-4.1	-21.1	-6.3	7.6	36.3	16.2	12.8	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	30.8	...	6.8	-7.4	-3.7	-21.2	-34.1	-8.6	12.4	0.2
Papua New Guinea	-2.5	-10.0	-0.8	4.1	1.5	7.3	7.0	8.1	10.8	13.0	15.9
Samoa	...	1.8	14.4	4.7	-2.9	13.3	-10.4	-8.1	6.7	1.8	1.5
Solomon Islands	22.7	31.6	-29.7	6.7	7.1	11.4	3.5	1.7	1.7	27.3	23.0
Timor-Leste <sup>a</sup>	...	16.6	...	75.1	77.3	-2.0	13.0	-9.0	-4.1	8.2	...
Tonga	0.3	9.7	-0.4	-2.8	-3.5	-4.7	0.7	12.9	11.6	5.5	1.2
Tuvalu	-32.1	-13.0	...	-18.7	14.7	44.7	44.2	-13.6	-41.5	42.8	-26.1
Vanuatu	-1.1	-2.2	46.4	5.3	25.0	-10.1	27.5	27.6	12.6	-20.9	...
<b>Developed Member Economies</b>											
Australia	2.7	4.4	3.4	2.4	2.7	4.9	3.8	0.9	3.1	0.9	3.1
Japan	7.9	0.7	2.7	0.3	3.8	3.5	-0.2	-15.0	14.4	-2.8	...
New Zealand	-4.4	6.3	5.0	3.0	1.9	-0.6	4.6	-7.8	-2.6	1.1	-1.4

... = Data not available at cutoff date.

a The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

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Table 2.17 **Growth Rates of Services Real Value Added**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	5.4	7.2	19.3	13.8	17.2	18.1	12.2	...
Armenia	...	...	3.0	14.7	15.5	13.8	5.0	-3.7	4.7	6.1	7.0
Azerbaijan	...	-13.1	9.6	9.4	17.1	11.6	12.8	7.8	3.3	5.8	7.6
Georgia	...	...	7.4	10.4	14.6	12.1	5.4	-4.8	10.1	6.9	6.7
Kazakhstan	...	0.3	8.4	10.4	10.9	13.2	3.1	-1.4	7.1	5.1	9.5
Kyrgyz Republic	...	-4.6	5.8	8.4	9.4	12.4	10.7	2.6	-1.3	7.4	5.9
Pakistan	4.5	4.8	4.8	8.5	6.5	5.6	4.9	1.3	3.2	3.9	5.3
Tajikistan	...	...	...	8.5	9.7	16.4	11.9	9.4	7.1	11.4	28.5
Turkmenistan	...	-15.7	18.0	14.6	17.9	7.0	20.9	...	...	...	...
Uzbekistan	...	-0.9	5.4	7.6	7.8	12.5	12.3	6.8	11.2	12.0	...
<b>East Asia</b>											
China, People's Rep. of	2.3	9.8	9.7	12.2	14.1	16.0	10.4	9.6	9.8	9.4	8.1
Hong Kong, China	...	...	...	7.1	6.5	6.8	2.5	-1.8	6.8	5.2	2.0
Korea, Rep. of	8.4	7.9	6.0	3.5	4.4	5.1	2.8	1.2	3.9	2.6	2.5
Mongolia	-2.2	-7.4	10.5	9.7	7.6	11.9	16.6	0.8	9.8	16.8	13.5
Taipei, China	10.5	8.2	5.9	4.0	4.4	4.4	1.1	-0.5	5.5	3.0	0.8
<b>South Asia</b>											
Bangladesh	-1.9	4.9	5.5	6.4	6.4	6.9	6.5	6.3	6.5	6.2	5.9
Bhutan	2.8	5.0	8.7	14.8	8.2	6.1	4.7	13.3	12.1	15.2	12.2
India	5.2	10.1	5.7	10.9	10.1	10.3	10.0	10.5	9.8	8.2	7.1
Maldives	18.7	14.8	6.0	-13.8	23.0	9.2	13.5	1.7	8.0	6.0	1.4
Nepal	4.2	5.9	5.9	3.3	5.6	4.5	7.3	6.0	5.8	3.6	4.5
Sri Lanka	4.3	5.2	6.1	6.4	7.7	7.1	5.6	3.3	8.0	8.6	4.6
<b>Southeast Asia</b>											
Brunei Darussalam	3.6	2.9	2.5	4.1	7.4	9.2	2.6	2.1	3.8	3.7	3.8
Cambodia	2.7	8.3	8.9	13.1	10.1	10.1	9.0	2.3	3.3	5.0	8.1
Indonesia	9.8	7.6	5.2	7.9	7.3	9.0	8.7	5.8	8.4	8.5	7.7
Lao PDR	-0.4	10.2	6.9	9.9	9.7	9.1	9.7	6.0	7.0	8.1	9.2
Malaysia	11.3	9.6	6.0	7.3	7.3	10.4	8.9	2.9	7.2	7.2	6.5
Myanmar	3.2	7.3	13.4	13.1	14.2	13.2	11.6	12.1	9.5	8.6	12.6
Philippines	4.9	5.0	3.3	5.8	6.0	7.6	4.0	3.4	7.2	4.9	7.6
Singapore	9.8	6.3	7.6	7.3	7.7	9.4	4.5	-0.7	10.7	4.4	1.2
Thailand	12.7	7.6	5.3	4.2	5.0	5.3	1.0	0.1	6.6	3.3	...
Viet Nam	10.2	9.8	5.3	8.6	8.4	8.5	7.6	6.5	7.2	6.8	5.9
<b>The Pacific</b>											
Cook Islands	5.2	-3.4	15.4	-0.3	5.7	-1.1	-2.9	2.4	-2.5	0.4	...
Fiji	8.4	...	0.8	-17.0	1.5	1.3	0.9	0.9	-0.5	0.3	...
Kiribati	7.2	0.2	1.7	4.6	0.5	4.0	5.4	1.1	1.4	-1.2	...
Marshall Islands	...	...	6.2	2.6	-0.8	4.8	-2.4	-0.5	3.2	0.9	...
Micronesia, Fed. States of	...	...	3.2	0.8	2.6	-3.4	-3.5	-1.7	1.6	0.2	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	12.7	...	0.3	-1.0	2.2	-2.0	-5.6	0.7	6.1	5.6
Papua New Guinea	-6.3	-1.0	-12.7	3.6	5.6	9.4	9.1	10.6	9.8	12.9	11.2
Samoa	...	6.4	6.2	5.6	3.1	2.6	1.1	1.6	1.6	0.9	1.4
Solomon Islands	4.1	3.2	-5.7	4.3	6.5	8.7	9.0	5.5	5.5	5.6	7.5
Timor-Leste <sup>a</sup>	...	13.3	...	7.9	-0.0	9.4	9.0	13.4	11.1	11.2	...
Tonga	1.8	3.2	0.0	3.6	1.1	-5.6	4.1	0.8	1.0	1.8	0.5
Tuvalu	36.1	-4.8	...	-4.8	-2.2	2.1	4.4	-2.1	2.3	6.4	8.3
Vanuatu	-4.8	-0.4	2.2	6.6	9.1	4.4	5.0	3.3	3.1	3.6	...
<b>Developed Member Economies</b>											
Australia	4.4	6.0	4.2	3.8	3.4	4.3	3.8	1.8	2.0	2.7	3.3
Japan	4.0	3.0	1.9	2.2	1.2	1.6	-1.5	-3.1	1.2	0.5	...
New Zealand	0.1	4.9	5.8	4.4	3.7	4.4	3.4	-0.7	0.0	2.0	1.5

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

Table 2.18 **Growth Rates of Real Private Consumption Expenditure**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	8.3	8.8	8.3	13.2	5.4	-4.4	3.9	2.7	9.0
Azerbaijan	...	-2.9	10.0	13.2	14.5	17.0	17.4	8.5	10.8	8.4	19.6
Georgia	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	-20.6	1.7	10.7	12.6	10.8	6.9	0.6	11.8	10.9	11.1
Kyrgyz Republic	...	-16.7	-5.0	8.3	19.2	2.7	12.6	-14.4	2.7	9.3	14.2
Pakistan	4.5	7.1	0.4	12.9	1.0	4.2	3.5	-0.7	1.7	4.4	5.8
Tajikistan	...	...	...	20.6	11.7	16.9	8.2	7.8	10.5	...	...
Turkmenistan	...	11.0	-49.2	-15.3	-22.9	25.0	44.3	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	...	...	...	...	...	...	...	...	...	...	...
Hong Kong, China	6.3	1.6	4.5	3.5	6.1	8.6	1.9	0.8	6.3	9.0	4.0
Korea, Rep. of	9.7	10.3	9.2	4.6	4.7	5.1	1.3	0.0	4.4	2.4	1.7
Mongolia	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	8.4	5.9	4.7	2.9	1.5	2.1	-0.9	0.8	4.0	3.1	1.5
<b>South Asia</b>											
Bangladesh	7.6	3.5	4.1	3.9	4.3	5.9	5.5	5.9	5.1	6.0	4.5
Bhutan	...	1.9	-3.9	1.3	1.3	18.7	1.9	2.2	22.9	4.7	...
India	4.5	6.1	3.4	8.6	8.5	9.4	7.2	7.4	8.6	8.0	4.0
Maldives	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	4.7	5.4	3.2	1.3	5.7	6.2	0.6	5.2
Sri Lanka	6.4	4.0	4.0	1.7	6.5	3.9	7.5	0.9	9.2	14.7	6.8
<b>Southeast Asia</b>											
Brunei Darussalam	4.8	-4.8	-7.0	-0.6	3.7	2.0	1.8	5.0	1.8	3.7	5.2
Cambodia	2.5	8.6	4.9	12.3	6.8	6.2	12.7	-1.0	9.7	10.4	6.4
Indonesia	17.2	12.6	1.6	4.0	3.2	5.0	5.3	4.9	4.7	4.7	5.3
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	11.9	11.7	13.0	9.1	6.6	10.4	8.7	0.6	6.6	7.1	7.7
Myanmar <sup>a</sup>	0.9	6.4	4.3	14.6	10.3	12.4	7.0	12.7	2.6	4.3	6.1
Philippines	5.4	3.8	5.2	4.4	4.2	4.6	3.7	2.3	3.4	5.7	6.6
Singapore	7.6	2.7	13.9	3.6	4.5	6.7	2.9	-0.5	6.2	4.6	2.2
Thailand	12.9	8.3	7.1	4.2	2.8	1.2	2.9	-1.3	5.1	1.5	...
Viet Nam	...	7.2	3.1	5.8	7.5	9.8	7.7	2.3	8.2	4.1	4.9
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	-13.4	-5.1	-28.5	9.8	6.3	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste <sup>b</sup>	...	...	...	53.3	60.2	-0.6	12.1	-6.7	-1.4	7.3	...
Tonga	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	4.4	4.8	4.2	4.4	2.9	4.4	4.7	0.1	2.1	3.6	3.2
Japan	5.2	1.7	0.4	1.5	1.1	0.9	-0.9	-0.7	2.8	0.4	2.3
New Zealand	0.2	5.7	3.5	4.7	4.7	2.8	3.5	-1.6	0.6	2.0	2.5

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

<sup>a</sup> Includes government consumption expenditure.

<sup>b</sup> The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

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Table 2.19 **Growth Rates of Real Government Consumption Expenditure**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	2.9	19.1	14.0	5.2	-1.9	-1.2	3.9	1.9	0.2
Azerbaijan	...	-2.4	2.3	3.4	4.7	3.9	4.9	4.6	3.4	3.4	9.1
Georgia	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	-5.4	15.0	10.8	7.3	14.0	2.6	1.0	2.7	11.3	11.4
Kyrgyz Republic	...	-13.4	5.9	-2.7	1.5	1.8	1.4	1.5	-1.1	2.2	2.9
Pakistan	-3.2	5.5	7.5	1.7	48.3	-1.1	-0.9	12.7	-0.6	0.0	7.3
Tajikistan	...	...	...	0.4	2.5	2.1	7.7	6.9	0.9	...	...
Turkmenistan	...	11.5	25.7	17.9	-15.3	0.5	-7.3	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	...	...	...	...	...	...	...	...	...	...	...
Hong Kong, China	5.5	3.3	2.4	-2.6	0.9	3.2	2.0	2.3	3.4	2.5	3.7
Korea, Rep. of	10.5	3.8	1.8	4.3	6.6	5.4	4.3	5.6	2.9	2.1	3.9
Mongolia	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	13.1	4.2	1.2	0.2	-0.7	2.1	0.8	4.0	0.4	2.3	0.4
<b>South Asia</b>											
Bangladesh	0.4	2.3	0.9	7.7	6.0	6.4	3.6	5.9	8.9	8.3	4.1
Bhutan	...	27.5	0.0	13.0	3.9	4.0	10.3	11.1	4.3	4.7	...
India	3.5	7.8	0.9	8.9	3.8	9.6	10.4	13.9	5.9	8.6	3.9
Maldives	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	1.2	0.8	7.2	3.3	9.7	1.3	13.1	15.9
Sri Lanka	4.4	8.9	5.3	12.0	9.6	7.4	9.8	16.0	1.6	5.5	-0.6
<b>Southeast Asia</b>											
Brunei Darussalam	2.3	2.3	7.7	-1.0	12.8	15.8	-0.8	5.0	3.7	-3.7	2.0
Cambodia	-4.6	-23.2	12.4	3.9	-33.2	82.1	5.0	45.9	-6.2	7.8	4.7
Indonesia	4.8	1.3	-0.9	6.6	9.6	3.9	10.4	15.7	0.3	3.2	1.2
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	5.9	6.1	1.6	6.5	5.5	6.6	6.9	4.9	2.9	16.1	5.0
Myanmar	...	...	...	...	...	...	...	...	...	...	...
Philippines	6.8	5.6	-1.0	2.1	10.6	6.9	0.3	10.9	4.0	2.1	12.2
Singapore	11.5	11.8	17.5	5.2	4.6	2.9	6.4	4.2	11.2	0.5	-3.6
Thailand	6.9	6.9	2.2	8.0	2.3	8.5	4.9	9.1	8.8	3.9	...
Viet Nam	...	8.4	5.0	8.2	8.5	8.9	7.5	7.6	12.3	7.1	7.2
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	-2.8	-5.4	3.7	1.1	10.7	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste <sup>a</sup>	...	...	...	-30.2	47.2	42.6	11.9	19.0	1.1	0.4	...
Tonga	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	2.6	3.6	3.3	3.2	2.5	3.7	3.2	4.6	1.8	3.1	3.1
Japan	3.3	4.3	4.6	0.8	0.0	1.1	-0.1	2.3	1.9	1.4	2.4
New Zealand	1.0	0.5	5.2	4.7	4.7	3.5	5.0	4.6	0.2	1.6	2.0

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

Table 2.20 **Growth Rates of Real Gross Domestic Capital Formation**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	5.2	26.9	32.2	19.7	12.7	-30.9	0.5	-5.2	-5.7
Azerbaijan	...	55.2	2.6	5.8	14.5	6.0	20.7	9.5	2.0	1.0	20.3
Georgia	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	-42.4	10.7	35.0	31.7	23.4	-12.8	2.3	2.0	5.9	6.8
Kyrgyz Republic	...	96.3	22.1	13.7	53.3	14.6	13.9	-4.9	-5.2	6.3	26.3
Pakistan	5.2	3.8	4.9	12.9	18.4	2.9	4.6	-3.4	-4.5	-5.4	1.7
Tajikistan	...	...	...	2.6	9.4	11.3	10.2	-23.2	7.5	...	...
Turkmenistan	...	-29.0	-7.6	12.3	-5.2	6.6	95.5	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	...	...	...	...	...	...	...	...	...	...	...
Hong Kong, China	...	15.3	19.1	-0.6	8.4	7.8	-0.3	1.0	10.4	3.1	4.4
Korea, Rep. of	15.7	8.5	15.6	2.4	4.4	3.0	0.3	-11.9	12.0	1.2	-1.8
Mongolia	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	6.7	5.8	8.3	0.0	0.5	-0.7	-7.9	-21.2	36.8	-7.5	-4.2
<b>South Asia</b>											
Bangladesh	6.3	9.1	7.3	10.7	8.7	8.1	1.8	6.2	7.9	9.6	11.2
Bhutan	...	-5.1	30.2	-13.1	-1.4	-11.5	24.1	9.5	33.9	20.8	...
India	16.8	7.6	-3.5	16.3	15.3	17.2	-1.6	12.7	16.2	1.5	5.1
Maldives	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	9.5	4.4	5.0	29.6	8.6	34.4	0.3	0.5
Sri Lanka	5.5	-0.3	8.7	9.4	13.3	8.2	4.4	2.0	13.5	9.0	7.4
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	...	0.5	1.4	26.5	13.2	-0.3	-3.5	2.1	3.0
Cambodia	-23.5	39.4	8.6	29.9	35.1	5.1	16.0	17.5	-18.6	9.8	6.2
Indonesia	10.9	13.1	12.9	12.4	1.3	1.9	12.4	2.4	8.8	10.5	16.9
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	21.4	20.3	29.2	-2.5	8.6	9.1	1.8	-9.4	23.8	3.2	20.7
Myanmar	29.2	28.5	11.3	29.8	21.4	28.2	16.9	34.7	34.6	33.1	11.5
Philippines	15.8	3.5	1.1	3.0	-15.1	-0.5	23.4	-8.7	31.6	2.0	-3.2
Singapore	17.2	14.3	25.7	-0.4	17.2	16.8	28.5	-21.0	5.4	12.7	26.8
Thailand	31.2	12.3	8.0	21.7	-6.0	1.3	9.2	0.7	1.3	1.0	...
Viet Nam	...	17.1	10.1	11.2	11.8	26.8	6.3	4.3	10.4	-6.8	2.4
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	0.6	12.8	36.8	-9.8	-1.9	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste <sup>a</sup>	...	...	...	-4.3	-31.4	62.9	87.7	138.5	8.8	35.2	...
Tonga	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	2.7	13.5	5.4	7.2	6.6	6.4	10.3	-1.2	2.8	6.1	9.6
Japan	7.3	2.5	3.7	-0.3	1.0	1.7	-3.0	-17.2	4.4	-1.2	4.8
New Zealand	-8.5	16.0	15.6	9.4	4.3	-6.8	12.0	-9.5	-16.2	8.9	4.6

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

## National Accounts

Table 2.21 **Growth Rates of Real Exports of Goods and Services**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	19.0	15.9	-7.4	-3.5	-13.1	-10.4	26.5	14.7	10.7
Azerbaijan	...	-4.2	15.4	52.8	48.3	36.1	7.4	14.3	9.1	2.0	-11.1
Georgia	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	5.0	27.9	1.1	6.5	9.0	0.8	-11.8	2.0	2.3	4.0
Kyrgyz Republic	...	-17.4	10.5	-11.0	8.9	25.8	9.1	-1.1	-11.7	15.7	-11.3
Pakistan	1.1	-3.1	16.0	9.6	9.9	1.5	-4.6	-3.4	15.7	2.4	-15.3
Tajikistan	...	...	...	2.9	31.2	27.9	-14.0	-2.0	23.0	...	...
Turkmenistan	...	-8.9	79.4	19.2	25.2	15.3	-2.5	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	...	...	...	...	...	...	...	...	...	...	...
Hong Kong, China	8.5	10.0	16.2	10.6	9.4	8.4	2.6	-10.1	16.8	3.7	1.3
Korea, Rep. of	4.9	24.7	18.1	7.8	11.4	12.6	6.6	-1.2	14.7	9.1	4.2
Mongolia	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	0.8	12.8	18.3	7.8	11.4	9.6	0.9	-8.7	25.6	4.5	0.1
<b>South Asia</b>											
Bangladesh	17.8	30.7	14.4	15.6	25.8	13.0	7.0	0.0	0.9	29.3	7.8
Bhutan	...	34.3	-1.2	34.3	51.7	15.8	-9.3	-0.8	5.9	0.1	...
India	11.1	31.4	18.2	26.1	20.4	5.9	14.6	-4.7	19.7	15.3	3.0
Maldives	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	-3.0	-1.3	-0.9	0.7	3.9	-10.4	-2.1	1.9
Sri Lanka	...	7.7	17.1	6.6	3.8	7.3	0.4	-12.3	8.8	11.0	0.2
<b>Southeast Asia</b>											
Brunei Darussalam	1.3	16.8	11.9	-1.3	3.7	-9.6	-6.2	-5.3	-7.8	16.6	-3.6
Cambodia	-23.5	35.1	39.4	16.4	19.2	10.1	15.7	-6.3	16.0	18.9	7.9
Indonesia	0.4	7.7	26.5	16.6	9.4	8.5	9.5	-9.7	15.3	13.6	2.0
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	17.8	19.0	16.1	8.3	6.7	3.8	1.6	-10.9	11.3	4.2	0.1
Myanmar	14.5	-22.0	79.3	3.6	25.3	-3.1	-15.5	-2.0	10.9	-13.7	6.5
Philippines	1.9	12.0	13.7	5.0	12.6	6.7	-2.7	-7.8	21.0	-2.8	8.9
Singapore	12.9	22.3	14.5	12.4	10.8	9.0	5.0	-7.6	18.6	3.5	0.3
Thailand	13.4	15.4	15.8	7.7	10.8	8.9	6.3	-12.5	14.1	9.2	...
Viet Nam	...	...	...	7.8	14.2	11.3	5.1	11.1	14.6	10.8	15.7
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	-4.6	3.3	7.1	6.8	0.4	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste <sup>a</sup>	...	...	...	76.8	81.2	0.5	10.3	-3.5	-7.0	2.6	...
Tonga	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	4.8	4.4	9.7	3.5	2.7	4.0	3.7	1.5	5.3	0.3	4.5
Japan	7.2	4.2	12.6	6.2	9.9	8.7	1.4	-24.2	24.4	-0.4	-0.1
New Zealand	7.3	8.4	7.5	4.7	-0.1	3.2	3.6	-2.7	5.0	2.7	2.6

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

Table 2.22 **Growth Rates of Real Imports of Goods and Services**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	7.2	14.3	3.8	13.0	7.3	-19.2	12.8	-1.4	-3.0
Azerbaijan	...	17.8	17.3	19.8	20.1	20.1	16.5	0.5	12.4	1.5	-2.1
Georgia	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	-19.9	28.0	12.5	12.2	25.8	-11.3	-15.7	0.9	5.1	17.2
Kyrgyz Republic	...	-18.4	0.4	6.5	45.0	11.0	13.6	-19.4	-6.9	14.9	18.5
Pakistan	-3.5	4.0	-2.3	40.5	18.7	-4.1	5.9	-15.9	4.4	-0.1	-3.6
Tajikistan	...	...	...	16.5	39.6	27.3	1.4	-4.0	8.0	...	...
Turkmenistan	...	-6.4	2.2	-9.3	-18.6	23.9	19.7	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	...	...	...	...	...	...	...	...	...	...	...
Hong Kong, China	11.4	12.4	16.4	8.0	9.1	9.1	2.2	-8.9	17.4	4.6	2.5
Korea, Rep. of	13.3	22.5	22.6	7.6	11.3	11.7	4.4	-8.0	17.3	6.1	2.5
Mongolia	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	5.5	10.1	15.3	3.2	4.6	3.0	-3.7	-13.1	27.7	-0.5	-1.9
<b>South Asia</b>											
Bangladesh	9.3	48.4	10.2	19.1	18.2	16.0	-2.1	-2.6	0.7	29.2	7.5
Bhutan	...	13.6	-4.8	16.7	0.5	13.7	4.1	15.5	17.1	4.7	...
India	3.4	28.1	4.5	32.6	21.5	10.2	22.7	-2.1	15.8	21.5	6.8
Maldives	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	6.9	6.5	2.9	8.2	12.6	28.3	-4.7	3.4
Sri Lanka	...	0.8	14.8	2.7	6.9	3.7	4.0	-9.6	12.6	20.0	0.5
<b>Southeast Asia</b>											
Brunei Darussalam	17.9	15.9	-6.2	10.2	4.1	13.2	11.0	-0.8	-0.3	11.4	12.7
Cambodia	-25.1	33.1	30.6	17.3	16.0	12.1	22.6	-4.9	10.3	16.3	8.1
Indonesia	21.4	20.9	25.9	17.8	8.6	9.1	10.0	-15.0	17.3	13.3	6.6
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	26.3	23.7	24.4	8.9	8.2	5.9	2.3	-12.7	15.6	6.2	4.5
Myanmar	48.0	19.8	-8.0	2.2	42.4	7.4	31.3	-18.9	51.9	1.2	3.7
Philippines	10.0	16.0	11.8	3.3	3.5	1.7	1.6	-8.1	22.5	-1.0	5.3
Singapore	14.5	22.8	20.0	11.3	11.1	8.1	9.6	-11.2	15.9	3.6	3.2
Thailand	23.7	23.0	26.0	16.2	3.0	4.2	11.4	-21.0	22.9	12.4	...
Viet Nam	...	...	...	5.9	15.2	27.6	7.6	6.7	13.7	4.1	9.1
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	-16.7	14.6	-4.7	4.7	3.6	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste <sup>a</sup>	...	...	...	-14.1	50.7	37.4	8.2	48.9	-7.1	-2.2	...
Tonga	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	5.7	16.3	11.9	12.2	7.2	9.4	14.6	-3.2	5.7	9.7	11.5
Japan	8.1	11.4	10.7	4.2	4.5	2.3	0.3	-15.7	11.1	5.9	5.4
New Zealand	0.7	14.3	11.1	12.3	4.4	-1.4	10.6	-3.9	-9.0	11.4	6.1

... = Data not available at cutoff date.

a The treatment of oil production from 2004 onwards reflects 2008 SNA concepts on resident units. Prior to 2004 oil production was based on proportion of revenues between Timor-Leste and the licensee/lessee.

Source: Country sources.

## Production

Table 2.23 **Growth Rates of Agriculture Production Index**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>										
<b>Central and West Asia</b>										
Afghanistan	7.2	4.7	-16.1	11.1	-9.9	10.4	-7.3	16.0	-1.0	-3.9
Armenia	...	-7.5	-2.4	14.3	9.9	9.2	2.3	-0.1	-16.7	13.1
Azerbaijan	...	-7.3	9.3	16.4	1.1	-1.1	5.3	10.5	-2.8	6.3
Georgia	...	9.3	-14.0	15.7	-35.6	13.6	-12.1	-0.4	-6.0	4.9
Kazakhstan	...	-18.3	-8.2	8.0	7.9	9.3	-6.6	12.2	-13.2	32.2
Kyrgyz Republic	...	-4.3	4.8	-2.9	1.7	-0.6	1.7	-1.1	3.6	3.9
Pakistan	3.6	9.1	1.2	3.0	2.0	3.6	4.1	2.5	-2.1	5.4
Tajikistan	...	-10.4	11.2	-4.4	0.2	3.9	3.5	0.3	4.3	9.2
Turkmenistan	...	-1.8	6.7	3.4	-0.9	16.6	-4.6	-4.8	11.7	0.9
Uzbekistan	...	-0.1	3.2	6.3	6.3	0.4	4.3	2.5	5.5	4.2
<b>East Asia</b>										
China, People's Rep. of	8.9	8.3	3.5	3.9	2.8	3.2	5.9	2.7	2.8	3.8
Hong Kong, China	-14.0	0.0	2.4	13.5	-9.5	-21.1	-40.0	-16.7	0.0	6.7
Korea, Rep. of	1.0	4.9	1.0	0.6	1.1	0.6	4.0	2.8	-6.2	-1.1
Mongolia	-2.2	5.6	-1.4	-7.8	-0.9	9.5	13.5	22.2	-21.2	8.4
Taipei, China	...	3.7	2.2	-5.7	0.7	-2.4	-5.1	-1.8	2.0	3.8
<b>South Asia</b>										
Bangladesh	0.1	3.7	6.2	12.9	3.3	5.3	7.4	1.1	6.6	2.8
Bhutan	5.2	4.1	-23.2	26.7	4.9	0.7	-17.3	-3.4	6.5	5.8
India	0.6	2.6	-1.1	5.8	5.4	8.6	1.5	-2.6	9.3	5.6
Maldives	6.2	-0.9	5.3	-22.0	10.8	-14.4	-1.9	-5.7	7.4	4.6
Nepal	4.9	7.8	5.1	2.1	1.1	-0.7	6.0	5.1	1.4	7.2
Sri Lanka	7.4	2.6	2.1	8.7	1.8	-0.7	10.3	-2.0	9.7	-4.5
<b>Southeast Asia</b>										
Brunei Darussalam	-15.1	2.4	14.7	-17.8	22.1	-4.1	3.2	0.0	7.6	1.6
Cambodia	-3.4	28.5	2.2	29.6	9.2	4.8	9.0	4.6	8.5	4.7
Indonesia	3.3	9.4	3.4	2.7	8.6	2.5	3.6	5.3	0.7	3.5
Lao PDR	11.1	-6.1	15.0	4.2	2.5	6.3	5.6	10.4	1.4	8.9
Malaysia	1.3	3.3	3.6	4.6	5.4	-1.0	6.4	-1.1	2.4	7.4
Myanmar	-1.7	3.6	9.0	9.8	12.2	4.9	7.6	2.3	3.0	5.6
Philippines	9.1	0.7	3.7	2.7	2.2	7.2	3.2	-2.2	-0.1	3.8
Singapore	-37.5	-1.4	-59.7	-22.7	11.7	4.0	-7.0	7.2	-6.4	7.8
Thailand	-6.2	0.7	9.7	-2.1	4.0	9.4	-0.2	2.2	0.4	6.8
Viet Nam	0.9	5.9	6.2	3.7	4.2	5.0	3.8	3.5	2.6	5.9
<b>The Pacific</b>										
Cook Islands	-5.8	-5.8	0.6	2.7	3.7	4.5	-0.6	-6.5	3.3	-6.9
Fiji	3.2	2.2	0.1	1.5	5.3	-8.6	-1.1	-6.7	-5.1	-0.6
Kiribati	-18.3	-1.8	-5.3	0.9	15.8	3.8	1.1	0.4	1.0	-1.5
Marshall Islands	...	58.5	-74.9	15.2	23.4	30.6	29.4	-8.7	-5.0	3.5
Micronesia, Fed. States of	...	...	1.4	2.1	-0.6	-3.0	-1.4	-0.3	2.5	-2.9
Nauru	0.9	2.3	1.6	1.4	-0.1	-5.1	6.0	3.6	-0.7	-1.3
Palau	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	-0.5	0.3	3.0	2.3	3.4	4.9	4.0	3.0	-2.1	-2.8
Samoa	-10.1	8.0	4.5	3.8	-2.0	-1.9	3.4	5.6	1.2	-4.2
Solomon Islands	-1.2	7.2	5.0	12.2	2.4	7.1	3.2	-2.1	5.5	-1.1
Timor-Leste	8.1	-2.4	6.7	-1.5	4.5	-1.5	9.7	12.6	-3.0	-13.4
Tonga	-0.9	-8.9	-1.9	0.7	4.9	-1.5	4.4	0.5	-3.2	-4.0
Tuvalu	-8.4	1.1	2.5	1.9	-2.2	0.2	6.3	4.2	0.6	-5.6
Vanuatu	29.6	2.9	-4.6	11.2	0.7	3.2	1.6	-3.3	0.9	-1.6
<b>Developed Member Economies</b>										
Australia	5.2	7.8	-2.0	8.8	-14.5	3.1	4.2	2.5	-1.8	8.3
Japan	-0.8	-2.9	-0.6	1.0	-2.0	1.6	0.5	-4.8	-2.8	-1.0
New Zealand	-4.4	2.0	7.1	-2.2	1.1	2.6	-0.3	0.1	0.7	2.2

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

Sources: FAOSTAT Database Online (FAO 2013), country sources.

Table 2.24 **Growth Rates of Manufacturing Production Index**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	...	...	...	...	...	...	...	...	...
Azerbaijan	...	...	...	...	...	...	...	...	...	...	...
Georgia	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	-0.4	-16.3	17.3	7.6	8.1	6.7	93.1	-9.4	14.7	17.5	...
Kyrgyz Republic	...	...	...	...	...	...	...	...	...	...	...
Pakistan	4.9	1.5	...	18.2	9.2	8.7	4.0	-8.0	4.8	...	5.0
Tajikistan	0.2	-16.3	12.0	10.5	6.1	9.3	-3.7	-6.2	...	...	...
Turkmenistan	-0.9	-4.9	13.4	...	...	...	...	...	...	...	...
Uzbekistan	...	-1.7	0.0	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	...	...	...	...	18.2	20.1	13.3	11.6	16.6	14.3	10.5
Hong Kong, China	-0.7	0.9	-0.5	3.0	2.2	-1.4	-6.7	-8.3	3.6	0.7	-0.8
Korea, Rep. of	8.9	12.0	17.2	...	8.7	7.1	3.3	-0.2	16.7	6.0	0.8
Mongolia	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	...	5.3	7.8	3.7	4.5	8.3	-1.6	-8.0	28.6	5.1	-0.2
<b>South Asia</b>											
Bangladesh	12.8	5.8	4.9	8.5	10.8	10.1	7.2	7.8	6.3	13.8	13.4
Bhutan	...	...	...	...	...	...	...	...	...	...	...
India	9.0	14.1	5.3	10.3	15.0	18.4	2.5	4.8	9.0	3.0	0.1
Maldives	...	...	...	...	...	...	...	...	...	...	...
Nepal	-1.0	9.3	6.5	-12.4	2.0	2.4	-0.9	-5.9	3.5	...	...
Sri Lanka	...	...	...	...	...	...	...	...	...	...	...
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	...	48.8	...	...	...	...	...	...	...	...
Indonesia	13.7	11.0	3.6	1.3	-1.6	5.6	3.0	1.3	...	4.1	4.1
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	14.9	14.2	24.9	5.1	8.9	2.2	0.7	-10.0	11.1	4.5	5.0
Myanmar	0.5	7.7	...	...	...	...	...	...	...	...	...
Philippines	10.2	15.0	16.0	13.9	6.3	6.3	12.1	-7.9	16.5	7.2	3.6
Singapore	9.3	10.3	15.3	9.5	11.9	5.9	...	-4.2	29.8	7.8	0.1
Thailand	14.2	6.2	6.9	5.0	6.4	8.1	3.9	-7.2	14.4	-9.3	...
Viet Nam	...	...	...	...	...	...	...	...	...	...	...
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	7.3	3.1	-5.6	...	2.3	-1.3	-3.7	-3.5	6.8	4.5	-0.8
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...	...	...	...
Samoa <sup>a</sup>	-9.1	19.3	2.8	0.0	-1.0	-3.0	-15.5	-11.3	25.0	-6.3	-3.4
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	-1.0	3.0	0.8	-1.2	-0.4	1.9	4.0	-5.1	0.5	0.0	-1.1
Japan	99.2	3.3	5.7	1.3	4.5	2.8	-3.4	-22.0	16.7	-2.5	-0.2
New Zealand	-17.8	3.2	4.4	0.9	-5.2	-0.8	-2.1	-10.4	6.6	1.1	1.1

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Refers to volume indices of industrial production.

Sources: Country sources; for New Zealand: Organisation for Economic Co-operation and Development website ([www.oecd.org](http://www.oecd.org)).

## Money, Finance, and Prices

### Snapshots

- Inflation eased across the Asia and Pacific region in 2012, reflecting softer economic growth in the region, relatively stable global food and commodity prices, and currency appreciation in some economies.
- Six economies (including India and Pakistan) recorded double-digit inflation on average between 2008 and 2012.
- Capital inflows contributed to appreciation of regional currencies against the United States (US) dollar during 2011–2012, although South Asian currencies mostly depreciated.
- Banks' nonperforming loans generally declined based on the data from reporting economies.

### Key trends

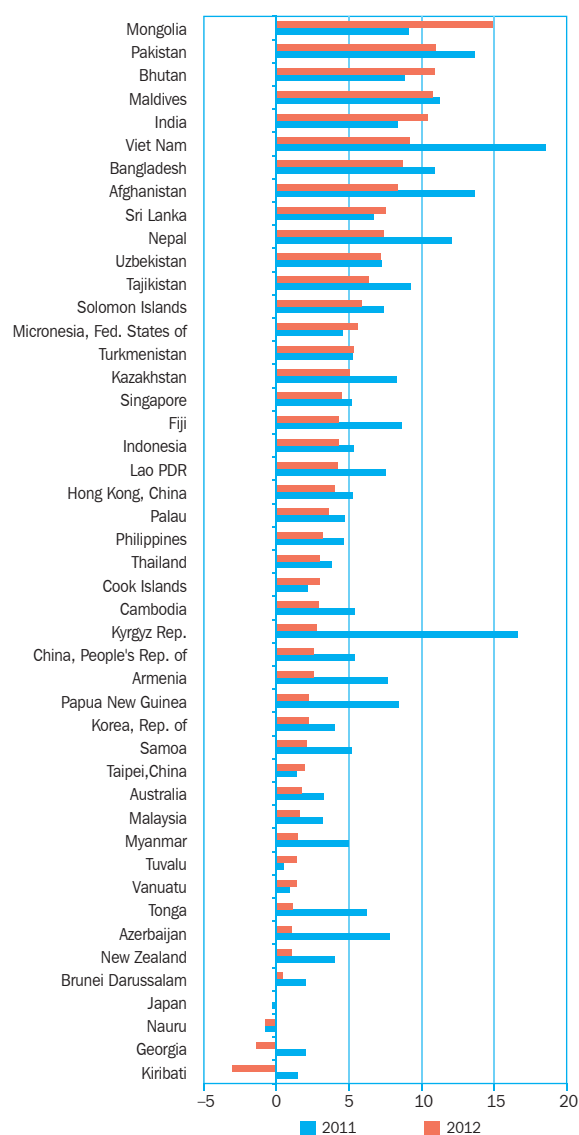
**Inflation slowed across the region in 2012.** Softer economic growth in the region and relatively stable global food and commodity prices contributed to dampening price pressures. Appreciation of local currencies against those of major trading partners tempered inflation in some economies.

The simple average of inflation rates for 46 regional economies fell from 6.4% in 2011 to 4.2% in 2012. Consumer inflation on a year-average basis decelerated in 34 economies, with particularly sharp declines in the Kyrgyz Republic, from 16.6% in 2011 to 2.8% in 2012, and Viet Nam, from 18.6% to 9.2% (Figure 3.1). For the Kyrgyz Republic, lower food prices brought down inflation. In Viet Nam, inflation subsided largely owing to a tightening of fiscal and monetary policies in 2011, together with good harvests in 2012 (ADB 2013).

Improved food supplies lowered food price inflation in many economies, including the People's Republic of China where inflation eased to 2.6% in 2012 (Figure 3.2), and Indonesia, where inflation fell to a 12-year low of 4.3%. Food prices have a heavy weighting, often exceeding 30%, in consumer price index baskets in developing member economies. Table 3.2 shows that food price inflation in 2012 eased in all but a handful of economies. In seven economies, food prices fell in 2012 from 2011 (Figure 3.2).

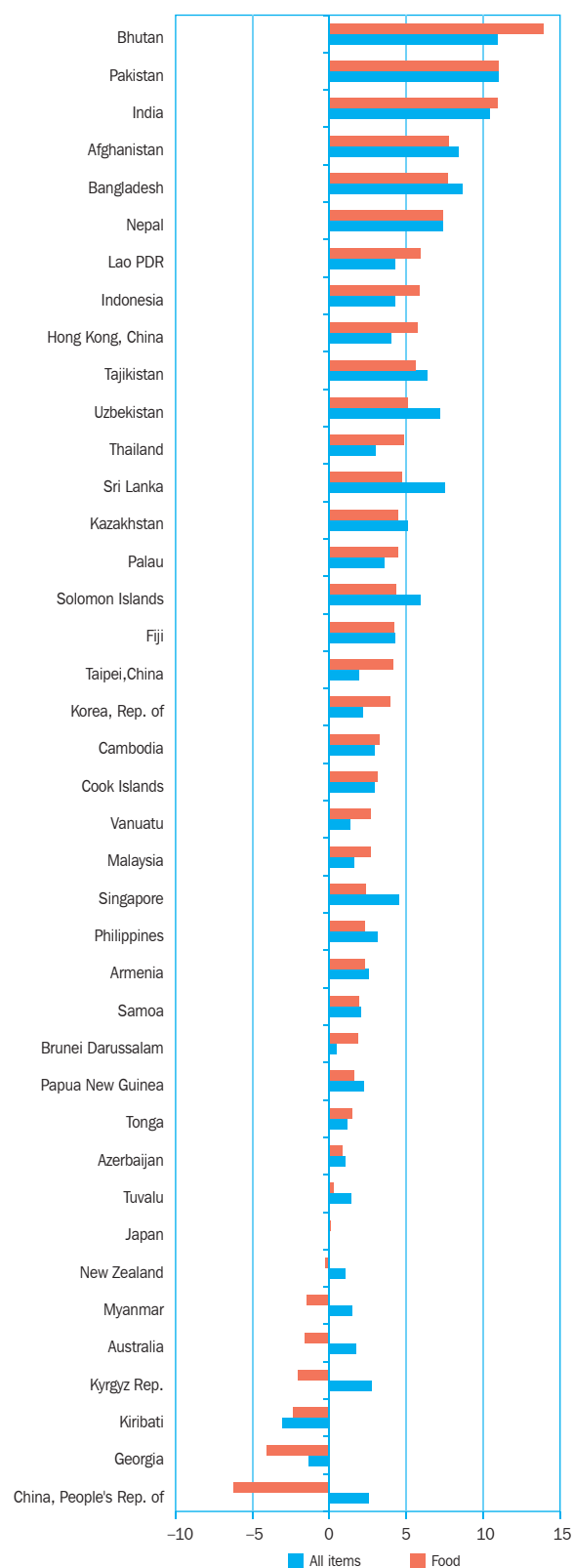
Inflation picked up to 10.5% in India in 2012, partly reflecting the impact of bad weather on food production. Double-digit inflation also was recorded in Bhutan, the Maldives, Mongolia, and Pakistan.

Figure 3.1 Inflation rate, 2011–2012



Lao PDR = Lao People's Democratic Republic.  
Source: Table 3.1.

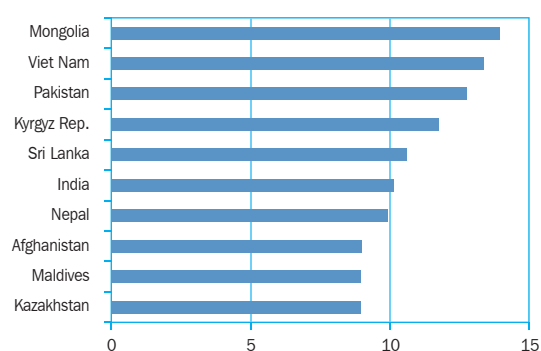
Figure 3.2 **Price increases for all items and food components, 2012**  
(annual % change)



Lao PDR = Lao People's Democratic Republic.  
Sources: Tables 3.1. and 3.2.

**Taking a longer-term view, inflation averaged 10% or higher in six economies during 2008–2012.** Figure 3.3 presents the 10 economies with the highest average inflation in 2008–2012. In Mongolia, the impact of severe winters on food production drove up inflation in some years and rapid increases in government spending also put upward pressure on prices. High rates of credit growth and currency devaluations in 2010 contributed to inflation in Viet Nam over recent years. In Pakistan, government policies, including borrowing from the central bank, fuelled public inflationary expectations (ADB 2013).

Figure 3.3 **Average growth rates of consumer price index, 2008–2012**



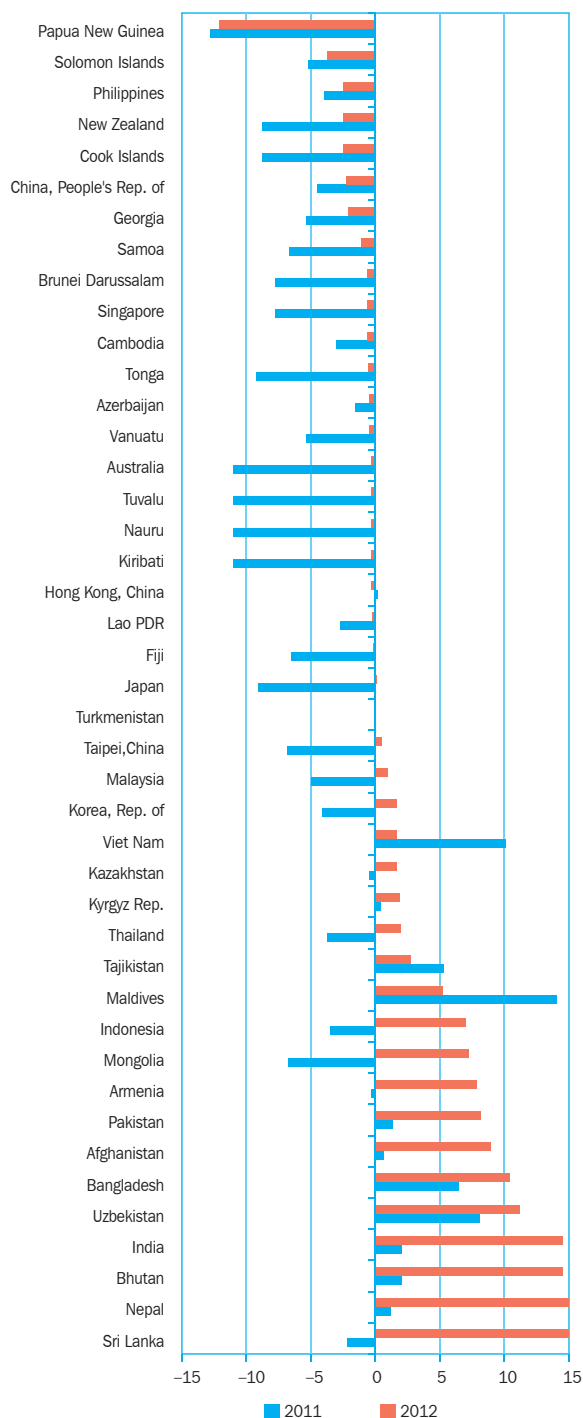
Source: Table 3.1.

**Capital inflows contributed to currency appreciation against the US dollar in 2011 and 2012.** In Figure 3.4, bars to the left show appreciations against the US dollar and bars to the right show depreciations. More regional currencies appreciated than depreciated against the US dollar in both years, although the difference narrowed in 2012. Better economic prospects in Asia compared with Europe, Japan, and the US, rising global liquidity from the industrial economies, and associated capital flows into the region, contributed to currency appreciation. This in turn, played a role in keeping inflation in check. The Papua New Guinea kina strengthened by more than 10% in both 2011 and 2012, driven up by inflows of foreign direct investment.

**However, most South Asian currencies weakened against the US dollar in 2012.** The Indian rupee softened as the nation's economy slowed and its current account deficit widened. The Nepalese rupee, which is pegged to India's currency, eased against the dollar. The Sri Lankan rupee depreciated against the dollar when the central bank

moved toward greater exchange rate flexibility by limiting central bank intervention in the foreign exchange market (ADB 2013). These depreciations added to inflationary pressures in these economies.

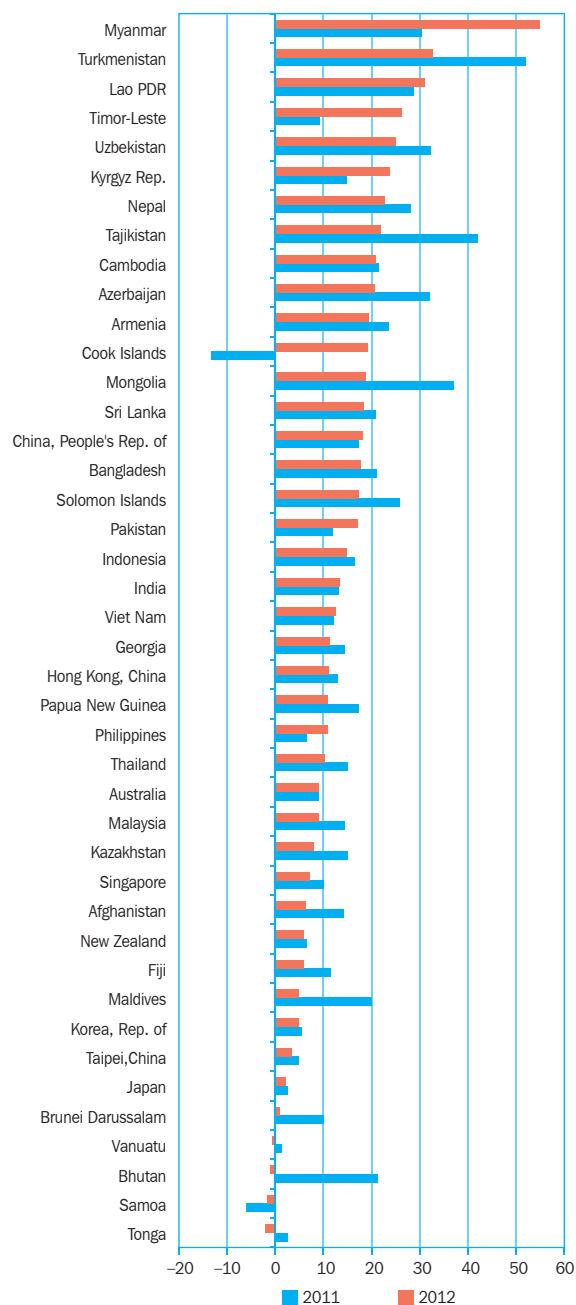
Figure 3.4 **Percentage change in dollar exchange rates 2011–2012**



Lao PDR = Lao People's Democratic Republic.  
Source: Table 3.16.

**Money supply growth slowed in most of the region's economies in 2012.** The simple average of money supply growth rates for 42 economies decelerated from 16.3% in 2011 to 13.9% in 2012. Among the reporting economies, money supply growth eased in 30 and picked up in 11 (Figure 3.5). Money supply contracted in four economies, three of them in the Pacific.

Figure 3.5 **Percentage of growth of money supply, 2011–2012 (annual % change)**

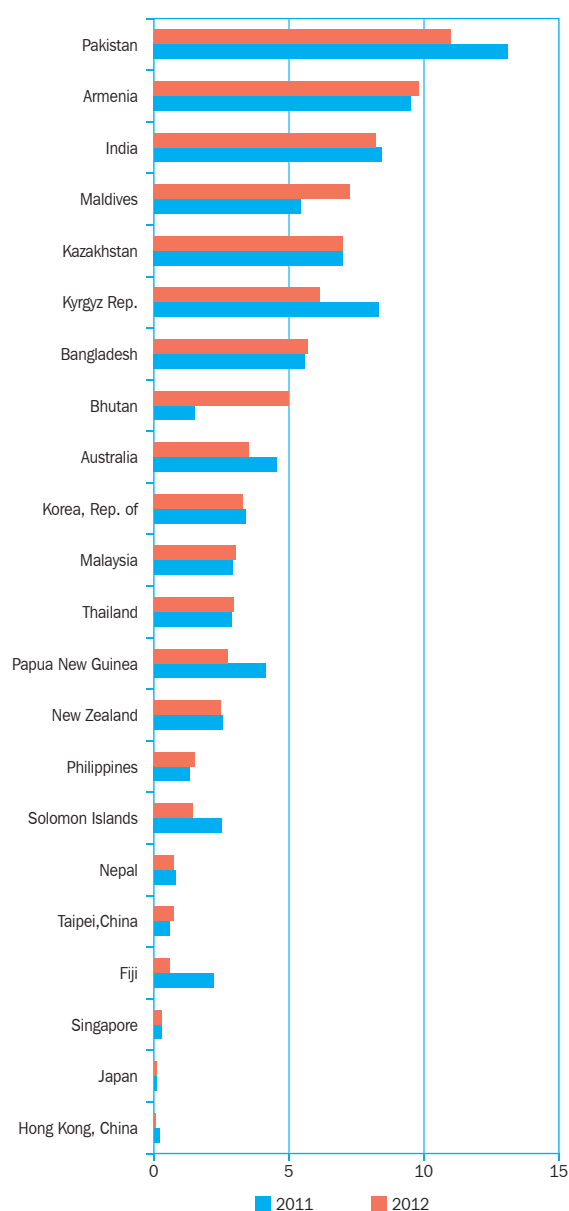


Lao PDR = Lao People's Democratic Republic.  
Source: Table 3.5.

**Yields on short-term Treasury bills generally eased.**

In 13 of 22 reporting economies, yields on short-term Treasury bills fell in 2012, while yields rose in 8 (Figure 3.6). Interest rates offered on time deposits of 12 months also declined in most economies (Table 3.7). A subdued global economic outlook and generally benign inflation prompted monetary authorities in a number of regional economies to trim policy interest rates to support economic growth, bringing down market-determined rates.

Figure 3.6 Yield on short-term treasury bills, 2011–2012 (%)



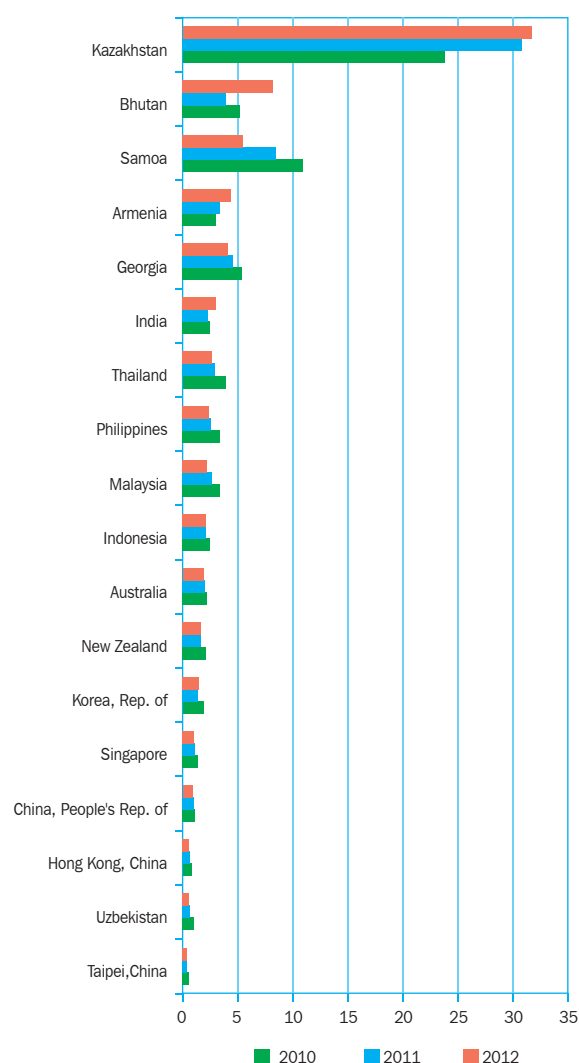
Source: Table 3.10.

**Bank nonperforming loans (NPLs) generally declined.**

In 18 economies for which data are available, NPLs as a percentage of total loans declined in 11 between 2010 and 2012 (Figure 3.7). Kazakhstan was a notable exception, with NPLs increasing sharply to 31.7% of total loans in 2012. One outcome of the high level of bad loans in Kazakhstan was that banks, growing more risk averse, increased investments in relatively secure government and central bank securities, which constrained bank lending to businesses (ADB 2013).

Data for 2011 show that NPLs were at double-digit levels in Kazakhstan, the Kyrgyz Republic, Pakistan, and Tajikistan (Table 3.12).

Figure 3.7 Bank nonperforming loans, 2010–2012 (% of total gross loans)



Source: Table 3.12.

## Data issues and comparability

Some economies need to meet international reporting standards and classifications on the compilation of monetary and financial statistics.

The consumer price index coverage differs from country to country. Sometimes the basket of goods and services in the index is outdated or represents only urban areas or the capital city. Other price measurements, such as the wholesale price index and the producer price index, are not available in the Pacific countries and it is recommended that they make an effort to compile these indexes.

Money supply in most economies relates to M2 but eight of the 42 reporting economies report M3, which is broader than M2 as it also includes less liquid financial assets. It should also be noted that countries like Japan, Malaysia, and the Philippines have shifted from M2 to M3.

The methodology in compiling or measuring banks' average deposit and lending rates also vary for each economy. Some countries use the central bank policy rate while others commercial bank rates.

Table 3.1 **Growth Rates of Consumer Price Index<sup>a</sup>**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	11.9	9.0	4.4	22.5	4.9	-4.5	13.7	8.4
Armenia	...	176.0	-0.8	0.6	2.9	4.4	9.0	3.4	8.2	7.7	2.6
Azerbaijan	...	...	1.8	9.6	8.3	16.7	20.8	1.5	5.7	7.8	1.1
Georgia	...	...	4.6	6.2	8.8	11.0	5.5	3.0	11.2	2.0	-1.4
Kazakhstan	...	176.2	13.2	7.6	8.6	10.8	17.0	7.3	7.1	8.3	5.1
Kyrgyz Republic	...	43.5	18.7	4.3	5.5	10.2	24.5	6.8	8.0	16.6	2.8
Pakistan	6.0	13.0	3.6	9.2	7.9	7.8	12.0	17.0	10.1	13.7	11.0
Tajikistan	...	2383.7	60.6	7.1	12.5	19.7	11.8	5.0	9.8	9.3	6.4
Turkmenistan	...	...	8.3	10.7	8.2	6.3	14.5	-2.7	5.0	5.3	5.3
Uzbekistan	...	...	24.9	7.8	8.7	6.1	7.2	7.8	7.6	7.3	7.2
<b>East Asia</b>											
China, People's Rep. of	3.1	17.1	0.4	1.8	1.5	4.8	5.9	-0.7	3.3	5.4	2.6
Hong Kong, China	10.2	9.1	-3.7	0.9	2.1	2.0	4.3	0.6	2.3	5.3	4.1
Korea, Rep. of	8.6	4.5	2.3	2.8	2.2	2.5	4.7	2.8	3.0	4.0	2.2
Mongolia	...	56.8	11.6	12.8	4.8	9.6	28.0	7.6	10.2	9.1	14.9
Taipei, China	4.1	3.7	1.3	2.3	0.6	1.8	3.5	-0.9	1.0	1.4	1.9
<b>South Asia</b>											
Bangladesh	3.9	8.9	2.8	6.5	7.2	7.2	9.9	6.7	7.3	10.9	8.7
Bhutan	10.0	9.5	4.0	5.3	5.0	5.2	8.3	4.4	7.0	8.8	10.9
India	11.6	10.2	3.7	4.2	6.2	6.2	9.1	12.4	10.4	8.4	10.5
Maldives	3.6	5.5	-1.2	1.3	2.7	6.8	12.0	4.5	6.2	11.3	10.8
Nepal <sup>b</sup>	9.7	7.7	3.4	4.5	3.7	6.5	6.9	14.1	9.2	12.1	7.4
Sri Lanka <sup>c</sup>	21.5	7.7	6.2	11.0	10.0	15.8	29.2	3.5	6.2	6.7	7.5
<b>Southeast Asia</b>											
Brunei Darussalam	2.1	6.0	1.2	1.1	0.2	1.0	2.1	1.1	0.4	2.0	0.5
Cambodia <sup>c</sup>	141.8	7.8	-0.8	5.8	4.7	5.9	19.7	-0.7	4.0	5.4	2.9
Indonesia <sup>d</sup>	7.8	9.5	9.3	10.5	13.1	6.4	9.8	4.8	5.1	5.4	4.3
Lao PDR	35.9	19.6	23.1	7.2	6.8	4.5	7.5	0.0	6.0	7.6	4.3
Malaysia	3.1	3.4	1.5	2.9	3.6	2.0	5.4	0.6	1.7	3.2	1.6
Myanmar	...	...	-0.2	9.4	20.0	20.9	17.9	1.5	7.7	5.0	1.5
Philippines	12.4	6.7	6.7	6.5	5.5	2.9	8.3	4.2	3.8	4.6	3.2
Singapore	3.4	1.7	1.3	0.5	1.0	2.1	6.7	0.6	2.8	5.2	4.5
Thailand	6.0	5.8	1.6	4.5	4.7	2.2	5.4	-0.9	3.3	3.8	3.0
Viet Nam	...	...	-1.6	8.3	7.1	8.3	23.1	5.9	10.0	18.6	9.2
<b>The Pacific</b>											
Cook Islands	5.3	0.9	3.2	2.5	3.4	2.5	7.8	6.7	-0.3	2.2	3.0
Fiji	8.1	2.2	1.1	2.3	2.5	4.8	7.8	3.6	5.6	8.7	4.3
Kiribati <sup>c</sup>	10.2	4.1	0.4	-0.3	-1.5	3.6	13.7	9.8	-3.9	1.5	-3.0
Marshall Islands <sup>c</sup>	1.2	6.8	0.9	3.5	5.3	2.6	14.7	0.5	1.6	5.6	...
Micronesia, Fed. States of	...	...	1.8	4.1	4.4	3.6	6.6	7.8	6.3	4.6	5.6
Nauru	12.6	1.8	2.3	9.8	14.2	0.9	13.9	9.8	-4.6	-0.8	-0.8
Palau	...	...	...	3.9	4.5	3.2	11.9	1.5	1.4	4.7	3.6
Papua New Guinea	6.9	17.3	15.6	1.8	2.4	0.9	10.8	6.9	6.0	8.4	2.2
Samoa	15.3	-2.9	0.9	1.9	3.8	5.7	11.5	6.3	0.8	5.2	2.1
Solomon Islands <sup>c</sup>	8.8	9.6	7.1	7.2	11.2	7.6	17.3	7.1	1.0	7.4	5.9
Timor-Leste	...	...	...	1.5	4.2	8.9	7.6	0.4	9.2	15.4	...
Tonga	10.9	0.4	6.3	8.7	6.1	5.8	10.4	1.4	3.6	6.3	1.1
Tuvalu <sup>e</sup>	2.0	5.6	1.3	3.2	4.2	2.3	10.4	-0.3	-1.9	0.5	1.4
Vanuatu <sup>c</sup>	5.1	1.8	2.5	0.8	2.1	3.9	4.6	4.3	3.0	1.0	1.4
<b>Developed Member Economies</b>											
Australia	7.3	4.6	4.5	2.7	3.6	2.3	4.4	1.8	2.9	3.3	1.8
Japan	3.1	-0.1	-0.7	-0.3	0.3	-	1.4	-1.4	-0.7	-0.3	-
New Zealand	6.1	3.8	2.6	3.0	3.4	2.4	4.0	2.1	2.3	4.0	1.1

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, - = Magnitude equals zero.

a Unless otherwise indicated, data refer to the whole country.

b Data refer to urban areas only.

c Data refer to capital city.

d For 1990 and 1995, data refer to CPI for 27 cities; for 2000–2002, 43 cities; for 2003–2007, 45 cities; and for 2008 onward, 66 cities.

e Data prior to 1999 cover Funafuti only.

Source: Country sources.

## Prices

Table 3.2 **Growth Rates of Food Consumer Price Index<sup>a</sup>**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	9.1	7.7	6.0	31.9	4.3	-9.1	13.9	7.8
Armenia	...	190.5	-2.2	0.7	3.0	6.0	10.0	-0.7	8.6	11.2	2.3
Azerbaijan	...	...	2.3	10.9	11.9	16.2	28.6	-1.5	7.2	10.4	0.9
Georgia	...	...	7.5	8.3	9.3	13.2	5.4	3.9	23.1	0.6	-4.1
Kazakhstan	...	163.8	16.0	8.1	8.7	12.2	23.4	6.0	6.2	11.9	4.5
Kyrgyz Republic	...	40.1	18.5	5.4	7.5	12.6	29.1	2.1	6.8	21.9	-2.0
Pakistan	4.5	16.5	2.2	12.5	6.9	10.3	17.7	23.7	12.9	18.0	11.0
Tajikistan	...	3008.1	66.3	8.3	13.9	25.5	13.0	2.3	13.4	10.3	5.6
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	18.9	6.7	7.4	2.0	3.3	4.4	4.8	3.5	5.1
<b>East Asia</b>											
China, People's Rep. of	...	-6.8	1.7	-6.4	-0.6	9.8	1.8	-11.9	6.5	4.3	-6.3
Hong Kong, China	10.0	7.1	-2.2	1.8	1.7	4.3	10.2	1.3	2.3	7.0	5.7
Korea, Rep. of	10.1	2.8	1.1	3.1	0.4	2.4	4.7	7.5	6.6	8.2	4.0
Mongolia	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	3.5	4.3	0.4	7.3	-0.7	2.9	8.6	-0.4	0.6	2.3	4.2
<b>South Asia</b>											
Bangladesh	2.5	9.3	2.6	7.9	7.7	8.2	12.3	7.2	8.5	14.1	7.7
Bhutan <sup>b</sup>	...	...	...	5.7	5.0	8.1	11.9	9.0	8.8	10.2	13.9
India	12.4	10.9	1.6	4.2	7.6	8.4	12.3	15.2	9.9	6.4	11.0
Maldives	...	...	-10.5	0.2	4.7	16.0	17.8	1.5	5.3	19.6	...
Nepal <sup>c</sup>	10.9	7.4	0.4	4.0	3.1	6.5	9.5	20.1	14.0	17.5	7.4
Sri Lanka <sup>d</sup>	23.3	6.9	4.5	11.4	8.9	20.3	44.0	3.1	6.9	8.8	4.7
<b>Southeast Asia</b>											
Brunei Darussalam	-0.4	2.6	-	0.5	-0.3	2.5	4.1	2.3	1.0	3.5	1.8
Cambodia <sup>d</sup>	...	...	-3.4	8.4	6.5	12.6	29.9	-0.5	4.4	6.6	3.2
Indonesia <sup>e</sup>	...	13.2	2.7	10.0	14.8	11.4	16.9	7.0	9.4	8.5	5.9
Lao PDR	...	...	...	7.7	9.4	8.1	11.2	2.3	7.7	9.8	5.9
Malaysia	4.2	4.9	2.1	3.7	3.3	3.1	8.8	4.1	2.5	4.8	2.7
Myanmar	...	...	-2.6	9.3	20.6	21.3	18.6	-0.4	7.2	3.9	-1.5
Philippines	10.9	8.0	3.0	6.4	5.2	3.7	13.0	6.2	4.0	5.5	2.3
Singapore	0.8	2.3	0.6	1.3	1.6	3.0	7.7	2.4	1.3	3.1	2.4
Thailand	8.0	...	-1.1	5.0	4.6	4.0	11.6	4.4	5.4	8.0	4.9
Viet Nam	...	...	...	...	...	...	...	...	...	...	...
<b>The Pacific</b>											
Cook Islands	3.8	-0.3	3.4	1.1	2.4	0.2	5.9	10.8	2.9	2.3	3.1
Fiji	8.2	0.7	-3.2	1.7	1.8	9.7	11.5	6.7	4.1	9.0	4.2
Kiribati <sup>d</sup>	...	...	0.7	-4.8	-2.6	6.2	23.8	15.6	-11.1	-2.6	-2.4
Marshall Islands <sup>d</sup>	3.7	1.4	-0.8	0.3	2.3	1.6	11.9	10.1	-1.5	4.9	...
Micronesia, Fed. States of	...	...	1.1	3.4	2.0	2.4	8.5	18.0	2.2	3.4	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	-1.5	-1.3	5.5	17.3	9.2	1.8	4.8	4.4
Papua New Guinea	9.6	18.0	13.6	3.4	5.3	0.6	16.6	7.2	5.4	7.6	1.6
Samoa	20.2	-6.9	-0.1	0.3	4.0	7.8	14.1	10.2	-1.7	7.0	1.9
Solomon Islands <sup>d</sup>	8.4	7.6	6.6	5.6	9.8	5.9	24.1	11.9	-2.6	4.8	4.4
Timor-Leste	...	...	...	0.4	3.7	12.6	9.2	-0.1	12.0	18.7	...
Tonga	...	...	0.4	6.0	3.0	7.4	7.7	7.8	3.0	6.6	1.5
Tuvalu <sup>f</sup>	-1.4	5.6	1.1	5.5	4.4	3.4	14.4	4.7	-5.9	0.8	0.3
Vanuatu <sup>d</sup>	5.1	3.8	2.0	0.5	3.5	3.8	11.4	2.8	5.2	1.1	2.7
<b>Developed Member Economies</b>											
Australia	4.4	4.0	2.4	2.4	7.8	2.3	4.7	3.7	1.5	4.8	-1.6
Japan	4.0	-1.3	-1.9	-0.9	0.5	0.3	2.6	0.2	-0.3	-0.4	0.1
New Zealand	7.4	1.3	1.4	1.5	2.7	3.8	7.8	5.7	1.3	4.9	-0.3

... = Data not available at cutoff date, - = Magnitude equals zero.

a Coverage of food varies by country. Unless otherwise indicated, data refer to the whole country.

b Prior to third quarter of 2003, no quarterly price indices were calculated and, therefore, year-on-year rate of change of the CPI cannot be computed.

c Data refer to urban areas only.

d Data refer to capital city.

e For 1990 and 1995, data refer to CPI for 27 cities; for 2000, 43 cities; for 2005–2007, 45 cities; and for 2008 onward, 66 cities.

f Data prior to 1999 cover Funafuti only.

Sources: Country sources; for the People's Republic of China: CEIC; for Bhutan and Maldives: economy sources.

Table 3.3 **Growth Rates of Wholesale/Producer Price Index**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	275.4	0.8	7.7	0.9	0.6	2.2	7.1	22.6	9.1	7.0
Azerbaijan	...	...	...	17.3	10.1	17.6	23.4	-19.4	30.5	33.5	4.5
Georgia	...	...	5.7	7.4	10.8	11.6	9.8	-5.5	11.3	12.8	1.6
Kazakhstan	...	139.8	38.0	23.7	18.4	12.4	36.8	-22.0	25.2	27.2	3.5
Kyrgyz Republic	...	21.8	32.0	4.9	15.3	11.8	26.4	12.0	22.9	21.8	5.2
Pakistan	7.3	16.0	1.8	6.7	10.2	6.9	16.4	18.9	13.9	21.2	10.4
Tajikistan	...	...	39.2	10.4	42.7	21.2	20.3	-3.4	27.2	15.5	6.1
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	60.9	25.6	30.2	14.1	9.1	24.7	15.6	19.6	14.5
<b>East Asia</b>											
China, People's Rep. of	4.1	14.9	2.8	4.9	3.0	3.1	6.9	-5.4	5.5	6.0	-1.7
Hong Kong, China	...	2.8	0.2	0.8	2.2	3.0	5.6	-1.7	6.0	8.3	0.1
Korea, Rep. of	4.2	4.7	2.1	2.1	0.9	1.4	8.5	-0.2	3.8	6.7	0.7
Mongolia	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	-0.6	7.4	1.8	0.6	5.6	6.5	5.1	-8.7	5.5	4.3	-1.2
<b>South Asia</b>											
Bangladesh <sup>a</sup>	8.5	4.6	-0.4	3.4	8.9	...	...	...	...	...	...
Bhutan	...	...	...	...	...	...	...	...	...	...	...
India	10.3	8.0	7.2	4.5	6.6	4.7	8.1	3.8	9.6	8.9	7.4
Maldives	...	...	...	...	...	11.5	13.2	-0.1	2.6	...	...
Nepal	...	...	...	7.3	8.9	9.0	9.1	12.8	12.6	9.9	6.4
Sri Lanka	22.2	8.8	1.7	11.5	11.7	24.4	24.9	-4.2	2.6	19.9	3.5
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	...	...	...	...	...	...	...	...	...	...
Indonesia	10.0	11.4	12.5	15.3	13.6	13.8	25.8	-0.1	4.9	7.4	5.1
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	0.7	3.8	3.1	5.8	3.1	5.5	10.2	-7.3	5.6	9.0	0.1
Myanmar	...	...	...	...	...	...	...	...	...	...	...
Philippines	...	...	5.8	11.4	8.3	3.2	11.9	-4.2	5.9	8.7	1.1
Singapore	1.7	0.1	10.1	9.6	5.0	0.3	7.5	-13.9	4.7	8.4	0.5
Thailand	...	...	3.8	9.2	7.0	3.3	12.4	-3.8	9.4	5.5	1.0
Viet Nam	...	...	...	4.5	4.2	6.9	35.4	7.4	12.6	18.4	3.3
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	6.0	3.6	4.6	3.4	3.9	2.6	5.4	1.2	1.4	3.0	1.2
Japan	1.1	-0.8	0.0	1.6	2.2	1.8	4.6	-5.3	-0.1	1.5	-0.8
New Zealand	3.6	1.3	5.2	3.4	4.6	2.6	10.7	-1.5	2.7	4.7	1.0

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a For agricultural and industrial products only.

Source: Country sources.

## Prices

Table 3.4 **Growth Rates of GDP Deflator**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	11.6	4.9	19.1	2.0	-0.3	14.3	10.5	...
Armenia	...	...	-1.4	3.2	4.6	4.2	5.9	3.3	9.2	4.3	-1.2
Azerbaijan	...	545.8	12.5	16.1	11.3	21.0	27.8	-18.8	13.6	22.5	1.5
Georgia	...	...	4.7	7.9	8.5	9.7	9.7	-2.0	8.5	9.2	1.2
Kazakhstan	...	161.0	17.4	17.9	21.5	15.5	21.0	4.7	20.8	17.8	4.4
Kyrgyz Republic	...	42.0	27.2	7.1	9.4	14.9	22.2	4.0	10.0	22.5	7.4
Pakistan	6.5	13.9	2.7	7.0	10.6	7.3	13.2	20.7	10.8	19.7	5.6
Tajikistan	...	-96.3	22.7	9.5	21.5	27.5	28.5	12.0	12.4	18.9	11.9
Turkmenistan	...	706.4	21.3	7.1	11.8	8.5	59.7	9.8	0.3	10.5	8.0
Uzbekistan	...	362.5	47.1	16.5	27.1	23.9	26.8	17.2	16.5	15.1	14.8
<b>East Asia</b>											
China, People's Rep. of	5.8	13.7	2.0	3.8	3.8	7.6	7.8	-0.6	6.7	7.8	1.9
Hong Kong, China	7.5	4.1	-3.4	-0.2	-0.5	3.1	1.3	-0.4	0.3	3.9	3.9
Korea, Rep. of	10.4	7.5	1.0	0.7	-0.1	2.1	2.9	3.4	3.6	1.5	1.0
Mongolia	...	...	12.0	20.1	22.0	11.6	21.4	1.8	20.0	12.1	12.0
Taipei, China	3.6	2.3	-0.2	-1.3	-1.1	-0.5	-3.0	0.7	-2.0	-3.0	1.4
<b>South Asia</b>											
Bangladesh	6.3	7.4	1.9	5.1	5.2	6.8	8.8	6.5	6.5	7.5	8.5
Bhutan	12.0	8.0	3.7	5.9	5.4	3.1	5.7	4.8	6.0	8.8	4.1
India	10.7	9.1	3.5	4.2	6.4	5.8	8.7	6.1	8.9	8.3	8.2
Maldives	...	...	1.5	1.0	9.8	7.0	9.3	8.9	0.4	7.6	5.0
Nepal	10.9	6.0	4.2	5.8	7.0	7.3	5.6	16.0	14.4	11.7	6.7
Sri Lanka	22.2	8.4	6.7	10.4	11.3	14.0	16.3	5.9	7.3	7.8	8.9
<b>Southeast Asia</b>											
Brunei Darussalam	8.4	2.9	29.0	18.8	10.0	1.1	12.7	-22.1	5.3	20.4	-0.0
Cambodia	145.6	11.7	-3.1	6.1	4.6	6.5	12.3	2.5	3.1	3.4	1.4
Indonesia	7.7	9.9	9.6	14.3	14.1	11.3	18.1	8.3	8.2	8.1	4.5
Lao PDR	33.1	20.6	21.8	7.8	14.4	4.3	6.0	-4.3	8.3	7.6	4.1
Malaysia	3.8	3.6	4.9	4.6	4.0	4.8	10.4	-6.0	4.1	5.5	0.8
Myanmar	18.5	19.6	2.5	19.2	21.3	23.6	13.6	4.9	7.0	...	3.7
Philippines	13.0	7.6	5.7	5.8	4.9	3.1	7.5	2.8	4.2	4.0	1.9
Singapore	4.4	2.8	3.6	2.1	2.0	6.3	-1.1	2.7	0.2	0.6	2.1
Thailand	...	5.7	1.3	4.9	5.1	2.5	5.1	0.2	4.0	3.5	1.3
Viet Nam	42.1	17.0	3.4	9.0	8.6	9.6	22.7	6.2	12.1	21.3	10.9
<b>The Pacific</b>											
Cook Islands	3.8	0.6	2.2	-2.6	6.4	7.3	11.0	3.1	6.0	2.0	...
Fiji	8.1	...	-2.4	7.1	3.1	3.1	4.4	1.2	6.5	6.0	...
Kiribati	-4.7	1.4	3.2	0.6	4.6	-1.3	6.0	2.1	1.3	-0.9	...
Marshall Islands	-2.0	11.6	-3.0	2.3	2.3	1.2	3.9	0.8	1.9	3.8	4.8
Micronesia, Fed. States of	5.0	1.4	1.1	2.1	1.4	3.3	4.8	5.2	3.3	3.4	3.9
Nauru	...	...	...	1.6	23.0	-8.3	-8.3	77.6	-18.4	7.0	16.4
Palau	...	2.8	...	4.5	3.4	0.1	6.0	3.8	0.3	1.6	1.9
Papua New Guinea	7.4	16.0	13.1	7.9	9.4	3.9	7.8	-2.6	9.9	4.3	-2.3
Samoa	12.6	-6.9	2.6	4.7	6.0	7.7	3.8	0.9	1.9	3.1	0.2
Solomon Islands	...	4.2	6.9	7.3	11.2	7.7	17.0	7.1	1.0	6.0	7.0
Timor-Leste	...	3.1	3.0	10.5	-5.2	5.2	37.0	-20.0	27.7	28.1	...
Tonga	7.8	-1.3	7.4	6.7	17.2	6.3	7.3	-2.4	3.7	5.8	2.3
Tuvalu	...	...	...	1.5	4.1	-0.1	3.5	0.7	2.6	1.3	0.9
Vanuatu	8.2	2.7	2.4	0.4	3.9	5.5	7.3	2.3	2.6	2.1	...
<b>Developed Member Economies</b>											
Australia	9.7	2.1	2.6	3.8	4.8	4.9	4.6	5.0	0.9	6.1	1.5
Japan	2.4	-0.7	-1.2	-1.3	-1.1	-0.9	-1.3	-0.5	-2.2	-1.9	-0.9
New Zealand	2.5	2.5	0.5	3.3	2.1	1.9	5.3	2.8	2.7	3.4	1.8

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

Sources: Country sources; IMF World Economic Outlook Database for Turkmenistan.

Table 3.5 **Growth Rates of Money Supply (M2)**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	40.6	...	...	44.6	55.5	31.0	35.9	39.3	23.1	14.3	6.4
Armenia	...	67.8	36.5	27.7	32.6	42.9	2.3	15.1	11.8	23.7	19.5
Azerbaijan	...	24.0	86.7	22.3	86.8	71.4	44.0	-0.3	24.3	32.1	20.7
Georgia <sup>a</sup>	...	...	39.6	27.9	42.7	46.4	7.9	7.7	30.1	14.5	11.4
Kazakhstan <sup>a</sup>	...	109.0	45.0	25.2	78.1	25.9	35.4	19.5	13.3	15.0	7.9
Kyrgyz Republic	...	78.2	12.1	9.9	51.6	33.3	12.6	17.9	21.1	14.9	23.8
Pakistan	14.4	13.8	12.1	17.5	14.5	19.7	5.5	14.8	15.1	12.0	17.0
Tajikistan	...	...	57.1	36.3	62.8	77.9	-10.4	34.8	12.6	42.0	21.8
Turkmenistan <sup>a</sup>	...	448.0	94.6	5.6	10.7	96.4	-7.6	68.6	74.2	52.1	32.8
Uzbekistan	...	151.9	37.1	54.2	36.8	46.1	32.4	50.6	52.4	32.3	25.0
<b>East Asia</b>											
China, People's Rep. of	34.2	32.3	12.3	16.5	16.7	16.7	17.8	27.6	19.7	17.3	18.3
Hong Kong, China	22.4	14.6	7.8	5.1	15.4	20.8	2.6	5.3	8.1	12.9	11.1
Korea, Rep. of	25.3	23.3	5.2	7.0	12.5	10.8	12.0	9.9	6.0	5.5	4.8
Mongolia	10.8	32.9	17.6	34.6	34.8	56.3	-5.5	26.9	62.5	37.0	18.8
Taipei, China	11.0	9.4	6.5	6.6	5.2	0.8	7.2	5.8	5.4	4.8	3.5
<b>South Asia</b>											
Bangladesh	16.9	16.0	18.6	16.7	19.3	17.1	17.6	19.2	22.4	21.1	17.7
Bhutan	10.5	36.0	16.1	10.7	26.3	8.6	2.3	24.6	30.1	21.2	-1.0
India <sup>a</sup>	15.1	13.6	16.8	17.0	21.7	21.4	19.3	16.9	16.1	13.2	13.3
Maldives	18.6	15.4	4.2	10.6	18.9	24.1	21.9	14.4	14.6	20.0	5.0
Nepal	18.6	16.1	21.8	8.3	15.6	13.8	25.3	27.3	14.1	28.1	22.7
Sri Lanka	19.1	19.2	12.9	19.1	17.8	-4.7	11.7	19.9	18.0	20.9	18.3
<b>Southeast Asia</b>											
Brunei Darussalam	8.2	6.7	25.9	-4.5	2.1	6.7	9.6	9.7	4.8	10.1	0.9
Cambodia	240.9	44.3	26.9	16.1	38.2	62.9	4.8	36.8	20.0	21.5	20.9
Indonesia	41.8	28.0	14.3	16.3	14.9	19.3	14.9	13.0	15.4	16.4	14.9
Lao PDR	7.8	16.4	45.9	8.2	30.1	38.7	18.3	31.3	39.5	28.7	31.0
Malaysia <sup>a</sup>	12.8	14.9	5.1	8.3	13.0	9.5	11.9	9.2	6.8	14.3	9.0
Myanmar	41.4	40.5	42.2	27.3	27.3	29.9	14.9	30.6	42.5	30.5	55.0
Philippines	18.4	25.2	4.8	9.8	22.1	10.7	15.4	7.7	10.7	6.5	10.9
Singapore	20.0	8.5	-2.0	6.2	19.4	13.4	12.0	11.3	8.6	10.0	7.2
Thailand	26.7	17.0	3.7	6.1	8.2	6.3	9.2	6.8	10.9	15.1	10.4
Viet Nam	53.1	22.6	56.2	29.7	33.6	46.1	20.3	29.0	33.3	12.1	12.6
<b>The Pacific</b>											
Cook Islands	21.9	...	4.8	-5.2	22.4	-5.8	4.0	66.8	-2.8	-13.4	19.2
Fiji	24.3	4.7	-2.1	15.2	22.3	8.3	-6.5	7.1	3.5	11.5	5.9
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	-6.8	18.4	1.4	2.9	9.7	5.6	7.1	9.5	-1.2	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea <sup>a</sup>	4.5	10.7	5.4	29.5	38.9	27.8	7.8	21.9	10.2	17.3	10.9
Samoa	19.2	21.8	16.4	19.1	10.4	11.0	5.8	10.6	6.4	-6.1	-1.6
Solomon Islands <sup>a</sup>	10.8	9.9	0.4	46.1	26.4	21.7	8.0	16.8	13.3	25.8	17.4
Timor-Leste	...	...	...	18.3	28.2	43.9	34.1	39.3	9.9	9.3	26.2
Tonga	9.3	17.0	8.3	12.1	14.4	14.0	8.3	-1.9	5.1	2.7	-2.0
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	11.3	11.5	5.5	11.6	7.0	16.1	13.2	0.5	-6.0	1.3	-0.6
<b>Developed Member Economies</b>											
Australia <sup>a</sup>	12.3	7.5	7.3	8.9	10.1	16.3	19.1	13.7	4.5	9.0	9.1
Japan <sup>b</sup>	7.4	3.2	1.9	0.4	-0.4	0.8	0.8	2.0	1.9	2.6	2.2
New Zealand <sup>a</sup>	-0.0	14.5	6.5	7.8	17.3	8.2	5.7	1.0	3.2	6.5	6.0

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Refers to M3.

b Data from 2006 refer to M3, otherwise M2.

Sources: Country sources; IMF World Economic Outlook Database for Turkmenistan.

## Money and Finance

**Table 3.6 Money Supply (M2)**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	216.8	...	...	17.9	24.3	23.1	30.0	35.8	37.3	35.2	...
Armenia	...	7.9	14.7	16.3	18.2	22.0	19.8	25.9	26.3	29.8	33.7
Azerbaijan	...	12.2	16.6	14.7	18.4	20.8	21.2	23.8	24.8	26.7	31.1
Georgia <sup>a</sup>	...	4.8	10.1	16.9	20.3	24.1	23.2	26.5	29.9	29.3	30.2
Kazakhstan <sup>a</sup>	...	11.4	15.3	27.2	36.0	36.0	39.0	44.0	38.9	35.4	34.8
Kyrgyz Republic	...	17.1	11.3	21.1	28.4	30.3	25.8	28.4	31.4	27.8	32.4
Pakistan	40.1	43.6	38.6	49.3	44.6	47.5	43.5	40.3	41.1	37.5	39.9
Tajikistan	...	20.7	8.2	15.5	19.5	25.3	16.4	19.0	17.9	20.8	21.1
Turkmenistan <sup>a</sup>	...	18.8	19.4	10.2	9.4	15.0	7.7	11.1	17.6	21.1	23.4
Uzbekistan	...	17.7	12.2	15.1	15.2	16.3	18.0	18.5	22.4	23.7	23.9
<b>East Asia</b>											
China, People's Rep. of	81.9	99.9	135.7	160.1	159.8	151.8	151.3	177.8	180.8	180.6	193.9
Hong Kong, China	202.0	204.6	272.9	310.1	336.2	369.9	367.1	397.9	401.6	416.2	438.7
Korea, Rep. of	76.1	90.5	117.3	118.1	126.5	130.6	138.9	147.1	141.5	141.8	144.3
Mongolia	53.8	15.7	21.1	37.5	38.1	48.4	34.6	43.7	55.6	57.8	54.6
Taipei, China	140.0	176.0	185.5	207.9	209.6	200.5	219.9	235.2	228.4	237.3	239.2
<b>South Asia</b>											
Bangladesh	22.2	27.7	31.5	40.9	43.5	44.8	45.6	48.2	52.3	55.3	56.3
Bhutan	20.6	33.1	50.8	50.9	57.1	51.0	47.1	52.5	57.6	59.2	51.4
India <sup>a</sup>	46.7	50.3	62.5	73.6	77.1	80.6	85.2	86.5	83.4	82.1	83.3
Maldives	...	31.2	41.1	53.0	48.0	50.4	50.0	54.5	58.1	60.6	58.6
Nepal	28.4	34.4	45.7	51.0	53.1	54.3	60.7	63.8	60.3	67.1	73.6
Sri Lanka	28.6	34.5	37.6	41.7	41.0	32.1	29.1	31.8	32.4	33.5	34.2
<b>Southeast Asia</b>											
Brunei Darussalam	70.8	120.9	93.6	57.8	51.3	54.1	53.6	76.8	74.5	65.9	65.9
Cambodia	10.3	7.7	13.0	19.5	23.3	32.3	28.3	37.7	41.4	45.4	50.5
Indonesia	39.5	49.1	53.2	43.4	41.4	41.8	38.3	38.2	38.3	38.8	40.1
Lao PDR	7.2	13.5	17.4	18.7	19.6	24.2	25.0	31.9	38.0	42.1	49.1
Malaysia <sup>a</sup>	...	122.2	128.6	123.8	127.4	125.2	121.0	142.7	136.6	140.9	144.3
Myanmar	28.8	30.7	32.7	21.6	20.0	18.8	17.2	19.4	23.6	26.4	36.7
Philippines	27.6	39.6	39.7	40.8	45.1	45.4	46.8	48.5	47.8	47.3	48.1
Singapore	87.9	82.6	105.1	105.3	113.6	111.2	123.6	135.2	127.6	132.7	137.6
Thailand	67.7	78.6	99.5	104.5	102.5	100.8	103.0	110.7	109.0	121.9	124.8
Viet Nam	27.1	23.0	50.5	75.6	86.9	108.1	100.4	115.7	129.3	112.4	108.4
<b>The Pacific</b>											
Cook Islands	47.9	34.2	42.0	44.0	48.2	42.4	41.2	65.9	62.3	52.4	...
Fiji	50.9	55.0	42.2	58.4	67.6	71.7	63.6	68.8	65.9	67.5	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	44.9	64.8	69.5	68.6	72.0	74.6	80.4	81.9	77.3	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea <sup>a</sup>	35.1	29.7	31.2	33.6	41.7	47.8	44.9	52.9	49.4	49.9	51.9
Samoa	46.8	33.9	38.2	42.3	43.8	42.6	45.1	50.1	52.2	46.1	45.0
Solomon Islands <sup>a</sup>	29.8	30.5	31.7	40.5	43.4	44.3	38.1	39.9	39.4	46.5	49.4
Timor-Leste <sup>b</sup>	...	...	6.3	4.2	3.6	5.0	4.4	8.2	7.0	5.6	...
Tonga	26.5	24.7	29.2	39.0	38.5	43.3	42.9	41.7	40.9	38.6	36.7
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	104.1	111.5	89.7	98.6	93.7	98.1	97.2	92.4	83.3	81.4	...
<b>Developed Member Economies</b>											
Australia <sup>a</sup>	52.9	57.7	65.3	73.7	75.1	80.3	88.1	93.9	95.2	95.5	99.4
Japan <sup>c</sup>	114.0	111.4	127.5	206.7	204.7	203.8	210.1	228.0	227.0	238.8	241.6
New Zealand <sup>a</sup>	32.3	86.8	93.9	105.0	116.8	120.2	117.2	117.4	118.5	120.2	122.8

... = Data not available at cutoff date.

<sup>a</sup> Refers to M3.

<sup>b</sup> GDP estimates refer to non-oil GDP. Before 2002, estimates include the value-added activities of United Nations activities.

<sup>c</sup> Data from 2005 refer to M3, otherwise M2.

Sources: Country sources; EBRD and ADB Staff Estimates for Turkmenistan.

**Table 3.7 Interest Rate on Savings Deposits**  
(% per annum, period averages)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	...	...	...	...	...	...	...	...	...
Azerbaijan	...	...	...	...	...	...	...	...	...	...	...
Georgia	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	...	...	...	...	...	...	...	...	...	...
Kyrgyz Republic	...	...	...	...	...	...	...	...	...	...	...
Pakistan	6.94	7.58	5.90	1.71	1.92	2.07	4.99	4.95	5.02	5.14	5.69
Tajikistan	...	...	...	3.63	2.22	2.18	3.36	3.26	3.83	2.06	2.16
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	2.58	3.15	0.99	0.72	0.72	0.76	0.66	0.36	0.36	0.47	0.42
Hong Kong, China	5.90	4.20	4.50	0.97	2.50	2.10	0.14	0.01	0.01	0.01	0.01
Korea, Rep. of	5.00	3.00	7.08	3.57	4.36	5.01	5.67	3.23	3.18	3.69	3.43
Mongolia	3.00	27.30	7.20	7.80	8.00	8.10	2.40	2.60	3.20	2.81	2.71
Taipei, China	4.25	3.50	3.50	0.55	0.55	0.55	0.54	0.24	0.24	0.30	0.32
<b>South Asia</b>											
Bangladesh	9.50	5.36	5.81	4.19	5.24	5.20	5.20	5.11	4.88	5.03	...
Bhutan	5.00	5.00	6.00	4.50	4.50	4.75	4.75	4.75	4.75	4.75	5.00
India	5.00	4.50	4.00	3.50	3.50	3.50	3.50	3.50	3.50	4.00	4.00
Maldives	3.25	5.50	5.50	2.25	2.25	2.25	2.13	2.10	2.10	1.88	1.88
Nepal	9.00	7.00	5.25	3.38	3.50	3.50	4.25	4.75	7.00	7.00	4.28
Sri Lanka	14.00	12.00	8.40	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	...	1.01	1.04	1.17	0.88	0.70	0.47	0.40	0.23
Cambodia	...	7.25	6.13	2.08	1.83	1.90	2.05	1.21	1.15	1.19	1.12
Indonesia	15.00	...	8.86	4.32	4.75	3.48	3.33	3.00	3.92	2.33	1.83
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	3.43	3.70	2.72	1.41	1.48	1.44	1.40	0.87	1.00	1.15	1.03
Myanmar	...	...	...	...	...	...	...	...	...	...	...
Philippines	10.90	8.00	7.40	3.80	3.50	2.20	2.22	2.07	1.60	1.62	1.30
Singapore	3.83	2.72	1.28	0.30	0.25	0.25	0.22	0.15	0.13	0.11	0.11
Thailand	11.00	5.00	2.50	1.88	2.50	0.75	0.75	0.50	0.50	0.88	0.73
Viet Nam	2.40	...	0.20	3.00	3.00	3.06	3.68	2.85	3.00	3.20	2.20
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	5.25	4.00	3.88	1.80	1.00	0.80	1.60	2.20	1.00	0.40	...
Samoa	5.90	3.00	3.00	2.75	5.83	2.75	2.75	1.75	0.88	1.00	1.00
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	0.75	0.65	0.74	0.75	0.75	0.75	0.75	0.75
Tonga	6.25	4.38	3.15	3.36	3.32	3.26	3.28	1.83	1.52	1.58	2.08
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	...	...	...	5.40	5.60	6.05	7.20	3.20	4.45	4.75	3.60
Japan	...	0.91	0.09	0.01	0.06	0.22	0.21	0.06	0.04	0.03	0.02
New Zealand	...	...	...	...	...	...	...	...	...	...	...

... = Data not available at cutoff date.

Source: Country sources.

## Money and Finance

**Table 3.8 Interest Rate on Time Deposits of 12 Months**  
(% per annum, period averages)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia <sup>a</sup>	...	...	21.86	6.37	5.95	7.29	9.51	9.91	8.80	9.08	11.49
Azerbaijan	...	...	10.40	9.38	10.50	12.10	12.21	12.19	10.96	10.40	10.10
Georgia	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan <sup>b</sup>	...	...	7.53	6.23	6.76	7.68	9.54	8.51	7.29	6.27	4.95
Kyrgyz Republic <sup>c</sup>	...	45.40	28.07	9.78	9.88	8.91	8.79	10.75	11.47	12.30	12.14
Pakistan	9.38	10.93	8.60	5.83	6.01	6.85	8.38	8.18	8.28	8.82	8.20
Tajikistan <sup>d</sup>	...	...	...	20.16	20.84	17.81	18.45	19.36	17.78	16.15	16.08
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	9.80	10.98	2.25	2.25	2.36	3.29	3.80	2.25	2.33	3.29	3.23
Hong Kong, China	8.20	6.30	5.40	1.73	3.02	2.80	0.97	0.31	0.16	0.15	0.16
Korea, Rep. of	10.00	8.10	7.94	3.72	4.50	5.17	5.87	3.48	3.86	4.15	3.70
Mongolia	4.00	56.85	13.80	12.60	13.50	13.40	13.60	12.90	10.70	10.54	11.75
Taipei, China	9.50	7.00	4.98	1.77	2.10	2.40	2.50	0.82	1.03	1.30	1.36
<b>South Asia</b>											
Bangladesh	12.13	6.31	8.97	8.31	10.32	10.70	10.86	10.93	8.70	10.48	...
Bhutan <sup>e</sup>	8.00	9.00	9.50	6.50	6.50	6.75	6.75	6.75	6.75	7.00	8.00
India	9.00	12.50	7.10	5.32	8.55	8.63	8.25	6.75	5.91	8.95	8.85
Maldives <sup>b</sup>	...	6.00	6.50	4.50	4.50	4.50	4.10	4.50	4.50	4.56	3.13
Nepal	11.50	8.00	6.88	3.63	3.63	3.63	4.25	6.10	8.13	8.13	8.91
Sri Lanka	16.00	16.00	15.00	9.00	11.00	15.00	15.00	9.50	8.50	8.50	12.50
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	...	1.63	1.14	1.56	1.30	1.06	0.82	0.75	0.49
Cambodia	...	...	7.20	6.83	6.40	7.05	7.65	6.52	6.59	6.16	5.88
Indonesia	18.53	16.28	12.17	10.95	11.63	8.24	10.43	9.55	7.88	7.06	6.09
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	7.21	6.89	4.24	3.70	3.73	3.70	3.50	2.50	2.97	3.22	3.15
Myanmar	...	...	...	...	...	...	...	...	...	...	...
Philippines <sup>f</sup>	19.70	10.70	10.50	6.00	5.01	3.06	3.96	2.50	2.07	2.03	1.80
Singapore	5.48	4.01	2.42	0.86	0.88	0.83	0.70	0.53	0.45	0.32	0.32
Thailand	13.75	10.62	3.50	3.00	4.50	2.32	1.88	0.83	1.55	2.85	2.43
Viet Nam	...	12.00	6.24	8.40	8.40	8.80	13.46	10.37	11.50	13.00	11.50
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	10.50	8.13	9.38	1.30	1.80	1.30	0.80	2.10	4.80	5.19	...
Samoa	9.20	7.50	7.35	6.38	4.87	7.25	5.13	2.88	2.25	2.25	2.80
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	1.28	1.29	1.28	1.33	1.30	1.33	1.36	1.41
Tonga <sup>g</sup>	8.00	4.81	5.13	5.93	6.77	6.77	6.53	5.52	2.97	3.36	4.57
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	14.45	7.10	5.90	4.55	5.40	5.90	7.60	3.55	6.00	6.00	4.60
Japan <sup>h</sup>	...	1.16	0.24	0.03	0.16	0.38	0.41	0.26	0.10	0.07	0.06
New Zealand <sup>a</sup>	11.50	8.00	6.49	6.90	7.24	8.42	4.84	4.29	4.72	4.07	3.95

... = Data not available at cutoff date.

a Figures are derived simple averages of monthly rates for time deposits of 6 months.

b For time deposits of over 12 months.

c From 1996, data refer to interest rates of commercial banks in national currency for 6–12 months.

d Figures are derived simple averages of monthly rates for time deposits of 6 months to 1 year.

e For fixed deposits of 1 year to less than 3 years.

f Refers to rates charged on interest-bearing deposits with maturities of over 1 year.

g Beginning 1996, figures refer to weighted averages.

h Refers to time deposits from 12 months to less than 2 years. It is computed as the arithmetic average of the monthly figures.

Sources: Country sources; for the People's Republic of China: CEIC data.

**Table 3.9 Lending Interest Rate**  
(% per annum, period averages)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	17.48	13.45	13.25	14.00	11.66	10.92	7.24
Armenia	...	111.86	31.57	17.98	16.53	17.52	17.05	18.76	19.20	17.75	17.23
Azerbaijan	...	...	17.98	19.14	19.55	19.88	20.62	20.97	20.15	17.80	17.45
Georgia	...	...	28.08	16.60	17.42	17.48	21.07	21.43	17.70	15.56	15.58
Kazakhstan	...	...	...	...	...	...	...	...	...	...	...
Kyrgyz Republic	...	...	51.90	26.60	23.20	25.32	19.86	23.03	31.54	40.21	12.75
Pakistan	...	...	...	9.07	10.99	11.77	12.94	14.54	14.04	14.42	13.52
Tajikistan	...	...	25.59	20.61	21.23	21.88	21.93	25.38	23.10	22.64	24.70
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	9.36	12.06	5.85	5.58	6.12	7.47	5.31	5.31	5.81	6.56	6.00
Hong Kong, China	10.00	8.75	9.50	7.75	7.75	6.75	5.00	5.00	5.00	5.00	5.00
Korea, Rep. of	10.00	9.00	8.55	5.59	5.99	6.55	7.17	5.65	5.51	5.76	5.40
Mongolia	...	134.37	28.54	16.54	16.01	14.22	15.40	17.06	14.42	12.65	13.34
Taipei, China <sup>a</sup>	10.05	7.67	7.71	3.85	4.12	4.31	4.21	2.56	2.68	2.88	2.88
<b>South Asia</b>											
Bangladesh	16.00	14.00	15.50	14.00	15.33	16.00	16.38	14.60	13.00	13.25	13.00
Bhutan	15.00	16.00	16.00	14.00	14.00	14.00	13.75	13.75	14.00	14.00	14.00
India	16.50	15.46	12.29	10.75	11.19	13.02	13.31	12.19	8.33	10.17	10.60
Maldives	...	...	15.00	13.00	13.00	13.00	13.00	13.00	8.37	8.30	8.67
Nepal	14.42	...	9.46	8.13	8.00	8.00	8.00	8.00	8.00	...	...
Sri Lanka	13.00	18.04	16.16	10.76	12.85	17.08	18.89	15.67	10.22	9.41	13.28
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
Cambodia	...	18.70	17.34	17.33	16.40	16.18	16.01	15.81	15.63	15.22	12.97
Indonesia	20.83	18.85	18.46	6.36	7.57	7.21	6.41	6.34	4.97	3.93	4.04
Lao PDR	...	25.67	32.00	26.83	30.00	28.50	24.00	24.78	22.61	...	...
Malaysia	8.79	8.73	7.67	5.95	6.49	6.41	6.08	5.08	5.00	4.92	4.79
Myanmar	8.00	16.50	15.25	15.00	16.08	17.00	17.00	17.00	17.00	16.33	13.00
Philippines	24.12	14.68	10.91	10.18	9.78	8.69	8.75	8.57	7.67	6.66	5.68
Singapore	7.36	6.37	5.83	5.30	5.31	5.33	5.38	5.38	5.38	5.38	5.38
Thailand	14.42	13.25	7.83	5.79	7.35	7.05	7.04	5.96	5.94	6.91	7.10
Viet Nam	...	...	10.55	11.03	11.18	11.18	15.78	10.07	13.14	16.95	...
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	11.24	8.40	6.78	7.35	9.01	8.00	7.85	7.49	7.47	6.97
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	15.00	15.33	16.38	15.62	14.03	14.38	15.38	15.13	14.35	14.32
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	15.52	13.14	17.54	11.47	10.57	9.78	9.20	10.09	10.45	10.81	10.82
Samoa	...	...	...	11.43	11.72	12.65	12.66	12.08	10.72	9.96	9.86
Solomon Islands	18.00	16.17	14.58	14.12	13.92	14.12	14.44	15.26	14.43	13.17	11.28
Timor-Leste	...	...	...	16.65	16.55	15.05	13.11	11.17	11.03	11.04	12.21
Tonga	13.50	10.47	11.34	11.38	11.97	12.16	12.46	12.47	11.54	11.37	10.86
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	17.33	10.50	9.85	7.47	8.25	8.16	5.29	5.50	5.50	...	...
<b>Developed Member Economies</b>											
Australia	17.90	10.70	9.27	9.06	9.41	8.20	8.91	6.02	7.28	7.74	6.98
Japan	6.86	3.51	2.07	1.68	1.66	1.88	1.91	1.72	1.60	1.50	1.41
New Zealand	...	...	7.81	7.76	8.19	8.61	8.94	6.66	6.26	6.11	5.82

... = Data not available at cutoff date.

a Refers to base lending rates but figures before 2003 are prime lending rates.

Sources: International Financial Statistics (IMF 2013); CEIC data; World Development Indicators Online (World Bank 2013); for Taipei, China: economy sources.

## Money and Finance

Table 3.10 **Yield on Short-Term Treasury Bills<sup>a</sup>**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	37.8	24.4	4.1	4.9	6.1	7.7	9.4	10.6	9.5	9.8
Azerbaijan	...	...	16.7	7.5	10.0	10.6	10.5	3.3	1.8	2.3	...
Georgia	...	...	...	...	...	...	...	6.0	9.6	9.7	...
Kazakhstan	...	49.0	6.6	3.3	3.3	7.0	7.0	7.0	7.0	7.0	7.0
Kyrgyz Republic	...	34.9	32.3	4.4	4.8	4.9	13.2	10.6	4.6	8.3	6.1
Pakistan <sup>b</sup>	...	12.5	8.4	7.2	8.5	9.0	11.4	12.5	12.5	13.1	11.0
Tajikistan <sup>c</sup>	...	...	...	...	...	...	...	7.0	6.7	7.4	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of <sup>d</sup>	...	...	2.6	1.9	2.5	3.5	4.0	1.6	2.6	5.1	...
Hong Kong, China	...	5.6	5.7	3.7	3.3	2.0	0.1	0.1	0.3	0.2	0.1
Korea, Rep. of <sup>e</sup>	...	14.1	7.1	3.6	4.5	5.2	5.5	2.6	2.7	3.4	3.3
Mongolia	...	...	...	13.7	6.7	6.8	...	...	...	...	...
Taipei, China	6.5	5.0	...	1.4	2.3	3.5	4.3	0.3	0.3	0.6	0.7
<b>South Asia</b>											
Bangladesh	...	...	6.3	6.7	7.4	7.6	7.6	6.8	2.2	5.6	5.7
Bhutan <sup>f</sup>	...	8.0	6.9	3.5	3.5	3.5	6.0	6.0	2.0	1.5	5.0
India <sup>g</sup>	...	12.7	9.0	5.7	6.6	7.1	7.1	3.6	6.2	8.4	8.2
Maldives <sup>h</sup>	...	...	...	...	...	5.5	6.0	6.0	4.9	5.4	7.3
Nepal	7.9	9.9	5.3	2.2	2.0	3.6	4.7	6.4	6.8	0.8	0.7
Sri Lanka	14.1	16.8	14.0	9.0	11.0	16.6	18.9	12.9	8.6	7.6	...
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	...	...	...	...	...	...	...	...	...	...
Indonesia	...	...	...	...	...	...	...	...	...	...	...
Lao PDR <sup>i</sup>	...	20.5	29.9	18.6	18.3	18.4	12.3	9.5	8.0	...	...
Malaysia	6.1	5.5	2.9	2.5	3.2	3.4	3.4	2.1	2.6	2.9	3.0
Myanmar	...	...	...	...	...	...	...	...	...	...	...
Philippines	23.7	11.8	9.9	6.1	5.3	3.4	5.2	4.2	3.5	1.3	1.5
Singapore <sup>a</sup>	3.3	1.1	2.2	2.1	3.0	2.4	0.9	0.3	0.3	0.3	0.3
Thailand <sup>j</sup>	...	...	...	2.7	4.7	3.5	3.2	1.2	1.4	2.9	3.0
Viet Nam <sup>k</sup>	...	...	5.4	6.1	4.7	4.2	12.1	8.0	11.1	12.4	...
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	4.4	3.1	3.5	1.9	7.4	4.5	0.2	6.1	3.4	2.2	0.6
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea <sup>l</sup>	11.4	17.4	17.0	3.8	4.0	4.7	6.2	7.1	4.6	4.1	2.7
Samoa	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	11.0	12.5	7.0	4.5	3.4	3.2	3.2	4.0	3.7	2.5	1.4
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia <sup>m</sup>	14.2	7.6	6.0	...	...	...	...	3.1	4.4	4.6	3.5
Japan	5.6	0.4	0.7	0.0	0.4	0.6	0.4	0.1	0.1	0.1	0.1
New Zealand <sup>n</sup>	13.8	8.8	6.4	6.5	7.0	7.5	7.0	2.8	2.8	2.6	2.5

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

- a Refers to 3-month treasury bills unless otherwise indicated.  
b Refers to weighted average yield on 6-month treasury securities.  
c Refers to 91-day treasury bills.  
d Refers to 3-month treasury bonds trading rate.  
e Refers to 91-day certificates of deposit.  
f Refers to 91-day Royal Monetary Authority bills.  
g Figures are for fiscal year ending March.  
h Refers to rate on 28-day treasury bills.  
i Refers to weighted average auction rate for 6-month treasury bills.  
j Refers to government securities bills.  
k Refers to average monthly yield on 360-day treasury bills sold at auction.  
l Refers to rate on 182-day treasury bills.  
m Refers to 90-day bank-accepted bills.  
n Refers to financing bill rate.

Sources: International Financial Statistics CD-ROM (IMF 2013); for the People's Republic of China and the Republic of Korea: OECD Statistics Online (OECD 2012); for Bangladesh, Bhutan, India, and Taipei, China: economy sources.

Table 3.11 **Domestic Credit Provided by Banking Sector<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	-4.8	0.5	4.9	4.0	4.2	-3.0	...
Armenia	...	9.1	11.5	8.8	8.1	12.1	18.6	21.5	27.8	36.4	44.4
Azerbaijan	...	12.5	9.6	11.2	13.1	17.2	16.2	22.5	23.0	20.0	25.3
Georgia	...	8.1	21.5	21.5	23.7	31.1	32.7	32.9	33.2	34.1	35.0
Kazakhstan	...	9.5	12.3	24.7	32.5	41.0	54.2	54.6	45.4	40.3	41.5
Kyrgyz Republic	...	25.7	12.2	9.4	11.6	14.0	...	...	...	...	...
Pakistan	50.9	51.0	41.6	46.5	45.5	48.4	53.2	48.4	46.4	43.3	44.5
Tajikistan	...	...	17.9	16.4	15.3	27.5	...	...	...	...	...
Turkmenistan	...	1.1	26.9	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	89.4	87.7	119.7	134.3	133.5	127.8	120.8	145.1	146.3	145.4	155.1
Hong Kong, China	151.9	142.0	134.0	139.8	132.0	122.7	122.3	164.1	195.3	207.0	200.7
Korea, Rep. of	51.9	50.2	74.7	133.4	147.2	153.6	170.8	170.2	162.9	165.3	168.7
Mongolia	...	6.4	9.0	26.6	20.0	28.2	31.8	29.8	30.1	40.3	30.8
Taipei, China	1.2	1.7	1.8	1.9	1.9	1.8	2.0	2.0	0.9	2.0	...
<b>South Asia</b>											
Bangladesh	22.4	26.7	34.2	54.9	58.1	58.2	59.4	60.4	65.9	70.4	69.2
Bhutan	-1.0	9.9	2.9	15.0	13.3	13.5	12.5	30.9	38.9	46.5	50.4
India	50.0	42.9	51.4	58.4	60.9	60.8	67.7	70.1	71.8	74.1	76.6
Maldives	33.0	34.9	34.8	55.1	58.3	71.6	77.7	84.7	84.2	78.5	70.5
Nepal	28.0	34.0	40.8	42.2	44.6	50.0	64.6	69.1	67.4	66.7	67.0
Sri Lanka	38.0	40.9	43.7	43.6	47.1	45.0	42.8	39.6	40.5	46.2	48.4
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	38.6	10.4	16.5	18.8	9.3	32.2	25.1	8.1	13.0
Cambodia	...	5.3	6.4	7.2	8.9	12.9	16.2	19.1	22.7	24.2	33.8
Indonesia	46.7	51.8	60.7	46.2	41.7	40.6	36.8	37.0	36.4	38.6	42.6
Lao PDR	5.0	9.9	9.0	8.1	6.4	6.6	10.5	20.8	26.5	...	...
Malaysia	72.7	126.7	138.4	117.7	114.6	109.4	110.8	131.1	127.4	128.7	133.8
Myanmar	39.6	32.5	31.2	23.1	21.4	20.2	18.5	21.2	24.8	...	...
Philippines	23.2	55.7	58.3	47.2	48.2	48.3	47.4	48.7	49.2	51.8	50.9
Singapore	58.7	59.7	77.9	62.1	62.5	69.4	76.7	88.0	82.4	91.6	99.5
Thailand	94.1	141.3	138.3	119.2	109.0	131.6	130.5	137.0	142.8	159.2	169.3
Viet Nam	...	20.1	35.1	71.2	75.4	96.2	94.5	123.0	135.8	120.8	...
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	38.5	45.8	37.9	111.6	121.8	120.0	125.6	139.6	130.9	114.3	117.1
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	-31.0	-42.3	-24.6	-26.8	-29.7	-16.7	-23.7	-14.9	-18.3	-19.0
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	35.7	29.2	28.2	22.1	23.3	22.5	22.6	38.9	35.6	31.6	38.3
Samoa	0.0	10.2	20.5	35.7	41.6	45.2	45.8	46.3	44.6	47.3	45.7
Solomon Islands	23.8	24.7	26.5	29.4	31.3	31.5	35.5	35.5	26.9	14.5	12.0
Timor-Leste	...	...	...	-10.0	6.3	-22.5	-19.1	-13.0	-25.3	-25.6	-52.7
Tonga	30.0	31.4	38.8	47.9	45.9	51.1	46.8	43.1	39.9	29.0	27.2
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	30.8	33.7	35.6	44.5	42.3	42.5	50.1	59.6	63.7	68.2	...
<b>Developed Member Economies</b>											
Australia	70.3	80.2	93.2	113.5	118.4	146.9	159.7	151.5	154.8	152.5	154.4
Japan	255.3	283.4	304.7	315.4	306.2	296.9	300.1	326.8	324.7	337.5	346.1
New Zealand	79.2	91.1	110.1	128.2	137.1	140.6	154.1	155.3	157.8	...	...

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Domestic credit provided by the banking sector as a share of GDP is a measure of banking sector depth and financial sector development in terms of size. Since the claims on the central government are a net item (claims on the central government minus central government deposits), this net figure may be negative, resulting in a negative figure of domestic credit provided by the banking sector.

Sources: World Development Indicators Online (World Bank 2013); for Taipei, China: economy sources.

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**Table 3.12 Bank Nonperforming Loans**  
(% of total gross loans)

Regional Member	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	...	...	...	...	...	...	...	...	...
Armenia <sup>a, b</sup>	17.5	1.9	2.5	2.4	4.3	4.9	3.0	3.4	4.4
Azerbaijan	...	7.2	...	...	...	...	...	...	...
Georgia	...	1.2	2.5	0.8	4.1	6.3	5.4	4.6	4.1
Kazakhstan	...	3.3	2.4	2.7	5.1	21.2	23.8	30.8	31.7
Kyrgyz Republic	...	...	...	3.6	5.3	8.2	15.8	10.2	...
Pakistan	19.5	8.3	6.9	7.6	10.5	12.6	14.7	16.2	...
Tajikistan	...	...	...	4.8	9.5	21.6	17.2	14.9	...
Turkmenistan	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	2.8	3.0	1.2	1.0	0.7	0.6
<b>East Asia</b>									
China, People's Rep. of	22.4	8.6	7.1	6.2	2.4	1.6	1.1	1.0	0.9
Hong Kong, China <sup>c</sup>	7.3	1.4	1.1	0.8	1.2	1.6	0.8	0.7	0.6
Korea, Rep. of <sup>c</sup>	8.9	1.2	0.8	0.7	1.1	1.2	1.9	1.4	1.5
Mongolia	...	...	...	...	...	...	...	...	...
Taipei, China	5.3	2.2	2.1	1.8	1.5	1.2	0.6	0.4	0.4
<b>South Asia</b>									
Bangladesh	34.9	13.2	12.8	14.5	11.2	...	...	...	...
Bhutan	...	...	...	...	...	6.8	5.2	3.9	8.2
India <sup>d</sup>	12.8	5.2	3.3	2.7	2.4	2.4	2.5	2.3	3.0
Maldives	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	...	...	...	...	...	...
Sri Lanka	...	9.6	...	...	...	...	...	...	...
<b>Southeast Asia</b>									
Brunei Darussalam	...	...	...	...	...	...	...	...	...
Cambodia	...	...	...	...	...	...	...	...	...
Indonesia	34.4	7.4	6.1	4.0	3.2	3.3	2.5	2.1	2.1
Lao PDR	...	...	...	...	...	...	...	...	...
Malaysia <sup>e</sup>	15.4	9.6	8.5	6.5	4.8	3.6	3.4	2.7	2.2
Myanmar	...	...	...	...	...	...	...	...	...
Philippines <sup>f, g</sup>	24.0	10.0	7.5	5.8	4.5	3.5	3.4	2.6	2.4
Singapore <sup>h</sup>	3.4	3.8	2.8	1.5	1.4	2.0	1.4	1.1	1.0
Thailand	17.7	9.1	8.1	7.9	5.7	5.3	3.9	2.9	2.7
Viet Nam	...	...	...	...	...	...	...	...	...
<b>The Pacific</b>									
Cook Islands	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...	...
Samoa	...	...	...	10.8	8.8	9.7	10.9	8.5	5.5
Solomon Islands	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>									
Australia <sup>i</sup>	0.5	0.2	0.6	0.6	1.3	2.0	2.2	2.0	1.9
Japan <sup>j</sup>	5.3	1.8	1.5	1.5	1.4	1.6	2.5	2.4	...
New Zealand	...	...	...	0.3	0.9	1.7	2.1	1.7	1.7

... = Data not available at cutoff date.

a Loans classified as loss, which are fully provisioned against, are held off-balance sheet.

b Includes loans that are overdue less than 90 days.

c Loans classified as substandard, doubtful and loss; not necessarily linked to a 90-day criterion.

d Unless otherwise indicated, data refers to the end of the fiscal year, i.e., March of the indicated calendar year.

e Loans with principal and/or interest past over 180 days; credit card debt and bankers' acceptances past over 90 days; loans secured by cash and cash substitutes past 365 days.

f Thirty days for loans payable in lump sum or payable in quarterly, semi-annual, or annual installments; 90 days for loans payable in monthly installments; as soon as they are past due for loans payable in daily, weekly, or semi-monthly installments.

g Interbank loans are excluded.

h Non-bank nonperforming loans to total non-bank loans. Other characteristics may be considered beyond the 90-day past-due criterion to classify a loan as nonperforming.

i Includes both impaired and past due items.

j For nine major banks only. Unless otherwise indicated, data refer to the end of the fiscal year, i.e., March of the next calendar year.

Sources: World Development Indicators Online (World Bank 2013); for Taipei, China: economy sources.

Table 3.13 **Growth Rates of Stock Market Price Index**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	...	...	...	...	...	...	...	...	...
Azerbaijan	...	...	...	...	...	...	...	...	...	...	...
Georgia	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	...	...	...	...	...	...	...	...	...	...
Kyrgyz Republic	...	...	...	...	...	...	...	...	...	...	...
Pakistan	6.3	-28.9	42.1	47.3	35.5	21.1	-11.5	-32.0	32.3	15.2	23.2
Tajikistan	...	...	...	...	...	...	...	...	...	...	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	...	-0.5	37.3	-22.1	41.4	161.1	-27.7	-10.2	3.4	-5.7	-16.8
Hong Kong, China	...	-5.5	26.5	11.1	17.7	37.3	-9.8	-13.8	19.3	-0.3	-4.4
Korea, Rep. of	-18.7	-4.8	-8.7	28.5	26.3	26.7	-10.6	-7.0	23.6	12.6	-2.6
Mongolia	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	-21.4	-11.3	5.7	1.0	12.3	24.4	-17.5	-8.0	23.1	2.6	-8.3
<b>South Asia</b>											
Bangladesh	-25.1	12.8	12.2	23.4	-12.8	54.8	26.0	6.9	114.4	-10.4	-23.6
Bhutan	...	...	...	...	...	...	...	...	...	...	...
India	35.8	-17.4	11.2	32.6	55.0	39.6	-4.0	-6.4	29.8	-2.6	-2.5
Maldives	...	...	...	51.8	-27.8	35.5	33.1	-21.7	-20.4	-22.9	-6.9
Nepal	...	...	...	...	...	...	...	...	...	...	...
Sri Lanka	...	-31.0	-10.3	46.8	15.7	14.0	-14.8	6.8	113.1	34.0	-22.2
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	...	...	...	...	...	...	...	...	...	...
Indonesia	...	...	-9.1	35.0	32.6	53.4	-5.6	-3.7	53.9	21.0	10.0
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	21.8	-6.9	21.4	6.4	5.8	37.0	-12.4	-5.9	27.1	9.7	6.5
Myanmar	...	...	...	...	...	...	...	...	...	...	...
Philippines	-12.3	-10.9	-6.8	16.1	25.1	45.6	-25.7	-0.9	43.4	30.4	16.0
Singapore	3.6	-5.5	5.0	16.2	15.9	33.9	-23.5	-12.0	27.4	0.8	0.4
Thailand	...	...	-18.7	4.2	4.1	6.6	-10.3	-15.4	45.6	21.3	17.3
Viet Nam	...	...	...	8.3	95.6	95.5	-52.2	-10.3	12.2	-11.1	-4.2
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	13.5	10.9	-19.6	0.7	5.1	-11.7	-10.5	0.4
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	52.5	36.1	15.4	19.8	-8.7	26.2	3.2	-28.0
Samoa	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	-7.6	-0.7	7.9	21.3	19.2	20.7	-21.0	-16.1	10.8	-2.4	-3.1
Japan	-15.5	-13.7	11.6	13.5	28.2	2.3	-28.6	-26.9	2.0	-7.2	-6.5
New Zealand	-12.0	5.4	2.3	19.4	12.5	15.3	-20.6	-12.3	9.7	6.2	6.9

... = Data not available at cutoff date.

Sources: International Financial Statistics CD-ROM (IMF 2013); for Taipei, China: economy sources.

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Table 3.14 **Stock Market Capitalization**  
(\$ million)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	...	43	60	105	176	141	145	140	132
Azerbaijan	...	...	...	...	...	...	...	...	...	...	...
Georgia	...	...	24	355	668	1389	327	733	1060	796	943
Kazakhstan	...	...	1342	10521	43688	41378	31075	57655	60742	43301	23496
Kyrgyz Republic	...	...	4	42	93	121	94	72	79	165	165
Pakistan	2850	9286	6581	45937	45518	70262	23491	33239	38169	32764	43676
Tajikistan	...	...	...	...	...	...	...	...	...	...	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	32	37	715	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	...	42055	580991	780763	2426326	6226305	2793613	5007646	4762837	3389098	3697376
Hong Kong, China	83400	303705	623398	693486	895249	1162566	1328837	915825	1079640	889597	1108127
Korea, Rep. of	111000	181955	171587	718180	835188	1123633	494631	836462	1089217	994302	1180473
Mongolia	...	27	37	46	113	612	407	430	1093	1579	1293
Taipei, China	99736	192944	262335	486022	595646	655481	371435	636438	752526	652192	721016
<b>South Asia</b>											
Bangladesh	321	1338	1186	3035	3610	6793	6671	7068	15683	23546	17479
Bhutan	...	...	53	101	102	122	169	167	219	308	330
India	38600	127199	148064	553074	818879	1819101	645478	1179235	1615860	1015370	1263335
Maldives	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	244	790	1344	1805	4909	4894	5485	5235	3849	4160
Sri Lanka	917	1998	1074	5720	7769	7553	4326	8133	19924	19437	17046
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	...	...	...	...	...	...	...	...	...	...
Indonesia	8080	66585	26834	81428	138886	211693	98761	178191	360388	390107	396772
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	48600	222729	116935	181236	235356	325663	187066	255952	410534	395083	476340
Myanmar	...	...	...	...	...	...	...	...	...	...	...
Philippines	5930	58930	25957	40153	68382	103224	52101	80132	157321	165380	264143
Singapore	34300	148004	152827	316658	276329	353489	180021	310766	370091	308320	414126
Thailand	23900	141507	29489	124864	141093	196046	102594	138189	277732	268489	382999
Viet Nam	...	...	...	461	9093	19542	9589	21199	20385	18316	32933
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	67	244	587	637	522	568	468	419	392	452
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	3166	6632	11959	10211	12213	9742	8999	10711
Samoa	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	109000	245218	372794	804074	1095858	1298429	675619	1258456	1454547	1198164	1286438
Japan	2920000	3667292	3157222	4736513	4726269	4453475	3220485	3377892	4099591	3540685	3680982
New Zealand	8840	31950	18866	43409	44940	47454	24166	67061	71833	71657	79802

... = Data not available at cutoff date.

Sources: World Development Indicators Online (World Bank 2013); ADB staff estimates for Bhutan; and for Taipei, China: economy sources.

**Table 3.15 Stock Market Capitalization**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	...	0.9	0.9	1.1	1.5	1.6	1.5	1.4	1.3
Azerbaijan	...	...	...	...	...	...	...	...	...	...	...
Georgia	...	...	0.8	5.5	8.6	13.7	2.6	6.8	9.1	5.5	6.0
Kazakhstan	...	...	7.3	18.4	53.9	39.5	23.3	50.0	41.0	23.0	11.6
Kyrgyz Republic	...	...	0.3	1.7	3.3	3.2	1.8	1.5	1.6	2.7	2.5
Pakistan	7.1	15.3	8.9	41.9	35.7	49.1	14.3	20.5	21.6	15.6	20.3
Tajikistan	...	...	...	...	...	...	...	...	...	...	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	0.2	0.3	4.2	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	...	5.8	48.5	34.6	89.4	178.2	61.8	100.3	80.3	46.3	44.9
Hong Kong, China	108.4	210.0	363.1	381.9	462.6	549.4	606.0	427.9	471.8	357.8	421.3
Korea, Rep. of	42.1	35.2	32.2	85.0	87.8	107.1	53.1	100.3	107.3	89.1	104.5
Mongolia	...	1.9	3.2	1.8	3.3	14.5	7.2	9.4	17.6	18.0	12.6
Taipei, China	60.5	70.2	80.4	133.2	158.3	166.7	92.8	168.5	175.7	140.5	152.1
<b>South Asia</b>											
Bangladesh	1.1	3.5	2.5	5.0	5.8	9.9	8.4	7.9	15.6	21.0	15.6
Bhutan	...	...	12.0	12.4	11.4	10.2	13.5	13.2	13.8	16.8	18.1
India	11.8	34.7	31.2	66.3	86.3	146.9	52.7	86.4	94.4	54.2	67.4
Maldives	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	5.5	14.4	16.5	19.9	47.8	38.9	42.5	32.7	20.4	23.1
Sri Lanka	11.4	15.3	6.6	23.4	27.5	23.3	10.6	19.3	40.2	32.8	28.7
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	...	...	...	...	...	...	...	...	...	...
Indonesia	7.1	32.9	16.3	28.5	38.1	49.0	19.4	33.0	50.9	46.1	45.2
Lao PDR	...	...	...	...	...	...	...	...	...	...	...
Malaysia	110.4	250.7	124.7	126.3	144.7	168.3	81.0	126.6	166.3	137.2	156.9
Myanmar	...	...	...	...	...	...	...	...	...	...	...
Philippines	13.4	79.5	32.0	39.0	56.0	69.1	30.0	47.6	78.8	73.6	105.6
Singapore	95.0	183.2	159.3	256.4	198.6	209.9	107.9	176.6	173.6	128.6	149.8
Thailand	28.0	84.2	24.0	70.8	68.1	79.4	37.6	52.4	87.1	77.7	99.2
Viet Nam	...	...	...	0.9	14.9	27.5	10.5	21.8	19.2	14.8	21.1
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	3.4	14.5	19.5	20.5	15.4	15.8	55.8	44.0	36.0	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	64.6	118.5	189.0	127.5	154.3	102.8	69.6	68.3
Samoa	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	35.0	66.5	89.7	116.1	147.1	152.7	64.2	136.5	127.7	86.9	84.3
Japan	94.1	68.8	66.7	103.6	108.5	102.2	66.4	67.1	74.7	60.3	61.8
New Zealand	19.9	50.9	36.6	38.4	41.0	35.4	18.5	57.1	50.7	44.9	47.7

... = Data not available at cutoff date.

Sources: World Development Indicators Online (World Bank 2013); ADB staff estimates; and for Taipei, China: economy sources.

## Exchange Rates

**Table 3.16 Official Exchange Rate**  
(local currency units per \$, period averages)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	490.05	36.57	47.36	49.49	49.93	49.96	50.25	50.33	46.45	46.75	50.92
Armenia	...	405.91	539.53	457.69	416.04	342.08	305.97	363.28	373.66	372.50	401.76
Azerbaijan	...	0.87	0.88	0.93	0.89	0.86	0.82	0.80	0.80	0.79	0.79
Georgia	...	...	1.98	1.81	1.78	1.67	1.49	1.67	1.78	1.69	1.65
Kazakhstan	...	60.95	142.13	132.88	126.09	122.55	120.30	147.50	147.36	146.62	149.11
Kyrgyz Republic	...	10.82	47.70	41.01	40.15	37.32	36.57	42.90	45.96	46.14	47.00
Pakistan	21.71	31.64	53.65	59.51	60.27	60.74	70.41	81.71	85.19	86.34	93.40
Tajikistan	...	0.12	2.08	3.12	3.30	3.44	3.43	4.14	4.38	4.61	4.74
Turkmenistan	0.00	0.02	1.04	1.04	1.04	1.04	2.29	2.85	2.85	2.85	2.85
Uzbekistan	0.00	29.78	236.61	1106.10	1215.60	1260.83	1314.17	1458.75	1578.42	1706.61	1897.56
<b>East Asia</b>											
China, People's Rep. of	4.78	8.35	8.28	8.19	7.97	7.61	6.95	6.83	6.77	6.46	6.31
Hong Kong, China	7.79	7.74	7.79	7.78	7.77	7.80	7.79	7.75	7.77	7.78	7.76
Korea, Rep. of	707.76	771.27	1130.96	1024.12	954.79	929.26	1102.05	1276.93	1156.06	1108.29	1126.47
Mongolia	...	448.61	1076.67	1205.25	1179.70	1170.40	1165.80	1437.80	1357.06	1265.52	1357.58
Taipei, China	26.89	26.48	31.23	32.17	32.53	32.84	31.53	33.06	31.65	29.47	29.61
<b>South Asia</b>											
Bangladesh	34.57	40.28	52.14	64.33	68.93	68.87	68.60	69.04	69.65	74.15	81.86
Bhutan	17.51	32.43	44.94	44.10	45.31	41.35	43.51	48.41	45.73	46.67	53.44
India	17.50	32.43	44.94	44.10	45.31	41.35	43.51	48.41	45.73	46.67	53.44
Maldives	9.55	11.77	11.77	12.80	12.80	12.80	12.80	12.80	12.80	14.60	15.36
Nepal	29.37	51.89	71.09	71.37	72.76	66.42	69.76	77.55	73.16	74.02	85.20
Sri Lanka	40.06	51.25	77.01	100.50	103.91	110.62	108.33	114.95	113.06	110.57	127.62
<b>Southeast Asia</b>											
Brunei Darussalam	1.81	1.42	1.72	1.66	1.59	1.51	1.42	1.45	1.36	1.26	1.25
Cambodia	426.25	2450.83	3840.75	4092.50	4103.25	4056.17	4054.17	4139.33	4184.92	4058.50	4033.00
Indonesia	1842.81	2248.61	8421.78	9704.74	9159.32	9141.00	9698.96	10389.90	9090.43	8770.43	9386.63
Lao PDR <sup>a</sup>	707.75	804.69	7887.64	10655.20	10159.90	9603.16	8744.22	8516.05	8258.77	8030.06	8006.58
Malaysia	2.70	2.50	3.80	3.79	3.67	3.44	3.34	3.52	3.22	3.06	3.09
Myanmar <sup>b</sup>	6.34	5.67	6.52	5.82	5.84	5.62	5.44	5.58	5.63	5.44	640.65
Philippines	24.31	25.71	44.19	55.09	51.31	46.15	44.32	47.68	45.11	43.31	42.23
Singapore	1.81	1.42	1.72	1.66	1.59	1.51	1.41	1.45	1.36	1.26	1.25
Thailand	25.59	24.92	40.11	40.22	37.88	34.52	33.31	34.29	31.69	30.49	31.08
Viet Nam	6482.80	11038.30	14167.70	15858.90	15994.30	16105.10	16302.30	17065.10	18612.90	20490.00	20828.00
<b>The Pacific</b>											
Cook Islands	1.68	1.52	2.20	1.42	1.54	1.36	1.42	1.60	1.39	1.27	1.23
Fiji	1.48	1.41	2.13	1.69	1.73	1.61	1.59	1.96	1.92	1.79	1.79
Kiribati	1.28	1.35	1.72	1.31	1.33	1.20	1.19	1.28	1.09	0.97	0.97
Marshall Islands <sup>c</sup>	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Micronesia, Fed. States of <sup>c</sup>	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Nauru	1.28	1.35	1.72	1.31	1.33	1.20	1.19	1.28	1.09	0.97	0.97
Palau <sup>c</sup>	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Papua New Guinea	0.96	1.28	2.78	3.10	3.06	2.97	2.70	2.76	2.72	2.37	2.08
Samoa	2.31	2.47	3.29	2.71	2.78	2.62	2.64	2.73	2.48	2.32	2.29
Solomon Islands	2.53	3.41	5.09	7.53	7.61	7.65	7.75	8.06	8.06	7.64	7.36
Timor-Leste <sup>c</sup>	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Tonga	1.28	1.27	1.76	1.94	2.03	1.97	1.94	2.03	1.91	1.73	1.72
Tuvalu	1.28	1.35	1.72	1.31	1.33	1.20	1.19	1.28	1.09	0.97	0.97
Vanuatu	117.06	112.11	137.64	109.25	110.64	102.44	101.33	106.74	96.91	91.71	91.26
<b>Developed Member Economies</b>											
Australia	1.28	1.35	1.72	1.31	1.33	1.20	1.19	1.28	1.09	0.97	0.97
Japan <sup>d</sup>	144.79	94.06	107.77	110.22	116.30	117.75	103.36	93.57	87.78	79.81	79.79
New Zealand	1.68	1.52	2.20	1.42	1.54	1.36	1.42	1.60	1.39	1.27	1.23

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a A floating exchange rate policy was adopted in September 1995 that allowed commercial banks to set their own rates and hence, figures for 1996 onward are simple averages of midpoint rates reported daily.

b Beginning on 1 April 2012, the Central Bank of Myanmar adopted the managed float exchange rate regime for Kyat vis-à-vis the U.S. dollar.

c Unit of currency is the US Dollar.

d Figures beginning 1993 are not comparable to those prior to 1993 due to change in appropriation standard.

Sources: International Financial Statistics CD-ROM (IMF 2013); for Turkmenistan and Uzbekistan: UN National Accounts Main Aggregates Database (UN 2012) and Interstate Statistical Committee of the Commonwealth of Independent States; and for Taipei, China: economy sources.

**Table 3.17 Purchasing Power Parity Conversion Factor**  
(local currency units per \$, period averages)

Regional Member	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	...	15.13	15.71	18.69	18.68	18.13	19.58	21.22	...
Armenia	164.65	178.58	180.99	183.34	190.11	193.28	205.75	209.93	201.80
Azerbaijan	0.27	0.33	0.36	0.42	0.53	0.42	0.47	0.54	0.53
Georgia	0.62	0.74	0.78	0.83	0.89	0.86	0.92	0.99	0.98
Kazakhstan	36.42	57.61	67.83	76.16	90.11	93.52	110.32	126.99	128.87
Kyrgyz Republic	9.98	11.35	12.03	13.43	16.06	16.56	17.99	21.57	22.63
Pakistan	16.17	19.10	20.44	21.39	24.32	28.91	32.05	37.14	39.88
Tajikistan	0.33	0.74	0.87	1.08	1.35	1.50	1.66	1.85	2.01
Turkmenistan	...	...	...	...	...	...	...	...	...
Uzbekistan	91.20	304.12	357.96	431.41	506.03	605.84	708.35	805.33	903.29
<b>East Asia</b>									
China, People's Rep. of	3.32	3.45	3.47	3.62	3.82	3.77	3.97	4.19	4.16
Hong Kong, China	7.47	5.69	5.48	5.49	5.44	5.38	5.32	5.41	5.49
Korea, Rep. of	746.21	788.92	774.82	768.65	785.72	811.66	829.90	833.03	828.31
Mongolia	259.12	417.22	493.05	534.88	635.55	641.52	759.87	834.30	912.88
Taipei, China	22.58	19.34	18.53	17.92	17.01	16.99	16.43	15.60	15.45
<b>South Asia</b>									
Bangladesh	21.26	22.64	23.07	23.94	25.48	26.91	28.27	29.77	31.40
Bhutan	14.19	15.74	16.07	16.11	16.65	17.31	18.11	19.29	19.13
India	13.47	14.67	15.12	15.54	16.52	17.37	18.66	19.79	20.90
Maldives	6.83	8.13	8.65	9.00	9.63	10.39	10.30	10.84	11.12
Nepal	19.42	22.65	23.56	24.64	25.46	29.25	33.24	35.94	38.18
Sri Lanka	24.69	35.17	37.91	42.01	47.82	50.19	53.14	53.06	59.71
<b>Southeast Asia</b>									
Brunei Darussalam	0.74	0.90	0.96	0.95	1.04	0.81	0.84	0.98	0.96
Cambodia	1231.63	1278.55	1295.94	1341.53	1473.34	1497.08	1523.42	1541.87	1529.50
Indonesia	2798.73	3934.26	4348.23	4701.47	5434.60	5833.04	6231.32	6596.99	6736.37
Lao PDR	2133.19	2988.38	3207.80	3349.31	3567.28	3432.52	3726.56	3775.24	3817.27
Malaysia	1.62	1.73	1.75	1.78	1.92	1.79	1.84	1.90	1.87
Myanmar <sup>a</sup>	...	249.69	293.41	352.57	391.92	407.45	430.40	464.97	471.05
Philippines	19.35	21.75	22.12	22.16	23.32	23.75	24.43	24.89	24.77
Singapore	1.20	1.08	1.07	1.10	1.07	1.08	1.07	1.06	1.05
Thailand	15.98	15.93	16.24	16.33	16.61	16.78	17.17	17.52	17.34
Viet Nam	4015.00	4712.69	4897.14	5151.30	6155.46	6469.69	7141.47	8450.57	9143.25
<b>The Pacific</b>									
Cook Islands	...	...	...	...	...	...	...	...	...
Fiji	1.28	1.43	1.44	1.44	1.45	1.44	1.53	1.66	1.61
Kiribati	0.67	0.66	0.65	0.66	0.70	0.70	0.68	0.68	0.68
Marshall Islands	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	0.81	0.75	0.74	0.74	0.76	0.79	0.80	0.81	0.83
Nauru	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...
Papua New Guinea	1.05	1.34	1.42	1.41	1.49	1.42	1.53	1.56	1.57
Samoa	1.59	1.63	1.72	1.75	1.80	1.83	1.84	1.84	1.83
Solomon Islands	2.70	3.20	3.23	3.66	3.73	3.62	3.77	4.10	4.32
Timor-Leste	0.37	0.47	0.46	0.47	0.51	0.53	0.53	0.59	0.63
Tonga	0.99	1.20	1.37	1.41	1.49	1.45	1.49	1.54	1.52
Tuvalu	...	...	...	...	...	...	...	...	...
Vanuatu	59.47	58.13	58.50	59.96	62.96	63.86	64.66	64.66	64.03
<b>Developed Member Economies</b>									
Australia	1.32	1.39	1.41	1.42	1.48	1.44	1.50	1.49	1.46
Japan	155.11	129.55	124.86	120.22	116.85	116.35	112.42	108.81	105.89
New Zealand	1.44	1.54	1.49	1.51	1.49	1.45	1.49	1.48	1.48

... = Data not available at cutoff date.

a GDP deflators were smoothened by applying the implied inflation for each reference/base years using the 2005 level.

Sources: World Development Indicators Online (World Bank 2013); ADB staff estimates; and for Taipei, China: economy sources.

## Exchange Rates

Table 3.18 **Price Level Indices**

(PPPs to official exchange rates, period averages, United States = 100)

Regional Member	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	...	30.57	31.47	37.40	37.17	36.02	42.14	45.38	...
Armenia	30.52	39.02	43.50	53.60	62.14	53.20	55.06	56.36	50.23
Azerbaijan	30.14	35.68	40.05	49.03	63.99	52.62	59.07	68.63	68.03
Georgia	31.18	40.71	43.56	49.49	59.53	51.60	51.80	58.82	59.45
Kazakhstan	25.63	43.35	53.80	62.14	74.91	63.40	74.86	86.61	86.43
Kyrgyz Republic	20.93	27.68	29.97	36.00	43.92	38.61	39.13	46.75	48.14
Pakistan	30.15	32.10	33.91	35.21	34.54	35.38	37.63	43.01	42.70
Tajikistan	15.98	23.88	26.47	31.30	39.34	36.21	38.02	40.07	42.50
Turkmenistan	...	...	...	...	...	...	...	...	...
Uzbekistan	38.55	27.49	29.45	34.22	38.51	41.53	44.88	47.19	47.60
<b>East Asia</b>									
China, People's Rep. of	40.11	42.07	43.47	47.65	55.02	55.14	58.58	64.79	65.97
Hong Kong, China	95.85	73.13	70.55	70.41	69.90	69.35	68.46	69.54	70.84
Korea, Rep. of	65.98	77.03	81.15	82.72	71.30	63.56	71.79	75.16	73.53
Mongolia	24.07	34.62	41.79	45.70	54.52	44.62	55.99	65.93	67.24
Taipei, China	72.30	60.13	56.97	54.56	53.95	51.39	51.92	52.94	52.17
<b>South Asia</b>									
Bangladesh	40.78	35.20	33.47	34.76	37.14	38.97	40.59	40.14	38.36
Bhutan	31.57	35.69	35.47	38.95	38.28	35.76	39.61	41.34	35.80
India	29.97	33.26	33.38	37.59	37.98	35.89	40.81	42.40	39.12
Maldives	58.00	63.54	67.60	70.30	75.21	81.17	80.45	74.26	72.39
Nepal	27.32	31.74	32.38	37.09	36.49	37.72	45.43	48.56	44.81
Sri Lanka	32.07	35.00	36.49	37.98	44.14	43.66	47.00	50.77	46.79
<b>Southeast Asia</b>									
Brunei Darussalam	42.67	54.26	60.59	62.78	73.61	55.38	61.40	77.79	77.09
Cambodia	32.07	31.24	31.58	33.07	36.34	36.17	36.40	37.99	37.92
Indonesia	33.23	40.54	47.47	51.43	56.03	56.14	68.55	75.22	71.77
Lao PDR	27.04	28.05	31.57	34.88	40.80	40.31	45.12	47.01	47.68
Malaysia	42.51	45.79	47.61	51.79	57.64	50.84	57.13	62.10	60.55
Myanmar <sup>a</sup>	...	28.51	33.36	41.69	47.84	48.54	50.74	56.73	73.53
Philippines	43.80	39.49	43.10	48.02	52.61	49.82	54.16	57.47	58.65
Singapore	69.34	64.80	67.10	73.06	75.27	74.51	78.61	83.91	84.22
Thailand	39.85	39.61	42.88	47.31	49.85	48.95	54.18	57.46	55.77
Viet Nam	28.34	29.72	30.62	31.99	37.76	37.91	38.37	41.24	43.90
<b>The Pacific</b>									
Cook Islands	...	...	...	...	...	...	...	...	...
Fiji	60.18	84.55	82.99	89.27	91.15	73.46	79.96	92.34	89.78
Kiribati	39.08	50.58	48.65	55.07	58.46	54.35	62.27	70.50	70.83
Marshall Islands	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	81.13	74.83	73.52	73.79	75.67	78.89	80.47	81.46	82.75
Nauru	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...
Papua New Guinea	37.60	43.07	46.53	47.71	55.28	51.41	56.16	65.96	75.36
Samoa	48.34	60.07	62.00	66.75	67.97	67.19	73.91	79.31	79.65
Solomon Islands	53.06	42.50	42.48	47.86	48.09	44.92	46.76	53.64	58.68
Timor-Leste	36.57	46.91	46.01	47.23	51.05	53.18	53.23	58.65	62.52
Tonga	56.48	62.01	67.84	71.67	76.86	71.24	78.25	88.88	88.13
Tuvalu	...	...	...	...	...	...	...	...	...
Vanuatu	43.20	53.21	52.87	58.53	62.13	59.82	66.72	70.50	70.16
<b>Developed Member Economies</b>									
Australia	76.28	106.02	106.01	119.11	124.06	112.06	137.43	154.01	151.39
Japan	143.94	117.54	107.36	102.09	113.05	124.34	128.07	136.34	132.71
New Zealand	65.49	108.08	96.40	110.70	104.78	90.86	107.53	117.02	119.83

... = Data not available at cutoff date.

a The Central Bank of Myanmar devalued the local currency effective 1 April In 2012. To achieve a consistent price series, the exchange rate used for estimating the price level index in prior years was extrapolated using the pre-devaluation exchange rate series.

Sources: ADB staff estimates using country sources; CEIC data US Bureau of Economic Analysis; and World Development Indicators Online (World Bank 2013).

## Globalization

### Snapshots

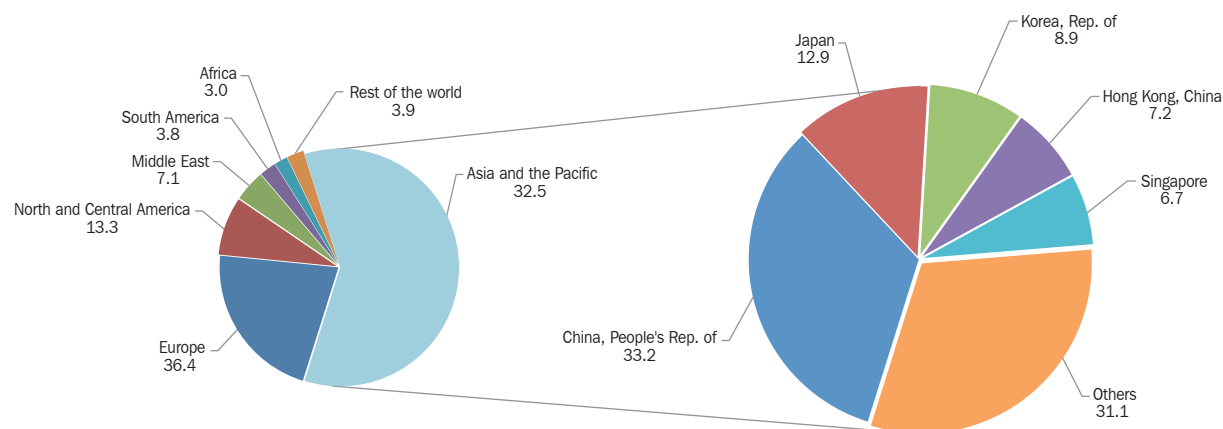
- The Asia and Pacific region accounted for about one-third of the world's merchandise exports. Subdued demand from major markets dampened export growth in 2012.
- Intraregional trade has increased and accounted for almost 56% of merchandise exports and 50% of imports in 2012.
- Services have become important contributors to exports in some economies.
- Migrant workers' remittances are a major source of foreign exchange across the region.
- Over half the region's economies recorded current account deficits in 2011 and 2012.
- Net foreign direct investment (FDI) rose by just over 20% to \$596 billion in 2011. Available data suggest inflows moderated in 2012.

### Key trends

The region accounted for about one-third of global merchandise exports in 2012 (Figure 4.1). That represented an increase from about one-quarter of world exports in 2001. The People's Republic of China (PRC) was the biggest Asian exporter in 2012, with a share of 33.2% of total regional exports, followed by Japan (12.9%) and the Republic of Korea (8.9%). The region's share of global imports was 30.9% in 2012.

Merchandise trade (exports plus imports) was equivalent to more than 100% of gross domestic product (GDP) in 12 regional economies (Table 4.12). The two open economies—Hong Kong, China and Singapore—top the list in this regard, with the sum of their exports and imports equal to 360% and 285% of GDP, respectively. Others where trade exceeded 100% of GDP were Brunei Darussalam; the Kyrgyz Republic;

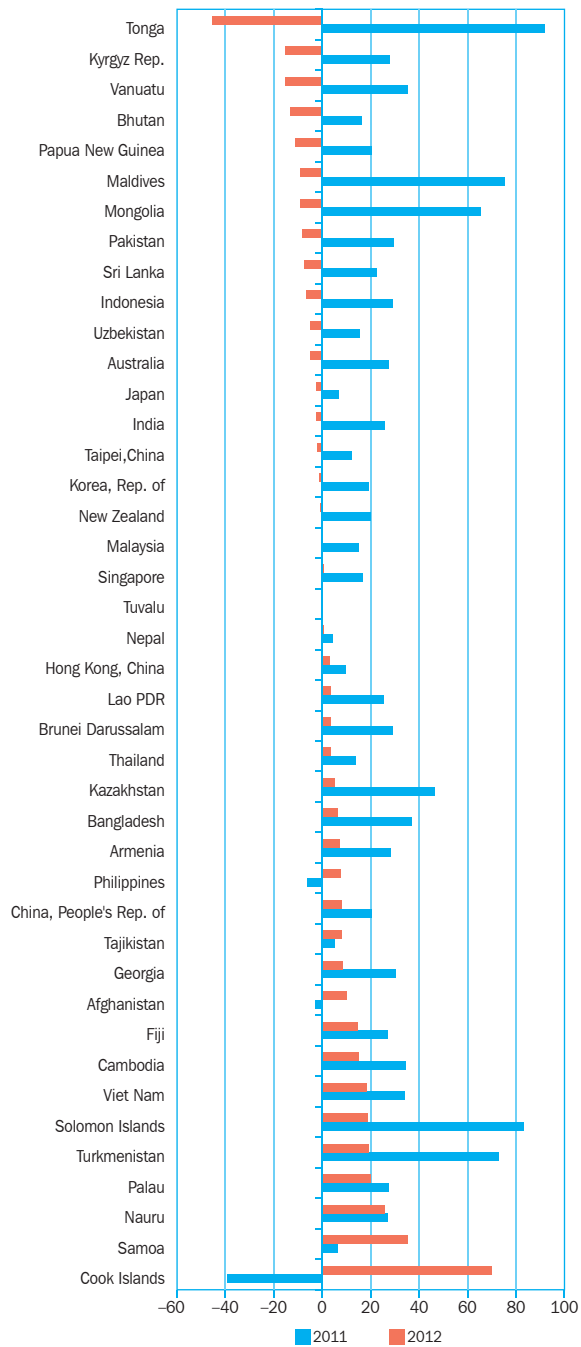
Figure 4.1 Shares in total world exports, regions of the world and major exporters in the Asia and Pacific region, 2012



Sources: Direction of Trade Statistics CD-ROM (IMF 2013) and Table 4.13.

Malaysia; Mongolia; Nauru; Solomon Islands; Taipei,China; Thailand; Turkmenistan; and Viet Nam. The average trade-to-GDP ratio for 35 developing members for which data are available for 2012 was 67%.

Figure 4.2 Growth rates of merchandise exports, 2011 and 2012 (%)



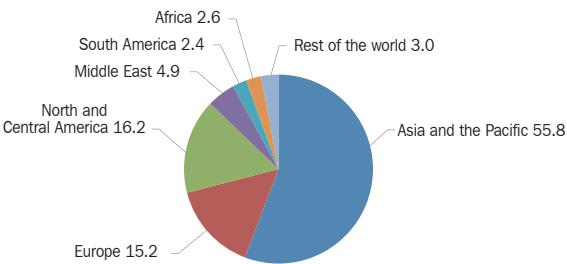
Lao PDR = Lao People's Democratic Republic.  
Source: Table 4.9.

**Growth in merchandise trade slowed sharply in 2012.** Sluggish economic performances in major industrial economies and moderating expansion in the PRC and India dampened growth in Asia's merchandise trade. The value of total exports increased by just 1.4% in 2012, compared with annual average growth of 13.4% in United States (US) dollars between 2005 and 2011. Exports fell in nearly half the region's economies last year and decelerated in most of the rest (Figure 4.2). In the PRC, export growth subsided to 7.9% in 2012, from 20.3% in 2011. Major exporters Australia, India, Japan, the Republic of Korea, Malaysia, and Singapore all reported export declines.

**Similarly, merchandise imports rose by just 3.3% in 2012, compared with an average increase of 14.5% between 2005 and 2011.** Factors behind this slowdown included softer regional economic growth in 2012, weakness in exports (manufactured exports require imported materials and components), and lower global prices for some commodities. Compared with 2011, import growth decelerated in 38 of 41 reporting economies, and imports fell in 7 others.

**Intraregional trade remained high, with 55.8% of regional exports shipped to markets within Asia and the Pacific in 2012** (Figure 4.3). That percentage climbed from 41.6% in 1990, the result of growth in regional economies during this period and the expansion of regional production networks, which manufacture products mainly for sale in major industrial countries.

Figure 4.3 Destination of merchandise exports from the Asia and Pacific region, 2012 (%)



Source: Table 4.13.

Between 1990 and 2012, Asian exports to Europe and North America together fell from 48.0% of the total to 31.4%. Major sources of Asian merchandise imports in 2012 were the region itself (49.7%), Europe (14.6%), Middle East (12.3%), and North and Central America (8.3%).

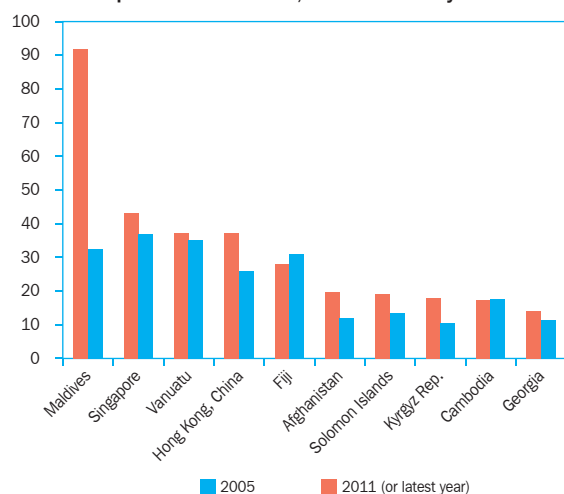
**Services have become important contributors to exports in some economies.** Figure 4.4 shows economies in the region with the highest shares of services exports in GDP. Hong Kong, China and Singapore are centers of trade-oriented and financial services, while tourism plays an important role in most economies in the figure. Services exports as a percentage of GDP increased in 8 of the 10 economies between 2005 and 2011 (or the latest year).

**The importance of migrant workers' remittances has increased in many economies.** Remittances were equivalent to at least 5% of GDP in 12 economies in the region in 2012, double the number in 2000. These

inflows support family incomes, bolster consumption, and contribute significantly to national current account balances. Economies heavily dependent on remittances are mostly in Central and West Asia, South Asia, the Pacific, as well as in the Philippines and Viet Nam in Southeast Asia. Figure 4.5 presents the top 10 economies in terms of remittances as a percentage of GDP. It shows very large increases in six of the economies between 2000 and 2012. In fact, remittances have increased in relation to GDP in 19 economies during this period, including the five most populous ones (Table 4.5).

In 2012, growth in remittances in US dollars for the region as a whole decelerated to 7.3%, from 15.5% in 2011. In the 10 economies for which remittances are most significant, growth slowed in 6 and remittances fell in 2 in 2012. Bangladesh stood out with increased remittance inflows in each of the past 3 years, partly a result of better financial services and the placement of more Bangladeshi workers abroad.

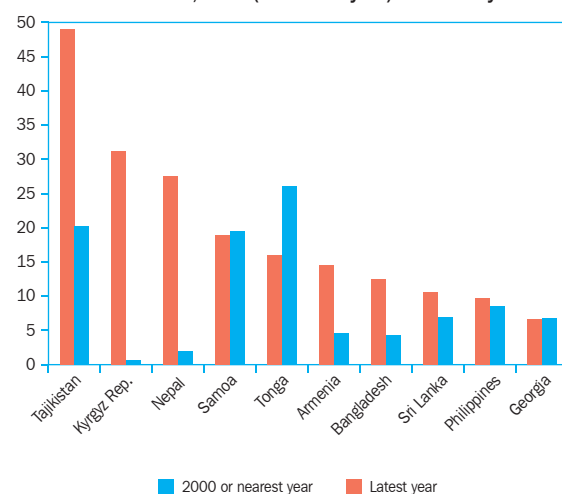
Figure 4.4 Top 10 Asia and Pacific economies in services exports as share of GDP, 2005 and latest year



GDP = gross domestic product.

Sources: International Financial Statistics CD-ROM (IMF 2013); GDP and exchange rate data from Key Indicators 2013 country tables.

Figure 4.5 Top 10 Asia and Pacific economies: Workers' remittances as share of GDP, 2000 (or nearest year) and latest year



GDP = gross domestic product.

Source: Table 4.4.

**More than half the regional economies recorded current account deficits in 2011 and 2012.** In Figure 4.6, bars to the right are current account surpluses and bars to the left are deficits. Averaging the current account outcomes for 2011 and 2012 shows 26 economies with current account deficits. Mongolia reported the biggest

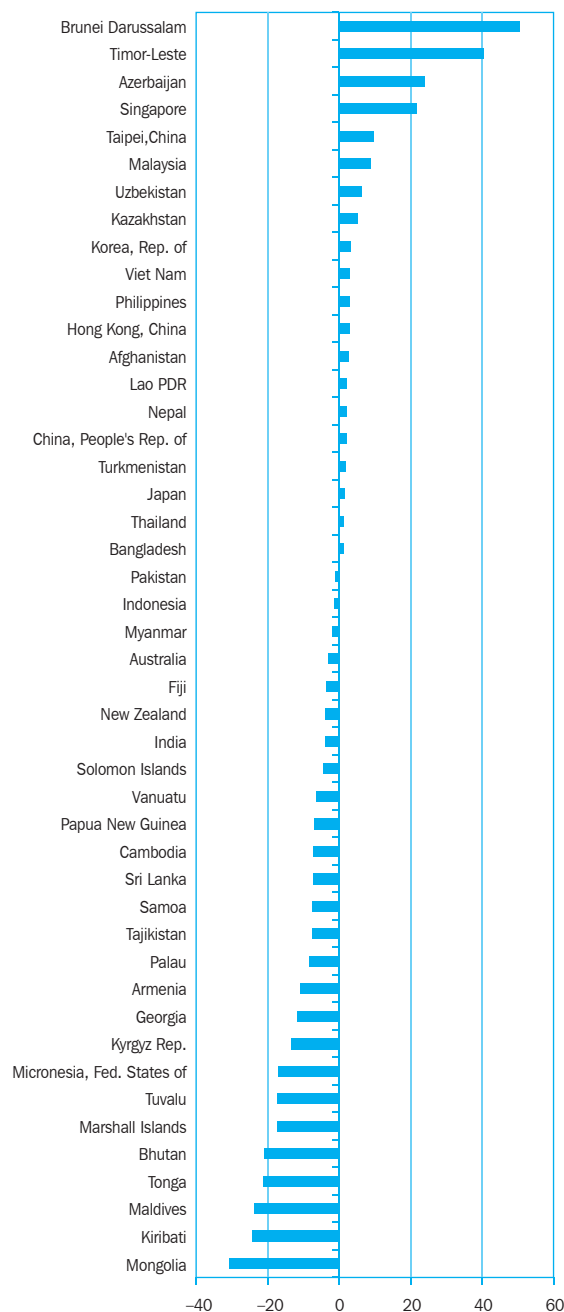
deficit relative to the size of its economy, at 30.8% of GDP. Twenty economies reported current account surpluses, with oil and gas exporter Brunei Darussalam having the largest current account surplus as a percentage of GDP.

In larger economies, the PRC's current account surplus declined from 10% of GDP in 2007 to about 2% in 2011–2012, reflecting progress on external rebalancing. Indonesia reported a current account deficit in 2012, its first since 1997. Deterioration in India's trade balance widened its current account deficit to about 4% of GDP in 2012, from 1% in 2007.

In Mongolia and Papua New Guinea, high levels of investment in export-oriented resources projects contributed to drive current accounts into deficit. The large mining and infrastructure projects required costly imports of machinery and equipment. As the development phase of the projects ends and mineral production gets under way, imports are expected to level off and exports rise, paring back the current account deficits.

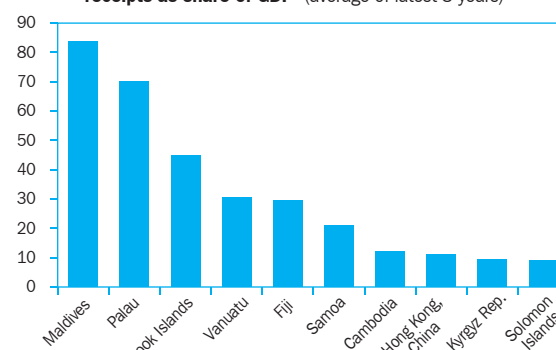
Figure 4.7 shows the top economies in terms of tourism receipts as a percentage of GDP. The Pacific islands and the Maldives filled the first six places. But in numbers of inbound tourists, the top three economies were the PRC (57.7 million), Malaysia (25.0 million), and Hong Kong, China (23.7 million), as shown in Table 4.25.

Figure 4.6 **Current account balance as share of GDP**  
(average of latest 2 years)



GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.  
Source: Table 4.3.

Figure 4.7 **Top 10 Asia and Pacific economies: Tourism receipts as share of GDP**  
(average of latest 3 years)



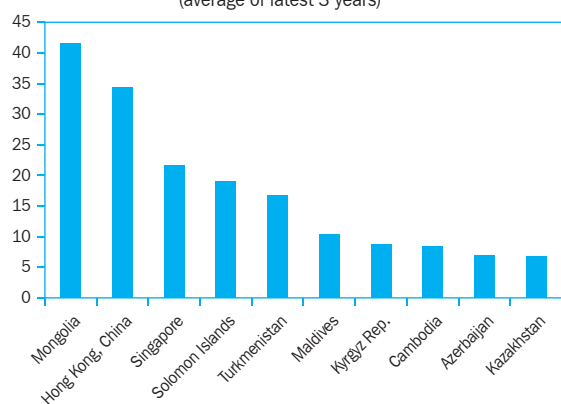
GDP = gross domestic product.  
Sources: Table 4.26; GDP and exchange rate data from Key Indicators 2013 country tables.

**Net FDI in the region rose by 20.2% to \$596 billion in 2011, with increases in 65% of regional economies.** Data for FDI in 2012, available for only 20 economies, indicates that inflows moderated. Net FDI inflows to the PRC eased to \$253 billion in 2012 from \$280 billion in 2011, when it represented 47% of the region's FDI.

Figure 4.8 shows FDI as a percentage of GDP in 10 economies with high rates of FDI relative to economic output. In Mongolia, net FDI inflows, mainly into large mining projects, averaged 41.5% of GDP during 2010–2012. By contrast, net FDI inflows were about 3.7% of GDP in the PRC in 2010–2012, despite the very large absolute amounts.

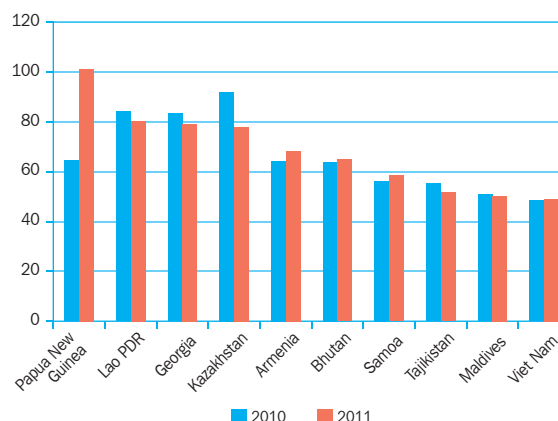
**External debt as a percentage of gross national income (GNI) fell in almost 70% of reporting economies between 2000 and 2011.** In most economies, external debt was below 50% of GDP in 2011 (Table 4.21). Figure 4.9 shows the 10 economies with the highest total external debt to GNI in 2011. For Papua New Guinea, external debt rose to 101% of GNI in 2011 from 64% in 2010 and 23% in 2009. Debt service ratios, or total debt service payments as a percentage of total exports of goods and services, declined between 2000 and the latest year in most economies for which data are available (Table 4.24).

Figure 4.8 **Top 10 Asia and Pacific economies: Foreign direct investment as share of GDP**  
(average of latest 3 years)



GDP = gross domestic product.  
Source: Table 4.7.

Figure 4.9 **External debt as share of GNI, 2010 and 2011**



GNI = gross national income, Lao PDR = Lao People's Democratic Republic.  
Source: Table 4.21.

## Data issues and comparability

Most of the international transactions in this section are taken from balance-of-payments statistics. Countries follow International Monetary Fund guidelines when compiling these statistics and meet regularly to discuss methodology, but many countries have difficulty accurately recording nonofficial transactions such as migrant workers' remittances and private capital flows, which is one of the reasons that the *Balance of Payments Manual* was updated to the 6th edition (BPM6). Analysis for this section was based on the balance-of-payments data as reported by the economies. A majority of countries use BPM5, some have shifted to BPM6, and a few continue to use BPM4. This affects the comparability of data across economies.

International trade statistics are closely monitored by the World Trade Organization and other international agencies. Common definitions are used by all countries, and the larger Asian economies use standard forms and procedures for data processing.

International tourist arrivals and receipts data come from the World Tourism Organization, which serves as a global forum for tourism policy issues and a practical source of information on this topic.

## Balance of Payments

Table 4.1 **Trade in Goods Balance**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	-65.5	-65.6	-57.8	-60.2	-50.4	-39.2	-38.1	-44.4
Armenia	...	-31.3	-24.2	-12.0	-14.0	-17.4	-22.8	-24.1	-21.9	-20.5	-20.8
Azerbaijan	...	-15.4	6.1	24.9	36.9	46.1	47.1	32.9	37.3	36.9	32.3
Georgia	...	...	-17.4	-18.9	-26.1	-28.5	-30.0	-22.3	-22.2	-23.7	-26.6
Kazakhstan	...	0.7	11.9	18.1	18.1	14.4	25.1	13.0	19.2	24.9	22.0
Kyrgyz Republic	...	-8.2	0.3	-17.0	-31.3	-33.6	-36.6	-23.9	-25.1	-26.9	-46.0
Pakistan	-6.3	-4.3	-2.0	-4.1	-6.2	-6.4	-9.9	-7.8	-6.6	-5.0	-7.3
Tajikistan	...	...	-9.5	-14.0	-23.8	-41.9	-41.2	-34.8	-50.7	-54.8	-46.6
Turkmenistan	...	7.5	15.5	11.6	21.6	20.5	29.7	4.3	10.1	22.4	19.4
Uzbekistan	...	2.3	3.6	10.0	10.4	10.3	8.6	4.9	6.3	6.1	6.1
<b>East Asia</b>											
China, People's Rep. of	2.3	2.5	2.9	5.9	8.0	9.0	8.0	5.0	4.3	3.3	3.9
Hong Kong, China	...	...	11.9	17.1	15.9	12.7	11.4	5.9	1.0	-3.5	-8.6
Korea, Rep. of	-0.9	-0.8	3.5	3.9	3.3	3.5	0.6	4.5	4.0	2.8	3.4
Mongolia	-25.3	1.7	-6.4	-3.9	4.0	-1.2	-11.2	-4.1	-2.9	-11.3	-14.9
Taipei, China	9.0	4.8	4.2	5.3	6.4	7.7	4.6	8.1	6.2	6.0	6.5
<b>South Asia</b>											
Bangladesh	-6.5	-6.2	-4.1	-5.7	-4.7	-5.0	-6.7	-5.3	-5.2	-7.2	-7.1
Bhutan	-9.5	-9.0	-16.1	-30.4	-13.7	3.9	-5.8	-7.2	-18.8	-28.3	-26.1
India	-2.9	-3.1	-2.7	-6.2	-6.5	-7.6	-9.2	-8.8	-7.5	-9.9	-8.0
Maldives	...	-37.8	-37.4	-49.8	-45.3	-69.9	-69.7	-46.0	-48.9	-64.0	-65.2
Nepal	-11.9	-20.3	-14.8	-14.4	-16.9	-16.7	-20.5	-21.4	-25.0	-23.8	-25.5
Sri Lanka	-8.9	-11.6	-10.8	-10.3	-11.9	-11.3	-14.7	-7.4	-10.5	-16.4	...
<b>Southeast Asia</b>											
Brunei Darussalam	...	8.7	...	50.7	52.6	46.5	54.5	45.6	56.7	59.2	...
Cambodia	-5.5	-9.7	-14.7	-16.1	-14.8	-14.7	-15.3	-14.4	-14.1	-12.5	...
Indonesia	4.7	3.2	15.2	6.1	8.1	7.6	4.5	5.7	4.3	4.1	1.0
Lao PDR	-12.3	-15.8	-12.5	-12.1	-5.0	-3.4	-5.9	-7.3	-4.7	-2.7	-2.2
Malaysia	6.0	0.0	22.2	23.7	23.0	19.5	22.3	19.8	16.9	16.8	13.4
Myanmar	...	...	...	...	...	15.34	12.07	8.29	8.21	0.48	1.54
Philippines	-9.1	-12.1	-7.4	-7.5	-5.5	-5.6	-7.4	-5.3	-5.5	-7.6	-6.1
Singapore	-4.3	11.9	17.5	37.2	34.4	32.5	22.5	26.1	28.5	27.4	22.0
Thailand	-11.1	-4.5	9.3	1.8	6.2	10.2	6.0	11.7	8.8	4.7	2.2
Viet Nam	-0.6	-11.3	1.2	-4.2	-4.2	-13.5	-12.9	-7.2	-4.4	-0.3	6.3
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	-16.8	-11.9	-13.9	-25.8	-31.3	-25.8	-30.5	-21.4	-24.0	-19.7	...
Kiribati	-100.2	-49.2	-47.7	-66.3	-55.8	-47.1	-47.7	-47.2	-44.5	-48.1	...
Marshall Islands	-66.2	-48.9	-56.3	-44.8	-44.7	-46.4	-45.7	-48.5	-61.8	-40.2	...
Micronesia, Fed. States of	-66.9	-39.8	-38.1	-42.8	-43.8	-40.8	-46.6	-46.3	-44.4	-43.2	-40.7
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	-72.5	-45.6	-47.8	-43.2	-47.6	-40.8	-44.9	-50.0	-49.6
Papua New Guinea	2.8	29.1	31.4	36.8	40.0	33.4	33.3	18.8	22.8	20.7	11.0
Samoa	-54.7	-41.6	-120.7	-40.3	-46.1	-38.6	-44.3	-37.3	-45.0	-46.4	...
Solomon Islands	-3.9	4.2	-8.1	-5.6	-22.6	-22.8	-15.4	-13.0	-20.6	-0.4	...
Timor-Leste	...	...	...	...	-3.2	-5.7	-6.7	-9.8	-6.9	-5.9	...
Tonga	-34.6	-27.5	-27.3	-34.1	-36.1	-36.6	-40.3	-43.0	-41.9	-44.9	-39.7
Tuvalu	-52.3	-67.1	-65.1	...	-40.4	-43.0	-50.7	-46.0	-53.6	-51.2	-46.7
Vanuatu	-43.5	-22.4	-18.2	-23.3	-25.9	-30.6	-34.3	-31.8	-27.1	-22.5	...
<b>Developed Member Economies</b>											
Australia	0.1	-1.2	-1.2	-1.9	-1.3	-2.0	-0.4	-0.3	1.5	2.0	-0.3
Japan	2.3	2.5	2.4	2.1	1.9	2.4	0.8	0.9	1.7	-0.3	-1.2
New Zealand	2.1	2.3	-0.6	-1.5	-2.5	-1.7	-1.0	-0.8	1.4	1.8	1.3

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

Sources: Country sources, ADB staff estimates using CEIC data.

**Table 4.2 Trade in Services Balance**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan <sup>a</sup>	...	...	...	-8.2	-6.3	-4.1	-2.2	-2.9	-2.5	-2.0	...
Armenia	...	-1.9	-2.9	-2.5	-2.1	-2.3	-2.8	-3.1	-2.6	-3.1	-3.4
Azerbaijan	...	-5.4	-4.2	-14.6	-9.2	-6.4	-4.8	-3.6	3.3	-4.5	...
Georgia	...	...	2.1	1.6	2.3	1.7	0.2	3.3	4.7	5.2	7.0
Kazakhstan	...	-1.4	-4.4	-9.3	-7.4	-7.9	-5.1	-5.1	-4.8	-3.5	-3.8
Kyrgyz Republic	...	-10.5	-6.3	-1.3	-2.9	2.1	-1.9	0.0	-4.1	0.1	-4.7
Pakistan	-1.4	-1.8	-1.2	-3.6	-3.7	-3.4	-3.7	-1.6	-0.3	-1.4	-0.8
Tajikistan	...	...	...	-4.5	-9.2	-11.9	-5.3	-2.2	-3.4	-1.6	...
Turkmenistan <sup>b</sup>	...	-7.1	-7.2	-6.5	-2.5	-5.0	-13.2	-19.0	-20.7	-20.4	-17.9
Uzbekistan <sup>c</sup>	...	-2.7	-0.5	-1.1	-3.2	-0.5	1.2	-3.2	-1.0	-1.4	-2.2
<b>East Asia</b>											
China, People's Rep. of	0.4	-0.8	-0.5	0.2	0.5	0.5	0.2	-0.3	-0.4	-0.7	-1.0
Hong Kong, China	...	...	9.2	-5.2	-5.6	-2.6	-1.6	1.9	5.2	7.7	10.7
Korea, Rep. of	-0.1	-0.5	-0.4	-1.2	-1.4	-1.1	-0.6	-0.8	-0.8	-0.5	0.2
Mongolia	...	-2.6	-7.5	-2.4	-1.1	2.6	-1.9	-3.4	-4.9	-13.3	-10.7
Taipei, China	-2.9	-3.3	-2.0	-1.8	-0.9	-0.4	0.5	0.5	0.6	0.8	1.3
<b>South Asia</b>											
Bangladesh	-1.1	-2.2	-1.8	-1.5	-1.5	-1.6	-2.0	-1.6	-2.0	-2.6	...
Bhutan <sup>d</sup>	0.1	-2.3	-3.5	-6.7	-1.0	-0.7	0.4	-2.9	-1.0	-0.9	-1.7
India	-0.5	-0.1	-0.5	0.6	1.2	1.4	1.4	0.9	0.4	0.7	...
Maldives	...	39.1	38.2	11.1	24.6	68.6	55.2	52.2	63.7	66.9	...
Nepal	1.0	8.1	5.3	-0.7	-1.2	-1.9	-1.1	-1.1	-1.2	0.4	0.2
Sri Lanka	-2.5	-2.9	-4.1	-2.2	-2.7	-2.6	-2.5	-1.5	-1.3	-1.6	...
<b>Southeast Asia</b>											
Brunei Darussalam	...	0.1	...	-5.2	-4.1	-4.1	-3.7	-4.8	...	...	...
Cambodia	...	-2.1	2.8	7.6	7.2	7.1	6.1	5.9	6.2	6.9	7.1
Indonesia	-3.1	-4.0	-6.3	-3.2	-3.4	-3.1	-2.9	-2.1	-1.4	-1.1	-1.2
Lao PDR	-0.3	-1.4	8.1	6.1	5.3	5.6	5.6	4.7	3.7	2.7	...
Malaysia	-3.7	-3.8	-3.0	-1.5	-1.6	0.2	0.2	0.4	-0.2	-0.7	-1.5
Myanmar	0.1	0.1	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	...
Philippines	3.3	3.3	-2.3	1.1	2.0	2.8	1.5	1.7	2.1	2.4	1.6
Singapore	10.7	7.0	-1.6	-7.8	-5.0	-1.5	-0.8	-0.9	1.0	0.3	0.1
Thailand	0.1	-2.4	-1.3	-3.6	-3.6	-3.0	-4.4	-2.3	-3.2	-2.9	-0.8
Viet Nam	...	...	-1.8	-0.5	-0.0	-1.0	-1.0	-2.3	-2.1	-2.2	...
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	11.9	8.4	6.1	13.3	11.2	12.0	11.8	9.7	12.2	...	...
Kiribati	-45.4	...	...	...	...	...	...	...	...	...	...
Marshall Islands <sup>e</sup>	9.7	3.3	3.5	1.5	3.2	0.8	3.2	-8.1	-3.6	-1.6	...
Micronesia, Fed. States of <sup>f</sup>	...	-9.0	-12.5	-10.4	-8.6	-6.1	-10.6	-11.3	-10.2	-10.5	-7.5
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau <sup>g</sup>	...	...	11.9	9.4	6.5	11.8	14.0	19.9	21.3	29.7	...
Papua New Guinea	-6.1	-6.6	-15.1	-20.0	-23.0	-25.1	-18.4	-20.4	-25.2	...	...
Samoa	9.7	10.2	...	14.0	14.8	17.7	17.4	15.2	15.1	16.5	...
Solomon Islands	-28.5	-10.7	-7.1	-5.4	-4.1	-8.8	-10.7	-6.5	-13.9	-7.7	...
Timor-Leste	...	...	...	...	-7.0	-8.9	-10.0	-23.5	-22.8	-24.5	...
Tonga	2.6	...	...	-2.4	-3.9	-5.4	-5.5	-3.8	...	...	...
Tuvalu <sup>h</sup>	17.4	11.4	-51.4	...	5.6	11.8	-5.3	17.0	-3.7	-26.5	8.8
Vanuatu	24.1	20.4	21.8	16.5	17.0	20.9	16.3	22.9	22.3	18.5	...
<b>Developed Member Economies</b>											
Australia	-1.1	-0.2	0.3	0.0	0.1	0.1	-0.4	-0.1	-0.4	-0.6	...
Japan	-1.4	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
New Zealand	-1.9	-0.3	-0.1	0.5	0.3	0.2	-0.3	0.1	-0.3	-0.6	-0.6

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a Includes income.

b Derived as a residual between current account and trade balances.

c Includes other goods and income. Applicable starting 2005 for Uzbekistan.

d Prior to 2000, services, income, and transfer receipts and payments were grouped as service transfer receipts and service transfer payments.

e Includes other goods and income.

Sources: International Financial Statistics Online (IMF 2013); country sources.

## Balance of Payments

Table 4.3 **Current Account Balance**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	-2.7	-5.0	0.8	0.9	-2.8	1.7	3.4	1.7
Armenia	...	-17.0	-14.6	-1.1	-1.8	-6.4	-11.8	-15.8	-14.8	-10.9	-10.6
Azerbaijan	...	-16.6	-3.2	1.3	17.7	27.3	33.7	23.0	28.4	26.0	21.7
Georgia	...	...	-5.3	-11.1	-15.2	-19.8	-22.1	-10.6	-10.3	-11.7	-11.5
Kazakhstan	...	-1.3	2.0	-1.8	-2.5	-7.9	4.7	-3.6	0.9	6.5	3.8
Kyrgyz Republic	...	-15.7	-5.7	-1.4	-9.3	-6.0	-13.7	-2.2	-7.2	-6.1	-20.6
Pakistan	-3.4	-3.7	-0.3	-1.4	-3.7	-4.5	-9.2	-5.7	-2.3	0.1	-2.2
Tajikistan	...	...	-7.2	-0.8	-1.5	-13.3	0.9	-3.6	-15.9	-11.8	-3.2
Turkmenistan	...	0.4	8.3	5.1	15.7	15.5	16.5	-14.7	-10.6	2.0	1.5
Uzbekistan	...	-0.2	1.6	13.5	17.2	19.1	17.4	12.6	6.6	8.1	4.7
<b>East Asia</b>											
China, People's Rep. of	3.1	0.2	1.7	5.9	8.5	10.1	9.3	4.9	4.0	1.9	2.3
Hong Kong, China	...	...	4.4	11.9	12.7	13.0	15.0	9.5	6.6	4.8	1.1
Korea, Rep. of	-0.5	-1.5	2.8	2.2	1.5	2.1	0.3	3.9	2.9	2.3	3.8
Mongolia	-32.6	2.7	-6.2	3.5	10.9	4.1	-12.3	-7.5	-14.3	-31.5	-30.2
Taipei, China	6.6	2.0	2.7	4.8	7.0	8.9	6.9	11.4	9.3	8.9	10.5
<b>South Asia</b>											
Bangladesh	-1.5	-1.8	-0.9	-1.0	1.3	1.4	0.9	2.7	3.7	0.8	1.5
Bhutan	-9.3	-11.3	5.5	-28.7	-4.2	12.1	-2.2	-1.1	-9.0	-22.4	-19.2
India	-3.0	-1.6	-0.6	-1.2	-1.0	-1.3	-2.2	-2.9	-2.8	-4.1	-3.8
Maldives	...	-4.6	-8.2	-27.5	-23.2	-14.8	-32.3	-11.1	-9.2	-20.3	-27.0
Nepal	-7.7	-5.2	-2.3	1.9	2.2	-0.1	3.1	4.2	-2.3	-1.0	5.2
Sri Lanka	-4.7	-6.1	-6.4	-2.7	-5.3	-4.3	-9.5	-0.5	-2.9	-7.8	-6.6
<b>Southeast Asia</b>											
Brunei Darussalam	...	51.3	...	52.7	56.4	51.1	54.4	40.2	48.5	52.4	...
Cambodia	-3.5	-3.1	-2.7	-3.6	-3.6	-4.9	-7.9	-7.5	-6.9	-5.5	-8.6
Indonesia	-2.6	-3.2	4.8	0.1	3.0	2.4	0.0	2.0	0.7	0.2	-2.8
Lao PDR	-9.6	-7.5	-0.3	-7.1	1.2	1.8	1.7	-1.1	0.4	2.0	2.3
Malaysia	-2.1	-9.8	9.0	14.4	16.1	15.4	17.1	15.6	11.1	11.0	6.4
Myanmar	...	...	...	...	...	6.77	4.84	3.14	4.15	-2.94	-1.04
Philippines	-5.8	-4.4	-2.7	1.9	4.4	4.8	2.1	5.6	4.5	3.1	2.8
Singapore	8.0	16.4	10.8	21.4	24.5	26.1	15.1	17.7	26.8	24.6	18.6
Thailand	-8.1	-3.7	12.3	-4.1	1.0	6.0	0.7	7.8	3.0	1.6	0.7
Viet Nam	-4.0	-9.0	3.6	-1.0	-0.2	-9.2	-10.9	-6.2	-3.7	0.2	5.8
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	-3.3	-0.9	-1.6	-11.2	-19.7	-10.1	-15.0	4.1	-4.6	-2.3	...
Kiribati	-37.3	-4.5	-9.7	-34.1	-17.6	-19.4	-16.5	-24.3	-21.3	-27.2	...
Marshall Islands	34.2	-24.2	-22.4	-1.4	-3.5	-4.2	-1.8	-16.9	-28.1	-6.2	...
Micronesia, Fed. States of	18.5	-9.0	-13.3	-6.7	-11.5	-7.3	-16.8	-18.5	-16.6	-18.9	-15.0
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	-43.5	-27.2	-32.6	-22.0	-23.0	-10.4	-10.9	-8.9	-7.7
Papua New Guinea	-2.9	13.9	10.1	13.3	8.0	2.9	9.9	-7.2	-6.5	-1.3	-12.4
Samoa	7.5	4.1	-3.3	-10.7	-16.4	-8.0	-10.0	-1.8	-7.4	-9.9	-5.0
Solomon Islands	-14.8	2.5	-12.9	-1.9	-11.8	-18.9	-20.4	-23.8	-35.9	-8.4	-0.1
Timor-Leste	...	...	...	...	19.2	39.7	45.6	39.0	39.5	41.1	...
Tonga	10.8	-10.7	-5.2	-9.4	-6.3	-10.9	-8.8	-15.2	-21.9	-20.7	-21.9
Tuvalu	18.4	5.0	54.7	...	-1.6	-1.9	-13.0	27.6	-3.7	-26.5	-7.8
Vanuatu	-4.1	-8.0	-5.0	-3.5	-5.9	-10.4	-7.1	-8.0	-5.8	-7.1	...
<b>Developed Member Economies</b>											
Australia	-3.8	-5.0	-3.9	-5.9	-5.5	-6.5	-4.6	-4.3	-3.1	-2.3	-3.7
Japan	1.5	2.1	2.5	3.6	3.9	4.9	3.3	2.9	3.7	2.0	1.0
New Zealand	-3.1	-4.6	-6.2	-6.1	-8.6	-7.9	-7.9	-7.9	-1.7	-3.5	-4.3

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

Source: Country sources, ADB staff estimates using CEIC data.

## Balance of Payments

Table 4.4 **Workers' Remittances and Compensation of Employees, Receipts**  
(\$ million)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	106	233	462	462	445
Armenia	...	65	87	498	658	846	1062	769	996	1295	1449
Azerbaijan	...	3	57	693	813	1287	1554	1274	1432	1915	1804
Georgia	...	...	209	346	485	695	732	714	806	1110	1061
Kazakhstan	...	116	122	178	186	223	192	261	291	240	162
Kyrgyz Republic	...	1	9	322	481	713	1232	991	1275	1724	2024
Pakistan	2006	1712	1075	4280	5121	5998	7039	8717	9690	12263	14010
Tajikistan	...	...	...	467	1019	1691	2544	1748	2306	3060	3739
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	196	891	4822	23478	27401	38186	47492	47930	52269	61365	60246
Hong Kong, China	...	...	136	297	294	317	355	348	340	357	377
Korea, Rep. of	2413	3491	4858	6509	6180	6812	10732	8913	8725	10391	11042
Mongolia	...	...	12	180	181	178	225	200	277	279	288
Taipei, China	...	142	274	323	355	430	454	455	500	613	688
<b>South Asia</b>											
Bangladesh	779	1202	1968	4315	5428	6562	8941	10521	10850	12068	14060
Bhutan	...	...	...	...	2	3	4	5	8	10	10
India	2384	6223	12883	22125	28334	37217	49977	49468	54035	63011	69350
Maldives	2	2	2	2	3	8	6	5	3	3	3
Nepal	...	57	111	1212	1453	1734	2727	2986	3469	4217	4953
Sri Lanka	401	809	1166	1991	2185	2527	2947	3363	4155	5193	6312
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	12	121	200	297	351	321	335	318	245	257
Indonesia	166	651	1190	5420	5722	6174	6794	6793	6916	6924	7207
Lao PDR	11	22	1	1	4	6	18	38	42	110	117
Malaysia	185	116	342	1117	1365	1556	1329	1131	1102	1198	1272
Myanmar	6	81	102	129	115	81	55	54	115	127	566
Philippines	1465	5360	6961	13566	15251	16302	18642	19765	21427	23065	24453
Singapore	...	...	...	...	...	...	...	...	...	...	...
Thailand	973	1695	1697	1187	1333	1635	1898	2776	3580	3994	4124
Viet Nam	...	...	1340	3150	3800	6180	6805	6020	8260	8600	10000
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	22	33	44	185	185	160	123	154	158	158	165
Kiribati	5	7	7	7	7	7	9	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	5	16	7	7	4	8	15	12	11	11	9
Samoa	43	41	45	1	1	94	109	119	122	139	128
Solomon Islands	...	...	4	7	2	2	2	2	2	2	2
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...
Tonga	24	...	...	69	79	101	94	72	72	72	74
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	8	14	35	5	5	6	9	11	12	22	19
<b>Developed Member Economies</b>											
Australia	2370	1651	1903	2990	3131	3826	4713	1340	1601	1601	1620
Japan	...	1151	1374	1080	1380	1577	1929	1776	1802	2298	2728
New Zealand	762	1652	236	739	650	654	641	628	843	875	883
<b>DEVELOPING MEMBER ECONOMIES<sup>a</sup></b>	<b>11094</b>	<b>22760</b>	<b>39687</b>	<b>92267</b>	<b>108750</b>	<b>138091</b>	<b>174545</b>	<b>176182</b>	<b>194025</b>	<b>224243</b>	<b>240418</b>
<b>REGIONAL MEMBERS<sup>a</sup></b>	<b>14226</b>	<b>27214</b>	<b>43201</b>	<b>97076</b>	<b>113911</b>	<b>144148</b>	<b>181827</b>	<b>179926</b>	<b>198271</b>	<b>229017</b>	<b>245649</b>
<b>WORLD</b>	<b>64109</b>	<b>98417</b>	<b>130838</b>	<b>287627</b>	<b>331530</b>	<b>400757</b>	<b>463819</b>	<b>436352</b>	<b>463599</b>	<b>514248</b>	<b>528769</b>

... = Data not available at cutoff date.

a For reporting economies only.

Sources: Migration and Remittances website (World Bank 2013); for Taipei, China: economy sources.

## Balance of Payments

Table 4.5 **Workers' Remittances and Compensation of Employees, Receipts**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	0.0	0.1	0.3	0.2	...
Armenia	...	5.1	4.6	10.2	10.3	9.2	9.1	8.9	10.8	12.8	14.6
Azerbaijan	...	0.1	1.1	5.2	3.9	3.9	3.2	2.9	2.7	2.9	2.6
Georgia	...	...	6.9	5.4	6.3	6.8	5.7	6.6	6.9	7.7	6.7
Kazakhstan	...	0.7	0.7	0.3	0.2	0.2	0.1	0.2	0.2	0.1	0.1
Kyrgyz Republic	...	0.1	0.6	13.1	17.0	18.8	24.0	21.1	26.6	27.8	31.3
Pakistan	5.1	2.9	1.5	3.9	3.8	3.9	4.7	5.4	5.6	5.8	6.5
Tajikistan	...	...	...	20.2	36.0	45.5	49.3	35.1	40.9	46.9	49.0
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	0.1	0.1	0.4	1.0	1.0	1.1	1.1	1.0	0.9	0.8	0.7
Hong Kong, China	...	...	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1
Korea, Rep. of	0.9	0.7	0.9	0.8	0.6	0.6	1.2	1.1	0.9	0.9	1.0
Mongolia	...	...	1.1	7.1	5.3	4.2	4.0	4.4	4.5	3.2	2.8
Taipei, China	...	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>South Asia</b>											
Bangladesh	2.7	3.2	4.3	7.5	9.0	9.6	11.2	11.8	10.9	11.2	12.5
Bhutan	...	...	...	...	0.2	0.2	0.3	0.4	0.5	0.6	0.5
India	0.7	1.7	2.8	2.6	3.0	3.1	3.9	3.7	3.2	3.3	3.7
Maldives	...	0.6	0.4	0.2	0.2	0.5	0.3	0.2	0.1	0.1	0.1
Nepal	...	1.3	1.9	14.7	16.2	15.8	23.3	23.4	21.3	22.7	27.5
Sri Lanka	5.1	6.3	7.0	8.2	7.7	7.8	7.2	8.0	8.4	8.8	10.6
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	0.3	3.3	3.2	4.1	4.1	3.1	3.2	2.8	1.9	1.8
Indonesia	0.1	0.3	0.7	1.9	1.6	1.4	1.3	1.3	1.0	0.8	0.8
Lao PDR	1.3	1.2	0.0	0.0	0.1	0.1	0.3	0.7	0.6	1.4	1.3
Malaysia	0.4	0.1	0.4	0.8	0.8	0.8	0.6	0.6	0.4	0.4	0.4
Myanmar	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
Philippines	3.3	7.2	8.6	13.2	12.5	10.9	10.7	11.7	10.7	10.3	9.8
Singapore	...	...	...	...	...	...	...	...	...	...	...
Thailand	1.1	1.0	1.3	0.6	0.6	0.6	0.7	1.0	1.1	1.1	1.1
Viet Nam	...	...	4.3	5.5	5.7	8.0	6.9	5.7	7.1	6.3	6.4
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	1.6	1.7	2.6	6.2	6.0	4.7	3.4	5.3	4.9	4.2	...
Kiribati	21.3	12.5	10.4	6.6	6.7	5.7	6.7	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	0.2	0.3	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Samoa	38.3	20.2	19.5	0.2	0.2	17.2	20.1	22.9	20.4	20.8	18.9
Solomon Islands	...	...	1.5	2.3	0.5	0.5	0.3	0.5	0.3	0.3	0.3
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...
Tonga	20.4	...	...	26.1	26.9	33.1	27.8	21.9	19.1	16.0	16.0
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	5.4	5.9	12.7	1.3	1.1	1.1	1.5	1.9	1.7	2.8	...
<b>Developed Member Economies</b>											
Australia	0.8	0.4	0.5	0.4	0.4	0.4	0.5	0.1	0.1	0.1	0.1
Japan	...	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Zealand	1.7	2.8	0.5	0.7	0.6	0.5	0.5	0.5	0.6	0.6	0.5
<b>DEVELOPING MEMBER ECONOMIES<sup>a</sup></b>	<b>0.7</b>	<b>0.8</b>	<b>1.0</b>	<b>1.2</b>	<b>1.1</b>	<b>1.1</b>	<b>1.2</b>	<b>1.1</b>	<b>1.0</b>	<b>1.0</b>	<b>1.6</b>
<b>REGIONAL MEMBERS<sup>a</sup></b>	<b>0.3</b>	<b>0.3</b>	<b>0.5</b>	<b>0.7</b>	<b>0.8</b>	<b>0.8</b>	<b>0.9</b>	<b>0.8</b>	<b>0.8</b>	<b>0.8</b>	<b>1.1</b>

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a For reporting economies only.

Sources: ADB staff estimates based on the Migration and Remittances website (World Bank 2013); for Taipei, China: economy sources.

## Balance of Payments

**Table 4.6 Foreign Direct Investment, Net Inflows**  
(\$ million)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	0	0	271	238	189	87	214	76	83	...
Armenia	...	25	104	239	453	699	935	777	570	663	489
Azerbaijan	...	330	130	1680	-584	-4749	15	2900	3353	4485	5293
Georgia	...	...	131	453	1170	1750	1564	653	869	1084	788
Kazakhstan	...	964	1283	1971	6278	11119	14322	14276	7456	14287	15117
Kyrgyz Republic	...	96	-2	43	182	208	377	189	438	694	372
Pakistan	245	723	308	2201	4273	5590	5438	2338	2018	1309	854
Tajikistan	...	10	24	54	339	360	376	16	-15	11	...
Turkmenistan	...	233	131	418	731	856	1277	4553	3631	3186	...
Uzbekistan	...	-24	75	192	174	705	711	842	1628	1403	...
<b>East Asia</b>											
China, People's Rep. of	3487	35849	38399	104109	124082	156249	171535	131057	243703	280072	253475
Hong Kong, China	...	...	61924	33618	45054	54365	59614	54276	82709	96135	74584
Korea, Rep. of	789	1776	9283	6309	3586	1784	3311	2249	1094	4837	4999
Mongolia	0	10	54	185	344	373	845	624	1691	4715	4452
Taipei, China	-3913	1559	4928	1625	7424	7769	5432	2805	2492	-1957	3205
<b>South Asia</b>											
Bangladesh	3	2	280	813	697	653	1010	733	918	1138	...
Bhutan	...	...	...	9	6	74	3	7	19	16	...
India	0	2144	3584	7606	20336	25483	43406	35581	26502	32190	...
Maldives	6	7	22	53	64	91	135	154	216	282	...
Nepal	0	0	0	2	-7	6	1	38	88	94	92
Sri Lanka	43	56	173	272	480	603	752	404	478	956	...
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	...	175	88	258	222	326	496	...	...
Cambodia	...	151	149	381	483	867	815	539	783	902	1557
Indonesia	1093	4346	-4550	8336	4914	6928	9318	4877	13771	19241	19618
Lao PDR	6	95	34	28	187	324	228	319	279	301	...
Malaysia	2332	4178	3788	3966	6076	8590	7376	115	-10886	-15119	-9734
Myanmar	161	277	255	235	276	710	864	1079	901	1001	...
Philippines	530	1478	2240	1854	2921	2916	1544	2712	1635	1816	2797
Singapore	5575	11535	16484	15460	29348	37033	8588	24939	53623	55923	56651
Thailand	2444	2068	3366	8055	9455	11327	8538	4854	9104	7780	8616
Viet Nam	180	1780	1298	1954	2400	6700	9579	7600	8000	7430	...
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	92	70	1	156	412	338	309	135	196	...	...
Kiribati	0	0	1	5	1	1	3	3	4	4	...
Marshall Islands	1	-5	125	7	6	12	6	8	9	7	...
Micronesia, Fed. States of	...	...	0	0	1	17	6	8	10	8	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	1	0	15	1	1	3	2	2	2	2	...
Papua New Guinea	155	455	96	38	13	102	-30	419	29	...	...
Samoa	0	0	-2	-3	21	7	46	3	5	15	...
Solomon Islands	10	2	13	19	34	64	95	115	122	105	...
Timor-Leste	...	...	...	1	8	9	40	50	29	47	...
Tonga	0	1	5	7	10	28	4	0	16	...	...
Tuvalu	...	0	-1	0	5	0	2	2	2	2	...
Vanuatu	13	31	20	13	43	34	38	32	42	58	...
<b>Developed Member Economies</b>											
Australia	8111	12026	13618	-35601	26415	41076	47281	28180	35677	65974	...
Japan	1777	39	8227	3214	-6784	22180	24552	15481	1082	79	2525
New Zealand	1735	3316	3841	1564	4562	3191	4890	-802	505	4285	2887
<b>DEVELOPING MEMBER ECONOMIES<sup>a</sup></b>	<b>13254</b>	<b>70222</b>	<b>144167</b>	<b>202811</b>	<b>272023</b>	<b>340444</b>	<b>358737</b>	<b>302822</b>	<b>458104</b>	<b>525205</b>	<b>443226</b>
<b>REGIONAL MEMBERS<sup>a</sup></b>	<b>24878</b>	<b>85604</b>	<b>169853</b>	<b>171987</b>	<b>296217</b>	<b>406891</b>	<b>435460</b>	<b>345681</b>	<b>495369</b>	<b>595543</b>	<b>448639</b>

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed.

a For reporting economies only.

Sources: International Financial Statistics Online (IMF 2013); World Development Indicators Online (World Bank 2013); for Taipei, China: economy sources.

## Balance of Payments

Table 4.7 **Foreign Direct Investment, Net Inflows**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	0.2	0.2	0.1	0.0	0.1	0.0	0.0	...
Armenia	...	2.0	5.5	4.9	7.1	7.6	8.0	9.0	6.2	6.5	4.9
Azerbaijan	...	13.4	2.4	12.5	-2.8	-14.4	0.0	6.5	6.3	6.8	7.7
Georgia	...	...	4.3	7.1	15.1	17.2	12.2	6.1	7.5	7.5	5.0
Kazakhstan	...	5.8	7.0	3.5	7.8	10.6	10.7	12.4	5.0	7.6	7.5
Kyrgyz Republic	...	6.4	-0.2	1.7	6.4	5.5	7.3	4.0	9.1	11.2	5.7
Pakistan	0.6	1.2	0.4	2.0	3.1	3.7	3.6	1.4	1.2	0.6	0.4
Tajikistan	...	1.8	2.7	2.4	12.0	9.7	7.3	0.3	-0.3	0.2	...
Turkmenistan	...	4.0	2.7	2.4	3.4	3.3	5.9	22.5	16.4	11.4	...
Uzbekistan	...	-0.2	0.5	1.4	1.0	3.2	2.4	2.5	4.1	3.1	...
<b>East Asia</b>											
China, People's Rep. of	0.9	4.9	3.2	4.6	4.6	4.5	3.8	2.6	4.1	3.8	3.1
Hong Kong, China	...	...	36.1	18.5	23.3	25.7	27.2	25.4	36.2	38.7	28.4
Korea, Rep. of	0.3	0.3	1.7	0.7	0.4	0.2	0.4	0.3	0.1	0.4	0.4
Mongolia	...	0.7	4.7	7.3	10.1	8.8	15.0	13.6	27.3	53.8	43.3
Taipei, China	-2.4	0.6	1.5	0.4	2.0	2.0	1.4	0.7	0.6	-0.4	0.7
<b>South Asia</b>											
Bangladesh	0.0	0.0	0.6	1.4	1.2	1.0	1.3	0.8	0.9	1.1	...
Bhutan	...	...	...	1.1	0.7	6.2	0.2	0.5	1.2	0.9	...
India	0.0	0.6	0.8	0.9	2.1	2.1	3.4	2.7	1.6	1.7	...
Maldives	...	1.8	3.6	5.3	4.9	5.9	7.1	7.8	10.1	13.1	...
Nepal	0.0	0.0	0.0	0.0	-0.1	0.1	0.0	0.3	0.5	0.5	0.5
Sri Lanka	0.5	0.4	1.0	1.1	1.7	1.9	1.8	1.0	1.0	1.6	...
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	...	1.8	0.8	2.1	1.5	3.0	4.0	...	...
Cambodia	...	4.4	4.0	6.1	6.6	10.0	7.9	5.2	7.0	7.0	11.1
Indonesia	1.0	2.2	-2.8	2.9	1.3	1.6	1.8	0.9	1.9	2.3	2.2
Lao PDR	0.7	5.4	2.1	1.0	5.3	7.7	4.3	5.7	4.1	3.7	...
Malaysia	5.3	4.7	4.0	2.8	3.7	4.4	3.2	0.1	-4.4	-5.3	-3.2
Myanmar	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	...
Philippines	1.2	2.0	2.8	1.8	2.4	2.0	0.9	1.6	0.8	0.8	1.1
Singapore	14.4	13.2	17.5	12.3	20.2	20.8	4.5	13.2	23.1	21.1	20.5
Thailand	2.8	1.2	2.7	4.3	4.3	4.3	2.9	1.7	2.7	2.1	2.2
Viet Nam	2.8	8.6	4.2	3.4	3.6	8.7	9.7	7.2	6.9	5.5	...
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	6.9	3.5	0.0	5.2	13.3	9.9	8.5	4.6	6.1	...	...
Kiribati	1.2	0.7	1.1	4.5	0.5	0.9	2.0	2.5	2.4	2.2	...
Marshall Islands	1.3	-4.2	112.9	4.7	4.3	8.1	3.6	5.3	5.3	4.3	...
Micronesia, Fed. States of	...	...	0.0	0.0	0.2	6.5	2.2	2.8	3.4	2.5	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	-0.2	9.4	0.4	0.6	1.5	0.8	1.0	1.2	0.9	...
Papua New Guinea	4.8	9.4	2.7	0.8	0.2	1.6	-0.4	5.2	0.3	...	...
Samoa	5.9	1.7	-0.7	0.9	6.3	1.2	8.5	0.6	0.9	2.2	...
Solomon Islands	5.6	0.6	4.6	6.0	9.4	15.0	17.9	21.5	20.8	14.6	...
Timor-Leste	...	...	...	0.1	0.3	0.3	0.9	1.5	0.7	0.8	...
Tonga	0.2	0.5	2.5	2.7	3.4	9.0	1.2	0.0	4.3	...	...
Tuvalu	...	0.0	-6.7	-0.1	20.5	0.5	5.5	8.2	4.7	4.6	...
Vanuatu	8.7	13.6	7.4	3.4	9.9	6.5	6.2	5.3	5.9	7.6	...
<b>Developed Member Economies</b>											
Australia	2.6	3.3	3.5	-5.1	3.5	4.5	4.8	2.9	3.0	4.6	...
Japan	0.1	0.0	0.2	0.1	-0.2	0.5	0.5	0.3	0.0	0.0	0.0
New Zealand	3.9	5.6	7.5	1.4	4.4	2.6	3.8	-0.7	0.4	2.7	1.7
<b>DEVELOPING MEMBER ECONOMIES<sup>a</sup></b>	<b>0.8</b>	<b>2.5</b>	<b>3.7</b>	<b>2.6</b>	<b>2.8</b>	<b>2.8</b>	<b>2.4</b>	<b>1.9</b>	<b>2.4</b>	<b>2.3</b>	<b>2.9</b>
<b>REGIONAL MEMBERS<sup>a</sup></b>	<b>0.5</b>	<b>1.0</b>	<b>1.9</b>	<b>1.3</b>	<b>2.0</b>	<b>2.3</b>	<b>2.1</b>	<b>1.6</b>	<b>1.9</b>	<b>2.0</b>	<b>2.0</b>

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a For reporting economies only.

Sources: ADB staff estimates using International Financial Statistics Online (IMF 2013); World Development Indicators Online (World Bank 2013); for Taipei, China: economy sources.

**Table 4.8 Merchandise Exports**  
(\$ million)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	235	166	137	384	416	454	545	403	388	376	414
Armenia	...	271	300	974	985	1152	1057	710	1041	1334	1428
Azerbaijan	...	637	1745	7649	13015	21269	30586	21097	26476	34495	...
Georgia	...	...	323	866	936	1232	1495	1134	1677	2189	2378
Kazakhstan	...	5250	8812	27849	38250	47755	71184	43196	59830	87603	92286
Kyrgyz Republic	...	409	505	674	891	1321	1856	1673	1756	2242	1894
Pakistan	4960	7972	8335	14453	16468	17107	17642	17202	19261	24917	22797
Tajikistan	...	779	784	909	1399	1468	1409	1010	1195	1257	1359
Turkmenistan	151	2084	2508	4944	7156	8932	11945	9323	9679	16751	19987
Uzbekistan	...	3720	3265	5409	6390	8992	11493	11771	13023	15027	14259
<b>East Asia</b>											
China, People's Rep. of	62091	148780	249203	761953	968969	1220460	1430690	1201610	1577800	1898380	2048900
Hong Kong, China	82143	173753	201855	289325	316823	344490	362683	318520	390134	428732	442775
Korea, Rep. of	65016	125058	172268	284419	325465	371489	422007	363534	466384	555214	547870
Mongolia	661	473	536	1064	1542	1948	2535	1885	2909	4818	4385
Taipei, China	67044	111405	151458	198168	223763	246259	254024	202955	273543	306817	300533
<b>South Asia</b>											
Bangladesh	1415	3260	4780	8259	10264	12211	14111	15526	16125	22083	23467
Bhutan	68	103	103	258	414	613	556	509	556	646	559
India	18601	32798	45297	103496	126201	158619	193254	174677	249951	314108	306015
Maldives	53	85	109	162	224	228	331	169	198	346	314
Nepal	176	340	701	823	828	894	850	873	831	869	872
Sri Lanka	1913	3807	5456	6351	6896	7645	8109	7081	8618	10560	9760
<b>Southeast Asia</b>											
Brunei Darussalam	2237	2392	3903	6249	7608	7668	10544	7172	12118	15648	16221
Cambodia	86	854	1397	2908	3692	3248	3493	2996	3884	5219	6016
Indonesia	25675	45418	62124	85660	100799	114101	137020	116510	157779	203497	190032
Lao PDR	79	308	330	553	882	923	1092	1053	1746	2190	2269
Malaysia	29446	73865	98229	141595	160625	175793	198755	156765	198325	228059	227334
Myanmar	467	890	1954	3549	5139	6284	6805	7404	8715	9053	...
Philippines	8186	17447	38078	41255	47410	50466	49078	38436	51498	48305	51995
Singapore <sup>a</sup>	52527	118186	137953	229832	271604	299003	336968	268900	351182	409246	408368
Thailand	23053	56444	69152	110360	130336	153604	175647	151509	192937	219994	228141
Viet Nam	2404	5449	14483	32447	39826	48561	62685	57096	72237	96906	114573
<b>The Pacific</b>											
Cook Islands	5	5	9	5	4	5	4	3	5	3	5
Fiji	608	623	543	705	694	751	923	629	842	1069	1224
Kiribati	3	7	4	4	3	10	7	6	4	9	...
Marshall Islands	3	23	25	34	28	28	32	34	...	...	...
Micronesia, Fed. States of	4	39	17	13	9	16	...	...	...	...	...
Nauru	60	28	28	4	27	48	159	60	95	121	153
Palau	...	14	12	14	15	16	29	13	15	19	22
Papua New Guinea	1175	2672	2089	3271	4198	4741	5798	4385	5737	6907	6125
Samoa	9	9	14	12	10	14	10	11	23	25	33
Solomon Islands	70	168	65	105	121	165	211	165	227	415	493
Timor-Leste	...	...	...	43	61	19	48	35	42	53	...
Tonga	12	15	9	10	10	8	9	8	8	16	9
Tuvalu	0	0	0	0	0	0	0	0	0	0	0
Vanuatu	19	28	26	46	49	50	56	57	48	66	56
<b>Developed Member Economies</b>											
Australia	39726	53127	63980	106211	123311	140901	186500	153297	212027	269941	256786
Japan	286321	441538	479323	595697	647006	712769	783851	578931	767825	821312	798937
New Zealand	9402	13641	13292	21698	22459	26867	30153	24793	31374	37684	37291
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>450653</b>	<b>946034</b>	<b>1288923</b>	<b>2377063</b>	<b>2840441</b>	<b>3340060</b>	<b>3827736</b>	<b>3208105</b>	<b>4178844</b>	<b>4975585</b>	<b>5095319</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	<b>786101</b>	<b>1454340</b>	<b>1845518</b>	<b>3100669</b>	<b>3633217</b>	<b>4220596</b>	<b>4828240</b>	<b>3965125</b>	<b>5190069</b>	<b>6104522</b>	<b>6188333</b>

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed.

a Prior to 2003, data exclude Indonesia.

b For reporting economies only.

Sources: Country sources, International Financial Statistics Online (IMF 2013).

## External Trade

Table 4.9 **Growth Rates of Merchandise Exports<sup>a</sup>**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	34.3	58.2	-17.4	25.9	8.3	9.1	20.0	-26.1	-3.7	-3.1	10.1
Armenia	...	...	29.7	34.7	1.2	17.0	-8.3	-32.8	46.6	28.2	7.0
Azerbaijan	...	-2.4	87.7	111.6	70.1	63.4	43.8	-31.0	25.5	30.3	...
Georgia	...	...	35.5	33.8	8.2	31.6	21.4	-24.2	48.0	30.5	8.6
Kazakhstan	...	48.2	50.1	38.6	37.3	24.8	49.1	-39.3	38.5	46.4	5.3
Kyrgyz Republic	...	20.2	11.2	-6.5	32.2	48.3	40.5	-9.8	5.0	27.7	-15.5
Pakistan	11.9	18.1	4.8	14.9	13.9	3.9	3.1	-2.5	12.0	29.4	-8.5
Tajikistan	...	39.3	13.9	-0.7	54.0	4.9	-4.0	-28.3	18.3	5.2	8.1
Turkmenistan	...	-4.2	115.5	28.3	44.7	24.8	33.7	-21.9	3.8	73.1	19.3
Uzbekistan	...	38.3	0.9	11.5	18.1	40.7	27.8	2.4	10.6	15.4	-5.1
<b>East Asia</b>											
China, People's Rep. of	18.2	23.0	27.8	28.4	27.2	26.0	17.2	-16.0	31.3	20.3	7.9
Hong Kong, China	12.3	14.8	16.1	11.6	9.5	8.7	5.3	-12.2	22.5	9.9	3.3
Korea, Rep. of	4.2	30.3	19.9	12.0	14.4	14.1	13.6	-13.9	28.3	19.0	-1.3
Mongolia	-8.4	32.9	18.0	22.4	44.9	26.3	30.1	-25.6	54.3	65.6	-9.0
Taipei, China	1.3	20.0	22.6	8.6	12.9	10.1	3.2	-20.1	34.8	12.2	-2.0
<b>South Asia</b>											
Bangladesh	-99.9	33.8	12.5	11.3	24.3	19.0	15.6	10.0	3.9	36.9	6.3
Bhutan	-2.4	55.6	-11.3	41.5	60.5	47.9	-9.3	-8.3	9.1	16.3	-13.4
India	9.1	24.5	22.2	25.0	21.9	25.7	21.8	-9.6	43.1	25.7	-2.6
Maldives	19.2	12.7	18.8	-10.5	38.6	1.5	45.7	-49.0	16.9	75.4	-9.2
Nepal	13.8	-13.0	34.0	12.4	0.6	8.0	-5.0	2.8	-4.8	4.5	0.3
Sri Lanka	24.2	18.6	18.5	10.1	8.6	10.9	6.1	-12.7	21.7	22.5	-7.6
<b>Southeast Asia</b>											
Brunei Darussalam	16.2	10.9	53.0	23.6	21.7	0.8	37.5	-32.0	69.0	29.1	3.7
Cambodia	8.3	74.3	23.6	12.3	27.0	-12.0	7.6	-14.2	29.7	34.4	15.3
Indonesia	15.9	13.4	27.7	19.7	17.7	13.2	20.1	-15.0	35.4	29.0	-6.6
Lao PDR	24.8	2.4	9.6	52.2	59.5	4.6	18.3	-3.6	65.9	25.4	3.6
Malaysia	17.6	25.9	16.1	11.8	13.4	9.4	13.1	-21.1	26.5	15.0	-0.3
Myanmar	9.0	-1.6	37.3	23.4	44.8	22.3	8.3	8.8	17.7	3.9	...
Philippines	4.7	29.4	8.7	4.0	14.9	6.4	-2.8	-21.7	34.0	-6.2	7.6
Singapore <sup>b</sup>	17.6	22.5	20.3	15.7	18.2	10.1	12.7	-20.2	30.6	16.5	-0.2
Thailand	14.8	27.0	18.0	14.6	18.1	17.9	14.4	-13.7	27.3	14.0	3.7
Viet Nam	23.5	34.4	25.5	22.5	22.7	21.9	29.1	-8.9	26.5	34.2	18.2
<b>The Pacific</b>											
Cook Islands	74.7	10.5	154.4	-26.9	-32.7	47.5	-20.1	-33.7	87.9	-39.5	69.9
Fiji	-99.9	9.4	-12.1	1.4	-1.6	8.2	22.9	-31.8	33.9	26.9	14.6
Kiribati	-43.5	42.9	-59.1	58.2	-41.5	301.5	-27.2	-14.9	-38.1	121.2	...
Marshall Islands	23.5	5.4	48.7	14.0	-16.6	0.8	14.7	5.6	...	...	...
Micronesia, Fed. States of	62.5	-50.0	688.9	-7.3	-31.3	81.5	...	...	...	...	...
Nauru	-24.9	-15.1	-22.2	-73.8	620.5	75.6	231.9	-62.1	58.3	27.0	25.9
Palau	...	10.2	65.9	116.9	6.5	8.9	78.5	-53.8	8.7	27.6	19.9
Papua New Guinea	-16.3	0.8	7.3	25.2	28.3	12.9	22.3	-24.4	30.8	20.4	-11.3
Samoa	-31.0	149.5	-24.9	0.7	-13.8	33.7	-26.2	5.7	114.4	6.6	35.2
Solomon Islands	-5.8	18.4	-48.1	22.3	14.9	36.5	28.0	-21.7	37.4	83.4	18.7
Timor-Leste	...	...	...	-58.9	39.7	-68.4	151.4	-28.4	20.7	27.8	...
Tonga	23.7	6.0	-27.1	-35.2	-6.2	-11.1	11.6	-19.1	7.1	92.0	-45.6
Tuvalu	-43.7	-51.9	-91.5	-54.0	-16.9	80.4	117.4	50.0	0.0	0.0	0.0
Vanuatu	-15.3	13.2	2.8	-6.5	4.8	2.1	13.6	0.7	-14.8	35.3	-15.2
<b>Developed Member Economies</b>											
Australia	6.9	12.2	14.1	22.6	16.1	14.3	32.4	-17.8	38.3	27.3	-4.9
Japan	4.4	11.4	14.8	5.4	8.6	10.2	10.0	-26.1	32.6	7.0	-2.7
New Zealand	6.1	12.1	6.5	6.6	3.5	19.6	12.2	-17.8	26.5	20.1	-1.0
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>	<b>11.0</b>	<b>22.0</b>	<b>21.0</b>	<b>18.3</b>	<b>19.5</b>	<b>17.6</b>	<b>14.6</b>	<b>-16.2</b>	<b>30.3</b>	<b>19.1</b>	<b>2.4</b>
<b>REGIONAL MEMBERS<sup>c</sup></b>	<b>8.3</b>	<b>18.1</b>	<b>19.0</b>	<b>15.6</b>	<b>17.2</b>	<b>16.2</b>	<b>14.4</b>	<b>-17.9</b>	<b>30.9</b>	<b>17.6</b>	<b>1.4</b>

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Rates are based on US dollar values of exports.

b Prior to 2003, data exclude Indonesia.

c For reporting economies only.

Sources: Country sources, International Financial Statistics Online (IMF 2013).

Table 4.10 **Merchandise Imports**  
(\$ million)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	936	387	1176	2470	2744	3022	3020	3336	5154	6388	8932
Armenia	...	674	885	1802	2192	3268	4426	3321	3749	4145	4267
Azerbaijan	...	668	1172	4350	5269	6045	7575	6514	6746	10167	...
Georgia	...	...	709	2490	3675	5212	6302	4500	5257	7058	7842
Kazakhstan	...	3807	5040	17353	23677	32756	37889	28409	30839	37056	44939
Kyrgyz Republic	...	522	554	1189	1931	2789	4072	3040	3223	4261	5374
Pakistan	6859	10144	9967	20630	28401	30492	35689	33351	34169	40042	42960
Tajikistan	...	838	675	1330	1725	2547	3273	2570	2657	3206	3778
Turkmenistan	400	1644	1742	2947	2558	4442	5707	8992	8204	11361	14138
Uzbekistan	...	2893	2947	4091	4782	6728	9704	9438	9176	10510	12028
<b>East Asia</b>											
China, People's Rep. of	53345	132084	225094	659953	791461	956120	1132570	1005920	1396240	1743480	1817800
Hong Kong, China	82484	192755	212800	299520	334689	367627	388513	347322	433102	483633	504377
Korea, Rep. of	69844	135119	160481	261238	309383	356846	435275	323085	425212	524413	519584
Mongolia	924	415	615	1177	1435	2062	3245	2138	3200	6598	6739
Taipei, China	54734	103598	140630	182709	203014	219584	239458	174164	251003	280986	270867
<b>South Asia</b>											
Bangladesh	3580	5823	8080	12575	14381	17204	21629	22577	23581	32370	34316
Bhutan	78	112	193	386	420	563	623	599	860	1151	1008
India	24677	37832	51372	149753	185513	244824	315925	281734	368166	502557	500234
Maldives	137	268	389	683	849	999	1272	878	999	1353	1436
Nepal	624	1227	1526	2094	2389	2931	3181	3668	5117	5352	5419
Sri Lanka	2635	5311	7198	8869	10265	11303	14083	10202	13441	20273	19126
<b>Southeast Asia</b>											
Brunei Darussalam	1012	2089	1106	1491	1669	2101	2573	2400	3349	3698	4283
Cambodia <sup>a</sup>	164	1187	1936	3918	4771	4517	5077	4490	5466	6710	7965
Indonesia	21837	40654	33515	57701	61066	74473	129197	96829	135663	177436	191691
Lao PDR	185	589	535	882	1060	1065	1403	1461	2060	2404	2467
Malaysia	29250	77601	81963	114302	130337	146033	155824	123328	164177	187460	196634
Myanmar	871	1818	2313	1979	2881	3279	4571	4095	6302	8957	...
Philippines	13042	28488	33807	49487	54078	57996	60420	45878	58468	64097	65386
Singapore <sup>b</sup>	60583	124394	134675	200187	238477	262743	318684	244962	310391	365450	379741
Thailand	33005	70784	62180	118200	130482	141090	178982	134224	184834	229004	248963
Viet Nam	2752	8155	15637	36761	44891	62765	80714	69949	84839	106750	113792
<b>The Pacific</b>											
Cook Islands	52	48	51	81	100	106	105	82	91	109	...
Fiji	751	892	856	1610	1805	1795	2260	1436	1817	2181	2254
Kiribati	27	35	39	76	62	70	74	69	73	92	...
Marshall Islands	56	75	116	132	127	134	138	158	...	...	...
Micronesia, Fed. States of <sup>c</sup>	84	100	107	128	138	146	160	171	168	188	...
Nauru	34	28	27	26	34	57	90	102	22	32	41
Palau	...	60	127	108	115	108	130	94	103	125	136
Papua New Guinea	1107	1266	999	1519	1984	2623	3133	2863	3522	4232	4403
Samoa <sup>d</sup>	81	92	91	187	219	227	249	205	280	319	308
Solomon Islands	91	154	92	185	220	294	328	268	405	467	492
Timor-Leste	...	...	...	109	101	206	267	295	298	340	...
Tonga	62	77	70	121	116	143	167	143	158	192	143
Tuvalu	...	5	5	13	13	16	26	14	16	25	25
Vanuatu	96	95	84	165	217	229	313	291	284	297	301
<b>Developed Member Economies</b>											
Australia	38880	57426	67806	118924	132600	157207	189523	156451	193151	234521	250691
Japan	233820	335412	379886	516698	579062	621091	763888	550383	692242	853449	885928
New Zealand	9483	13945	13963	26248	26403	30770	34099	25136	30531	37047	38269
<b>DEVELOPING MEMBER ECONOMIES<sup>e</sup></b>	<b>466397</b>	<b>994808</b>	<b>1203576</b>	<b>2226979</b>	<b>2605713</b>	<b>3039580</b>	<b>3618317</b>	<b>3009567</b>	<b>3992881</b>	<b>4896922</b>	<b>5044189</b>
<b>REGIONAL MEMBERS<sup>e</sup></b>	<b>748580</b>	<b>1401591</b>	<b>1665232</b>	<b>2888848</b>	<b>3343778</b>	<b>3848647</b>	<b>4605828</b>	<b>3741537</b>	<b>4908806</b>	<b>6021940</b>	<b>6219077</b>

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Starting 2005, compilation methodology shifted from cif to fob.

b Prior to 2003, data exclude Indonesia.

c Starting 2000, compilation methodology shifted from fob to cif.

d Starting 2000, compilation methodology shifted from cif to fob.

e For reporting economies only.

Sources: Country sources, International Financial Statistics Online (IMF 2013).

## External Trade

Table 4.11 **Growth Rates of Merchandise Imports<sup>a</sup>**  
(%)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	13.9	-1.0	16.2	13.5	11.1	10.1	-0.1	10.5	54.5	23.9	39.8
Armenia	...	...	9.1	33.4	21.6	49.1	35.4	-25.0	12.9	10.6	2.9
Azerbaijan	...	-14.2	13.1	23.7	21.1	14.7	25.3	-14.0	3.6	50.7	...
Georgia	...	...	21.1	34.9	47.6	41.8	20.9	-28.6	16.8	34.3	11.1
Kazakhstan	...	-28.0	37.9	35.8	36.4	38.3	15.7	-25.0	8.6	20.2	21.3
Kyrgyz Republic	...	39.5	-7.6	25.5	62.5	44.4	46.0	-25.3	6.0	32.2	26.1
Pakistan	3.7	20.0	5.7	33.7	37.7	7.4	17.0	-6.5	2.5	17.2	7.3
Tajikistan	...	21.0	1.8	11.7	29.7	47.6	28.5	-21.5	3.4	20.7	17.8
Turkmenistan	...	-2.8	26.8	-6.4	-13.2	73.7	28.5	57.6	-8.8	38.5	24.4
Uzbekistan	...	10.9	-5.2	7.2	16.9	40.7	44.2	-2.7	-2.8	14.5	14.4
<b>East Asia</b>											
China, People's Rep. of	-9.8	14.2	35.8	17.6	19.9	20.8	18.5	-11.2	38.8	24.9	4.3
Hong Kong, China	14.3	19.1	18.5	10.5	11.7	9.8	5.7	-10.6	24.7	11.7	4.3
Korea, Rep. of	13.6	32.0	34.0	16.4	18.4	15.3	22.0	-25.8	31.6	23.3	-0.9
Mongolia	-4.0	60.7	19.8	15.5	21.9	43.7	57.4	-34.1	49.7	106.2	2.1
Taipei, China	4.3	21.2	26.3	8.0	11.1	8.2	9.1	-27.3	44.1	11.9	-3.6
<b>South Asia</b>											
Bangladesh	6.5	39.7	3.1	16.5	14.4	19.6	25.7	4.4	4.4	37.3	6.0
Bhutan	-13.4	22.5	2.9	-6.1	8.7	34.1	10.6	-3.9	43.7	33.8	-12.4
India	13.3	31.9	2.8	35.4	23.9	32.0	29.0	-10.8	30.7	36.5	-0.5
Maldives	22.0	20.8	-3.4	21.3	24.4	17.7	27.3	-31.0	13.9	35.4	6.1
Nepal	4.3	17.5	19.0	13.2	14.0	22.7	8.5	15.3	39.5	4.6	1.2
Sri Lanka	26.0	18.5	20.5	10.7	15.7	10.1	24.6	-27.6	31.8	50.8	-5.7
<b>Southeast Asia</b>											
Brunei Darussalam	15.2	15.5	-16.7	4.9	11.9	25.9	22.5	-6.7	39.6	10.4	15.8
Cambodia <sup>b</sup>	-7.1	59.5	21.6	19.8	21.8	-5.3	12.4	-11.6	21.7	22.8	18.7
Indonesia	33.5	27.1	39.6	24.0	5.8	22.0	73.5	-25.1	40.1	30.8	8.0
Lao PDR	-4.6	4.4	-3.4	23.8	20.2	0.5	31.7	4.1	41.0	16.7	2.6
Malaysia	30.2	30.6	25.3	8.7	14.0	12.0	6.7	-20.9	33.1	14.2	4.9
Myanmar	70.4	30.4	-10.6	1.3	45.6	13.8	39.4	-10.4	53.9	42.1	...
Philippines	16.7	25.8	3.8	7.3	9.3	7.2	4.2	-24.1	27.4	9.6	2.0
Singapore <sup>c</sup>	22.0	21.5	21.3	15.3	19.1	10.2	21.3	-23.1	26.7	17.7	3.9
Thailand	28.0	32.4	23.3	25.1	10.4	8.1	26.9	-25.0	37.7	23.9	8.7
Viet Nam	7.3	40.0	33.2	15.0	22.1	39.8	28.6	-13.3	21.3	25.8	6.6
<b>The Pacific</b>											
Cook Islands	17.8	-0.3	21.9	7.0	22.7	6.6	-0.9	-22.5	11.2	20.0	...
Fiji	29.6	6.2	-8.3	11.5	12.1	-0.6	25.9	-36.5	26.5	20.1	3.3
Kiribati	18.9	33.5	-4.2	28.7	-18.8	12.8	5.3	-5.9	5.4	25.5	...
Marshall Islands	27.6	6.1	16.7	15.3	-4.1	6.1	2.5	15.0	...	...	...
Micronesia, Fed. States of <sup>d</sup>	15.3	-22.9	...	-3.3	7.5	5.6	10.1	6.6	-1.8	12.0	...
Nauru	146.8	-2.8	107.7	44.0	32.0	68.9	57.1	13.8	-78.6	47.4	28.0
Palau	...	35.6	-5.7	0.7	6.7	-6.5	20.8	-27.8	9.3	21.7	8.4
Papua New Guinea	-24.6	-4.2	-7.0	4.5	30.6	32.2	19.5	-8.6	23.0	20.2	4.0
Samoa <sup>e</sup>	6.8	15.2	...	20.7	16.7	3.7	9.9	-17.9	36.6	14.1	-3.3
Solomon Islands	-19.3	10.5	-16.1	52.4	18.6	33.7	11.8	-18.3	51.2	15.1	5.5
Timor-Leste	...	...	...	-25.3	-7.6	104.5	29.3	10.7	1.0	13.9	...
Tonga	13.9	12.0	-3.8	15.3	-3.6	22.6	17.1	-14.1	10.3	21.4	-25.8
Tuvalu	...	-39.0	-36.0	13.3	-0.7	22.0	68.9	-47.0	14.3	56.3	0.0
Vanuatu	33.1	6.4	-12.6	22.4	31.5	5.3	36.7	-6.8	-2.5	4.7	1.2
<b>Developed Member Economies</b>											
Australia	-4.9	15.3	3.5	14.5	11.5	18.6	20.6	-17.5	23.5	21.4	6.9
Japan	11.3	22.0	22.7	13.6	12.1	7.3	23.0	-27.9	25.8	23.3	3.8
New Zealand	7.8	17.7	-2.7	13.4	0.6	16.5	10.8	-26.3	21.5	21.3	3.3
<b>DEVELOPING MEMBER ECONOMIES<sup>f</sup></b>	<b>12.8</b>	<b>23.2</b>	<b>24.2</b>	<b>16.3</b>	<b>17.0</b>	<b>16.7</b>	<b>19.0</b>	<b>-16.8</b>	<b>32.7</b>	<b>22.6</b>	<b>3.0</b>
<b>REGIONAL MEMBERS<sup>f</sup></b>	<b>11.2</b>	<b>22.5</b>	<b>22.6</b>	<b>15.7</b>	<b>15.7</b>	<b>15.1</b>	<b>19.7</b>	<b>-18.8</b>	<b>31.2</b>	<b>22.7</b>	<b>3.3</b>

... = Data not available at cutoff date.

a Rates are based on US dollar values of imports.

b Starting 2005, compilation methodology shifted from cif to fob.

c Prior to 2003, data exclude Indonesia.

d Starting 2000, compilation methodology shifted from fob to cif.

e Starting 2000, compilation methodology shifted from cif to fob.

f For reporting economies only.

Sources: Country sources, International Financial Statistics Online (IMF 2013).

Table 4.12 **Trade in Goods<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	43.1	42.1	33.5	33.1	29.7	34.5	35.0	...
Armenia	...	73.4	62.0	56.6	49.8	48.0	47.0	46.6	51.7	54.0	57.2
Azerbaijan	...	53.1	54.4	89.1	87.1	82.6	78.1	62.3	62.8	67.7	...
Georgia	...	...	33.8	52.3	59.5	63.3	60.9	52.3	59.6	64.1	64.6
Kazakhstan	...	54.4	75.7	79.1	76.4	76.8	81.7	62.1	61.2	66.3	67.7
Kyrgyz Republic	...	62.4	77.3	75.7	99.6	108.1	115.3	100.5	103.8	104.9	112.2
Pakistan	30.0	30.7	25.7	32.1	32.9	31.3	35.3	31.3	30.6	30.7	30.6
Tajikistan	...	284.6	169.6	96.8	110.4	108.0	90.7	71.9	68.3	68.4	67.3
Turkmenistan	...	63.4	86.2	45.9	45.4	51.5	81.6	90.6	80.7	100.2	101.3
Uzbekistan	...	65.0	45.1	69.1	64.3	70.3	71.5	62.7	56.2	56.0	51.6
<b>East Asia</b>											
China, People's Rep. of	29.6	38.6	39.6	63.0	64.9	62.3	56.7	44.2	50.1	49.7	47.0
Hong Kong, China	214.1	254.1	241.5	324.3	336.6	336.5	342.6	311.1	360.0	366.8	360.1
Korea, Rep. of	49.9	49.0	62.4	64.6	66.7	69.4	92.0	82.3	87.9	96.9	94.5
Mongolia	...	61.2	101.2	88.8	87.2	94.7	102.8	87.8	98.5	130.3	108.3
Taipei, China	73.9	78.2	89.5	104.4	113.4	118.5	123.3	99.9	122.5	126.7	120.5
<b>South Asia</b>											
Bangladesh	17.2	24.0	28.3	36.2	40.9	42.9	44.9	42.8	39.8	50.7	51.5
Bhutan	48.8	71.1	67.3	78.7	92.9	98.3	93.7	87.6	89.3	98.0	85.9
India	13.3	19.2	20.7	30.2	32.9	33.4	39.3	34.1	36.3	42.5	43.0
Maldives	...	88.4	79.7	85.1	82.4	79.5	84.8	52.7	56.1	78.9	78.8
Nepal	21.2	34.6	38.8	35.3	35.8	34.9	34.5	35.6	36.5	33.5	34.9
Sri Lanka	57.3	70.5	75.7	62.4	60.7	58.6	54.5	41.1	44.5	52.1	48.6
<b>Southeast Asia</b>											
Brunei Darussalam	92.3	94.6	83.5	81.2	80.9	79.8	91.1	89.2	125.0	115.9	120.9
Cambodia <sup>b</sup>	17.8	59.3	90.9	108.5	116.3	89.9	82.8	71.9	83.2	93.0	99.6
Indonesia	41.5	42.6	58.0	50.1	44.4	43.6	52.2	39.5	41.4	45.0	43.5
Lao PDR	30.5	50.4	52.9	52.8	54.8	47.2	47.2	45.0	56.5	57.0	52.1
Malaysia	133.3	170.5	192.1	178.3	178.8	166.3	153.6	138.5	146.9	144.3	139.7
Myanmar	5.6	2.5	1.1	0.3	0.3	0.2	0.2	0.2	0.2	0.2	...
Philippines	47.9	62.0	88.7	88.0	83.0	72.6	62.9	50.1	55.1	50.2	46.9
Singapore <sup>c</sup>	291.3	278.6	289.1	342.8	350.2	315.8	344.0	272.1	285.5	291.7	285.0
Thailand	63.5	75.3	104.1	121.2	118.1	112.6	122.3	102.1	111.8	123.1	123.6
Viet Nam	79.7	65.6	96.6	120.1	127.6	143.8	144.7	119.8	135.5	150.1	146.6
<b>The Pacific</b>											
Cook Islands	88.2	56.8	65.3	47.3	54.9	48.9	46.9	39.0	37.3	38.6	...
Fiji	101.7	76.9	83.0	77.0	80.5	74.8	87.7	70.6	82.4	86.6	...
Kiribati	123.5	76.2	63.6	76.0	61.7	65.0	60.2	59.6	51.1	57.9	...
Marshall Islands	75.8	82.9	127.1	120.4	107.9	108.5	111.4	127.0	...	...	...
Micronesia, Fed. States of <sup>d</sup>	56.9	62.3	52.9	56.6	58.1	63.3	61.4	61.6	57.1	60.6	...
Nauru	...	160.7	261.0	112.3	241.1	455.4	599.9	297.9	186.4	177.5	159.7
Palau	...	78.0	87.8	59.2	62.0	58.6	74.9	54.4	59.7	67.5	69.1
Papua New Guinea	70.8	81.4	88.3	98.4	111.8	116.1	111.6	89.4	95.4	86.3	67.2
Samoa <sup>e</sup>	79.8	50.4	45.1	45.8	50.7	43.9	47.9	41.3	50.7	51.5	50.1
Solomon Islands	86.3	98.6	55.1	93.7	94.2	107.0	101.4	80.6	108.1	121.9	116.9
Timor-Leste	...	...	...	8.5	5.7	7.6	7.1	10.0	8.1	6.8	...
Tonga	62.8	44.4	41.9	49.6	42.9	49.4	52.0	46.3	44.6	46.4	32.5
Tuvalu	...	45.4	37.4	59.2	56.2	58.2	87.8	52.8	51.2	64.4	63.4
Vanuatu	76.1	54.1	40.5	53.5	60.5	52.9	60.7	57.1	47.4	47.3	...
<b>Developed Member Economies</b>											
Australia	24.9	30.0	34.3	32.0	34.2	32.9	38.1	31.7	34.2	34.8	33.3
Japan	17.0	14.6	18.2	24.3	28.1	30.6	31.9	22.4	26.6	28.4	28.3
New Zealand	42.5	46.9	53.5	44.5	46.6	46.2	49.7	43.1	45.3	47.5	45.1
<b>DEVELOPING MEMBER ECONOMIES<sup>f</sup></b>	<b>54.6</b>	<b>65.4</b>	<b>64.1</b>	<b>58.6</b>	<b>56.8</b>	<b>51.7</b>	<b>50.1</b>	<b>39.0</b>	<b>43.2</b>	<b>43.7</b>	<b>66.8</b>
<b>REGIONAL MEMBERS<sup>f</sup></b>	<b>30.1</b>	<b>32.7</b>	<b>38.8</b>	<b>45.2</b>	<b>47.1</b>	<b>45.5</b>	<b>45.3</b>	<b>34.9</b>	<b>39.2</b>	<b>40.3</b>	<b>54.4</b>

... = Data not available at cutoff date.

a The sum of merchandise exports and imports.

b Starting 2005, compilation methodology shifted from cif to fob.

c Prior to 2003, data exclude Indonesia.

d Starting 2000, compilation methodology shifted from fob to cif.

e Starting 2000, compilation methodology shifted from cif to fob.

f For reporting economies only.

Sources: Country sources, International Financial Statistics Online (IMF 2013).

## External Trade

Table 4.13 **Direction of Trade: Merchandise Exports**  
(% of total merchandise exports)

Regional Member	From	To	Asia		Europe		North and Central America		Middle East		South America		Africa		Oceania		Rest of the World	
			1990	2012	1990	2012	1990	2012	1990	2012	1990	2012	1990	2012	1990	2012	1990	2012
Developing Member Economies																		
Central and West Asia <sup>a</sup>																		
Afghanistan			17.6	73.8	73.7	11.9	4.4	6.4	3.9	6.4	0.0	0.4	0.1	0.7	0.3	0.4	0.0	0.0
Armenia			4.2	10.7	73.3	64.9	20.7	13.3	0.0	9.6	0.0	0.1	0.0	0.1	0.0	0.0	1.8	1.4
Azerbaijan			22.0	23.2	55.7	60.0	2.6	6.2	19.4	7.4	0.0	0.1	0.1	0.6	0.2	0.1	0.0	2.4
Georgia			3.6	36.7	86.3	36.3	9.9	14.9	0.2	11.3	0.0	0.2	0.0	0.1	0.0	0.3	0.0	0.3
Kazakhstan			57.5	30.9	31.7	56.6	8.9	9.4	0.8	2.0	0.0	0.1	0.0	0.3	0.0	0.0	1.2	0.6
Kyrgyz Republic			41.1	70.4	57.5	20.7	0.5	0.8	0.0	7.7	0.0	0.0	0.0	0.3	0.0	0.0	0.9	0.0
Pakistan			30.6	36.0	40.7	20.1	14.3	15.4	8.9	17.6	0.2	1.4	4.0	6.5	1.4	0.9	0.0	2.2
Tajikistan			37.0	63.4	52.8	18.3	2.5	2.5	0.0	8.4	0.0	0.0	0.0	0.1	0.0	0.0	7.7	7.3
Turkmenistan			4.4	74.9	92.0	16.0	3.2	2.3	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.9
Uzbekistan			12.7	67.9	80.6	28.9	0.4	0.5	0.1	2.6	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0
East Asia																		
China, People's Rep. of			68.3	43.1	14.7	19.2	10.0	21.1	2.3	4.7	0.4	4.0	1.9	3.6	0.9	2.2	1.5	1.9
Hong Kong, China			42.4	70.6	20.2	11.1	27.2	11.3	1.6	1.8	0.5	1.0	1.7	0.5	1.9	1.3	4.5	2.4
Korea, Rep. of			34.0	55.8	15.5	11.5	33.4	14.6	3.0	6.3	0.8	3.4	1.4	2.1	1.7	2.8	10.2	3.6
Mongolia			31.6	91.2	45.2	3.5	2.4	5.1	0.1	0.1	0.0	0.0	20.7	0.0	0.0	0.0	0.0	0.0
Taipei, China <sup>b</sup>			38.2	70.2	18.2	9.6	36.0	12.7	2.1	2.4	0.6	1.4	1.9	1.0	2.3	1.6	0.7	1.1
South Asia																		
Bangladesh			14.8	11.9	41.8	45.5	32.3	20.6	5.0	2.0	0.4	0.7	3.3	1.6	2.0	1.6	0.5	16.1
Bhutan <sup>c</sup>			99.3	96.1	0.6	3.2	0.0	0.3	0.0	0.1	0.1	0.1	0.0	0.2	0.0	0.1	0.0	0.0
India			21.0	31.3	47.2	18.6	16.3	15.4	7.1	21.9	0.1	3.3	1.8	8.6	1.2	1.1	5.2	1.8
Maldives			47.0	34.7	26.5	49.8	26.3	10.0	0.0	0.2	0.0	0.0	0.0	3.6	0.2	0.9	0.0	0.7
Nepal			14.7	68.4	60.0	13.7	24.1	11.7	0.1	1.6	0.1	0.2	0.0	0.3	0.1	0.7	0.9	3.6
Sri Lanka			14.8	19.7	30.9	36.8	28.8	26.3	17.8	11.9	0.7	1.6	1.2	1.6	1.6	1.8	4.4	0.4
Southeast Asia																		
Brunei Darussalam			91.6	82.1	0.2	0.2	3.4	0.8	0.0	0.1	0.0	0.0	0.0	0.5	1.3	16.1	3.4	0.3
Cambodia			90.9	27.6	7.8	29.3	0.4	40.5	0.1	0.3	0.4	0.7	0.1	0.3	0.2	0.7	0.0	0.5
Indonesia			64.4	67.5	12.8	10.4	13.9	8.8	3.0	3.2	0.1	1.3	0.5	2.4	1.9	3.2	3.4	3.1
Lao PDR			85.2	75.3	11.1	8.5	1.7	1.0	0.0	0.1	0.6	0.1	1.0	0.0	0.1	1.3	0.3	13.8
Malaysia			58.0	65.7	16.6	9.6	18.1	9.9	2.5	3.9	0.3	0.8	0.4	1.9	2.0	5.0	2.2	3.1
Myanmar			67.4	88.8	10.3	2.9	2.5	0.0	1.5	0.9	0.0	0.2	14.3	4.9	0.7	0.2	3.4	2.2
Philippines			34.8	65.4	18.8	12.3	40.2	15.7	1.6	1.0	0.1	0.6	0.2	0.3	1.6	1.0	2.6	3.7
Singapore			47.2	65.8	17.2	9.6	23.0	9.6	2.6	2.2	0.4	0.5	1.9	2.0	4.0	6.2	3.8	4.1
Thailand			37.9	58.4	25.3	12.6	25.3	11.8	5.4	5.0	0.2	2.2	2.1	3.0	1.9	4.9	2.0	2.0
Viet Nam			39.1	50.2	48.1	21.7	0.6	18.8	0.9	2.0	0.0	1.0	0.2	1.4	0.3	3.1	10.7	1.8
The Pacific																		
Cook Islands <sup>d</sup>			55.4	74.4	0.0	0.0	6.2	2.9	0.0	0.0	0.0	0.0	0.0	0.0	32.4	5.9	6.1	16.8
Fiji			10.6	12.8	23.3	3.6	10.6	15.3	0.0	0.2	0.0	0.0	0.0	0.1	29.3	50.0	26.2	17.9
Kiribati <sup>c</sup>			13.0	88.1	77.8	1.8	8.9	1.6	0.0	0.0	0.1	0.0	0.0	6.1	0.3	2.5	0.0	0.0
Marshall Islands			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of <sup>e</sup>			88.9	4.1	0.0	0.0	10.7	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	4.7	0.0	51.2
Nauru <sup>c</sup>			11.2	47.9	1.1	0.1	2.2	0.6	0.0	0.2	0.0	0.1	1.2	35.4	84.3	15.8	0.0	0.0
Palau <sup>c</sup>			98.4	99.0	0.9	0.5	0.0	0.0	0.0	0.0	0.6	0.5	0.0	0.0	0.1	0.0	0.0	0.0
Papua New Guinea			44.9	22.0	24.7	47.3	2.7	0.9	0.0	0.0	0.0	0.0	0.2	0.0	27.2	29.4	0.3	0.3
Samoa			11.2	8.9	18.0	0.6	6.1	2.1	0.0	0.1	0.0	1.4	0.1	0.3	58.4	79.0	6.2	7.7
Solomon Islands			59.8	60.5	21.1	9.6	3.6	0.3	0.0	0.0	0.0	0.0	0.0	0.1	11.0	24.0	4.5	5.5
Timor-Leste <sup>f</sup>			96.1	98.5	3.1	1.0	0.4	0.2	0.0	0.0	0.0	0.0	0.3	0.1	0.1	0.3	0.0	0.0
Tonga			30.1	31.1	1.6	2.7	25.9	16.7	0.0	0.0	0.0	0.2	0.0	0.0	40.3	47.7	2.0	1.5
Tuvalu <sup>c</sup>			0.3	93.3	43.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	56.0	3.8	0.0	0.0
Vanuatu			22.8	88.5	58.2	1.3	3.9	1.1	0.3	0.0	0.1	0.0	0.2	0.5	14.3	7.5	0.3	1.1
Developed Member Economies																		
Australia			50.6	74.1	17.1	7.6	12.9	4.9	4.5	2.9	0.7	0.8	0.6	1.2	7.6	4.6	5.8	4.0
Japan			26.1	49.3	23.0	12.5	36.2	22.4	3.4	3.8	1.1	1.7	1.6	1.4	3.1	2.9	5.4	6.0
New Zealand			30.3	40.1	21.6	10.8	16.8	11.8	2.7	5.4	1.0	1.8	1.4	3.0	22.2	24.1	4.0	3.0
DEVELOPING MEMBER ECONOMIES <sup>g</sup>			46.7	52.4	19.6	16.0	22.2	15.8	3.0	5.1	0.4	2.6	1.5	2.9	2.1	2.8	4.4	2.4
REGIONAL MEMBERS <sup>g</sup>			38.5	52.8	20.8	15.2	27.2	16.2	3.2	4.9	0.7	2.4	1.5	2.6	3.0	3.0	4.9	3.0
WORLD			18.0	30.9	50.3	36.8	20.1	17.3	3.3	4.3	1.7	3.2	2.2	2.6	1.5	1.6	3.0	3.2

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Except for Afghanistan and Pakistan, data for 1990 refer to 1992.

b Economies are classified following Taipei,China's trade groupings. Data under the heading "Middle East" refer to those of "Middle and Near East" economies.

c Based on reporting partner-country data. For Palau, data for 1990 refer to 2001.

d Data for 1990 refer to 1993.

e Data for 1990 refer to 1991, and for 2012 to 2007.

f Data for 1990 refer to 2004.

g For reporting economies only.

Sources: *Direction of Trade Statistics* CD-ROM (IMF 2013). For the Cook Islands; the Federated States of Micronesia; and Taipei,China: economy sources.

**Table 4.14 Direction of Trade: Merchandise Imports**  
(% of total merchandise imports)

Regional Member	To		From		North and Central America		Middle East		South America		Africa		Oceania		Rest of the World	
	1990	2012	1990	2012	1990	2012	1990	2012	1990	2012	1990	2012	1990	2012	1990	2012
<b>Developing Member Economies</b>																
<b>Central and West Asia<sup>a</sup></b>																
Afghanistan	79.1	56.8	17.1	23.0	1.3	17.9	0.4	0.3	0.2	0.1	0.0	1.7	0.1	0.1	1.6	0.0
Armenia	2.7	22.8	43.4	59.7	53.3	4.2	0.1	9.2	0.1	3.0	0.0	0.4	0.1	0.5	0.3	0.3
Azerbaijan	20.2	36.2	70.8	52.6	2.6	5.7	6.2	3.6	0.2	1.2	0.0	0.1	0.0	0.4	0.0	0.1
Georgia	13.7	40.0	56.5	45.3	29.8	6.3	0.0	4.4	0.0	2.7	0.0	0.7	0.0	0.3	0.1	0.3
Kazakhstan	59.9	37.0	35.8	58.7	3.5	2.6	0.7	0.6	0.0	0.5	0.0	0.3	0.0	0.1	0.1	0.2
Kyrgyz Republic	38.7	71.1	55.1	26.5	6.2	1.8	0.0	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Pakistan	31.6	42.7	29.3	12.1	14.2	4.0	19.1	35.9	0.9	0.6	2.5	2.1	2.4	1.7	0.0	0.9
Tajikistan	4.2	67.4	82.4	24.1	13.3	1.8	0.0	6.1	0.0	0.5	0.0	0.0	0.0	0.1	0.1	0.0
Turkmenistan	8.2	47.3	65.0	39.7	26.7	1.6	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Uzbekistan	19.1	56.5	61.8	40.1	19.0	2.7	0.0	0.4	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0
<b>East Asia</b>																
China, People's Rep. of	48.6	33.8	24.1	15.8	15.8	9.2	0.9	8.4	2.0	6.0	0.6	5.8	2.8	4.7	5.2	16.3
Hong Kong, China	66.7	74.2	12.4	10.1	8.6	6.1	0.8	1.8	0.7	0.6	0.6	0.3	1.1	0.6	9.1	6.3
Korea, Rep. of	33.5	40.1	13.1	13.4	25.3	10.3	7.0	24.7	1.7	2.9	0.6	1.2	4.3	4.9	14.4	2.7
Mongolia	33.1	52.7	66.0	35.5	0.0	10.5	0.0	0.4	0.1	0.1	0.7	0.0	0.1	0.7	0.0	0.1
Taipei, China <sup>b</sup>	43.6	54.2	17.5	10.4	24.9	9.9	6.0	16.0	2.1	2.1	2.2	3.5	3.4	3.8	0.2	0.0
<b>South Asia</b>																
Bangladesh	47.9	62.3	22.0	7.9	8.4	3.4	5.1	9.9	1.4	3.9	0.2	1.6	1.8	1.8	13.1	9.1
Bhutan <sup>c</sup>	11.2	77.5	72.1	21.5	11.3	0.7	0.0	0.0	3.1	0.0	0.0	0.2	2.2	0.2	0.0	0.0
India	17.4	27.9	41.3	18.8	12.9	6.3	18.3	30.4	1.7	4.8	2.8	8.0	3.4	2.8	2.3	1.0
Maldives	85.2	59.6	13.3	8.5	0.5	3.0	0.5	24.3	0.0	1.0	0.0	0.6	0.3	2.6	0.1	0.5
Nepal	69.4	91.9	20.1	2.7	2.8	0.8	0.0	3.2	0.5	0.1	0.2	0.0	5.8	0.5	1.2	0.8
Sri Lanka	47.5	64.6	17.8	10.1	8.9	3.2	11.7	15.3	0.8	0.8	4.4	0.4	2.8	2.4	6.1	3.0
<b>Southeast Asia</b>																
Brunei Darussalam	61.5	71.2	18.6	24.2	15.4	2.8	0.0	0.3	0.2	0.0	0.0	0.1	2.6	0.7	1.7	0.7
Cambodia	64.8	90.7	28.5	2.3	0.1	1.7	3.5	0.1	0.5	0.2	0.1	0.0	2.5	0.2	0.0	4.7
Indonesia	43.7	65.8	22.6	9.6	13.7	7.5	5.0	6.7	2.0	2.1	0.7	2.6	6.0	3.2	6.2	2.5
Lao PDR	87.7	92.7	9.7	4.8	0.8	0.8	0.1	0.0	0.2	0.0	0.1	0.0	0.9	0.7	0.6	1.0
Malaysia	50.6	61.9	17.9	12.0	18.0	9.4	1.2	5.4	1.6	2.4	0.5	1.4	4.3	2.9	5.7	4.6
Myanmar	69.2	95.4	23.3	2.1	3.1	0.5	0.1	0.1	0.0	0.1	0.4	0.1	3.7	0.7	0.1	1.0
Philippines	40.0	55.2	13.2	9.6	21.1	12.2	11.8	10.7	2.5	0.9	0.7	0.2	4.3	3.2	6.4	7.8
Singapore	48.2	48.9	15.9	15.4	16.9	11.6	11.0	13.6	0.9	1.8	0.7	0.4	2.2	1.7	4.3	6.6
Thailand	53.4	57.8	19.7	13.0	12.1	6.1	4.1	13.0	1.8	1.6	0.9	1.6	2.0	2.6	6.0	4.4
Viet Nam	34.1	76.7	21.3	6.3	0.4	4.0	0.0	2.3	0.0	1.8	0.1	0.4	0.4	1.8	43.8	6.7
<b>The Pacific</b>																
Cook Islands <sup>d</sup>	1.9	0.7	32.5	0.0	5.4	2.1	0.0	0.0	0.0	0.0	0.0	0.0	51.1	92.4	9.2	4.8
Fiji	26.4	56.1	5.6	2.1	13.4	3.3	0.0	0.2	0.0	0.2	0.0	0.4	44.1	30.5	10.5	7.4
Kiribati <sup>c</sup>	14.4	77.4	6.0	0.5	49.0	3.9	0.0	0.0	0.1	0.1	0.0	0.2	30.6	17.8	0.0	0.0
Marshall Islands	18.5	8.6	0.0	0.0	74.9	24.5	0.0	0.0	0.0	0.0	0.0	0.0	5.5	6.5	1.2	60.3
Micronesia, Fed. States of <sup>e</sup>	19.7	28.6	0.0	0.0	72.1	55.8	0.0	0.0	0.0	0.0	0.0	0.0	2.6	4.0	5.6	11.6
Nauru <sup>c</sup>	31.2	17.2	7.4	0.7	0.6	6.2	0.0	0.0	0.0	0.2	2.2	0.2	58.6	75.5	0.0	0.0
Palau <sup>c</sup>	98.5	90.4	0.9	0.4	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.3	9.1	0.0	0.0
Papua New Guinea	29.4	44.3	7.0	7.1	11.5	5.2	0.1	0.1	0.5	0.1	0.3	0.4	50.2	39.0	1.0	4.0
Samoa	24.6	44.1	6.6	1.6	7.0	5.7	0.0	0.3	0.0	0.5	0.0	0.2	45.9	46.1	15.9	1.7
Solomon Islands	41.1	52.9	6.4	4.3	6.1	1.4	0.0	0.0	0.0	0.0	0.1	0.7	45.1	38.5	1.2	2.1
Timor-Leste <sup>f</sup>	92.6	93.1	6.2	0.6	1.0	0.2	0.0	0.0	0.0	0.5	0.0	0.3	0.1	5.2	0.0	0.0
Tonga	16.9	20.2	1.8	1.2	10.3	10.1	0.0	0.0	0.0	0.4	0.0	0.1	62.6	67.3	8.4	0.8
Tuvalu <sup>c</sup>	29.8	80.4	33.9	1.0	0.0	0.3	0.0	0.0	0.5	0.0	0.0	0.2	35.8	18.1	0.0	0.0
Vanuatu	62.7	54.5	21.9	2.2	2.3	15.0	0.0	0.0	0.3	0.1	0.0	0.1	12.4	26.3	0.3	1.9
<b>Developed Member Economies</b>																
Australia	32.4	50.7	27.5	19.1	26.4	13.5	3.2	2.7	1.0	1.1	0.4	2.3	5.6	5.5	3.6	5.0
Japan	25.3	41.7	19.8	13.0	27.2	10.9	13.3	19.3	3.0	3.1	1.6	2.2	6.3	7.0	3.6	2.7
New Zealand	24.0	44.8	25.0	17.5	20.0	11.2	5.4	7.4	1.0	0.9	0.2	0.8	21.4	15.5	3.0	1.9
<b>DEVELOPING MEMBER ECONOMIES<sup>g</sup></b>	<b>47.1</b>	<b>46.3</b>	<b>18.5</b>	<b>14.6</b>	<b>15.6</b>	<b>8.3</b>	<b>5.7</b>	<b>12.3</b>	<b>1.4</b>	<b>3.6</b>	<b>0.8</b>	<b>3.5</b>	<b>3.2</b>	<b>3.4</b>	<b>7.7</b>	<b>8.1</b>
<b>REGIONAL MEMBERS<sup>g</sup></b>	<b>38.6</b>	<b>45.8</b>	<b>19.6</b>	<b>14.6</b>	<b>20.2</b>	<b>8.9</b>	<b>8.1</b>	<b>12.8</b>	<b>1.9</b>	<b>3.4</b>	<b>1.0</b>	<b>3.2</b>	<b>4.6</b>	<b>4.1</b>	<b>6.0</b>	<b>7.2</b>
<b>WORLD</b>	<b>20.4</b>	<b>30.7</b>	<b>48.5</b>	<b>36.4</b>	<b>18.8</b>	<b>13.3</b>	<b>4.5</b>	<b>7.1</b>	<b>2.7</b>	<b>3.8</b>	<b>2.5</b>	<b>3.0</b>	<b>1.6</b>	<b>1.7</b>	<b>0.9</b>	<b>3.9</b>

0.0 = Magnitude is less than half of unit employed.

a Except for Afghanistan and Pakistan, data for 1990 refer to 1992.

b Economies are classified following Taipei,China's trade groupings. Data under the heading "Middle East" refer to those of "Middle and Near East" economies.

c Based on reporting partner-country data. For Palau, data for 1990 refer to 2000.

d Data for 2012 refer to 2011.

e Data for 2012 refer to 2006.

f Data for 1990 refer to 2003.

g For reporting economies only.

Sources: *Direction of Trade Statistics* CD-ROM (IMF 2013). For the Cook Islands; the Federated States of Micronesia; and Taipei,China: economy sources.

## International Reserves

Table 4.15 **International Reserves<sup>a</sup>**  
(end of year; \$ million)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	292	7	6	0	0	0	3018	4279	5147	6399	7143
Armenia	...	110	314	669	1072	1659	1407	2004	1866	1932	1799
Azerbaijan	...	121	680	1178	2500	4273	6467	5364	6409	10274	11277
Georgia	...	199	116	479	931	1361	1480	2110	2264	2818	2873
Kazakhstan	...	1660	2096	7070	19127	17629	19872	23220	28275	29330	28280
Kyrgyz Republic	...	124	262	612	817	1177	1225	1585	1720	1835	2066
Pakistan	985	2453	2056	10948	12816	15689	8903	13771	17210	18094	13797
Tajikistan	...	0	94	189	204	85	163	256	403	532	629
Turkmenistan	...	1170	1808	4457	8059	13222	...	...	...	...	...
Uzbekistan	...	...	1273	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	30209	76036	168856	825588	1072564	1534354	1953334	2425855	2875895	3212605	3340935
Hong Kong, China	24657	55424	107560	124278	133210	152693	182527	255842	268743	285401	317362
Korea, Rep. of	14825	32712	96198	210391	238956	262224	201220	270012	291571	306422	326968
Mongolia	23	152	202	333	718	1001	657	1327	2288	2451	4126
Taipei, China	78064	95911	111370	257952	270840	275027	296389	352967	387206	390590	408452
<b>South Asia</b>											
Bangladesh	649	2367	1516	2825	3877	5278	5789	10343	11178	9192	12751
Bhutan	89	130	318	467	545	699	765	891	1002	790	...
India	5188	21591	40155	136026	176105	273859	254024	274668	297747	297905	297807
Maldives	24	48	123	189	234	311	244	276	364	349	318
Nepal	302	593	952	1504	1935	2014	2458	2761	2925	3631	...
Sri Lanka	433	2094	1147	2735	2837	3508	2561	5358	7196	6748	...
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	408	492	514	667	751	1357	1563	2591	3508
Cambodia	0	192	611	1159	1411	2143	2641	3288	3802	4069	4938
Indonesia	8520	14787	29268	34731	42588	56925	51641	66119	96211	110137	112777
Lao PDR	2	93	140	239	336	540	639	619	713	757	...
Malaysia	9871	23899	28624	70153	82426	101313	91528	96713	106525	133618	139724
Myanmar	325	573	234	782	1248	3102	3730	5265	5729	7016	...
Philippines	2048	7799	15063	18494	22967	33751	37551	44243	62373	75302	83831
Singapore	27790	68816	80170	116172	136261	162958	174193	187804	225715	237739	259306
Thailand	14273	36945	32661	52065	66985	87455	111008	138418	172129	175124	181610
Viet Nam	0	1379	3510	9216	13591	23748	24176	16803	12926	14046	...
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	261	349	412	321	313	528	322	570	721	834	921
Kiribati	0	0	0	0	0	0	0	8	8	8	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	69	113	50	47	48	40	56	56	75	77
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	0	0	0	0	0	5	5	...	...
Papua New Guinea	415	263	296	749	1427	2087	1987	2607	3092	4323	4001
Samoa	69	55	64	82	81	95	87	166	209	167	169
Solomon Islands	18	16	32	95	104	121	89	146	266	412	499
Timor-Leste	...	...	...	153	84	230	210	250	406	462	884
Tonga	31	29	25	47	48	65	70	96	105	143	152
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	38	48	39	67	105	120	115	149	161	174	...
<b>Developed Member Economies</b>											
Australia	19328	14951	18817	43257	55079	26908	32924	41742	42268	46826	49223
Japan	79707	184510	361639	846896	895321	973364	1030641	1049401	1096185	1295836	1268089
New Zealand	4129	4410	3952	8893	14069	17247	11052	15594	16723	17012	17584
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	...	<b>448215</b>	<b>728769</b>	<b>1892958</b>	<b>2317883</b>	<b>3041960</b>	<b>3443280</b>	<b>4217568</b>	<b>4902125</b>	<b>5354294</b>	<b>5568980</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	...	<b>652086</b>	<b>1113177</b>	<b>2792003</b>	<b>3282351</b>	<b>4059479</b>	<b>4517897</b>	<b>5324305</b>	<b>6057301</b>	<b>6713968</b>	<b>6903876</b>

... = Data not available at cutoff date, 0 = Magnitude is less than half of the unit employed, - = Magnitude equals zero.

a Data refer to international reserves with gold at national valuation unless otherwise specified. For Afghanistan (up to 2007), Bhutan, Kiribati, Palau, Samoa, Solomon Islands, Timor-Leste, Tonga, Turkmenistan, and Vanuatu, data refer to international reserves without gold.

b For reporting economies only.

Sources: International Financial Statistics Online (IMF 2013); for Taipei, China: economy sources.

Table 4.16 **Ratio of International Reserves to Imports<sup>a</sup>**  
(months)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	0.0	0.0	0.0	4.0	5.8	6.8	7.5	7.4
Armenia	...	2.0	4.9	5.0	6.7	7.1	4.5	8.5	7.0	6.3	5.8
Azerbaijan	...	1.5	5.3	3.2	5.7	8.5	10.2	9.9	11.4	12.1	13.0
Georgia	...	3.3	1.4	2.1	3.0	3.3	2.8	5.9	5.4	5.1	4.5
Kazakhstan	...	3.7	3.5	4.7	9.5	6.4	6.2	9.6	10.3	8.6	7.2
Kyrgyz Republic	...	2.8	6.2	6.6	5.5	5.4	3.9	6.8	6.9	5.6	5.0
Pakistan	1.6	2.9	2.6	6.9	6.2	7.0	3.0	5.2	6.6	6.1	4.1
Tajikistan	...	...	1.2	1.6	1.1	0.3	0.5	1.1	1.5	1.5	1.7
Turkmenistan	...	8.5	12.5	18.1	26.9	42.0	...	...	...	...	...
Uzbekistan	...	...	6.3	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	8.6	8.3	9.4	15.8	17.1	20.4	21.8	30.5	26.0	23.2	23.1
Hong Kong, China	...	...	7.9	6.1	5.9	6.0	6.7	10.1	8.4	7.7	7.8
Korea, Rep. of	2.7	3.0	7.2	9.8	9.4	8.9	5.6	10.1	8.3	7.1	7.6
Mongolia	0.3	4.3	4.0	3.4	6.1	6.0	2.5	7.7	9.0	5.1	8.4
Taipei, China	17.8	11.5	9.7	17.3	16.3	15.3	15.0	24.5	18.8	16.8	18.2
<b>South Asia</b>											
Bangladesh	2.3	4.9	2.4	2.9	3.5	4.1	3.6	6.1	6.3	3.6	4.8
Bhutan	11.2	16.1	20.6	12.2	15.0	15.9	13.7	17.6	14.3	8.0	10.7
India	2.2	5.9	8.3	10.4	11.1	12.8	9.9	11.0	9.3	7.2	9.7
Maldives	2.4	2.4	4.3	3.5	3.4	2.9	1.8	3.1	3.5	2.4	2.1
Nepal	5.4	5.6	7.3	8.9	9.8	8.9	8.8	9.1	7.1	8.1	9.3
Sri Lanka	1.9	4.7	1.9	3.7	3.3	3.7	2.2	6.3	6.4	4.0	4.5
<b>Southeast Asia</b>											
Brunei Darussalam	...	-	...	4.2	3.9	4.0	3.2	7.1	8.1	12.2	...
Cambodia	0.0	1.9	3.8	3.5	3.5	5.7	6.2	8.8	8.3	7.3	7.4
Indonesia	4.8	4.3	8.7	6.0	6.9	8.0	5.3	8.9	9.1	8.0	7.5
Lao PDR	0.2	1.9	3.1	3.3	3.8	6.1	5.5	5.1	4.2	3.8	...
Malaysia	4.6	4.0	4.4	7.8	8.0	8.8	7.4	9.9	8.2	8.9	9.0
Myanmar	7.4	3.9	1.3	5.3	6.4	12.6	13.7	17.5	16.0	10.5	10.7
Philippines	2.0	3.5	4.2	4.6	5.2	7.0	7.4	11.4	12.1	16.4	16.4
Singapore	5.9	6.7	6.9	7.1	7.0	7.6	6.6	9.4	8.9	7.9	8.3
Thailand	5.2	7.0	7.0	5.9	7.0	8.4	8.4	14.1	12.8	10.4	10.0
Viet Nam	0.0	2.2	3.0	3.2	3.8	4.8	3.8	3.1	2.0	1.7	...
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	4.9	5.5	6.4	2.6	2.3	4.0	2.0	5.5	5.3	5.6	...
Kiribati	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	-	7.5	12.4	4.8	4.3	4.5	3.2	4.4	4.2	5.2	5.2
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	...	...
Papua New Guinea	4.5	2.5	3.5	5.9	8.6	9.5	7.6	10.9	10.5	12.2	10.9
Samoa	11.8	7.2	2.4	5.2	4.4	5.0	4.2	9.7	9.0	6.3	6.6
Solomon Islands	2.7	1.2	4.2	9.4	6.4	5.5	3.8	7.3	8.9	11.7	13.4
Timor-Leste	...	...	...	...	10.0	15.7	8.1	8.9	15.3	14.7	...
Tonga	7.6	4.7	4.7	5.0	4.9	6.3	5.6	7.7	7.5	8.0	9.1
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	5.7	7.3	6.1	6.2	8.1	7.5	5.5	7.1	8.1	9.0	...
<b>Developed Member Economies</b>											
Australia	5.9	3.1	3.3	4.3	4.9	2.0	2.1	3.2	2.6	2.3	2.2
Japan	4.5	7.5	12.6	21.4	20.1	20.4	17.4	25.2	20.6	19.3	18.1
New Zealand	6.0	4.4	4.1	4.5	7.3	7.3	4.6	6.5	7.4	6.1	5.7
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>6.0</b>	<b>5.8</b>	<b>6.5</b>	<b>9.7</b>	<b>10.4</b>	<b>12.9</b>	<b>11.3</b>	<b>16.5</b>	<b>14.7</b>	<b>13.5</b>	<b>14.5</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	<b>5.5</b>	<b>6.1</b>	<b>7.5</b>	<b>11.4</b>	<b>11.7</b>	<b>13.5</b>	<b>11.9</b>	<b>17.1</b>	<b>14.9</b>	<b>13.8</b>	<b>14.4</b>

... = Data not available at cutoff date, 0 = Magnitude is less than half of the unit employed, - = Magnitude equals zero.

a Merchandise imports from the balance of payments were used in the computation.

b For reporting economies only.

Sources: ADB staff estimates using International Financial Statistics Online (IMF 2013), *European Bank for Reconstruction and Development Transition Report 2012*.

## Capital Flows

Table 4.17 **Official Flows<sup>a</sup> from All Sources to Developing Member Economies**  
(\$ million)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>										
<b>Central and West Asia</b>										
Afghanistan <sup>b</sup>	122	213	136	2838	2962	4965	4875	6235	6426	6711
Armenia	...	229	205	182	228	359	318	1098	369	426
Azerbaijan	...	191	281	192	387	354	388	453	598	842
Georgia	...	219	136	234	224	313	899	988	828	736
Kazakhstan	...	459	152	-656	133	68	332	856	1482	1043
Kyrgyz Republic	...	201	217	272	272	283	326	640	470	630
Pakistan	1545	1298	616	1689	2557	2515	2485	4410	3401	4362
Tajikistan	...	93	84	231	372	394	557	467	529	471
Turkmenistan	...	29	271	-54	-84	-47	-35	-54	-33	-42
Uzbekistan	...	320	334	142	49	97	157	349	293	433
<b>East Asia</b>										
China, People's Rep. of	2364	8799	2346	2002	2253	1970	2741	2142	1151	1719
Hong Kong, China <sup>b</sup>	38	18	4	...	...	...	...	...	...	...
Korea, Rep. of <sup>b</sup>	52	57	-198	...	...	...	...	...	...	...
Mongolia	13	211	199	224	211	244	254	391	305	325
Taipei, China <sup>b</sup>	36	0	10	...	...	...	...	...	...	...
<b>South Asia</b>										
Bangladesh	1816	1239	1132	1184	1681	1536	3075	1917	1545	1770
Bhutan	48	71	72	148	127	83	65	134	219	320
India	3151	-51	524	2569	2375	3693	4345	4531	6683	3975
Maldives	23	60	17	77	58	51	50	114	126	67
Nepal	397	433	344	548	497	568	789	856	792	1038
Sri Lanka	631	610	317	1274	867	853	883	1171	1708	1405
<b>Southeast Asia</b>										
Brunei Darussalam <sup>b</sup>	4	4	...	...	...	...	...	...	...	...
Cambodia	41	513	372	572	651	689	945	793	950	1051
Indonesia	3096	1879	2240	545	-2	-1499	231	1454	2744	52
Lao PDR	222	278	263	326	330	442	463	465	415	334
Malaysia	538	513	697	-168	-353	-1424	-664	-921	-571	-520
Myanmar	155	76	105	137	134	194	532	351	387	392
Philippines	1536	-136	335	-246	383	471	-415	1213	189	297
Singapore <sup>b</sup>	-3	17	1	...	...	...	...	...	...	...
Thailand	521	858	724	-1622	-465	-716	-490	-170	-92	13
Viet Nam	99	632	1522	1779	1757	2558	2720	4387	3960	4191
<b>The Pacific</b>										
Cook Islands <sup>b</sup>	12	13	4	8	32	9	6	7	13	25
Fiji	23	37	21	73	62	54	52	79	103	128
Kiribati <sup>b</sup>	20	15	18	28	27	27	27	27	23	64
Marshall Islands <sup>b</sup>	...	39	57	57	55	52	53	59	91	82
Micronesia, Fed. States of <sup>b</sup>	...	77	102	107	109	115	94	121	125	134
Nauru <sup>b</sup>	0	3	4	9	17	26	31	24	28	38
Palau <sup>b</sup>	...	142	39	24	37	22	43	35	26	28
Papua New Guinea	534	397	351	250	242	229	277	407	510	653
Samoa	46	41	25	43	47	46	59	83	172	122
Solomon Islands	41	50	70	200	204	245	218	204	327	322
Timor-Leste <sup>b</sup>	0	0	231	185	209	278	278	217	292	284
Tonga	30	38	21	31	21	30	31	53	109	129
Tuvalu <sup>b</sup>	5	8	4	9	15	12	16	17	13	43
Vanuatu	50	47	46	40	49	61	102	114	108	92
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>	<b>17206</b>	<b>20242</b>	<b>14451</b>	<b>15483</b>	<b>18732</b>	<b>20222</b>	<b>27112</b>	<b>35719</b>	<b>36814</b>	<b>34186</b>
<b>REGIONAL MEMBERS<sup>d</sup></b>	<b>66032</b>	<b>64793</b>	<b>47791</b>	<b>56876</b>	<b>94045</b>	<b>106207</b>	<b>129402</b>	<b>166688</b>	<b>179679</b>	<b>158606</b>

... = Data not available at cutoff date, 0 = Magnitude is less than half of the unit employed.

a Refers to net flows of long-term public and publicly guaranteed debt from official creditors and grants, including technical cooperation grants. However, data for 2010 only include net flows of long-term public and publicly guaranteed debt from official creditors for economies whose data were sourced from the International Debt Statistics Online.

b Refers to net official development assistance only, i.e., concessional flows to developing economies and multilateral institutions provided by official agencies, including state and local governments, or by their executing agencies, administered with the objective of promoting the economic development and welfare of developing economies, and containing a grant element of at least 25%.

c For reporting economies only.

d Includes data for all developing economies as reported in World Bank's International Debt Statistics Online. For developing member economies not covered by the World Bank, data are from OECD's Geographical Distribution of Financial Flows to Aid Recipients.

Sources: International Debt Statistics Online (World Bank 2013). For Afghanistan; Brunei Darussalam; the Cook Islands; Hong Kong, China; Kiribati; the Republic of Korea; the Marshall Islands; the Federated States of Micronesia; Nauru; Palau; Singapore; Taipei, China; Timor-Leste; and Tuvalu: OECD.StatExtracts website (stats.oecd.org/Index.aspx).

Table 4.18 **Net Private Flows<sup>a</sup> from All Sources to Developing Member Economies**  
(\$ million)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>										
<b>Central and West Asia</b>										
Afghanistan <sup>b</sup>	-2	0	21	-12	19	13	37	30	-22	-22
Armenia	...	25	103	305	503	1201	1308	806	1273	1242
Azerbaijan	...	330	214	4723	4554	4826	4342	3208	5375	5031
Georgia	...	...	157	502	1350	1986	1991	981	1197	1387
Kazakhstan	...	1204	2175	9306	36172	34000	27304	24165	15935	18582
Kyrgyz Republic	...	96	-63	41	316	319	985	286	516	964
Pakistan	182	1050	-18	3394	6491	7877	5715	1795	1115	1259
Tajikistan	...	10	12	51	344	363	387	-52	65	55
Turkmenistan	...	253	-40	334	655	814	1241	4532	3592	3196
Uzbekistan	...	177	-1	-47	-73	728	974	2508	2134	1586
<b>East Asia</b>										
China, People's Rep. of	8107	40862	43434	132213	174444	190775	193144	149658	288239	282523
Hong Kong, China <sup>b</sup>	3482	3758	-1924	...	...	...	...	...	...	...
Korea, Rep. of <sup>b</sup>	1572	7596	2133	...	...	...	...	...	...	...
Mongolia	...	-4	51	184	359	452	901	643	2447	4740
Taipei, China <sup>b</sup>	428	428	132	...	...	...	...	...	...	...
<b>South Asia</b>										
Bangladesh	59	-33	327	817	704	789	968	567	910	1113
Bhutan	-3	-2	0	9	6	74	3	7	19	16
India	1831	4974	10143	18293	48445	88218	40486	72877	75933	46011
Maldives	7	9	22	60	82	157	242	146	233	294
Nepal	-6	-5	-8	2	-7	5	0	38	87	94
Sri Lanka	54	159	321	212	350	1140	428	660	501	1497
<b>Southeast Asia</b>										
Brunei Darussalam <sup>b</sup>	...	32	...	175	88	258	222	326	626	1208
Cambodia	...	164	149	381	483	867	815	539	783	902
Indonesia	2891	8147	-10640	7265	10425	12973	16997	16650	21794	31873
Lao PDR	6	95	34	309	453	1081	710	676	318	827
Malaysia	476	7850	4957	1821	12776	7920	-3499	-782	13208	16495
Myanmar	155	315	241	218	275	709	864	1079	355	1001
Philippines	639	2372	3782	4213	4751	8971	-2030	4445	8695	4904
Singapore <sup>b</sup>	3220	4290	8393	...	...	...	...	...	...	...
Thailand	4370	10146	-1137	14643	16374	14248	2516	5175	13850	3586
Viet Nam	180	2136	592	2678	3626	13215	9415	8127	12349	9704
<b>The Pacific</b>										
Cook Islands <sup>b</sup>	4	27	-31	-29	3	1	0	-1	0	8
Fiji	79	69	1	161	519	382	352	134	196	304
Kiribati <sup>b</sup>	0	...	0	1	-1	-8	...	2	0	3
Marshall Islands <sup>b</sup>	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of <sup>b</sup>	...	0	...	0	1	16	49	9	3	599
Nauru <sup>b</sup>	1	1	-2	2	0	0	2	2	...	0
Palau <sup>b</sup>	1	0	18	1	1	3	-2	0	3	6
Papua New Guinea	204	111	45	232	72	-111	119	444	2447	6750
Samoa	7	3	-2	4	28	7	46	3	5	15
Solomon Islands	7	4	10	-6	21	60	92	128	149	127
Timor-Leste <sup>b</sup>	-5	9	...	0	-64	0	3	2	-4	-1
Tonga	0	1	4	7	10	28	4	1	9	10
Tuvalu <sup>b</sup>	...	0	-4	-1	4	-1	...	...	...	1
Vanuatu	13	31	20	13	43	34	38	32	42	58
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>	<b>27960</b>	<b>96691</b>	<b>63619</b>	<b>202475</b>	<b>324600</b>	<b>394390</b>	<b>307169</b>	<b>299843</b>	<b>474379</b>	<b>447948</b>
<b>REGIONAL MEMBERS<sup>d</sup></b>	<b>43196</b>	<b>169763</b>	<b>186083</b>	<b>435024</b>	<b>604917</b>	<b>890799</b>	<b>749084</b>	<b>559063</b>	<b>793883</b>	<b>850925</b>

... = Data not available at cutoff date, 0 = Magnitude is less than half of the unit employed.

a Refers to the sum of net foreign direct investment, portfolio equity flows, net flows of long-term public and publicly guaranteed debt from private creditors, and net flows of total private nonguaranteed debt.

b Refers to the sum of direct investment, portfolio investment, and private net exports credits of Development Assistance Committee economies only.

c For reporting economies only.

d Includes data for all developing economies as reported in World Bank's International Debt Statistics Online. For developing member economies not covered by the World Bank, data are from OECD's Geographical Distribution of Financial Flows to Aid Recipients.

Sources: International Debt Statistics Online (World Bank 2013). For Afghanistan; Brunei Darussalam; the Cook Islands; Hong Kong, China; Kiribati; the Republic of Korea; the Marshall Islands; the Federated States of Micronesia; Nauru; Palau; Singapore; Taipei, China; Timor-Leste; and Tuvalu: OECD.StatExtracts website (stats.oecd.org/Index.aspx).

## Capital Flows

Table 4.19 **Aggregate Net Resource Flows<sup>a</sup> from All Sources to Developing Member Economies**  
(\$ million)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>										
<b>Central and West Asia</b>										
Afghanistan	120	213	157	2826	2980	4978	4912	6265	6404	6689
Armenia	...	254	308	487	732	1561	1627	1904	1642	1668
Azerbaijan	...	521	494	4915	4941	5180	4730	3661	5972	5874
Georgia	...	219	294	736	1574	2300	2890	1969	2024	2123
Kazakhstan	...	1664	2327	8650	36305	34068	27637	25021	17417	19625
Kyrgyz Republic	...	297	154	314	589	602	1311	925	987	1593
Pakistan	1727	2348	598	5083	9048	10393	8200	6205	4516	5621
Tajikistan	...	103	96	282	716	756	944	416	594	527
Turkmenistan	...	282	231	279	571	768	1206	4478	3560	3154
Uzbekistan	...	498	333	95	-24	825	1131	2857	2427	2019
<b>East Asia</b>										
China, People's Rep. of	10471	49661	45781	134215	176697	192745	195885	151799	289390	284242
Hong Kong, China	3520	3776	-1920	...	...	...	...	...	...	...
Korea, Rep. of	1624	7653	1935	...	...	...	...	...	...	...
Mongolia	13	207	250	408	570	696	1155	1034	2753	5065
Taipei, China	464	428	142	...	...	...	...	...	...	...
<b>South Asia</b>										
Bangladesh	1874	1205	1458	2002	2385	2325	4043	2484	2455	2884
Bhutan	45	69	72	157	134	157	68	141	238	336
India	4982	4923	10667	20862	50820	91910	44831	77408	82616	49986
Maldives	29	68	39	137	140	208	292	260	359	361
Nepal	391	428	336	550	489	573	790	894	879	1132
Sri Lanka	685	769	638	1486	1217	1993	1311	1831	2209	2902
<b>Southeast Asia</b>										
Brunei Darussalam	4	36	...	175	88	258	222	326	626	1208
Cambodia	41	676	521	953	1134	1557	1760	1332	1733	1953
Indonesia	5987	10026	-8401	7810	10423	11473	17227	18104	24538	31924
Lao PDR	228	373	297	634	782	1523	1172	1141	733	1161
Malaysia	1014	8362	5654	1653	12423	6496	-4163	-1703	12637	15975
Myanmar	309	392	346	355	409	903	1396	1429	741	1393
Philippines	2175	2236	4117	3967	5134	9442	-2445	5658	8884	5201
Singapore	3216	4307	8395	...	...	...	...	...	...	...
Thailand	4892	11004	-413	13021	15909	13531	2025	5006	13758	3600
Viet Nam	279	2769	2114	4457	5384	15773	12135	12513	16309	13894
<b>The Pacific</b>										
Cook Islands	17	40	-27	-22	35	10	6	7	13	34
Fiji	102	105	22	234	581	436	404	213	299	432
Kiribati	20	15	18	29	26	19	27	29	23	67
Marshall Islands	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	77	102	107	109	131	143	130	128	733.32
Nauru	1	3	2	12	17	26	33	26	28	37
Palau	1	142	57	25	39	25	41	35	29	34
Papua New Guinea	738	508	396	482	314	118	396	850	2957	7403
Samoa	52	45	23	46	76	53	104	86	178	137
Solomon Islands	49	54	80	194	225	305	310	332	477	449
Timor-Leste	-5	9	231	185	145	278	280	218	288	283
Tonga	30	39	25	38	31	58	35	54	118	140
Tuvalu	5	8	-0	9	19	11	16	17	13	43
Vanuatu	63	77	66	53	92	95	140	146	149	150
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>45166</b>	<b>116933</b>	<b>78070</b>	<b>217958</b>	<b>343332</b>	<b>414612</b>	<b>334282</b>	<b>335561</b>	<b>511193</b>	<b>482134</b>
<b>REGIONAL MEMBERS<sup>c</sup></b>	<b>109228</b>	<b>234556</b>	<b>233874</b>	<b>491900</b>	<b>698961</b>	<b>997005</b>	<b>878486</b>	<b>725752</b>	<b>973562</b>	<b>1009530</b>

... = Data not available at cutoff date.

a Refers to the sum of official and net private flows. However, data for 2009 official flows only include net flows of long-term public and publicly guaranteed debt from official creditors for economies whose data were sourced from the International Debt Statistics Online.

b For reporting economies only.

c Includes data for all developing economies as reported in World Bank's International Debt Statistics Online. For developing member economies not covered by the World Bank, data are from OECD's Geographical Distribution of Financial Flows to Aid Recipients.

Sources: International Debt Statistics Online (World Bank 2013). For Afghanistan; Brunei Darussalam; the Cook Islands; Hong Kong, China; Kiribati; the Republic of Korea; the Marshall Islands; the Federated States of Micronesia; Nauru; Palau; Singapore; Taipei, China; Timor-Leste; and Tuvalu: OECD.StatExtracts website (stats.oecd.org/Index.aspx).

Table 4.20 **Total External Debt of Developing Member Economies<sup>a</sup>**  
(\$ million)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>										
<b>Central and West Asia</b>										
Afghanistan	...	...	...	...	969	2013	2134	2470	2423	2623
Armenia	...	371	1010	1968	2136	3037	3541	5023	6241	7383
Azerbaijan	...	321	1585	2160	2722	3763	4498	4771	7209	8427
Georgia	...	1240	1826	2151	2573	2897	7633	8556	9519	11124
Kazakhstan	...	3750	12890	43906	72857	96298	106755	112027	119190	124437
Kyrgyz Republic	...	609	1938	2257	2598	2881	3628	4119	4114	5486
Pakistan	20589	30169	32954	33991	37148	41982	49505	56329	58488	60182
Tajikistan	...	634	1141	1121	1068	1344	2493	2666	3082	3323
Turkmenistan	...	402	2609	1158	991	854	746	661	529	445
Uzbekistan	...	1799	4975	4658	4469	4627	5083	6937	7745	8382
<b>East Asia</b>										
China, People's Rep. of	55301	118090	145648	283293	323117	373457	380165	443155	558344	685418
Hong Kong, China <sup>b</sup>	12339	29177	208260	454593	516382	711057	689897	712463	879034	985042
Korea, Rep. of	34968	113002	141429	161413	225199	333428	317370	345677	359757	398724
Mongolia	...	531	960	1396	1514	1759	1908	2215	2506	2564
Taipei, China <sup>b</sup>	17703	27077	34757	86732	85833	94525	90361	81963	101581	122528
<b>South Asia</b>										
Bangladesh	12285	15726	15596	18449	20106	21373	22952	24619	25752	27043
Bhutan	84	106	212	658	722	803	695	761	907	1035
India	85661	95174	101130	121195	159526	204005	227043	256229	290351	334331
Maldives	78	155	206	389	581	853	917	981	1007	983
Nepal	1627	2410	2878	3191	3404	3615	3698	3778	3797	3956
Sri Lanka	5865	8396	9173	11472	11992	14479	15723	17857	21153	23984
<b>Southeast Asia</b>										
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...
Cambodia	1845	2281	2648	3537	3550	2813	3267	3523	3833	4336
Indonesia	69848	124389	143655	141820	135959	147854	157906	179394	195172	213541
Lao PDR	1766	2155	2520	2912	3494	4606	5189	5737	5655	6158
Malaysia	15330	34343	41946	52054	55658	63091	67674	69784	85126	94468
Myanmar	4684	5735	5832	6337	6480	7250	7136	7702	7789	7765
Philippines	30580	39379	58456	61824	60577	66214	65174	64414	73720	76043
Singapore	3772	8368	220298	300359	313551	...	...	...	...	...
Thailand	28094	100039	79830	46483	46028	45440	50258	61209	80551	80039
Viet Nam	23270	25428	12859	19039	18649	23285	26488	33085	49343	57841
<b>The Pacific</b>										
Cook Islands	1	25	55	71	39	35	35	41	76	85
Fiji	308	178	182	196	365	380	391	536	555	861
Kiribati	3	7	8	11	13	14	15	14	18	14
Marshall Islands	72	149	69	92	100	99	94	90	...	...
Micronesia, Fed. States of	20	120	63	62	63	66	74	85	84	87
Nauru	...	...	...	...	...	...	...	...	...	...
Palau	...	...	58	60	58	69	67	75	68	64
Papua New Guinea	2594	2506	2305	1896	1843	1448	1435	1787	5965	12582
Samoa	92	160	139	169	165	188	207	253	325	368
Solomon Islands	120	159	156	167	175	178	167	172	231	256
Timor-Leste	...	...	...	...	...	...	...	...	...	...
Tonga	44	63	74	89	92	97	99	115	154	191
Tuvalu	...	...	4	...	10	11	15	14	16	16
Vanuatu	38	49	96	105	108	124	151	155	173	202
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>	<b>428983</b>	<b>794667</b>	<b>1292430</b>	<b>1873435</b>	<b>2122884</b>	<b>2282311</b>	<b>2322586</b>	<b>2521446</b>	<b>2971585</b>	<b>3372340</b>
<b>REGIONAL MEMBERS<sup>d</sup></b>	<b>1240813</b>	<b>1889556</b>	<b>2539578</b>	<b>3247477</b>	<b>3532806</b>	<b>3954352</b>	<b>4134724</b>	<b>4429250</b>	<b>5080119</b>	<b>5663533</b>

... = Data not available at cutoff date.

a Refers to the sum of public and publicly guaranteed long-term debt, private nonguaranteed long-term debt, use of IMF credit, and estimated short-term debt.

b Figure for 1990 only is from the OECD where total external debt refers to long-term debt to OECD countries and capital markets, multilateral loans, and long-term debts to non-OECD creditor economies only.

c For reporting economies only.

d Includes data for all developing economies as reported in World Bank's Global Development Finance Online. For developing member economies not covered by the World Bank, data are from economy sources.

Sources: International Debt Statistics Online (World Bank 2013), Statistical Compendium 2004-1 CD ROM (OECD 2004), economy sources.

## External Indebtedness

Table 4.21 **Total External Debt of Developing Member Economies**  
(% of GNI)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>										
<b>Central and West Asia</b>										
Afghanistan	...	...	...	...	11.8	19.8	19.7	19.6	16.0	...
Armenia	...	25.3	51.4	39.1	32.4	32.0	29.2	57.0	64.3	68.3
Azerbaijan	...	10.6	31.8	18.6	14.9	13.5	10.3	11.7	14.6	14.9
Georgia	...	48.2	57.5	33.2	32.5	28.4	60.2	80.1	83.4	79.1
Kazakhstan	...	18.5	75.7	84.8	101.8	104.8	93.5	109.1	91.9	77.9
Kyrgyz Republic	...	37.5	150.7	95.6	88.7	73.3	70.8	88.6	89.2	...
Pakistan	49.3	49.4	45.1	30.4	28.6	28.8	29.6	33.9	31.9	27.3
Tajikistan	...	53.6	138.4	50.2	39.1	37.0	48.8	54.3	55.3	51.6
Turkmenistan	...	16.1	95.7	15.4	10.3	7.2	4.1	3.8	2.9	2.0
Uzbekistan	...	13.5	36.7	32.6	26.4	19.9	17.2	20.6	19.1	17.8
<b>East Asia</b>										
China, People's Rep. of	15.4	16.5	12.3	12.6	11.9	10.7	8.4	8.9	9.5	9.4
Hong Kong, China <sup>a</sup>	16.4	20.6	25.0	...	...	...	...	...	...	...
Korea, Rep. of	13.3	21.4	26.7	19.1	23.6	34.1	30.7	32.3	30.6	32.1
Mongolia	...	37.2	84.8	56.5	45.1	42.5	35.0	50.5	44.4	32.7
Taipei, China <sup>a</sup>	10.8	10.1	11.3	24.3	22.8	24.0	22.6	21.7	23.7	26.4
<b>South Asia</b>										
Bangladesh	39.9	40.2	31.9	29.1	30.5	29.1	26.5	25.3	23.5	22.6
Bhutan	28.1	36.3	50.5	92.3	79.3	73.4	64.7	66.5	63.9	65.0
India	26.6	26.2	21.5	14.6	16.9	16.5	18.7	18.9	17.4	18.3
Maldives	40.2	40.9	34.7	41.2	46.8	58.1	50.8	52.8	50.8	50.2
Nepal	44.7	54.7	52.2	39.1	37.2	34.8	29.1	28.9	23.5	20.8
Sri Lanka	73.6	65.3	57.3	47.6	43.0	45.3	39.6	42.9	43.2	41.0
<b>Southeast Asia</b>										
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...
Cambodia	165.5	67.5	74.9	58.9	50.9	34.0	33.2	35.5	35.9	35.3
Indonesia	64.0	63.4	95.6	52.1	39.0	35.7	32.1	34.5	28.4	26.0
Lao PDR	204.0	122.6	151.7	109.1	107.1	113.0	100.0	101.2	84.2	80.3
Malaysia	36.4	40.6	48.7	39.5	36.6	34.5	31.4	37.0	37.1	34.8
Myanmar	...	...	...	...	...	...	...	...	...	...
Philippines	70.2	51.5	72.2	60.2	50.1	44.6	37.5	38.3	36.9	33.6
Singapore	12.4	9.8	16.0	...	...	...	...	...	...	...
Thailand	33.3	60.5	66.1	27.7	23.2	19.1	19.1	24.2	26.4	24.0
Viet Nam	384.0	124.0	41.9	36.7	31.3	33.8	30.1	35.7	48.4	49.1
<b>The Pacific</b>										
Cook Islands <sup>a</sup>	1.9	26.6	60.1	38.7	20.5	15.3	14.9	19.2	29.6	29.3
Fiji	23.9	9.2	10.6	6.4	12.2	11.5	11.2	18.7	18.0	23.6
Kiribati <sup>a</sup>	11.2	12.3	12.2	10.6	12.5	11.1	10.8	11.3	12.2	8.2
Marshall Islands <sup>a</sup>	92.9	126.0	62.0	67.0	69.5	65.8	61.8	59.3	...	...
Micronesia, Fed. States of <sup>a</sup>	13.7	53.8	27.1	24.7	25.1	25.7	28.4	30.5	28.7	28.1
Nauru	...	...	...	...	...	...	...	...	...	...
Palau <sup>a</sup>	...	...	36.7	28.8	27.4	32.5	31.3	37.7	34.7	30.1
Papua New Guinea	83.8	57.3	69.8	41.8	37.4	23.1	18.1	22.8	64.4	101.2
Samoa	55.9	82.6	56.7	43.6	39.5	38.1	38.4	49.9	56.2	58.5
Solomon Islands	58.1	49.5	35.9	40.3	37.9	32.4	30.3	36.5	41.6	37.9
Timor-Leste	...	...	...	...	...	...	...	...	...	...
Tonga	38.2	30.4	38.6	34.3	30.5	31.0	27.8	35.4	42.5	43.5
Tuvalu <sup>a</sup>	...	...	29.0	...	45.7	42.1	48.3	53.0	49.1	41.7
Vanuatu	23.5	22.6	36.9	28.7	25.9	24.8	25.7	27.3	25.9	25.4

... = Data not available at cutoff date, GNI = gross national income.

<sup>a</sup> GDP is used in lieu of GNI.

Sources: International Debt Statistics Online (World Bank 2013), economy sources.

**Table 4.22 Total External Debt of Developing Member Economies**  
(% of exports of goods, services, and income)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>										
<b>Central and West Asia</b>										
Afghanistan	...	...	...	...	24.9	12.4	17.6	37.5	...	...
Armenia	...	104.7	183.4	105.1	100.1	117.4	128.7	244.7	215.5	202.9
Azerbaijan	...	40.4	72.9	25.9	19.5	16.6	13.8	20.5	24.9	22.1
Georgia	...	...	181.3	89.1	90.6	79.5	179.8	233.0	207.4	186.0
Kazakhstan	...	62.3	123.0	140.7	169.4	173.9	134.1	221.1	176.2	131.1
Kyrgyz Republic	...	134.9	328.5	234.4	195.9	139.5	129.0	159.5	161.8	157.6
Pakistan	297.1	290.1	321.9	172.0	173.6	180.2	185.0	245.8	203.5	187.1
Tajikistan	...	...	...	88.7	64.4	77.8	140.3	217.6	201.9	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>										
China, People's Rep. of	91.6	77.5	49.9	35.0	31.4	27.9	23.7	32.4	31.2	32.0
Hong Kong, China <sup>a</sup>	12.3	14.1	85.6	128.6	132.2	165.0	150.7	174.4	175.5	176.4
Korea, Rep. of <sup>a</sup>	46.8	74.8	68.8	48.7	59.6	75.8	64.3	83.3	67.8	63.8
Mongolia	...	103.8	153.2	93.5	73.9	68.0	62.7	95.4	73.2	46.8
Taipei, China <sup>a</sup>	23.5	21.0	20.1	38.0	33.5	33.4	30.9	34.7	32.1	34.7
<b>South Asia</b>										
Bangladesh	577.3	334.5	213.9	175.1	155.6	151.0	130.5	144.0	118.3	98.9
Bhutan	...	...	...	...	189.3	122.4	101.2	128.7	145.2	136.1
India	366.9	241.0	161.9	75.6	79.2	80.7	70.8	93.3	80.7	74.8
Maldives	42.4	48.0	44.1	78.5	73.2	94.9	86.3	117.7	105.7	...
Nepal	363.7	224.7	212.5	224.2	244.5	217.7	190.0	215.6	212.9	184.0
Sri Lanka	245.8	173.4	140.5	144.1	136.0	146.8	152.1	196.3	185.2	170.0
<b>Southeast Asia</b>										
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...
Cambodia	...	233.3	139.9	86.4	69.9	48.9	50.6	60.0	55.2	57.9
Indonesia	235.2	229.4	196.6	146.2	120.9	116.1	104.4	139.7	115.7	99.1
Lao PDR	1688.4	519.1	490.9	382.0	311.5	370.1	340.1	384.6	245.0	...
Malaysia	44.4	39.9	36.7	31.2	29.1	29.1	28.0	35.3	34.9	33.8
Myanmar	1459.9	437.9	271.9	165.1	139.9	112.8	97.3	113.7	98.5	...
Philippines	234.7	119.8	132.7	167.0	133.1	129.3	124.4	136.1	124.7	122.5
Singapore <sup>a, b</sup>	5.5	5.3	121.4	104.3	92.2	...	...	...	...	...
Thailand	89.8	135.0	92.8	35.3	29.5	24.3	23.4	32.9	34.4	29.1
Viet Nam	...	...	73.6	51.5	40.9	41.8	37.3	52.0	61.6	54.5
<b>The Pacific</b>										
Cook Islands	...	...	...	...	...	...	...	...	...	...
Fiji	35.0	15.6	17.8	12.2	24.0	23.3	20.4	39.0	31.6	...
Kiribati <sup>c</sup>	80.8	81.4	182.4	184.5	337.1	112.3	147.4	194.8	283.9	120.3
Marshall Islands <sup>c</sup>	2849.2	1257.4	444.7	392.5	556.8	537.4	466.1	432.5	...	...
Micronesia, Fed. States of <sup>c</sup>	431.5	539.9	310.1	330.4	339.0	253.3	270.4	338.4	287.7	215.6
Nauru	...	...	...	...	...	...	...	...	...	...
Palau <sup>c</sup>	...	...	483.1	424.9	385.8	424.0	230.0	556.6	469.3	345.3
Papua New Guinea	174.4	83.1	97.3	52.0	40.1	27.8	22.9	38.6	97.8	168.2
Samoa	179.2	231.6	...	114.8	108.3	99.6	107.2	139.5	161.6	180.8
Solomon Islands	123.2	75.1	121.3	108.1	97.2	75.0	57.6	69.7	65.8	33.7
Timor-Leste	...	...	...	...	...	...	...	...	...	...
Tonga	102.3	...	...	151.0	218.2	189.8	165.5	221.4	271.0	286.4
Tuvalu <sup>c</sup>	...	...	1393.8	...	2434.4	2865.7	3366.7	3033.3	2940.0	1850.0
Vanuatu	36.1	39.8	54.4	51.5	50.0	48.4	48.1	46.9	47.8	51.4

... = Data not available at cutoff date.

a External debt as percent of exports was derived using exports of goods and services data from the national accounts.

b Data for 1990 and 1995 and from 2000 on are not comparable due to a change in coverage/compilation methodology.

c External debt as percent of exports was derived using exports data from the balance of payments.

Sources: International Debt Statistics Online (World Bank 2013), economy sources.

## External Indebtedness

Table 4.23 **Total Debt Service Paid by Developing Member Economies**  
(\$ million)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	9	5	7	10	9	10	...
Armenia	...	11	46	138	150	189	338	396	938	890	963
Azerbaijan	...	10	130	235	262	188	273	328	396	1855	1964
Georgia	...	20	118	187	273	192	671	735	770	1528	1277
Kazakhstan	...	235	3371	13181	14475	27171	33426	25780	47761	32861	...
Kyrgyz Republic	...	60	173	139	96	189	311	242	535	386	843
Pakistan	1902	3216	2855	2435	2305	2645	2823	3177	3915	2509	4096
Tajikistan	...	0	63	69	64	60	94	451	685	579	389
Turkmenistan	...	104	468	307	255	200	170	165	154	130	57
Uzbekistan	...	245	886	787	851	824	859	839	622	623	1684
<b>East Asia</b>											
China, People's Rep. of	7057	15066	26594	27455	27481	31811	33256	39779	63604	78037	51071
Hong Kong, China <sup>a</sup>	1700	3159	...	...	...	...	...	...	...	...	...
Korea, Rep. of <sup>a</sup>	8274	11870	22905	7224	7340	4538	...	2086	2843	...	...
Mongolia	...	52	39	43	48	55	76	100	165	107	177
Taipei, China <sup>a</sup>	1715	2677	45	11006	9001	7546	11473	6079	3630	7581	4531
<b>South Asia</b>											
Bangladesh	735	755	766	799	711	990	874	924	976	1358	1372
Bhutan	5	10	7	7	10	32	81	75	84	85	97
India	8141	13607	10920	23893	17360	39367	30964	16503	24387	29171	35705
Maldives	9	11	20	36	50	80	94	90	84	94	179
Nepal	68	85	102	117	139	147	162	174	183	199	221
Sri Lanka	384	452	787	420	928	837	1145	1317	1355	1278	2298
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...	...
Cambodia	30	7	32	31	31	30	42	49	62	77	123
Indonesia	9946	16418	16624	20228	28281	23924	21374	24891	29333	31237	31071
Lao PDR	9	25	40	132	182	190	203	214	300	276	1037
Malaysia	4333	6041	6433	9375	7616	10421	8846	12121	13353	10854	9276
Myanmar	60	250	36	27	11	14	12	11	564	7	207
Philippines	3590	5363	7059	9962	13699	10136	12199	9880	12871	10911	7198
Singapore <sup>a</sup>	525	1349	...	...	...	...	...	...	...	...	...
Thailand	5290	8586	13991	18177	14753	22224	16637	12081	10959	10478	7429
Viet Nam	174	364	1309	967	961	1245	1368	1451	2756	3362	5968
<b>The Pacific</b>											
Cook Islands	0	1	1	3	12	2	2	2	2	3	3
Fiji	81	42	25	14	14	27	24	26	22	192	119
Kiribati	...	1	1	1	0	2	2	1	1	1	1
Marshall Islands	14	24	22	5	7	16	8	12	...	...	...
Micronesia, Fed. States of	-	18	23	2	2	3	3	4	4	5	5
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	553	626	304	308	326	1007	974	542	811	1184	2142
Samoa	5	5	5	6	7	7	8	8	11	12	12
Solomon Islands	12	8	9	14	4	14	15	10	21	15	18
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...
Tonga	2	3	5	5	4	5	5	4	5	6	8
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	2	2	2	3	4	4	5	6	6	6	6

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employees, - = Magnitude equals zero.

a Refers to principal repayments on long-term debts plus interests on short-term and long-term debts.

Sources: International Debt Statistics Online (World Bank 2013), economy sources.

**Table 4.24 Total Debt Service Paid by Developing Member Economies**  
(% of exports of goods, services, and income)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>										
<b>Central and West Asia</b>										
Afghanistan	...	...	...	3.8	0.2	0.1	0.2	0.4	...	...
Armenia	...	3.2	9.2	7.6	7.3	7.5	13.3	20.6	33.4	25.4
Azerbaijan	...	1.3	6.4	2.9	1.9	0.9	0.9	1.5	1.4	4.9
Georgia	...	...	12.5	8.1	10.7	6.0	16.7	21.0	17.5	26.9
Kazakhstan	...	3.9	32.4	42.2	33.6	49.0	41.9	50.7	58.3	34.6
Kyrgyz Republic	...	13.3	30.2	14.8	7.6	9.4	11.9	10.4	21.9	11.8
Pakistan	27.4	30.9	28.0	12.4	10.8	11.5	11.3	15.2	15.0	9.2
Tajikistan	...	...	...	5.8	4.1	3.7	7.1	38.0	44.9	...
Turkmenistan	...	11.7	14.2	6.3	4.1	3.2	1.3	0.4	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>										
China, People's Rep. of	11.7	9.9	9.1	3.4	2.7	2.4	2.1	2.9	3.6	3.6
Hong Kong, China	2.1	1.8	...	...	...	...	...	...	...	...
Korea, Rep. of	11.3	7.9	11.1	2.2	1.9	1.0	0.0	0.5	0.5	...
Mongolia	0.3	10.2	6.6	3.0	2.5	2.2	2.7	4.6	5.0	2.1
Taipei, China	0.5	2.1	0.0	4.8	3.5	2.7	3.9	2.6	1.1	2.1
<b>South Asia</b>										
Bangladesh	34.6	16.1	10.5	7.6	5.5	7.0	5.1	5.6	4.7	5.5
Bhutan	...	...	...	4.7	2.8	4.9	11.9	12.8	13.5	11.1
India	34.9	34.4	17.5	14.9	8.6	15.6	9.7	6.0	6.8	6.5
Maldives	4.8	3.4	4.2	7.3	6.3	8.9	9.1	11.2	8.9	...
Nepal	15.2	7.9	7.5	8.3	10.0	8.9	8.3	10.1	10.5	9.5
Sri Lanka	16.1	9.3	12.1	5.3	10.6	8.5	11.9	15.6	12.3	9.3
<b>Southeast Asia</b>										
Brunei Darussalam	...	...	...	...	...	...	...	...	...	...
Cambodia	...	0.7	1.7	0.8	0.6	0.5	0.7	0.8	0.9	1.0
Indonesia	33.5	30.3	22.8	20.9	25.2	18.8	14.1	19.4	17.4	14.5
Lao PDR	8.5	6.1	8.0	17.4	16.2	15.3	13.6	14.8	13.2	...
Malaysia	12.6	7.0	5.6	5.6	4.0	4.8	3.7	6.1	5.5	3.9
Myanmar	18.2	19.1	1.2	0.7	0.3	0.2	0.2	0.2	7.1	...
Philippines	27.6	16.3	16.0	26.9	30.1	19.8	23.3	20.9	21.8	17.6
Singapore	0.8	0.9	...	...	...	...	...	...	...	...
Thailand	16.9	11.6	16.3	13.8	9.5	11.9	7.8	6.5	4.7	3.8
Viet Nam	...	...	7.5	2.6	2.1	2.3	2.0	2.3	3.5	3.2
<b>The Pacific</b>										
Cook Islands	2.5	26.0	12.8	52.0	346.9	33.0	41.5	69.1	47.3	97.2
Fiji	9.1	3.7	2.4	0.9	0.9	1.7	1.3	1.9	1.3	...
Kiribati	...	...	9.3	7.6	2.9	11.9	5.0	7.9	2.9	2.8
Marshall Islands	39.8	47.8	57.9	16.0	36.4	72.6	31.5	59.3	...	...
Micronesia, Fed. States of	...	45.9	54.5	5.8	5.5	4.8	5.4	6.7	6.6	6.8
Nauru	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	37.2	20.8	12.9	8.4	7.1	19.4	15.6	11.7	13.3	15.8
Samoa	10.6	6.6	...	3.9	4.6	3.7	4.2	4.7	5.3	5.8
Solomon Islands	11.8	3.8	7.1	9.1	2.4	5.9	5.2	4.0	5.9	2.0
Timor-Leste	...	...	...	...	...	...	...	...	...	...
Tonga	3.5	...	...	8.8	10.5	9.8	9.3	7.4	8.9	8.8
Tuvalu	...	...	...	...	...	...	...	...	...	...
Vanuatu	2.3	1.3	1.6	1.6	2.1	1.8	1.5	1.7	1.6	1.6

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

Sources: International Debt Statistics Online (World Bank 2013), economy sources.

## Tourism

Table 4.25 **International Tourist Arrivals<sup>a</sup>**  
(thousand)

Regional Member	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>										
<b>Central and West Asia</b>										
Afghanistan	...	...	...	...	...	...	...	...	...	...
Armenia	12	45	319	382	511	558	575	687	758	843
Azerbaijan	...	...	693	682	732	1043	1005	1280	1562	1986
Georgia	85	387	560	983	1052	1290	1500	1067	1319	1790
Kazakhstan	...	1471	3143	3468	3876	3447	3118	3393	4093	4438
Kyrgyz Republic	36	59	319	766	1656	2435	2147	1316	3114	...
Pakistan	378	557	798	898	840	823	855	907	1000	...
Tajikistan	...	4	...	...	...	...	...	...	...	...
Turkmenistan	218	3	12	6	8	...	...	...	...	...
Uzbekistan	92	302	242	560	903	1069	1215	975	...	...
<b>East Asia</b>										
China, People's Rep. of	20034	31229	46809	49913	54720	53049	50875	55665	57581	57725
Hong Kong, China	...	8814	14773	15821	17154	17320	16926	20085	22316	23770
Korea, Rep. of	3753	5322	6023	6155	6448	6891	7818	8798	9795	11140
Mongolia	108	137	338	386	452	446	411	456	460	476
Taipei, China	2332	2624	3378	3520	3716	3845	4395	5567	6087	7311
<b>South Asia</b>										
Bangladesh	156	199	208	200	289	467	267	303	...	...
Bhutan	5	8	14	17	21	28	23	27	37	44
India	2124	2649	3919	4447	5082	5283	5168	5776	6309	6649
Maldives	315	467	395	602	676	683	656	792	931	958
Nepal	363	464	375	384	527	500	510	603	736	...
Sri Lanka	403	400	549	560	494	438	448	654	856	1006
<b>Southeast Asia</b>										
Brunei Darussalam	...	...	126	158	179	226	157	214	242	209
Cambodia	...	...	1333	1591	1873	2001	2046	2508	2882	3585
Indonesia	4324	5064	5002	4871	5506	6234	6324	7003	7650	8044
Lao PDR	60	191	672	842	1142	1295	1239	1670	1786	...
Malaysia	7469	10222	16431	17547	20973	22052	23646	24577	24714	25033
Myanmar	117	208	232	264	248	193	243	311	391	593
Philippines	1760	1992	2623	2843	3092	3139	3017	3520	3917	4273
Singapore	6070	6062	7079	7588	7957	7778	7489	9161	10390	...
Thailand	6952	9579	11567	13822	14464	14584	14150	15936	19230	22354
Viet Nam	1351	2140	3477	3583	4229	4236	3747	5050	6014	6848
<b>The Pacific</b>										
Cook Islands	48	73	88	92	97	95	101	104	113	122
Fiji	318	294	545	549	540	585	542	632	675	661
Kiribati	4	5	4	4	5	4	4	5	5	5
Marshall Islands	6	5	9	6	7	6	5	5	5	5
Micronesia, Fed. States of	...	21	19	19	21	26	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...
Palau	53	58	81	82	88	79	72	86	109	119
Papua New Guinea	42	58	69	78	104	114	124	147	163	164
Samoa	68	88	102	110	117	118	129	122	121	126
Solomon Islands	12	5	9	11	14	16	18	21	23	...
Timor-Leste	...	...	...	14	22	36	44	45	50	55
Tonga	29	35	42	39	46	49	51	47	46	...
Tuvalu	1	1	1	1	1	2	2	2	1	...
Vanuatu	44	58	62	68	81	91	101	97	94	108
<b>Developed Member Economies</b>										
Australia	3726	4931	5499	5532	5644	5586	5584	5885	5875	6146
Japan	3345	4757	6728	7334	8347	8351	6790	8611	6219	8368
New Zealand	1409	1787	2365	2409	2455	2447	2458	2525	2601	2565
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>59142</b>	<b>91300</b>	<b>132440</b>	<b>143932</b>	<b>159963</b>	<b>162574</b>	<b>161163</b>	<b>179614</b>	<b>195575</b>	<b>190440</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	<b>67622</b>	<b>102775</b>	<b>147032</b>	<b>159207</b>	<b>176409</b>	<b>178958</b>	<b>175995</b>	<b>196635</b>	<b>210270</b>	<b>207519</b>

... = Data not available at cutoff date.

a For Australia; Georgia; Japan; the Republic of Korea; New Zealand; Taipei, China; and Viet Nam, data refer to international visitor arrivals at frontiers (including tourists and same-day visitors). For the rest of the economies, data refer to international tourist arrivals at frontiers (excluding same-day visitors).

b For reporting economies only.

Sources: World Tourism Organization website (UNWTO 2013); *UNWTO Tourism Highlights*, 2013 Edition (UNWTO 2013, <http://mkt.unwto.org/en/publication/unwto-tourism-highlights-2013-edition>).

**Table 4.26 International Tourism, Receipts**  
(\$ million)

Regional Member	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>										
<b>Central and West Asia</b>										
Afghanistan	...	...	...	...	...	...	...	...	...	...
Armenia	1	38	220	271	305	331	334	408	446	451
Azerbaijan	70	63	78	117	178	190	353	657	1287	2433
Georgia	...	97	241	313	384	447	476	659	955	1411
Kazakhstan	122	356	701	838	1013	1012	963	1005	1209	1347
Kyrgyz Republic	5	15	73	167	346	514	459	284	640	698
Pakistan	110	81	182	255	276	316	272	305	358	341
Tajikistan	...	...	2	2	3	4	2	4	3	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	27	28	43	51	64	99	121	...	...
<b>East Asia</b>										
China, People's Rep. of	8730	16231	29296	33949	37233	40843	39675	45814	48464	50028
Hong Kong, China	9604	5868	10179	11461	13566	15304	16408	22200	27665	32089
Korea, Rep. of	5150	6834	5806	5788	6138	9774	9819	10539	12525	14231
Mongolia	21	36	177	225	312	247	235	244	218	233
Taipei, China	3287	3738	4977	5136	5213	5937	6816	8721	11065	11707
<b>South Asia</b>										
Bangladesh	25	50	70	80	76	75	70	81	87	110
Bhutan	5	10	19	23	28	36	32	35	48	63
India	2582	3460	7493	8634	10730	11832	11136	14490	17707	17971
Maldives	211	321	287	512	602	664	608	1713	1868	1873
Nepal	177	158	131	128	200	336	412	344	386	352
Sri Lanka	226	248	429	410	385	342	350	576	830	1039
<b>Southeast Asia</b>										
Brunei Darussalam	...	...	191	224	233	242	254	...	...	...
Cambodia	53	304	840	963	1135	1219	1082	1180	1616	1800
Indonesia	5229	4975	4522	4448	5346	7378	5598	6957	7997	8325
Lao PDR	51	114	139	158	189	276	268	382	406	506
Malaysia	3969	5011	8846	10427	14050	15277	15772	18115	19656	20250
Myanmar	151	162	68	46	86	69	56	72	281	...
Philippines	1136	2156	2265	3501	4933	2499	2330	2630	3190	4014
Singapore	7611	5142	6205	7545	9083	10714	9368	14178	18082	19261
Thailand	8035	7483	9577	13393	16667	18173	16056	20104	27184	30092
Viet Nam	...	...	2300	2850	3750	3930	3050	4450	5620	6632
<b>The Pacific</b>										
Cook Islands	28	36	91	90	107	105	103	110	...	...
Fiji	291	189	485	480	499	547	422	623	717	728
Kiribati	2	3	3	2	4	3	3	...	...	...
Marshall Islands	3	3	6	7	5	3	4	3	3	3
Micronesia, Fed. States of	...	17	17	19	20	22	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...
Palau	...	53	97	99	113	117	113	124	159	164
Papua New Guinea	25	7	4	4	4	2	1	2	3	...
Samoa	35	41	79	90	103	112	116	123	134	148
Solomon Islands	16	4	2	26	27	37	44	54	71	73
Timor-Leste	...	...	...	20	26	14	13	26	21	...
Tonga	10	7	15	16	14	19	16	27	28	...
Tuvalu	...	...	...	...	...	...	...	...	...	...
Vanuatu	45	56	85	92	119	...	...	217	226	...
<b>Developed Member Economies</b>										
Australia	8130	9289	16848	17840	22308	24755	25385	29107	31473	31534
Japan	3224	3373	12430	8470	9345	10821	10305	13199	10966	14576
New Zealand	2318	2272	5211	4792	5414	5037	4586	4906	5579	5454
<b>DEVELOPING MEMBER ECONOMIES<sup>a</sup></b>	<b>57016</b>	<b>63394</b>	<b>96225</b>	<b>112851</b>	<b>133553</b>	<b>149026</b>	<b>143188</b>	<b>177577</b>	<b>211155</b>	<b>228373</b>
<b>REGIONAL MEMBERS<sup>a</sup></b>	<b>70688</b>	<b>78328</b>	<b>130905</b>	<b>143953</b>	<b>170620</b>	<b>189639</b>	<b>183464</b>	<b>224789</b>	<b>259173</b>	<b>279937</b>

... = Data not available at cutoff date.

a For reporting economies only.

Sources: World Tourism Organization website (UNWTO 2013); *UNWTO Tourism Highlights*, 2013 Edition (UNWTO 2013, <http://mkt.unwto.org/en/publication/unwto-tourism-highlights-2013-edition>).

## Transport, Electricity, and Communications

### Snapshots

- Road networks have expanded rapidly in most economies in the Asia and Pacific region since 1990. The latest data show that the People's Republic of China (PRC) and India account for almost two-thirds of the region's road network.
- Vehicle ownership has surged. Thirteen economies have at least 100 vehicles per thousand people. Deaths from road accidents are high in some developing member economies.
- As demand and production for electricity expanded, several major power producing economies have increased their reliance on coal to generate electricity since 1990.
- Cellular phone subscriptions showed huge growth, while fixed-line phones increased more moderately and fell in some economies.
- Many developing economies in the region still have low rates of penetration of fixed broadband internet subscriptions.

### Key trends

#### Road networks have expanded rapidly since 1990.

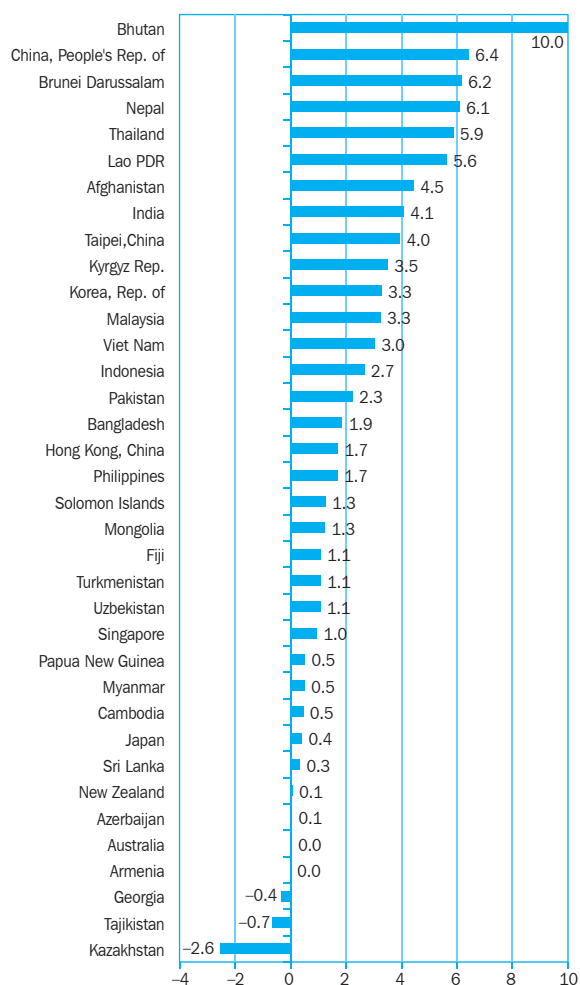
Roads provide access to employment, markets, education, and health services, and thus are crucial for economic development. Road networks have been growing at an average annual rate of about 1%–6% since the 1990s in many of the economies with data for this period (Figure 5.1). Afghanistan and the Lao People's Democratic Republic (Lao PDR) extended their road networks significantly in the latest year for which data are available—by 12% for Afghanistan in 2006 and 13% for the Lao PDR in 2009.

#### The PRC and India account for almost two-thirds of the length of Asia's road networks (Figure 5.2).

Both economies have expanded their road networks significantly since 1990—by an average of about 6% annually for the PRC and 4% for India.

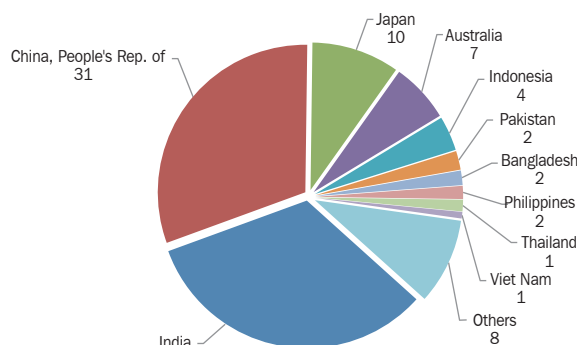
**Vehicle ownership surged as economies and incomes expanded.** In 1990, only two developing member economies recorded ownership of 100 or more motor vehicles per thousand people. The latest data show that 13 developing member economies had more than 100 vehicles per thousand population (Figure 5.3), with the highest rate of ownership in Brunei Darussalam at 510, followed by the Republic of Korea (363) and Malaysia (361). Still, this remains below vehicle ownership in developed member economies—about 700 vehicles per thousand people in Australia and New

Figure 5.1 Average annual percentage increase in road networks, 1990 to latest year



Lao PDR = Lao People's Democratic Republic.  
Source: Table 5.1.

Figure 5.2 Distribution of road network in Asia and the Pacific, latest year (%)



Source: Table 5.1.

Zealand and 600 in Japan. In Singapore, which imposes high costs on vehicle ownership, the rate per thousand population in 2010 was 149, barely changed from 1990.

The number of vehicles on the PRC's roads rose steeply from about 13 million in 1998 to more than 77 million in 2010. Even this large total represents only 58 vehicles per thousand people, suggesting that vehicle numbers will likely rise further.

**The increase in motor vehicles was accompanied by high levels of road accidents.** Figure 5.4 shows deaths caused by road accidents per 100,000 population in 2000 and 2010 or the latest year. Seventeen of 41 economies had fatality rates exceeding 10 deaths

Figure 5.3 Motor vehicles per 1,000 population, 1990 or earliest year and 2010 or latest year

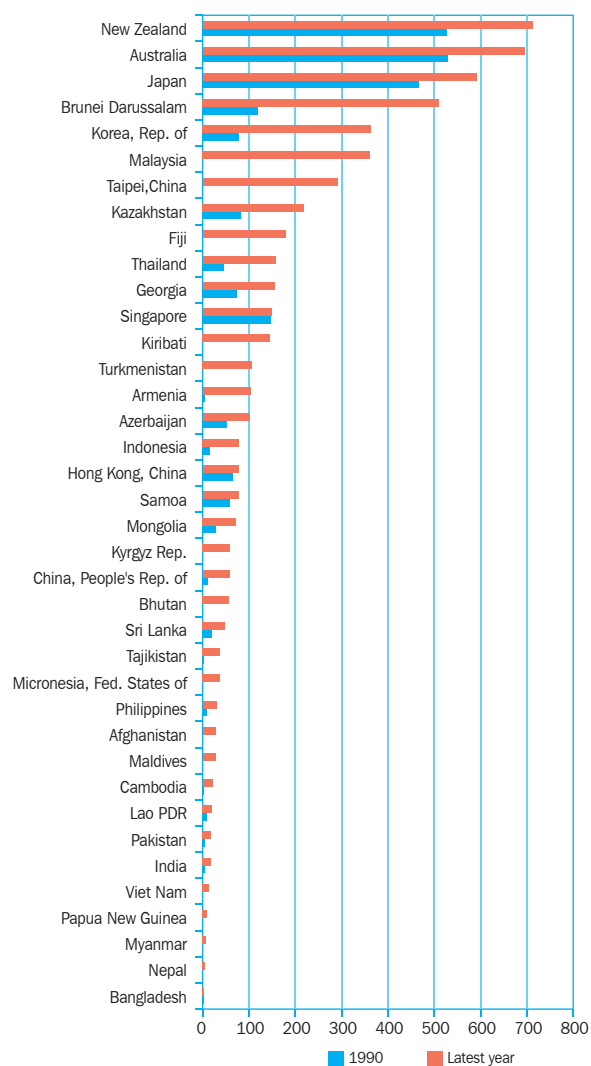
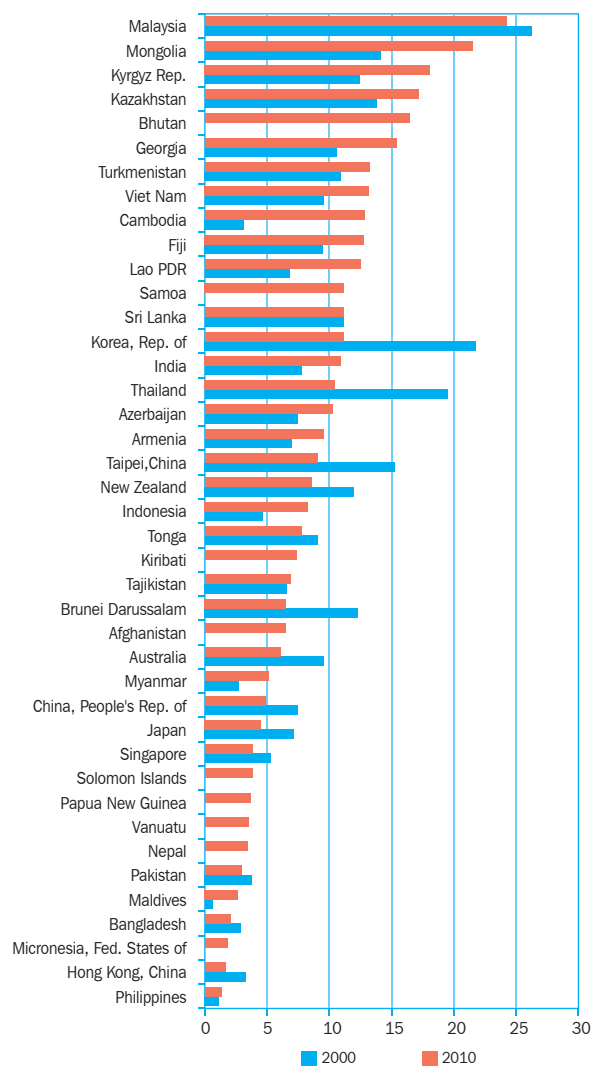
Lao PDR = Lao People's Democratic Republic.  
Source: Table 5.2.

Figure 5.4 Road accident deaths per 100,000 population, 2000 and 2010 or nearest year

Lao PDR = Lao People's Democratic Republic.  
Source: Table 5.3.

per 100,000 population in the latest year, with Malaysia and Mongolia recording more than 20. By contrast, the number of fatalities in developed member economies averaged about 6 (Table 5.3).

The Asian Development Bank (ADB) Road Safety Action Plan 2012 notes that the high fatality rate is the result of underdeveloped road networks, mixed traffic, limited availability of traffic engineering expertise, governance issues, and rapid increases in motorcycles and the rest of the vehicle fleet. Moreover, road deaths are concentrated among poorer households, which have fewer resources to draw on in times of emergency or income loss. The ADB plan quoted estimates that the cost to developing member economies from road accidents in 2007 was about 2% of their total gross domestic product, or \$96 billion each year.

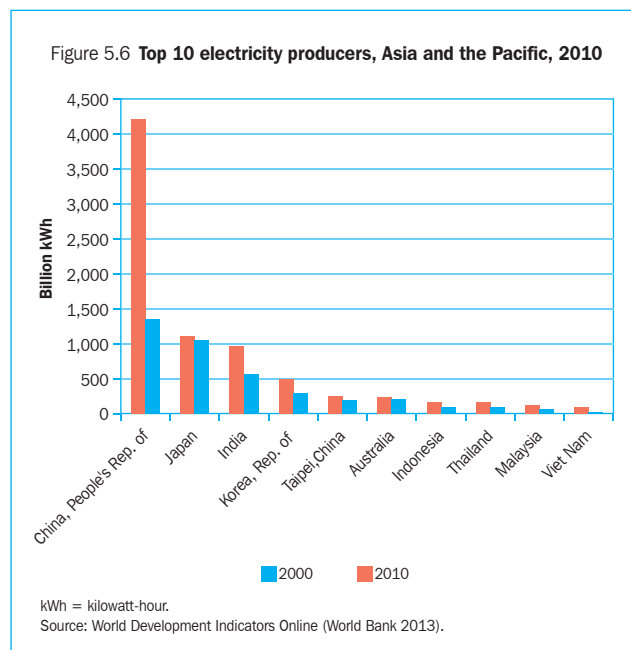
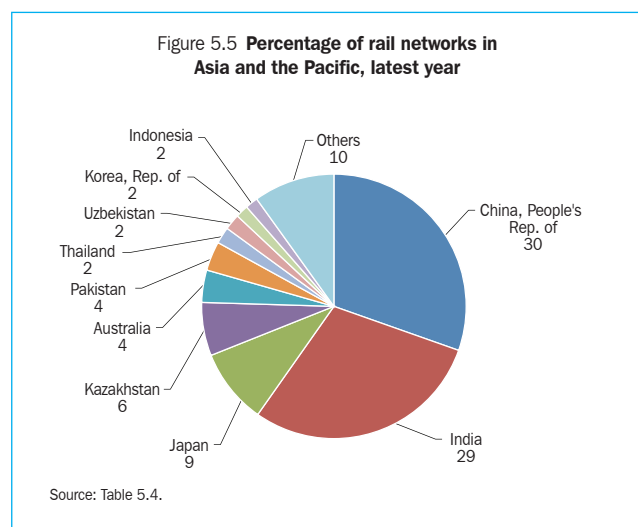
Measures including safer road construction, better protection for pedestrians, stricter enforcement of traffic regulations, and road safety education can sharply reduce road deaths. Nearly half the 32 economies with data have reduced fatalities per 100,000 population since 2000, often sharply. For example, three economies—the Republic of Korea; Taipei, China; and Thailand—lowered their fatality rates by at least 40% between 2000 and 2010.

**Rail networks are concentrated in three economies in Asia and the Pacific—the PRC, India, and Japan** (Figure 5.5). The PRC invested heavily in railways, extending its total rail route by 24.1% between 1990 and 2011. Taipei, China expanded its rail system by

more than half and Thailand also extended its network significantly, by 14.7% in this period. India, with the second biggest network, added to its rail route by 2.6%. Rail networks declined in several economies, including Japan, Kazakhstan, Pakistan, and Viet Nam.

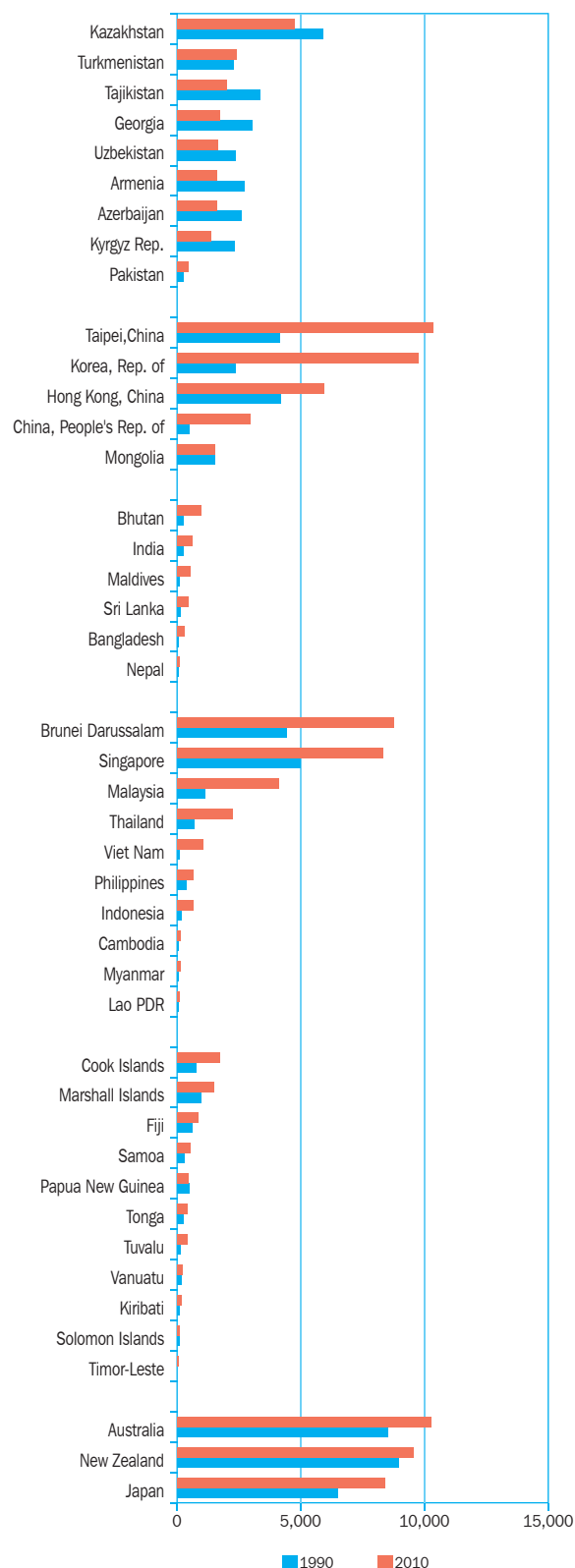
Japan had the highest rail density in 2011, with 55 kilometers of railway per thousand square kilometers of land area (Table 5.4).

**Expansion of industry and electrification of households spurred huge demand for electricity.** Output of electricity in the PRC rose by 210% to 4,208 billion kilowatt hours between 2000 and 2010 and power production there exceeds the combined total of the next nine biggest regional producers (Figure 5.6). Viet Nam boosted power output by 257% over the 10 years, but, as in some other economies, it still faces shortages.



**Per capita electricity consumption rose by at least 200% in 11 economies between 1990 and 2010** (Figure 5.7). Consumption levels in higher-income economies such as the Republic of Korea still far outstrip those for lower-income economies, suggesting that the latter will continue to experience rapid growth in demand. Large price increases for power in some Central and West Asian economies led to a reduction in per capita consumption since 1990.

Figure 5.7 Per capita electric power consumption (kWh), 1990 to latest year

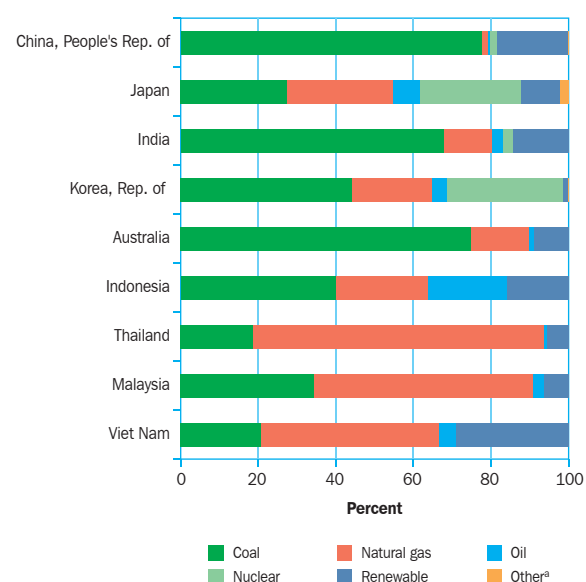


### Several major power producing economies became more reliant on coal to generate electricity.

Figure 5.8 shows the sources of electricity production for the biggest producers, excluding Taipei, China where a breakdown of sources was not available. Five of the nine economies—Australia, the PRC, India, Indonesia, and the Republic of Korea—use coal, the most polluting carbon fuel, as their biggest single source of power generation. Moreover, coal increased its share of power generation in the PRC, India, Indonesia, Japan, the Republic of Korea, and Malaysia between 1990 and 2010 (Table 5.5).

Burning coal contributes to air pollution, which the *OECD Environmental Outlook to 2050: The Consequences of Inaction* predicted will become the main environmental cause of mortality worldwide by 2050, ahead of dirty water and lack of sanitation (OECD 2012). It expects that premature deaths from exposure to air pollutants could double to 3.6 million a year, with most occurring in the PRC and India.

Figure 5.8 Sources of electricity (top producers), 2010

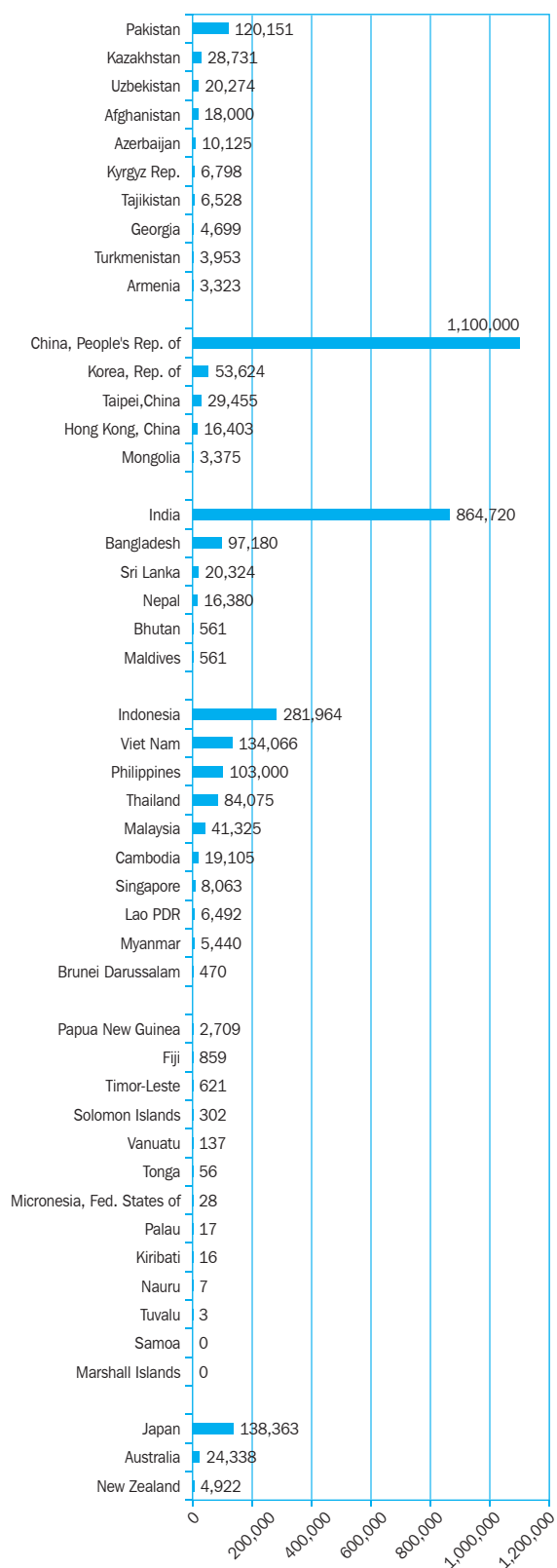


**Cellular telephone subscriptions rose at very rapid rates.** Figure 5.9 shows that economies with the largest number of cellular phones in 2012 were the PRC (where the number soared from 85.3 million in 2000 to 1.1 billion in 2012), India (up from just 3.6 million in 2000 to 864.7 million in 2012), and Indonesia (up from 3.7 million to 282.0 million over 12 years). All economies recorded rapid increases in cellular phone subscriptions over this period.

**By comparison, growth in fixed telephone lines was moderate, and the number fell in some economies.** Between 2000 and 2012, the number of fixed-line phones at least doubled in some developing member economies, such as Georgia, Nepal, and Papua New Guinea. The fixed-line phones showed small increases in higher-income economies, including Singapore and Japan, but the number fell in Afghanistan, Brunei Darussalam, India, Malaysia, the Maldives, the Federated States of Micronesia, and Vanuatu.

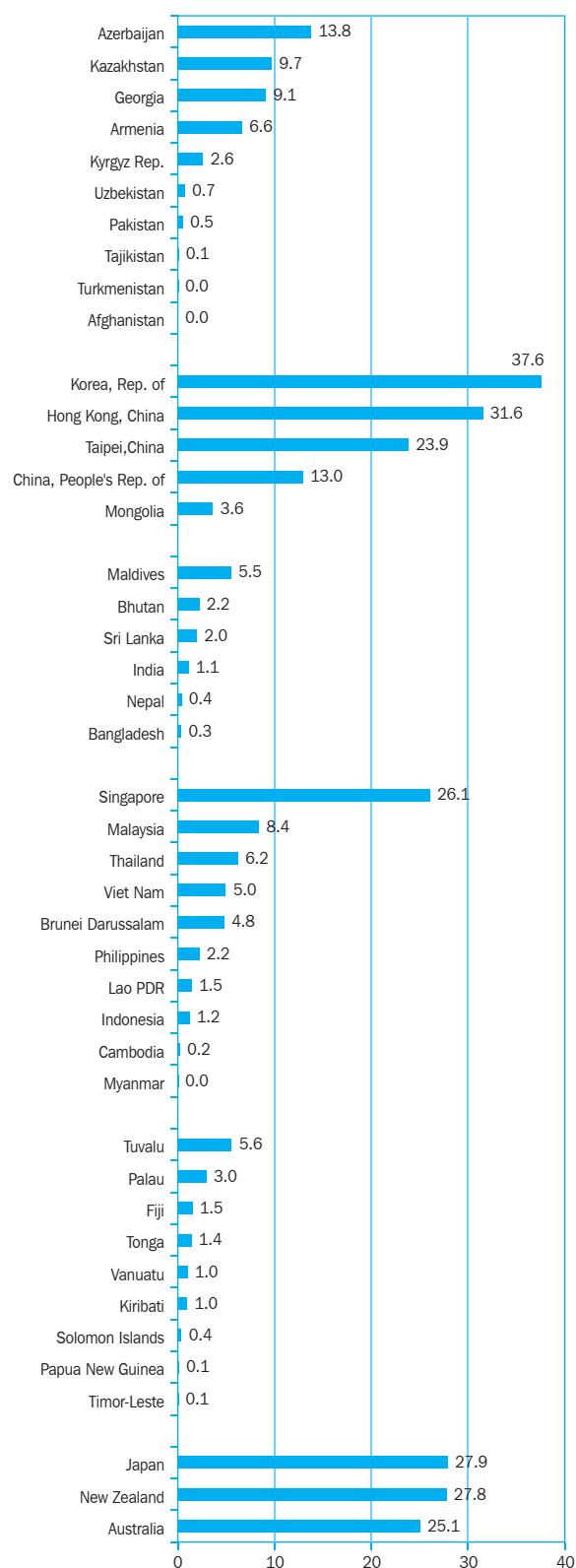
**Fixed broadband internet subscription rates have increased but remains low in many economies** (Figure 5.10). Although the number of fixed broadband internet subscriptions has soared since 2000 (Table 5.7), the region's average penetration level—the number of subscriptions per 100 inhabitants—is 6.7, below the global average of 11.2, according to the International Telecommunication Union. Higher income economies have penetration levels above 25 per 100 inhabitants, but for 74% of economies in Asia and the Pacific the penetration level is below 5.

Figure 5.9 **Mobile cellular telephone subscriptions, 2012** ('000)



Lao PDR = Lao People's Democratic Republic.  
Source: International Telecommunication Union.

Figure 5.10 Fixed broadband subscription per 100 inhabitants, 2012



Lao PDR = Lao People's Democratic Republic.  
Source: International Telecommunication Union.

## Data issues and comparability

Recent and complete data for all types of road indicators are scarce. Consequently, it is possible to describe but not draw analytical results that may be needed to convince policymakers to adopt corrective measures. The most recent data are usually 2–3 years lagged. Some subregions, especially the Pacific, have incomplete or no data. The problems with the data organization, collection, compilation, and dissemination pose a continuing challenge and affect the availability, quality, and timeliness of road statistics.

Data for the indicator on the household electrification rate are lacking. Rather than having data for one starting and one ending year, data for each are posted over a different range of years depending on data availability; thus, the data may not be comparable. This could indicate infrequent or irregular timing in the submission of data, making data inconsistent and limiting possibilities for analysis.

Similarly, data on the sources of electricity are incomplete. The Pacific island economies, which have limited resources for power generation, provide no data on the source of their electricity generated.

Most data on telephone and internet subscription come from questionnaires the International Telecommunications Union sent to participating countries. Other information and reports are sourced from the ministries in charge of telecommunication and staff estimates.

## Transport

Table 5.1 Road Indicators: Network

Regional Member	Roads, Total Network (thousand kilometers)		Road Density (kilometers of road per thousand square kilometers of land area)		Paved Roads (% of total roads)		Access to an All- Season Road (% of rural population)
	1990	Latest Year	1990	Latest Year	1990	Latest Year	Latest Year
<b>Developing Member Economies</b>							
<b>Central and West Asia</b>							
Afghanistan	21.0	42.2 (2006)	...	64.6 (2006)	13.3	29.3 (2006)	...
Armenia	7.7	7.7 (2010)	270.0	270.5 (2010)	99.2	93.6 (2009)	...
Azerbaijan	52.4	52.9 (2006)	...	640.7 (2006)	93.9 (1994)	50.6 (2006)	67.0 (2002)
Georgia	21.6	20.3 (2007)	310.8	292.5 (2007)	93.8	94.1 (2007)	...
Kazakhstan	158.3	96.8 (2009)	...	35.9 (2009)	55.1	88.5 (2009)	...
Kyrgyz Republic	18.9	34.0 (2007)	...	177.3 (2007)	90.0	91.1 (2001)	75.6 (1998)
Pakistan	169.2	258.4 (2009)	219.5	335.1 (2009)	54.0	65.4 (2006)	61.3 (2004)
Tajikistan	29.9	27.8 (2001)	213.4	198.4 (2000)	71.6	82.7 (1995)	73.7 (2003)
Turkmenistan	21.3	24.0 (2001)	45.3	51.1 (2000)	73.5	81.2 (2001)	...
Uzbekistan	72.5	81.6 (2001)	170.4	191.8 (2000)	79.0	87.3 (2001)	57.0 (2000)
<b>East Asia</b>							
China, People's Rep. of	1181.0	3860.8 (2009)	...	413.9 (2009)	72.1	53.5 (2008)	...
Hong Kong, China	1.5	2.1 (2009)	1424.2	1967.4 (2009)	100.0	100.0 (2010)	...
Korea, Rep. of	56.7	105.0 (2009)	574.4	1081.2 (2009)	71.5	79.3 (2009)	...
Mongolia	42.4	49.3 (2002)	27.3	31.7 (2002)	10.2	3.5 (2002)	36.0 (2003)
Taipei, China	20.0	40.3 (2008)	553.9	1120.0 (2008)	...	...	...
<b>South Asia</b>							
Bangladesh	188.0	239.2 (2003)	1444.3	1837.8 (2003)	7.2 (1991)	9.5 (2003)	37.0 (2000)
Bhutan	2.3	8.1 (2003)	...	200.9 (2003)	77.1	62.0 (2003)	47.0 (2003)
India	2000.0	4109.6 (2008)	672.7	1382.2 (2008)	47.3 (1991)	49.5 (2008)	60.0 (2001)
Maldives	...	0.1 (2005)	...	293.3 (2005)	...	100.0 (2005)	...
Nepal	6.8	19.9 (2008)	...	138.6 (2008)	37.5	53.9 (2008)	17.2 (2003)
Sri Lanka	93.0	97.3 (2003)	1483.0	1551.4 (2003)	32.0 (1991)	81.0 (2003)	...
<b>Southeast Asia</b>							
Brunei Darussalam	1.0	3.0 (2008)	...	564.0 (2008)	31.4	81.1 (2008)	...
Cambodia	35.8	38.3 (2004)	202.8	216.7 (2004)	7.5	6.3 (2004)	80.7 (2003)
Indonesia	288.7	476.3 (2009)	159.4	262.9 (2009)	45.1	56.9 (2009)	...
Lao PDR	14.0	39.6 (2009)	...	171.4 (2009)	24.0	13.7 (2009)	64.4 (2002)
Malaysia	54.0	90.1 (2006)	...	300.5 (2004)	70.0	82.8 (2006)	...
Myanmar	25.0	27.0 (2005)	38.3	41.3 (2005)	10.9	11.9 (2005)	...
Philippines	160.6	200.0 (2003)	538.5	670.9 (2003)	16.6 (1994)	9.9 (2003)	...
Singapore	2.8	3.4 (2009)	4176.1	4794.3 (2009)	97.1	100.0 (2009)	...
Thailand	72.2	180.1 (2006)	141.3	352.4 (2006)	55.3	98.5 (2000)	...
Viet Nam	96.1	160.1 (2007)	295.2	516.3 (2007)	23.5	47.6 (2007)	83.5 (2004)
<b>The Pacific</b>							
Cook Islands	...	...	...	...	...	...	...
Fiji	3.1	3.4 (2001)	166.9	188.3 (2000)	44.5	49.2 (2001)	...
Kiribati	...	0.7 (2001)	...	827.2 (2000)	...	...	...
Marshall Islands	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	0.2 (2001)	...	342.9 (2000)	15.9	17.5 (2001)	...
Nauru	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...
Papua New Guinea	18.5	19.6 (2001)	40.9	43.3 (2000)	3.2	3.5 (2001)	68.0 (1997)
Samoa	...	2.3 (2001)	...	279.2 (1998)	42.0 (1995)	14.2 (2001)	...
Solomon Islands	1.2	1.4 (2001)	43.2	49.7 (2000)	2.1	2.4 (2001)	...
Timor-Leste	...	...	...	...	...	...	89.5 (2001)
Tonga	...	0.7 (2001)	...	944.4 (2000)	27.0 (1995)	27.0 (2001)	...
Tuvalu	...	...	...	...	...	...	...
Vanuatu	...	1.1 (2001)	...	87.8 (2000)	21.6	23.9 (2001)	...
<b>Developed Member Economies</b>							
Australia	810.3	817.1 (2009)	105.5	106.4 (2009)	35.0	43.5 (2009)	...
Japan	1114.7	1207.9 (2009)	3057.3	3313.8 (2009)	69.2	80.1 (2009)	...
New Zealand	92.7	94.3 (2010)	352.0	358.0 (2010)	57.0	66.2 (2010)	...

... = Data not available at cutoff date.

Sources: For Taipei, China: Council for Economic Planning and Development; *World Road Statistics* (International Road Federation 1995 and 2012); World Development Indicators Online (World Bank 2013).

Table 5.2 Road Indicators: Vehicles

Regional Member	Total Motor Vehicles (thousands)		Motor Vehicles (per 1,000 people)		Motor Vehicles (per kilometer of road)	
	1990	2010	1990	2010	1990	2010
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	962	...	28	...	19 (2008)
Armenia	17	315 (2007)	5	103 (2007)	2	42 (2007)
Azerbaijan	374	913	52	101	11	13 (2007)
Georgia	331 (1998)	690	74 (1998)	155	16 (1998)	28 (2007)
Kazakhstan	1368	3579	82 (1998)	219	11 (1998)	37
Kyrgyz Republic	...	309 (2007)	...	59 (2007)	...	9 (2007)
Pakistan	554	3045	5	18	3	12
Tajikistan	18	257 (2007)	3	38 (2007)	1	9 (2008)
Turkmenistan	...	534 (2008)	...	106 (2008)	...	22 (2008)
Uzbekistan	...	...	...	...	...	...
<b>East Asia</b>						
China, People's Rep. of	12827 (1998)	77217	10 (1998)	58	10 (1998)	19
Hong Kong, China	375	544	64	77	253	254 (2009)
Korea, Rep. of	3395	17941	79	363	60	165 (2009)
Mongolia	68 (1998)	190 (2008)	29 (1998)	72 (2008)	1 (1998)	4 (2008)
Taipei, China	...	6719 (2009)	...	291 (2009)	...	166 (2008)
<b>South Asia</b>						
Bangladesh	122 (1993)	466	1 (1993)	3	5 (1993)	22
Bhutan	...	40 (2009)	...	57 (2009)	...	7 (2009)
India	3664	21200 (2009)	5	18 (2009)	3 (1993)	5 (2008)
Maldives	...	9	...	28	...	79 (2008)
Nepal	...	148 (2009)	...	5 (2007)	...	8 (2007)
Sri Lanka	337	1000	20	48	4	13 (2008)
<b>Southeast Asia</b>						
Brunei Darussalam	120	200 (2008)	120	510 (2008)	90	67 (2008)
Cambodia	5	285 (2005)	0	21 (2005)	0	6 (2005)
Indonesia	2806	15829	16	79 (2009)	12	38 (2009)
Lao PDR	36	122 (2007)	9	20 (2007)	3	3 (2007)
Malaysia	2253	10253	...	361	46	71
Myanmar	...	344	...	7	...	13 (2008)
Philippines	604	2835	9	30	3	14 (2007)
Singapore	396	755	147	149	142	223
Thailand	2579	10846	46	157	49	50 (2006)
Viet Nam	...	1146 (2007)	...	13 (2007)	...	7 (2007)
<b>The Pacific</b>						
Cook Islands	...	...	...	...	...	...
Fiji	...	154	...	179	...	43 (2008)
Kiribati	...	14 (2008)	...	146 (2008)	...	...
Marshall Islands	...	...	...	...	...	...
Micronesia, Fed. States of	...	4 (2007)	...	37 (2007)	...	...
Nauru	...	...	...	...	...	...
Palau	...	...	...	...	...	...
Papua New Guinea	...	56 (2007)	...	9 (2008)	...	...
Samoa	...	14 (2007)	59 (2005)	77 (2007)	...	5 (2005)
Solomon Islands	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...
Tonga	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...
<b>Developed Member Economies</b>						
Australia	9052	15496	530	695	12 (1991)	19
Japan	57702	75299	467	591	52	63 (2008)
New Zealand	1800	3108	527	712	20	33

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed.

Source: World Road Statistics (International Road Federation 2012).

## Transport

Table 5.3 Road Indicators: Safety

Regional Member	Number of Injury Accidents (per 100,000 population)			Number of Persons Killed in Road Accidents (per 100,000 population)		
	1990	2000	2010	1990	2000	2010
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	...	7.0	...	...	6.5 (2007)
Armenia	...	30.4	63.8	...	6.9	9.5
Azerbaijan	23.7	24.7	30.1	17.6	7.4	10.2
Georgia	...	36.2	114.5	...	10.6	15.4
Kazakhstan	34.6	76.0	73.6	11.9	13.8	17.1
Kyrgyz Republic	...	54.3	80.8	...	12.4	18.1
Pakistan	12.5	6.5 (2002)	6.0	4.4	3.8 (1998)	2.9
Tajikistan	79.0	21.6	23.9 (2009)	15.3	6.6	6.9 (2009)
Turkmenistan	...	41.1 (2002)	...	...	10.9 (1998)	13.2 (2006)
Uzbekistan	...	...	...	...	...	...
<b>East Asia</b>						
China, People's Rep. of	...	48.9	16.4	...	7.4	4.9
Hong Kong, China	267.4	222.7	211.4	5.6	3.3	1.7
Korea, Rep. of	595.5	617.9	475.9 (2009)	28.8	21.8	11.1
Mongolia	...	249.8	...	...	14.1	21.5 (2007)
Taipei, China	30.6	238.7	800.8 (2009)	19.3	15.3	9.1 (2009)
<b>South Asia</b>						
Bangladesh	1.4 (1993)	4.9	...	1.0 (1993)	2.9	2.0 (2006)
Bhutan	...	33.0	...	...	...	16.4 (2007)
India	33.8	38.5	35.2	6.5	7.8	10.9
Maldives	...	...	...	...	0.6 (2003)	2.7 (2007)
Nepal	...	...	...	...	...	3.4 (2007)
Sri Lanka	213.0	280.2	159.9 (2007)	11.0	11.1	11.2 (2009)
<b>Southeast Asia</b>						
Brunei Darussalam	...	858.0	709.5 (2006)	...	12.3	6.5
Cambodia	2.7	23.2	27.8 (2003)	0.9	3.2	12.8
Indonesia	...	...	27.7	...	4.6 (2003)	8.3
Lao PDR	22.4	82.1	93.6	3.3	6.8	12.5
Malaysia	486.2	1088.9	1380.9 (2008)	22.4	26.2	24.2
Myanmar	...	10.2	18.8	...	2.7	5.1
Philippines	...	18.7	4.5 (2009)	...	1.1	1.4
Singapore	225.5	179.9	170.5 (2009)	7.7	5.3	3.8
Thailand	72.5	120.0	175.0 (2006)	12.5	19.5	10.5
Viet Nam	...	28.6	14.3 (2009)	...	9.6	13.2 (2009)
<b>The Pacific</b>						
Cook Islands	...	...	...	...	...	...
Fiji	...	...	99.2 (2005)	...	9.5 (2004)	12.8
Kiribati	...	...	...	...	...	7.4 (2007)
Marshall Islands	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	1.8 (2007)
Nauru	...	...	...	...	...	...
Palau	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	3.7 (2007)
Samoa	...	...	...	...	...	11.2 (2007)
Solomon Islands	...	...	6.4 (2009)	...	...	3.8 (2007)
Timor-Leste	...	...	...	...	...	...
Tonga	...	315.8 (2002)	329.0 (2004)	...	9.0 (2002)	7.8 (2007)
Tuvalu	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	3.5 (2007)
<b>Developed Member Economies</b>						
Australia	129.4	...	5.5	13.7	9.5	6.1
Japan	520.8	734.6	569.5	9.1	7.2	4.5
New Zealand	385.0	203.0	249.2	21.9	12.0	8.6

... = Data not available at cutoff date.

Source: World Road Statistics (International Road Federation 2012).

Table 5.4 Rail Indicators

Regional Member	Rail Lines (total route, kilometers)			Rail Network, Length per Land Area (kilometers per thousand square kilometers)		
	1990	2000	2011	1990	2000	2011
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	...	...	...	...	...
Armenia	845	842	826	29.7	29.7	29.0
Azerbaijan	...	2116	2079	...	25.6	25.2
Georgia	1583	1562	1566	22.8	22.7	22.5
Kazakhstan	14465	13545	14202	5.4	5.0	5.3
Kyrgyz Republic	...	...	417	...	...	2.2
Pakistan	8775	7791	7791	11.4	10.1	10.1
Tajikistan	...	...	621	...	...	4.4
Turkmenistan	...	2529 (2005)	3115	...	5.4 (2005)	6.6
Uzbekistan	...	3645	4227	...	8.6	9.9
<b>East Asia</b>						
China, People's Rep. of	53378	58656	66239	5.7	6.2	7.1
Hong Kong, China	...	...	...	...	...	...
Korea, Rep. of	3091	3123	3379	31.7	31.6	34.8
Mongolia	1920	1810	1814	1.2	1.2	1.2
Taipei, China	1105	1190	1741	30.6	32.9	48.2
<b>South Asia</b>						
Bangladesh	2746	2768	2835	21.1	21.3	21.8
Bhutan	...	...	...	...	...	...
India	62367	62759	63974	20.9	21.1	21.5
Maldives	...	...	...	...	...	...
Nepal	...	...	...	...	...	...
Sri Lanka	1453	1449 (2004)	1463 (2008)	23.2	23.1	23.3 (2009)
<b>Southeast Asia</b>						
Brunei Darussalam	...	...	...	...	...	...
Cambodia	600	601	650 (2005)	3.4	3.4	3.7 (2006)
Indonesia	...	3370	3370 (2008)	...	...	1.9 (2009)
Lao PDR	...	...	...	...	...	...
Malaysia	1668	1622	1665	5.1	4.9	5.1
Myanmar	3336	...	...	4.9	...	...
Philippines	479	491	479 (2008)	1.6	1.6	1.6 (2009)
Singapore	...	...	...	...	...	...
Thailand	3861	4103	4429	7.3	7.9	8.7
Viet Nam	2832	3142	2347	8.7	8.7	7.6
<b>The Pacific</b>						
Cook Islands	...	...	...	...	...	...
Fiji	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...
Nauru	...	...	...	...	...	...
Palau	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...
Samoa	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...
Tonga	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...
<b>Developed Member Economies</b>						
Australia	6612	9499	8615	0.9	1.2	1.1
Japan	20254	20165	20035	55.8	55.3	55.0
New Zealand	4029	3913	3913 (1999)	15.3	14.9	14.9 (1999)

... = Data not available at cutoff date.

Sources: World Development Indicators Online (World Bank 2013); ADB staff estimates; for Taipei, China: Council for Economic Planning and Development.

## Electricity

Table 5.5 Electricity Production and Sources

Regional Member	Total Electricity		Sources of Electricity (% of total)									
	Production (billion kWh)		Coal		Natural Gas		Oil		Hydropower		Others <sup>a</sup>	
	1990	2010	1990	2010	1990	2010	1990	2010	1990	2010	1990	2010
Developing Member Economies												
Central and West Asia												
Afghanistan	1.1	0.6 (2011)	...	...	...	...	...	...	...	...	...	...
Armenia	10.4	6.5	–	–	16.4	22.2	68.6	–	15.0	39.4	–	38.5
Azerbaijan	23.2	18.7	–	–	–	81.4	97.0	0.2	3.0	18.4	–	–
Georgia	13.7	10.1	–	–	15.6	7.2	29.2	0.3	55.2	92.5	–	–
Kazakhstan	87.4	82.6	71.1	80.7	10.5	8.9	10.0	0.8	8.4	9.7	–	–
Kyrgyz Republic	15.7	11.4	13.1	2.3	23.5	6.7	–	–	63.5	91.0	–	–
Pakistan	37.7	94.5	0.1	0.1	33.6	27.4	20.6	35.2	44.9	33.7	0.8	3.6
Tajikistan	18.1	16.4	–	–	9.1	3.4	–	–	90.9	96.6	–	–
Turkmenistan	14.6	16.7	–	–	95.2	100.0	–	–	4.8	0.0	–	–
Uzbekistan	56.3	51.7	7.4	4.1	76.4	73.5	4.4	1.5	11.8	21.0	–	–
East Asia												
China, People's Rep. of	621.2	4208.3	71.3	77.8	0.4	1.6	7.8	0.3	20.4	17.2	–	3.1
Hong Kong, China	28.9	38.3	98.2	62.1	–	37.6	1.8	0.3	–	–	–	–
Korea, Rep. of	105.4	496.7	16.8	44.1	9.1	20.8	17.9	3.8	6.0	0.7	50.2	30.5
Mongolia	3.5	4.5	92.4	96.0	–	–	7.6	4.0	–	–	–	–
Taipei, China	51.0	250.4 (2012)	...	...	...	...	...	...	...	...	...	...
South Asia												
Bangladesh	7.7	42.3	–	1.5	84.3	89.9	4.3	4.6	11.4	3.9	–	–
Bhutan	1.6	6.8 (2012)	...	...	...	...	...	...	...	...	...	...
India	289.4	959.9	66.2	68.0	3.4	12.3	3.5	2.8	24.8	11.9	2.1	5.0
Maldives	0.0	0.3 (2011)	...	...	...	...	...	...	...	...	...	...
Nepal	0.9	3.2	–	–	–	–	0.1	0.1	99.9	99.9	–	–
Sri Lanka	3.2	10.8	–	–	–	–	0.2	47.5	99.8	52.3	–	0.2
Southeast Asia												
Brunei Darussalam	1.2	3.9	–	–	99.1	99.0	0.9	1.0	–	–	–	–
Cambodia	0.2 (1995)	1.0	–	3.1	–	–	100.0	92.0	...	2.6	...	2.3
Indonesia	32.7	169.8	29.9	40.1	2.2	23.6	46.9	20.3	17.5	10.4	3.4	5.6
Lao PDR	0.8	12.8 (2012)	...	...	...	...	...	...	...	...	...	...
Malaysia	23.0	125.3	12.7	34.4	21.7	56.5	48.3	2.9	17.3	5.2	–	1.0
Myanmar	2.5	7.5	1.6	8.9	39.3	23.0	10.9	0.4	48.1	67.7	–	–
Philippines	26.3	67.7	7.3	34.4	–	28.8	47.2	10.5	23.0	11.5	22.4	14.8
Singapore	15.7	45.4	–	–	–	78.7	98.9	18.7	–	–	1.1	2.6
Thailand	44.2	159.5	25.0	18.8	40.2	74.8	23.5	0.7	11.3	3.5	–	2.1
Viet Nam	8.7	94.9	23.1	20.7	0.1	45.9	15.0	4.2	61.8	29.0	–	0.1
The Pacific												
Cook Islands	0.0	0.0 (2012)	...	...	...	...	...	...	...	...	...	...
Fiji	0.4	0.8 (2011)	...	...	...	...	...	...	...	...	...	...
Kiribati	0.0	0.0	...	...	...	...	...	...	...	...	...	...
Marshall Islands	0.0	0.1 (2006)	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	0.1 (1995)	0.1 (2011)	...	...	...	...	...	...	...	...	...	...
Nauru	0.0	0.0 (2007)	...	...	...	...	...	...	...	...	...	...
Palau	0.2 (1992)	0.2 (2009)	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	1.8	3.0 (2008)	...	...	...	...	...	...	...	...	...	...
Samoa	0.1	0.1 (2011)	...	...	...	...	...	...	...	...	...	...
Solomon Islands	0.0	0.1 (2012)	...	...	...	...	...	...	...	...	...	...
Timor-Leste	0.1 (2006)	0.1 (2011)	...	...	...	...	...	...	...	...	...	...
Tonga	0.0	0.1 (2012)	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	0.0	0.1 (2012)	...	...	...	...	...	...	...	...	...	...
Developed Member Economies												
Australia	154.3	241.5	78.7	74.8	9.3	15.0	2.3	1.3	9.2	5.2	0.5	3.7
Japan	835.5	1110.8	14.0	27.4	20.0	27.4	18.5	7.0	10.7	7.4	36.8	30.8
New Zealand	32.3	44.8	2.1	4.6	17.7	22.0	0.0	0.0	71.9	55.1	8.4	18.3

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, - = Magnitude equals zero, kWh = kilowatt-hour.

a Computed as residual that includes combustible renewables and waste; and geothermal, solar, wind, and other sources.

Sources: World Development Indicators Online (World Bank 2013); Economy sources for Afghanistan; Bhutan; the Cook Islands; Fiji; Kiribati; the Lao PDR; the Maldives; the Marshall Islands; the Federated States of Micronesia; Nauru; Palau; Papua New Guinea; Samoa; Solomon Islands; Taipei, China; Timor-Leste; Tonga; Tuvalu; and Vanuatu.

Table 5.6 **Electric Power Consumption and Electrification**

Regional Member	Electric Power Consumption (per capita kWh)		Household Electrification Rate (% of households)	
	1990	2010	Earliest Year	Latest Year
<b>Developing Member Economies</b>				
<b>Central and West Asia</b>				
Afghanistan	20 (2001)	64 (2011)	...	25.0 (2005)
Armenia	2718	1606	98.9 (2000)	99.8 (2005)
Azerbaijan	2584	1603	97.0 (1999)	99.5 (2006)
Georgia	3039	1743	...	99.9 (2002)
Kazakhstan	5905	4728	99.9 (1995)	97.0 (1999)
Kyrgyz Republic	2331	1375	99.8 (1997)	100.0 (2002)
Pakistan	267	457	59.6 (1990)	89.2 (2006)
Tajikistan	3346	2004	97.0 (1999)	99.3 (2003)
Turkmenistan	2293	2403	...	99.6 (2000)
Uzbekistan	2383	1648	99.6 (1996)	99.7 (2002)
<b>East Asia</b>				
China, People's Rep. of	511	2944	...	...
Hong Kong, China	4178	5923	...	...
Korea, Rep. of	2373	9744	...	...
Mongolia	1540	1530	67.3 (2000)	86.2 (2005)
Taipei, China	4159	10356 (2012)	...	...
<b>South Asia</b>				
Bangladesh	49	279	17.8 (1993)	46.5 (2007)
Bhutan	254	977 (2005)	41.1 (2003)	72.0 (2007)
India	268	616	50.9 (1992)	67.9 (2005)
Maldives	113	521 (2011)	83.8 (2000)	99.8 (2009)
Nepal	35	93	17.9 (1996)	76.3 (2011)
Sri Lanka	154	449	...	80.7 (2002)
<b>Southeast Asia</b>				
Brunei Darussalam	4438	8759	...	...
Cambodia	13 (1995)	146	16.6 (2000)	31.1 (2010)
Indonesia	160	641	48.9 (1991)	91.1 (2007)
Lao PDR	64	103 (1997)	...	46.3 (2002)
Malaysia	1146	4117	...	...
Myanmar	46	131	...	47.0 (2002)
Philippines	363	643	71.3 (1998)	83.3 (2008)
Singapore	4983	8307	...	...
Thailand	703	2243	...	...
Viet Nam	98	1035	78.4 (1997)	96.1 (2005)
<b>The Pacific</b>				
Cook Islands	775	1713 (2012)	...	...
Fiji	607	867 (2011)	...	...
Kiribati	109	171	...	...
Marshall Islands	961	1502 (2006)	...	63.4 (1999)
Micronesia, Fed. States of	...	...	...	...
Nauru	...	...	...	...
Palau	...	...	...	...
Papua New Guinea	485	470 (2008)	...	11.0 (1996)
Samoa	312	521 (2011)	78.8 (1991)	80.0 (1994)
Solomon Islands	102	100 (2012)	...	15.7 (1999)
Timor-Leste	...	79 (2011)	27.0 (2002)	38.0 (2009)
Tonga	250	436 (2012)	...	80.0 (1994)
Tuvalu	124	406 (2006)	...	...
Vanuatu	177	236 (2012)	18.0 (1994)	19.1 (1999)
<b>Developed Member Economies</b>				
Australia	8527	10286	...	...
Japan	6486	8394	...	...
New Zealand	8972	9566	...	...

... = Data not available at cutoff date, kWh = kilowatt-hour.

Sources: World Development Indicators Online (World Bank 2013); Demographic and Health Surveys Online (ICF Macro 2012); Results Measurement System Online (International Development Association 2013); PRISM website ([www.spc.int/prism/country/mh/stats/Utility/Lighting.pdf](http://www.spc.int/prism/country/mh/stats/Utility/Lighting.pdf)); Economy sources for Afghanistan; Bhutan; Cook Islands; Fiji; Kiribati; the Lao PDR; the Maldives; the Marshall Islands; the Federated States of Micronesia; Nauru; Palau; Papua New Guinea; Samoa; Solomon Islands; Taipei, China; Timor-Leste; Tonga; Tuvalu; and Vanuatu.

## Communications

Table 5.7 Telephone and Internet Subscriptions

Regional Member	Fixed Telephone Lines (thousands)		Mobile Cellular Telephone (thousands)		Fixed Broadband Internet (thousands)	
	2000	2012	2000	2012	2000	2012
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	29.0	13.5	0.0	18000.0	0.2 (2004)	1.5 (2010)
Armenia	533.4	584.2	17.5	3322.8	0.0 (2001)	206.4
Azerbaijan	801.2	1733.6	420.4	10125.2	1.0 (2002)	1300.0
Georgia	508.8	1276.1	194.7	4698.6	0.4 (2001)	392.1
Kazakhstan	1834.2	4340.3	197.3	28731.4	1.0 (2003)	1592.1
Kyrgyz Republic	376.1	488.9	9.0	6797.9	0.0 (2002)	142.9
Pakistan	3053.5	5803.3	306.5	120151.2	14.6 (2005)	926.9
Tajikistan	218.5	393.0	1.2	6528.0	0.0 (2003)	5.4
Turkmenistan	364.4	575.0	7.5	3953.0	0.1 (2008)	1.4
Uzbekistan	1655.0	1963.4	53.1	20274.1	2.8 (2003)	202.7
<b>East Asia</b>						
China, People's Rep. of	144829.0	278858.6	85260.0	1100000.0	22.7	175624.8
Hong Kong, China	3925.8	4361.7	5447.3	16403.1	444.5	2270.7
Korea, Rep. of	25863.0	30099.2	26816.4	53624.4	3870.0	18252.2
Mongolia	117.5	176.7	154.6	3375.2	0.0 (2001)	104.3
Taipei, China	12642.2	15997.6	17873.8	29455.2	229.0	5561.7
<b>South Asia</b>						
Bangladesh	491.3	961.6	279.0	97180.0	43.7 (2007)	516.6
Bhutan	14.1	27.0	0.0	560.9	2.1 (2008)	16.8
India	32436.1	31080.0	3577.1	864720.0	50.0 (2001)	14306.0
Maldives	24.4	23.1	7.6	560.5	0.2 (2002)	17.9
Nepal	266.9	845.0	10.2	16380.0	1.0 (2006)	124.0
Sri Lanka	767.4	3449.4	430.2	20324.1	0.3 (2001)	423.2
<b>Southeast Asia</b>						
Brunei Darussalam	80.5	70.9	95.0	469.7	1.9 (2001)	19.8
Cambodia	30.9	584.5	130.5	19105.1	0.1 (2002)	29.7
Indonesia	6662.6	37982.9	3669.3	281963.7	4.0	2983.0
Lao PDR	40.9	112.0	12.7	6492.0	0.0 (2003)	93.2
Malaysia	4628.0	4588.9	5121.7	41324.7	4.0 (2001)	2459.9
Myanmar	271.4	556.0	13.4	5440.0	0.2 (2005)	5.4
Philippines	3061.4	3939.0	6454.4	103000.0	10.0 (2001)	2146.6
Singapore	1946.0	1989.5	2747.4	8063.0	69.0	1371.0
Thailand	5591.1	6391.0	3056.0	84075.0	1.6 (2001)	4357.4
Viet Nam	2542.7	10191.0	788.6	134066.0	1.1 (2002)	4446.6
<b>The Pacific</b>						
Cook Islands	...	...	...	...	...	...
Fiji	86.4	88.4	55.1	858.8	7.0 (2005)	13.5
Kiribati	3.4	9.0	0.3	16.0	0.0	1.0
Marshall Islands	4.0	5.5 (2004)	0.4	0.7 (2005)	0.0	0.0
Micronesia, Fed. States of	9.6	8.4	0.0	27.6	0.0 (2003)	1.0 (2010)
Nauru	1.8	1.9 (2009)	1.2	6.8	0.0	0.4 (2010)
Palau	6.9 (2002)	7.3	2.5 (2002)	17.2	0.1 (2004)	0.6
Papua New Guinea	64.8	139.0	8.6	2709.0	3.0 (2008)	9.2
Samoa	8.5	19.5 (2005)	2.5	86.0 (2007)	0.0 (2004)	0.2 (2010)
Solomon Islands	7.7	8.1	1.2	302.1	0.2 (2004)	2.1
Timor-Leste	2.0 (2003)	3.0	20.1 (2003)	621.0	0.0 (2003)	0.6
Tonga	9.7	30.0	0.2	56.0	0.0 (2002)	1.5
Tuvalu	0.7	1.5	0.0	2.8	0.1 (2004)	0.6
Vanuatu	6.6	5.8	0.4	137.0	0.0 (2003)	2.6
<b>Developed Member Economies</b>						
Australia	10050.0	10471.0	8562.0	24338.0	122.8 (2001)	5743.0
Japan	61957.1	64273.1	66784.4	138362.8	854.7	35295.5
New Zealand	1831.0	1880.0	1542.0	4922.0	4.7	1240.0

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

Sources: International Telecommunication Union World Telecommunication/ICT Indicators Database (International Telecommunication Union 2013).

## Energy and Environment

### Snapshots

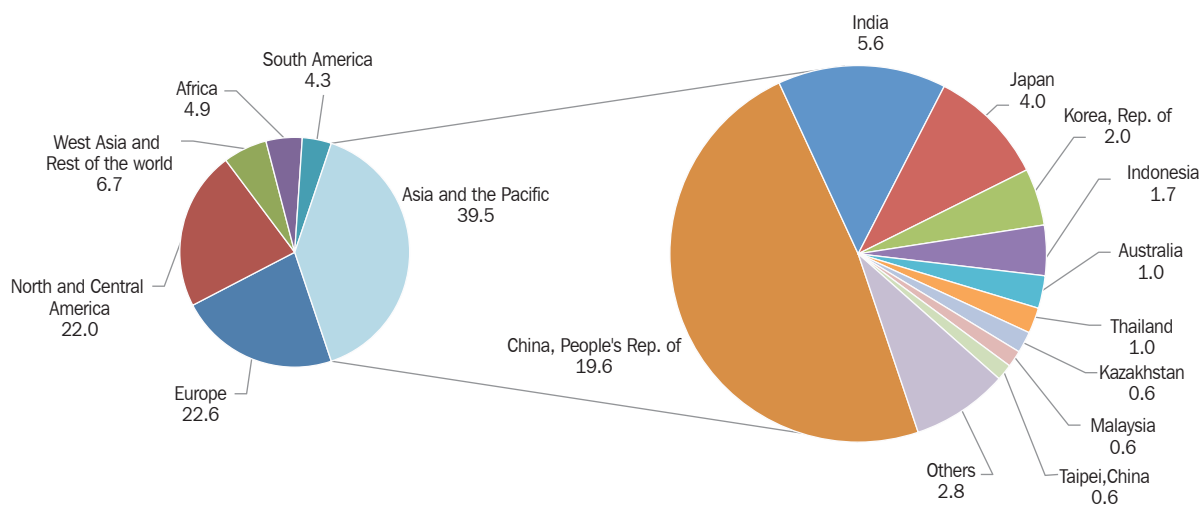
- The Asia and Pacific region accounts for almost 40% of global energy demand.
- Most economies in the region rely on imports of energy and the biggest energy users have increased their dependence on imports since 2000.
- Energy efficiency—gross domestic product (GDP) per unit of energy—has improved in most economies.
- Seven economies subsidize fossil fuels by more than 30% of the fuels' supply cost.
- Greenhouse gas (GHG) emissions continued to rise, but most economies eliminated ozone-depleting chlorofluorocarbons (CFCs).

### Key trends

**The region accounted for almost 40% of global energy demand in 2010.** This far exceeded the shares of Europe and North America, which were about 22% each (Figure 6.1). Due to growth in income and population in the People's Republic of China (PRC)

during the last 2 decades, its share of regional energy use has increased to almost half of the total. In terms of total demand, the PRC consumes over three times that of India and almost five times that of Japan.

Figure 6.1 **Energy use by global region and by economy in Asia and the Pacific, 2010**  
(kilotons of oil equivalent, %)



Note: The aggregate for the West Asia region was adjusted to exclude estimates for Armenia, Azerbaijan, and Georgia, which are included in the total for Asia and the Pacific.

Sources: Table 6.4 and World Development Indicators Online (World Bank 2013).

Figure 6.2 shows the average annual percentage growth of energy use and production of 29 reporting economies between 2000 and 2010. The PRC, Kazakhstan, and Viet Nam recorded high average annual growth in energy use of about 7%. On the production side, energy output increased by a rapid 24% annually in Mongolia, a producer and exporter of coal, and by 13% annually in Azerbaijan, which produces and exports hydrocarbons.

**Most Asian economies require imports to meet energy demand.** Figure 6.3 shows net imports as a percentage of each economy's domestic energy use from 2008 to 2010. Bars to the left are for 11 economies that are not energy exporters. Two economies—Hong Kong,

China and Singapore—import nearly all their energy requirements. The four biggest energy users—the PRC, India, Japan, and the Republic of Korea—account for almost 80% of total regional energy use and all four increased their import dependence since 2000 (Table 6.3). In particular, the region is a major importer of oil and these imports are rising. On current demand trends, regional oil imports could nearly triple from 11 million barrels a day to more than 30 million barrels a day by 2035, given that Asia only has an estimated 16% of the world's proven conventional gas reserves and 15% of technically recoverable oil and gas liquids (ADB 2013). The region is quite vulnerable to interruptions in global supplies. Dependence on oil imports can be addressed

Figure 6.2 Average annual growth of energy production and energy use, 2000–2010 (kilotons of oil equivalent, %)

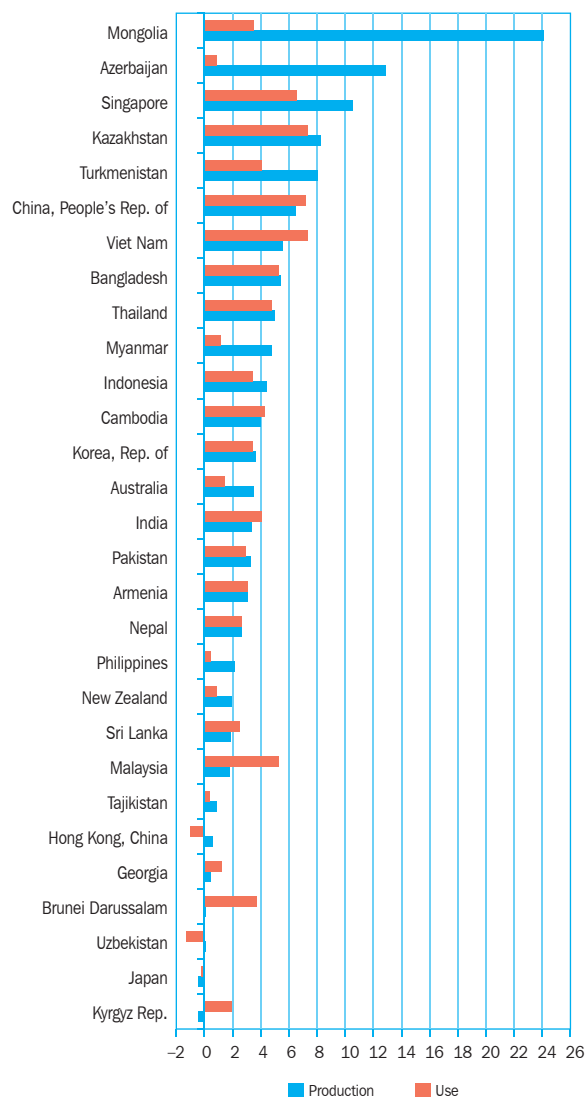
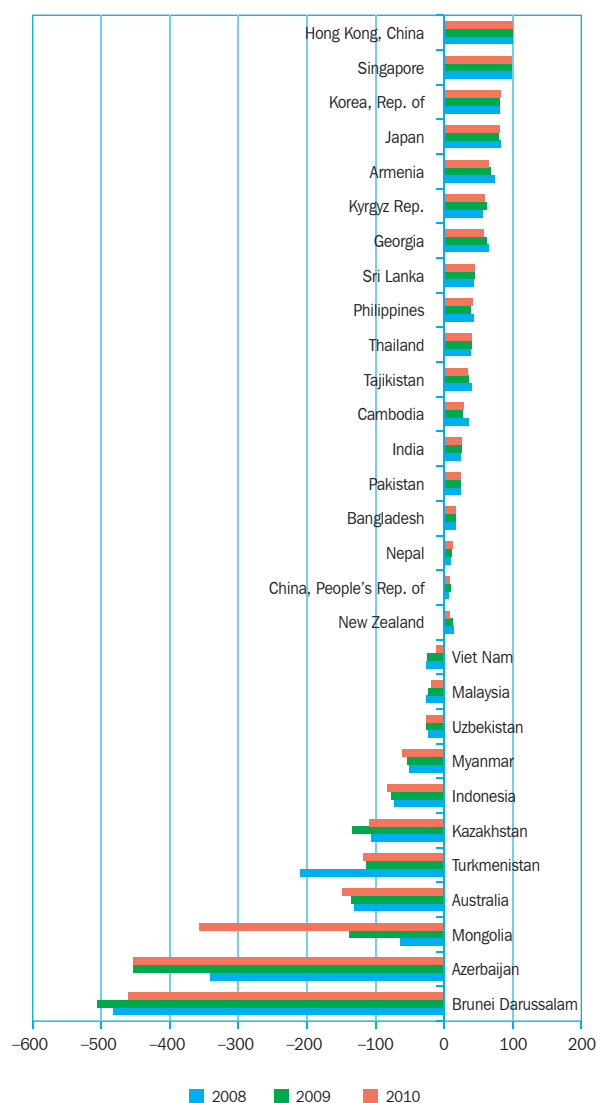
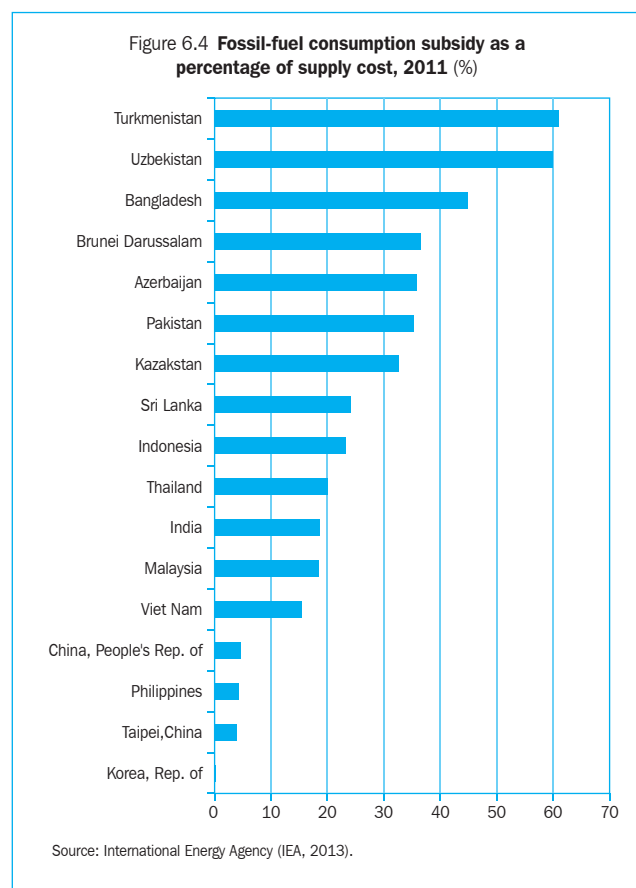


Figure 6.3 Net energy imports as a percentage of energy use, 2008–2010



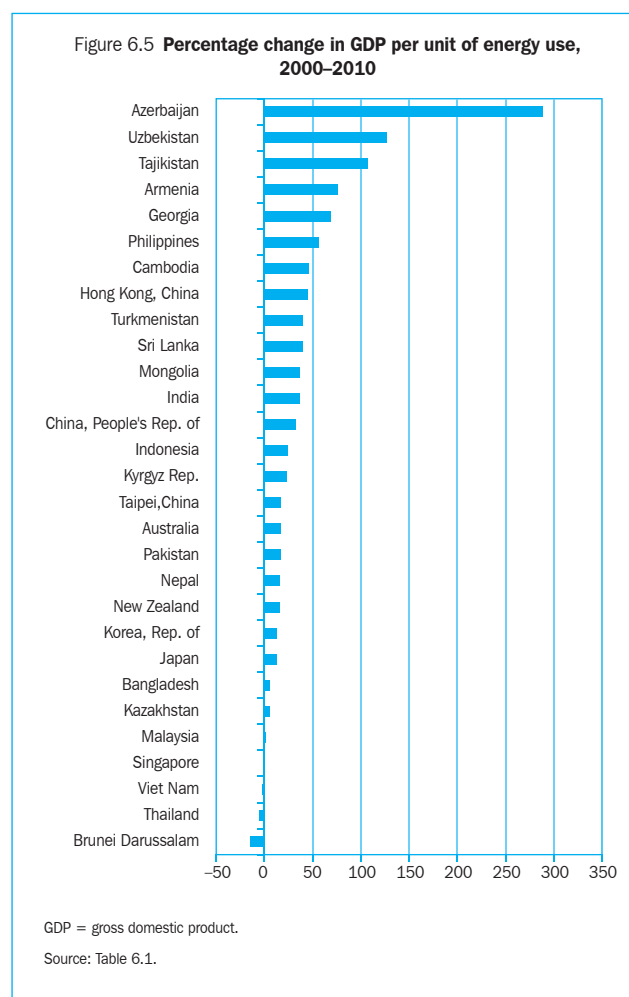
by measures such as reducing subsidies on energy, investing in “green” urban development and transport, tapping more energy from renewable and local sources, and fostering regional cooperation and integration in energy supplies.

**Seven economies in Asia subsidize fossil fuels by more than 30% of the fuels’ supply cost.** Figure 6.4 shows the subsidy rates for 17 economies. In Turkmenistan and Uzbekistan, consumers pay only 40% of the price prevailing on the international market. Fuel subsidies have several drawbacks. They encourage consumption while ignoring the negative externalities to the environment. By underpricing fossil fuels, subsidies deter investment and innovation in cleaner energy sources. Subsidies stimulate fuel imports or reduce exports, hurting national trade balances, and they drain government resources that could be used for social and economic development. Moreover, unless subsidies are well targeted, they can benefit the relatively rich rather than the poor.



**Energy efficiency has improved in most economies.** Efficiency in energy use is influenced by several factors, including changes in industrial structure, technology, and energy mix. Agriculture and services tend to generate higher GDP per unit of energy than manufacturing. Figure 6.5 shows the changes in GDP per unit of energy between 2000 and 2010. Several economies that recorded the biggest improvements in efficiency had access to cheap energy as states of the former Soviet Union, and their more efficient use in recent years can be partly attributed to increases in energy prices.

Energy efficiency improvements of at least 30% were observed in Cambodia, the PRC, India, the Philippines, and Sri Lanka. (Gains in the PRC came from a low base and its energy productivity remains relatively low.) Table 6.1 shows that in 2010, seven economies in Asia recorded energy efficiency in 2010 in excess of



the global average of 6.9, measured in GDP per unit of energy use. They were Bangladesh; Hong Kong, China; Japan; the Philippines; Singapore; Sri Lanka; and Taipei, China.

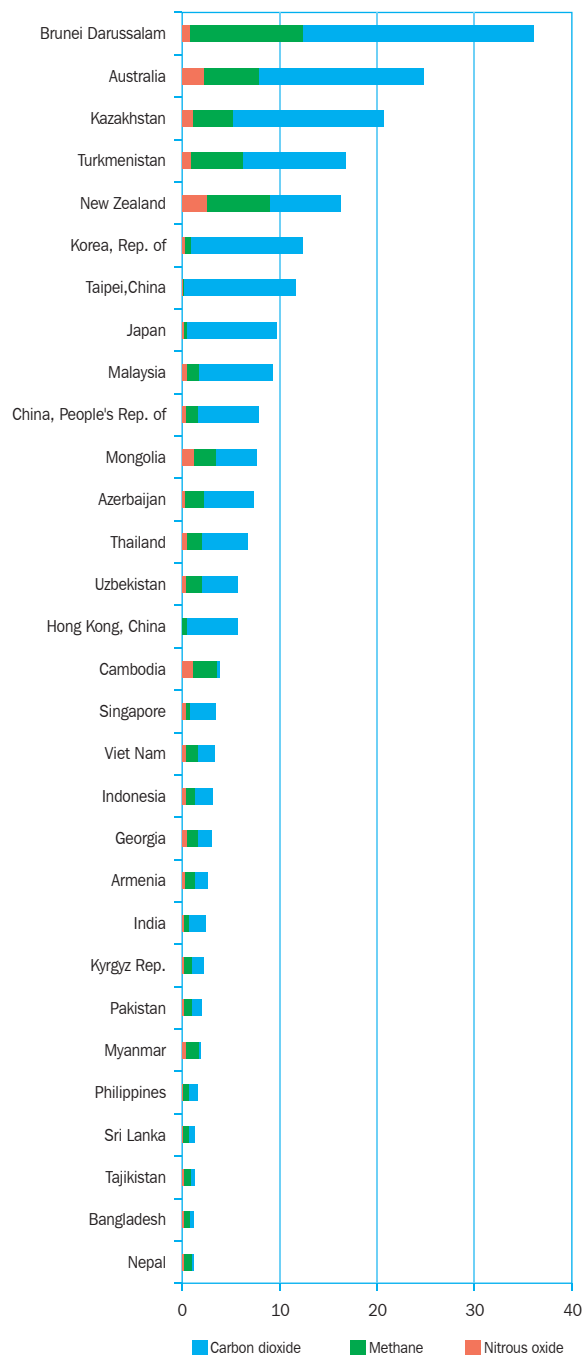
**Asia's economic development has brought about rising emissions of GHGs.** Figure 6.6 presents per capita emissions of carbon dioxide plus the carbon dioxide equivalents of the two other main GHGs—nitrous oxide and methane gas—for 2010. The highest per capita emitters were Brunei Darussalam, Australia, and Kazakhstan. Per capita emissions increased in most of the reporting economies between 2005 and 2010, with Cambodia (77%), the PRC (35%), and Viet Nam (30%) registering the highest increases. Per capita GHG emissions fell by 56% in Singapore between 2005 and 2010.

GHG emissions contribute to global climate change, which is expected to cause rising sea levels and more severe storms, droughts, heat waves, and floods. The World Bank has projected that an increase in global temperatures of 2 degrees C, which it said is possible within 20–30 years, would cause widespread food shortages that hit the poor the hardest (World Bank 2013).

While limited progress has so far been made on reducing GHG emissions, Table 6.6 shows that most economies in the region have eliminated ozone-depleting CFCs, which were previously used in a range of products from aerosols to refrigeration.

**Half the economies in the region expanded the area devoted to agriculture between 2000 and 2011.** Changes in dietary preferences and increases in food prices were among the factors that stimulated the expansion of land used for crops and pastures as a percentage of total land area. This trend is most notable in relatively small economies, but is also observed in Indonesia, the Philippines, and Thailand (Table 6.5).

Figure 6.6 Per capita emissions of carbon dioxide, methane, and nitrous oxide, 2010 (tons)



Sources: Table 6.6 and MDG Table 7.1.

## Data issues and comparability

Most of the energy data are compiled by the International Energy Agency using standard procedures and conversion factors. Statistics of CFC consumption are collected by the United Nations Industrial Development Organization as part of the process of monitoring the 2006 Montreal Protocol on limiting CFC emissions. Other United Nations agencies monitor outputs of GHGs and other pollutants.

Statistics on water pollution are based on analyses of water drawn from sites in samples of lakes and rivers.

It is expensive to identify and maintain a sample of sites that accurately measure nationwide water pollution. Comparability between countries is generally less than comparable over time for a single country.

The Food and Agricultural Organization of the United Nations monitors land use and forestry data using country reports and satellite imagery.

## Energy

**Table 6.1 GDP Per Unit of Energy Use**  
(constant 2005 PPP \$ per kilogram of oil equivalent)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	...	...	...	...	...	...	...	...	...
Armenia	1.4	3.4	3.5	5.0	5.6	5.7	5.8	5.7	6.2
Azerbaijan	1.3	1.1	1.8	2.7	3.8	5.2	5.3	6.6	6.8
Georgia	2.4	2.2	3.9	5.5	5.7	5.8	6.6	6.2	6.5
Kazakhstan	1.6	1.4	2.3	2.6	2.4	2.4	2.3	2.6	2.4
Kyrgyz Republic	1.5	2.4	3.1	3.3	3.4	3.4	3.9	3.7	3.8
Pakistan	4.2	4.2	4.2	4.5	4.6	4.6	4.8	4.8	4.9
Tajikistan	3.0	2.7	2.8	4.1	3.4	3.9	4.9	5.4	5.8
Turkmenistan	1.3	1.0	1.2	1.2	1.4	1.3	1.4	1.8	1.7
Uzbekistan	0.9	0.8	0.8	1.1	1.1	1.3	1.3	1.6	1.8
<b>East Asia</b>									
China, People's Rep. of	1.4	2.1	2.8	3.1	3.2	3.4	3.6	3.7	3.8
Hong Kong, China	15.8	16.7	15.1	19.6	19.9	19.7	20.4	18.9	21.8
Korea, Rep. of	5.2	4.9	4.7	5.2	5.4	5.5	5.5	5.4	5.3
Mongolia	1.6	1.7	2.2	2.8	2.7	2.8	3.0	2.9	3.0
Taipei, China	...	...	9.3	9.8	10.1	10.0	10.6	10.5	10.9
<b>South Asia</b>									
Bangladesh	6.2	6.1	6.8	6.9	6.9	7.0	7.1	7.1	7.1
Bhutan	17.2	...	...	11.2	11.6	11.8	...	...	...
India	3.3	3.5	4.0	4.7	4.9	5.0	5.0	5.0	5.4
Maldives	...	...	...	6.9	6.5	6.9	...	...	...
Nepal	2.3	2.6	2.7	2.8	3.0	3.0	3.1	3.1	3.2
Sri Lanka	6.3	7.5	6.9	7.7	8.3	8.7	9.5	9.7	9.6
<b>Southeast Asia</b>									
Brunei Darussalam	7.2	6.4	6.5	7.6	5.6	5.5	5.0	5.7	5.5
Cambodia	...	3.2	3.8	5.9	6.5	7.1	7.5	5.4	5.5
Indonesia	3.8	4.1	3.6	3.9	4.0	4.3	4.5	4.4	4.5
Lao PDR	...	...	...	...	...	...	...	...	...
Malaysia	5.8	5.8	5.3	4.9	5.2	5.0	5.1	5.2	5.4
Myanmar	1.3	1.5	2.1	3.1	3.6	4.0	4.4	5.0	...
Philippines	5.5	5.2	5.2	6.7	7.1	7.6	7.6	8.1	8.2
Singapore	6.7	6.2	8.2	8.6	8.9	10.5	9.8	8.4	8.1
Thailand	5.4	5.5	4.8	4.5	4.6	4.7	4.7	4.6	4.5
Viet Nam	3.3	4.0	4.3	4.3	4.5	4.6	4.5	4.4	4.2
<b>The Pacific</b>									
Cook Islands	...	...	...	...	...	...	...	...	...
Fiji	8.8	...	...	6.2	6.5	6.9	...	...	...
Kiribati	19.5	...	...	26.1	20.8	19.3	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...	...
Samoa	9.8	...	...	12.1	12.4	12.4	...	...	...
Solomon Islands	13.6	...	...	16.8	17.7	18.0	...	...	...
Timor-Leste	...	...	...	16.7	15.9	17.2	...	...	...
Tonga	11.2	...	...	7.5	7.4	6.9	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...
Vanuatu	21.6	...	...	24.6	25.6	24.1	...	...	...
<b>Developed Member Economies</b>									
Australia	4.7	5.0	5.2	5.8	5.9	5.9	5.9	5.9	6.1
Japan	7.5	7.1	7.1	7.5	7.6	7.8	8.1	8.0	7.9
New Zealand	5.0	5.1	5.0	6.2	6.2	6.3	6.1	6.1	5.9
<b>WORLD</b>	<b>4.2</b>	<b>4.5</b>	<b>4.9</b>	<b>5.2</b>	<b>5.3</b>	<b>5.4</b>	<b>5.5</b>	<b>5.5</b>	<b>6.9</b>

... = Data not available at cutoff date, GDP = gross domestic product, PPP = purchasing power parity.

Sources: World Development Indicators Online (World Bank 2013); ADB staff estimates for Taipei, China.

**Table 6.2 Energy Production**  
(kilotons of oil equivalent)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	...	...	...	...	...	...	...	...	...
Armenia	137	245	632	861	846	826	797	825	870
Azerbaijan	20641	14725	18962	27229	38127	52119	58604	64545	65436
Georgia	2016	1194	1324	980	927	1073	1077	1185	1312
Kazakhstan	90975	63850	78575	118570	127793	132120	144369	147948	156750
Kyrgyz Republic	2502	1259	1443	1447	1488	1427	1190	1161	1182
Pakistan	34178	41045	46919	61477	61906	64210	62167	63645	64303
Tajikistan	2026	1329	1264	1546	1519	1574	1488	1503	1510
Turkmenistan	73005	32836	45968	61137	59989	65817	68410	41066	46293
Uzbekistan	38643	48655	54945	56396	58478	59791	62020	56804	55147
<b>East Asia</b>									
China, People's Rep. of	886292	1066178	1063987	1622911	1728257	1824494	1950577	2044831	2208962
Hong Kong, China	43	47	50	51	51	52	52	52	53
Korea, Rep. of	22623	21148	34376	42935	43727	42604	44731	44313	44922
Mongolia	2749	2256	1916	3421	3745	4476	5185	7768	14974
Taipei, China	10748	10913	11476	13152	13389	14249	13727	13801	13625
<b>South Asia</b>									
Bangladesh	10758	12777	15156	19344	21230	22132	23247	24601	25812
Bhutan	...	...	...	...	...	...	...	...	...
India	291816	335773	366405	422377	437873	452732	470915	505405	518671
Maldives	...	...	...	...	...	...	...	...	...
Nepal	5501	6138	7138	8152	8295	8463	8643	8822	8984
Sri Lanka	4191	4022	4748	4920	5155	5076	5072	5108	5540
<b>Southeast Asia</b>									
Brunei Darussalam	15642	18241	19684	21060	22317	20747	21126	18939	18559
Cambodia	...	2901	3203	3479	3536	3594	2278	3603	3621
Indonesia	168509	214479	236618	279941	313989	318304	323632	351828	381446
Lao PDR	1085	1244	1652	1843	1941	739	710	721	721
Malaysia	47341	62372	74298	91385	88964	88947	91895	86070	85878
Myanmar	10654	10999	15405	23120	22951	23849	22591	21972	22530
Philippines	17225	15820	19549	21403	21398	22147	22980	23476	23417
Singapore	58	168	168	316	328	335	360	366	404
Thailand	26578	33194	44033	54961	56854	59967	65488	64605	70559
Viet Nam	18280	26432	39919	60759	61937	63151	61500	66453	65874
<b>The Pacific</b>									
Cook Islands	...	...	...	...	...	...	...	...	...
Fiji	235	321	269	250	262	44	43	40	40
Kiribati	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...
Palau	...	2	2	2	2	2	2	2	2
Papua New Guinea	4611	4897	3866	2894	3396	2636	2833	2749	1407
Samoa	18	19	20	20	20	5	5	5	5
Solomon Islands	75	76	78	78	78	...	...	...	...
Timor-Leste	...	...	...	7318	7408	7421	7447	7418	7418
Tonga	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...
Vanuatu	5	5	20	20	20	0	1	1	1
<b>Developed Member Economies</b>									
Australia	157523	186898	233553	280114	281480	298607	286362	297081	310615
Japan	79236	101724	104795	101450	90626	88710	93965	96791	47539
New Zealand	11459	12735	14118	12575	13066	14024	14966	15289	16857

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed.

Sources: World Development Indicators Online (World Bank 2013); for Papua New Guinea; and Taipei, China: Asia Pacific Energy Research Center; Fiji; the Lao PDR; Palau; Samoa; Solomon Islands; Timor-Leste; and Vanuatu: *Energy Statistics in Asia and the Pacific 1990–2006* (Asian Development Bank 2009) and *Energy Statistics Yearbook* (UNSD 2009).

## Energy

**Table 6.3 Energy Imports, Net**  
(% of energy use)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	...	...	...	...	...	...	...	...	...
Armenia	98.2	85.0	68.5	65.6	66.8	71.0	73.4	68.3	64.4
Azerbaijan	21.3	-15.4	-65.8	-96.3	-182.1	-328.4	-341.3	-452.7	-452.8
Georgia	83.0	67.8	53.8	65.5	69.4	67.8	64.2	61.7	57.9
Kazakhstan	-24.3	-22.1	-119.0	-131.3	-106.0	-97.9	-105.6	-133.6	-109.0
Kyrgyz Republic	66.6	47.2	39.9	45.6	44.8	51.7	56.4	61.4	59.5
Pakistan	20.2	23.4	26.1	19.3	22.2	23.7	23.8	24.3	24.0
Tajikistan	61.8	40.3	41.2	34.2	37.5	39.5	39.8	35.6	34.6
Turkmenistan	-281.4	-136.3	-216.9	-230.3	-217.6	-200.2	-209.5	-113.0	-117.3
Uzbekistan	16.7	-14.3	-8.3	-20.1	-19.7	-22.8	-22.8	-26.5	-25.9
<b>East Asia</b>									
China, People's Rep. of	-2.7	-1.8	2.8	4.3	6.8	7.1	6.5	9.1	8.6
Hong Kong, China	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
Korea, Rep. of	75.7	85.4	81.7	79.6	79.5	80.8	80.3	80.7	82.0
Mongolia	19.5	16.6	18.9	-33.6	-30.7	-47.1	-64.3	-138.9	-357.1
Taipei, China	...	...	...	...	...	...	...	...	...
<b>South Asia</b>									
Bangladesh	15.5	19.6	18.5	19.0	16.4	16.5	16.4	16.4	16.9
Bhutan	...	...	...	...	...	...	...	...	...
India	7.9	12.6	19.9	21.5	22.5	24.1	24.8	25.1	25.1
Maldives	...	...	...	...	...	...	...	...	...
Nepal	5.0	8.5	12.0	10.7	9.0	8.9	10.0	11.4	12.1
Sri Lanka	24.0	32.4	43.0	45.3	43.3	45.2	43.3	43.8	43.9
<b>Southeast Asia</b>									
Brunei Darussalam	-787.5	-688.9	-702.2	-729.4	-586.0	-524.8	-482.2	-506.4	-459.9
Cambodia	...	14.0	19.5	26.9	28.3	29.6	35.2	26.6	27.9
Indonesia	-66.9	-60.1	-51.7	-54.4	-67.1	-69.0	-73.1	-77.2	-83.5
Lao PDR	...	...	...	...	...	...	...	...	...
Malaysia	-121.8	-73.9	-61.1	-46.3	-41.2	-29.6	-25.9	-23.2	-18.2
Myanmar	0.0	6.5	-23.2	-44.8	-48.4	-53.1	-50.3	-54.2	-61.0
Philippines	40.4	53.4	51.6	45.4	44.9	41.9	42.6	38.4	42.1
Singapore	100.0	100.0	99.9	99.8	99.8	99.8	98.5	98.7	98.8
Thailand	36.6	46.4	39.2	42.8	42.1	41.3	39.2	39.8	39.9
Viet Nam	-1.7	-15.2	-30.3	-36.8	-38.4	-31.4	-25.6	-24.3	-11.2
<b>The Pacific</b>									
Cook Islands	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>									
Australia	-82.7	-101.9	-116.0	-134.2	-130.1	-139.0	-130.5	-135.8	-149.0
Japan	82.9	80.1	79.6	80.7	80.5	82.4	82.1	80.1	80.5
New Zealand	10.7	14.7	16.1	24.0	22.4	17.1	14.1	12.4	7.4

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

Source: World Development Indicators Online (World Bank 2013).

**Table 6.4 Energy Use**  
(kilotons of oil equivalent)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	...	...	...	...	...	...	...	...	...
Armenia	7697	1632	2003	2505	2546	2845	2997	2601	2445
Azerbaijan	26236	12764	11435	13871	13515	12166	13281	11678	11838
Georgia	12425	3731	2872	2841	3033	3344	3005	3096	3118
Kazakhstan	72746	51978	35582	50739	61397	66099	70205	63324	75008
Kyrgyz Republic	7486	2384	2402	2658	2694	2953	2730	3010	2918
Pakistan	42827	53576	63525	76174	79547	84199	81611	84072	84595
Tajikistan	5308	2225	2149	2350	2432	2602	2471	2333	2308
Turkmenistan	19630	13898	14507	18511	18889	21924	22102	19283	21307
Uzbekistan	46365	42572	50741	46951	48853	48701	50502	44921	43787
<b>East Asia</b>									
China, People's Rep. of	862956	1047246	1094871	1696389	1853975	1963992	2086108	2249320	2417126
Hong Kong, China	8658	10650	13392	12664	13330	14338	14139	14933	13792
Korea, Rep. of	93087	144756	188075	210102	213524	222146	226946	229178	250010
Mongolia	3416	2704	2364	2625	2925	3114	3156	3252	3276
Taipei, China	29302	37761	53558	62206	63321	67848	64332	63990	68090
<b>South Asia</b>									
Bangladesh	12736	15897	18603	23878	25387	26492	27794	29422	31053
Bhutan	56	413	1062	204	211	244	221	251	251
India	316743	384285	457214	537909	565000	596557	626082	675195	692689
Maldives	51	85	147	225	288	299	323	340	340
Nepal	5789	6712	8108	9132	9119	9291	9599	9960	10218
Sri Lanka	5516	5949	8327	9001	9084	9262	8942	9089	9870
<b>Southeast Asia</b>									
Brunei Darussalam	1762	2312	2454	2539	3253	3320	3629	3123	3314
Cambodia	...	2837	3412	3436	3429	3482	3514	4907	5024
Indonesia	101328	134971	155692	181381	187736	188312	186919	198514	207849
Lao PDR	1150	1322	1454	1773	1656	573	618	666	666
Malaysia	21988	37112	47271	62552	63897	69528	73006	69858	72645
Myanmar	10656	11768	12500	15968	15463	15574	15033	14246	13997
Philippines	28892	33982	40424	39178	38849	38142	40009	38102	40477
Singapore	11456	18641	19246	18612	19268	15652	23828	27478	32774
Thailand	41946	61913	72370	96017	98183	102207	107656	107300	117429
Viet Nam	17866	21885	28736	41455	42475	45777	48984	53449	59230
<b>The Pacific</b>									
Cook Islands	...	...	...	...	...	...	...	...	...
Fiji	286	242	289	578	559	524	380	305	305
Kiribati	7	0	0	8	10	11	18	18	18
Marshall Islands	...	...	...	29	30	32	33	33	33
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...
Nauru	33	34	33	35	46	47	47	48	48
Palau	73	26	27	43	69	71	71	71	71
Papua New Guinea	613	689	880	1115	1129	1141	1144	1162	1431
Samoa	43	9	49	57	57	58	58	59	59
Solomon Islands	53	69	108	58	59	64	63	64	64
Timor-Leste	...	...	...	58	59	61	63	61	61
Tonga	25	29	29	57	57	58	58	58	58
Tuvalu	...	...	...	...	...	...	...	...	...
Vanuatu	23	0	5	30	31	35	41	40	40
<b>Developed Member Economies</b>									
Australia	86226	92556	108111	119592	122325	124945	124236	125978	124728
Japan	439315	496247	518946	520515	519778	515171	495352	472101	496849
New Zealand	12825	14934	16820	16555	16847	16908	17413	17457	18198

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed.

Sources: World Development Indicators Online (World Bank 2013); for Papua New Guinea; and Taipei, China: Asia Pacific Energy Research Center; Fiji; the Lao PDR; Palau; Samoa; Solomon Islands; Timor-Leste; and Vanuatu: *Energy Statistics in Asia and the Pacific 1990–2006* (Asian Development Bank 2009) and *Energy Statistics Yearbook* (UNSD 2009).

## Environment

**Table 6.5 Agriculture Land Use**  
(% of land area)

Regional Member	Agricultural Land			Arable Land			Permanent Cropland		
	1990	2000	2011	1990	2000	2011	1990	2000	2011
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	58.3	57.9	58.1	12.1	11.8	11.9	0.2	0.1	0.2
Armenia	41.1 (1992)	46.5	60.1	14.9 (1992)	15.8	15.1	2.1 (1992)	1.3	1.9
Azerbaijan	53.4 (1992)	57.4	57.7	20.5 (1992)	22.1	22.8	3.7 (1992)	1.3	2.7
Georgia	46.5 (1992)	43.2	35.5	11.4 (1992)	11.4	6.0	4.8 (1992)	3.9	1.7
Kazakhstan	82.0 (1992)	76.6	77.5	13.0 (1992)	8.0	8.9	0.1 (1992)	0.1	0.1
Kyrgyz Republic	52.6 (1992)	55.9	55.9	6.9 (1992)	7.1	6.7	0.4 (1992)	0.3	0.3
Pakistan	33.6	35.0	34.4	26.6	27.6	26.9	0.6	0.9	1.1
Tajikistan	32.1 (1992)	32.7	34.7	6.1 (1992)	5.6	6.1	0.9 (1992)	0.7	0.9
Turkmenistan	68.6 (1992)	68.9	69.5	2.9 (1992)	3.4	4.0	0.1 (1992)	0.1	0.1
Uzbekistan	65.2 (1992)	64.2	62.7	10.5 (1992)	10.5	10.1	0.9 (1992)	0.8	0.8
<b>East Asia</b>									
China, People's Rep. of	54.2	56.3	55.7	13.3	13.0	12.0	0.8	1.2	1.6
Hong Kong, China	...	...	...	...	...	...	...	...	...
Korea, Rep. of	22.1	20.0	18.1	19.8	17.4	15.4	1.6	2.0	2.1
Mongolia	80.9	84.0	73.1	0.9	0.8	0.4	0.0	0.0	0.0
Taipei, China <sup>a</sup>	24.6	23.5	22.3	...	...	...	...	...	...
<b>South Asia</b>									
Bangladesh	79.8	72.2	70.1	72.6	64.1	58.6	2.5	3.5	6.9
Bhutan	9.7	13.2	13.5	2.9	2.6	2.5	0.4	0.5	0.5
India	60.9	61.4	60.5	54.8	54.7	52.9	2.2	3.1	4.1
Maldives	26.7	30.0	23.3	10.0	10.0	10.0	13.3	16.7	10.0
Nepal	29.0	29.5	29.7	16.0	16.4	16.4	0.5	0.7	0.8
Sri Lanka	37.3	37.5	41.8	14.4	14.6	19.1	15.9	15.9	15.6
<b>Southeast Asia</b>									
Brunei Darussalam	2.1	1.9	2.2	0.4	0.4	0.6	0.8	0.8	0.9
Cambodia	25.2	27.0	32.0	20.9	21.0	22.7	0.6	0.8	0.9
Indonesia	24.9	25.2	30.1	11.2	11.3	13.0	6.5	7.7	11.0
Lao PDR	7.2	8.0	10.3	3.5	3.8	6.1	0.3	0.4	0.4
Malaysia	22.0	24.0	24.0	5.2	5.5	5.5	16.0	17.6	17.6
Myanmar	16.0	16.5	19.2	14.6	15.2	16.5	0.8	0.9	2.2
Philippines	37.4	37.5	40.6	18.4	16.9	18.1	14.8	15.6	17.4
Singapore	3.0	1.8	1.0	1.5	1.5	0.9	1.5	0.3	0.1
Thailand	41.9	38.8	41.2	34.2	30.6	30.8	6.1	6.6	8.8
Viet Nam	20.7	28.2	35.0	16.4	19.9	21.0	3.2	6.2	11.9
<b>The Pacific</b>									
Cook Islands	25.0	25.0	12.5	8.3	12.5	8.3	16.7	12.5	4.2
Fiji	22.4	23.4	23.4	8.8	9.3	9.2	4.4	4.5	4.7
Kiribati	48.1	42.0	42.0	2.5	2.5	2.5	45.7	39.5	39.5
Marshall Islands	72.2 (1995)	72.2	72.2	5.6 (1995)	5.6	11.1	44.4 (1995)	44.4	44.4
Micronesia, Fed. States of	32.1 (1995)	32.1	31.4	3.6 (1995)	3.6	2.9	24.3 (1995)	24.3	24.3
Nauru	20.0	20.0	20.0	—	—	—	20.0	20.0	20.0
Palau	10.9 (1995)	10.9	10.9	2.2 (1995)	2.2	2.2	4.3 (1995)	4.3	4.3
Papua New Guinea	1.9	2.2	2.6	0.4	0.5	0.7	1.2	1.4	1.5
Samoa	19.1	17.0	12.4	6.7	4.9	2.8	11.7	11.0	7.8
Solomon Islands	2.4	2.7	3.3	0.4	0.5	0.6	1.9	2.0	2.3
Timor-Leste	21.4	22.7	24.2	7.4	8.1	10.1	3.9	4.5	4.0
Tonga	44.4	41.7	43.1	22.2	20.8	22.2	16.7	15.3	15.3
Tuvalu	66.7	66.7	60.0	0.0	0.0	0	66.7	66.7	60.0
Vanuatu	12.5	14.4	15.3	1.6	1.6	1.6	8.0	9.3	10.3
<b>Developed Member Economies</b>									
Australia	60.5	59.3	53.3	6.2	6.2	6.2	0.0	0.0	0.1
Japan	15.6	14.4	12.5	13.1	12.3	11.7	1.3	1.0	0.8
New Zealand	61.5	58.5	43.2	10.0	5.7	1.8	0.2	0.2	0.3

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, — = Magnitude equals zero.

a Data do not include the counties of Kinmen and Lienchiang.

Sources: FAOSTAT Database Access website (<http://www.faostat.fao.org>); for Taipei, China: *Statistical Yearbook 2012* (Directorate-General of Budget, Accounting and Statistics 2013).

Table 6.6 Deforestation and Pollution

Regional Member	Deforestation Rate <sup>a</sup> (average % change)			Nitrous Oxide Emissions (thousand metric tons CO <sub>2</sub> equivalent)			Methane Emissions (thousand metric tons CO <sub>2</sub> equivalent)		
	1990 <sup>b</sup>	2000	2011	1995	2000	2010	1995	2000	2005
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	—	—	—	...	...	...	...	...	...
Armenia	1.27 (1993)	1.39	1.60	466	462	986	2428	2565	3329
Azerbaijan	— (1993)	—	—	1832	2032	2647	9111	9951	18401
Georgia	0.05 (1993)	0.04	0.09	1712	1995	2267	4112	4137	4864
Kazakhstan	0.17 (1993)	0.17	0.17	20257	15965	17454	41703	38574	67542
Kyrgyz Republic	-0.26 (1993)	-0.26	-1.77	1529	1559	1465	3693	3486	3968
Pakistan	1.63	1.91	2.55	21241	24760	30050	101536	117129	155236
Tajikistan	-0.05 (1993)	-0.05	—	1349	1093	1718	3596	3304	4943
Turkmenistan	— (1993)	—	—	2373	2908	4955	16167	21217	26546
Uzbekistan	-0.54 (1993)	-0.52	0.12	6960	9249	11966	33524	37079	46862
<b>East Asia</b>									
China, People's Rep. of	-1.26	-1.13	-1.34	380630	392367	550297	1093620	1043425	1642258
Hong Kong, China	...	...	...	492	513	467	2102	2695	3086
Korea, Rep. of	0.13	0.13	0.11	15264	17958	14686	30080	30925	31984
Mongolia	0.65	0.69	0.75	5264	5107	3478	8876	9218	6134
Taipei, China	0.97	—	—	...	12444	3071	...	11028	2194
<b>South Asia</b>									
Bangladesh	0.17	0.18	0.18	18233	19614	26160	85076	89243	103080
Bhutan	-0.35	-0.34	-0.33	...	...	...	...	...	...
India	-0.23	-0.22	-0.21	187400	199496	234136	544388	561558	621480
Maldives	—	—	—	...	...	...	...	...	...
Nepal	1.90	2.30	—	3949	4232	4508	20644	21206	23512
Sri Lanka	1.14	1.27	0.78	1938	2045	2132	11578	9607	11631
<b>Southeast Asia</b>									
Brunei Darussalam	0.39	0.40	0.47	570	395	336	5991	3858	4450
Cambodia	1.08	1.20	1.26	4331	3295	16358	15740	14985	35211
Indonesia	1.61	1.89	0.73	89568	90677	91313	182547	167822	218929
Lao PDR	0.45	0.47	0.50	...	...	...	...	...	...
Malaysia	0.35	0.36	0.42	14397	12944	15010	37011	29242	33599
Myanmar	1.11	1.23	0.97	44219	31194	26266	89507	66941	79131
Philippines	-0.83	-0.77	-0.71	10614	12219	12512	43379	49915	56049
Singapore	—	—	—	1390	6007	1871	1510	1691	2339
Thailand	0.28	0.29	-0.08	22506	20065	30245	80570	83448	104411
Viet Nam	-2.52	-2.06	-1.04	15415	19627	33818	65683	75418	111338
<b>The Pacific</b>									
Cook Islands	...	...	...	...	...	...	...	...	...
Fiji	-0.29	-0.28	-0.33	...	...	...	...	...	...
Kiribati	—	—	—	...	...	...	...	...	...
Marshall Islands	...	—	—	...	...	...	...	...	...
Micronesia, Fed. States of	...	-0.05	-0.05	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...
Papua New Guinea	0.44	0.46	0.50	...	...	...	...	...	...
Samoa	-3.15	-2.46	—	...	...	...	...	...	...
Solomon Islands	0.24	0.25	0.25	...	...	...	...	...	...
Timor-Leste	1.16	1.29	1.51	...	...	...	...	...	...
Tonga	—	—	—	...	...	...	...	...	...
Tuvalu	—	—	—	...	...	...	...	...	...
Vanuatu	—	—	—	...	...	...	...	...	...
<b>Developed Member Economies</b>									
Australia	-0.03	-0.03	0.62	57651	75584	51462	113113	127730	122549
Japan	0.03	0.03	-0.04	37303	31996	25740	60264	47484	40262
New Zealand	-0.71	-0.66	0.10	11181	11499	11334	27166	26570	28133

continued

## Environment

Table 6.6 **Deforestation and Pollution** (continued)

Regional Member	Consumption of Ozone-Depleting CFCs (ODP metric tons)			Organic Water Pollutant (BOD) Emissions (kilograms per day per worker)		
	1990	2000	2011	1990	2000	Latest Year
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	380.0 (1995)	380.0 (1997)	–	...	0.178 (2001)	0.206 (2002)
Armenia	– (1991)	25.0	–	...	...	...
Azerbaijan	456.5 (1996)	87.8	–	0.153 (1995)	0.153	0.181 (2007)
Georgia	53.2 (1994)	21.5	–	...	...	...
Kazakhstan	1214.3	523.9	–	0.233 (1998)	0.237	0.236 (2007)
Kyrgyz Republic	117.6 (1991)	53.5	–	0.136 (1992)	0.189	0.202 (2007)
Pakistan	751.0	1945.3	–	...	...	0.165 (2006)
Tajikistan	91.3 (1991)	28.0	–	0.167	0.223	0.239 (2007)
Turkmenistan	140.8	21.0	–	...	...	...
Uzbekistan	585.3 (1993)	41.7	–	...	...	...
<b>East Asia</b>						
China, People's Rep. of	41829.0	39123.6	126.9	...	0.138 (2003)	0.130 (2007)
Hong Kong, China	...	...	...	...	...	...
Korea, Rep. of	19605.0 (1992)	7395.4	–	0.124	0.120	0.114 (2006)
Mongolia	7.2 (1995)	11.2	–	...	0.203 (2003)	0.215 (2007)
Taipei, China	...	...	...	...	...	...
<b>South Asia</b>						
Bangladesh	195.1	805.0	48.0	0.146 (1995)	0.144 (1998)	...
Bhutan	– (1991)	–	–	...	...	...
India	–	5614.3	–	...	...	...
Maldives	3.5	4.6	–	...	...	...
Nepal	20.0 (1991)	94.0	–	...	0.142 (1996)	0.157 (2002)
Sri Lanka	209.5	220.3	–	...	...	0.195 (2006)
<b>Southeast Asia</b>						
Brunei Darussalam	58.6 (1992)	46.6	–	...	...	...
Cambodia	94.2 (1995)	94.2	–	0.172 (1993)	0.142 (1995)	...
Indonesia	5249.0 (1992)	5411.1	–	0.184 (1998)	0.179	0.187 (2006)
Lao PDR	3.6 (1992)	44.6	–	...	0.136 (1999)	...
Malaysia	3384.2	1979.8	–	...	0.118	0.123 (2006)
Myanmar	– (1991)	26.3	–	...	...	...
Philippines	2981.2	2905.2	–	0.167 (1996)	0.156 (2001)	0.146 (2005)
Singapore	3166.6	21.7	–	0.092 (1991)	0.095	0.094 (2007)
Thailand	6660.2	3568.3	–	0.153 (1996)	0.155	0.152 (2006)
Viet Nam	303.4 (1991)	220.0	–	0.158 (1998)	0.169	0.144 (2007)
<b>The Pacific</b>						
Cook Islands	– (1991)	–	–	...	...	...
Fiji	37.8	–	–	...	0.232 (2002)	0.230 (2004)
Kiribati	– (1991)	–	–	...	...	...
Marshall Islands	1.2	0.5	–	...	...	...
Micronesia, Fed. States of	– (1991)	1.0	–	...	...	...
Nauru	0.6 (1995)	0.4	–	...	...	...
Palau	1.7 (1995)	0.6	–	...	...	...
Papua New Guinea	28.3 (1991)	47.9	–	...	...	...
Samoa	4.0 (1991)	0.6	–	...	...	...
Solomon Islands	1.6	0.3	–	...	...	...
Timor-Leste	36.8 (1995)	21.4	...	...	...	...
Tonga	1.8 (1995)	0.5	–	0.224 (1991)	0.295	0.339 (2004)
Tuvalu	0.3 (1993)	–	–	...	...	...
Vanuatu	– (1995)	–	–	...	...	...
<b>Developed Member Economies</b>						
Australia	7416.4	6.5	-30.1	...	...	...
Japan	97723.2	-24.2	-5.0	0.141 (1994)	0.147	0.149 (2005)
New Zealand	558.4	-2.6	–	0.243	0.233	0.230 (2007)

... = Data not available at cutoff date, – = Magnitude equals zero, BOD = biochemical oxygen demand, CFC = chlorofluorocarbons, CO<sub>2</sub> = carbon dioxide, ODP = ozone-depleting potential.

a A negative value indicates that deforestation rate is decreasing (i.e., reforestation).

b Values represent the change in forest cover from 1990 to 1991.

Sources: FAOSTAT Database Access website (FAO 2013); World Development Indicators Online (World Bank 2013); United Nations Millennium Indicators Database Online (UNSD 2013); for Taipei, China: *Statistical Yearbook 2011* (Directorate-General of Budget, Accounting and Statistics 2013).

## Government and Governance

### Snapshots

- Fiscal deficits were prevalent in 2012 as governments in the Asia and Pacific region supported economic growth in the face of a subdued global outlook.
- Government revenue increased in two-thirds of regional economies in 2012. However, low rates of tax collection still constrained public investment in some economies.
- The average time taken to start a business fell from 45 days in 2005 to 26 days in 2012. The cost of starting a business also declined in much of the region.
- Corruption remains a problem in many economies. About half the regional economies were in the bottom one-third of the global rankings in the Corruption Perceptions Index 2012.

### Key trends

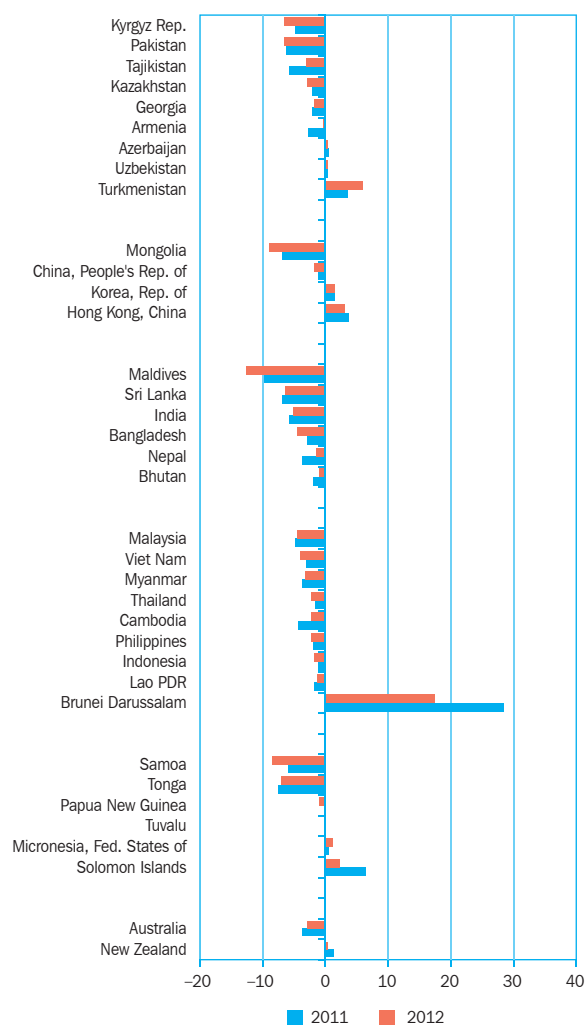
**Most economies ran fiscal deficits in 2012, supporting economic growth at a time of uncertain global prospects.** Figure 7.1 shows fiscal balances—the difference between total government revenue and expenditure—in 2011 and 2012. Bars to the left are deficits and to the right are surpluses. Most of the economies reported fiscal deficits in 2012. In the few that reported surpluses, the surpluses mostly declined from 2011.

Deficits equalled or exceeded the equivalent of 4% of gross domestic product (GDP) in 11 economies (Table 7.1), including 4 of the 6 in South Asia, namely the Maldives (12.6%), Sri Lanka (6.4%), India (5.2%), and Bangladesh (4.6%). The others with relatively wide deficits in 2012 were Mongolia (9.0%), Samoa (8.5%), Tonga (7.1%), the Kyrgyz Republic and Pakistan (6.6%), Malaysia (4.5%), and Viet Nam (4.0%).

Brunei Darussalam again reported the largest fiscal surplus, equal to 17.5% of GDP in 2012, mainly a result of government revenue from oil and gas production.

**Government expenditure relative to GDP increased in almost two-thirds of the region's economies in 2012 from 2011** (Figure 7.2). This trend was evident over the longer term, too: since 2000, government expenditure as a percentage of GDP increased in at least 60% of the region's economies (Table 7.4). Total government expenditure in 2012 was equivalent to at least 35% of GDP in most of the Pacific economies as well as in Bhutan,

Figure 7.1 Fiscal balance as share of GDP, 2011 and 2012



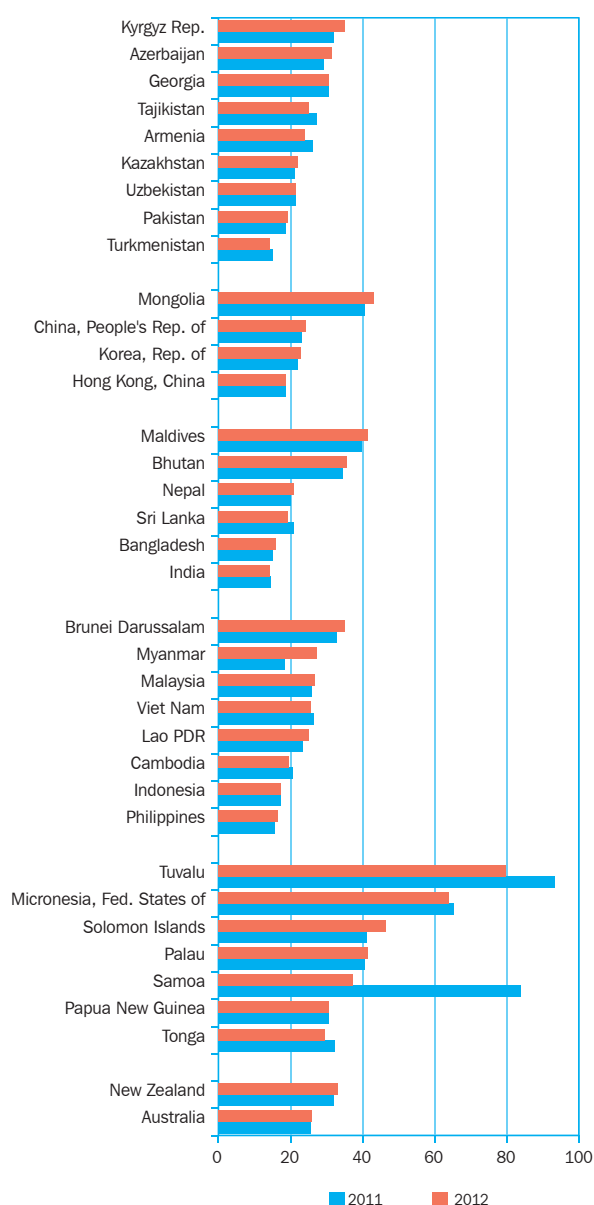
GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.  
Source: Table 7.1.

Brunei Darussalam, the Kyrgyz Republic, the Maldives, and Mongolia. In some cases, governments expanded public sectors aiming to compensate for the lack of vibrant private sectors. However, such expansion of the public sector can constrain private sector development.

In the five most populous developing economies, government spending relative to GDP was highest in the People's Republic of China (24.2% in 2012) and lowest in India (14.3%).

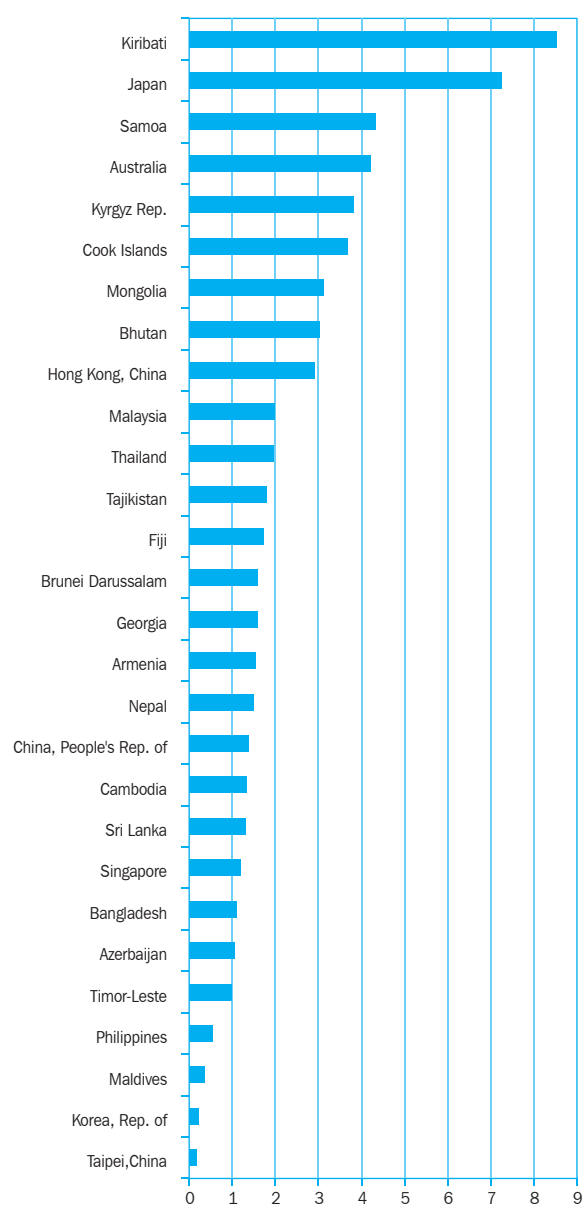
**Government spending on health, as well as on social security and welfare, increased as a percentage of GDP in most economies since 2000.** Tables 7.6 and 7.7 show the ratio of government expenditure on these services increased in more than 60% of the economies for which data are available for at least 11 years since 2000. Still, spending on health in many developing members was equivalent to less than 2% of GDP in 2012 or the latest year (Figure 7.3), compared with about 4% in Australia and 7% in Japan.

Figure 7.2 **Total government expenditure as share of GDP, 2011 and 2012**



GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.  
Source: Table 7.4.

Figure 7.3 **Government expenditure on health as share of GDP, 2011 or 2012**



GDP = gross domestic product.  
Source: Table 7.6.

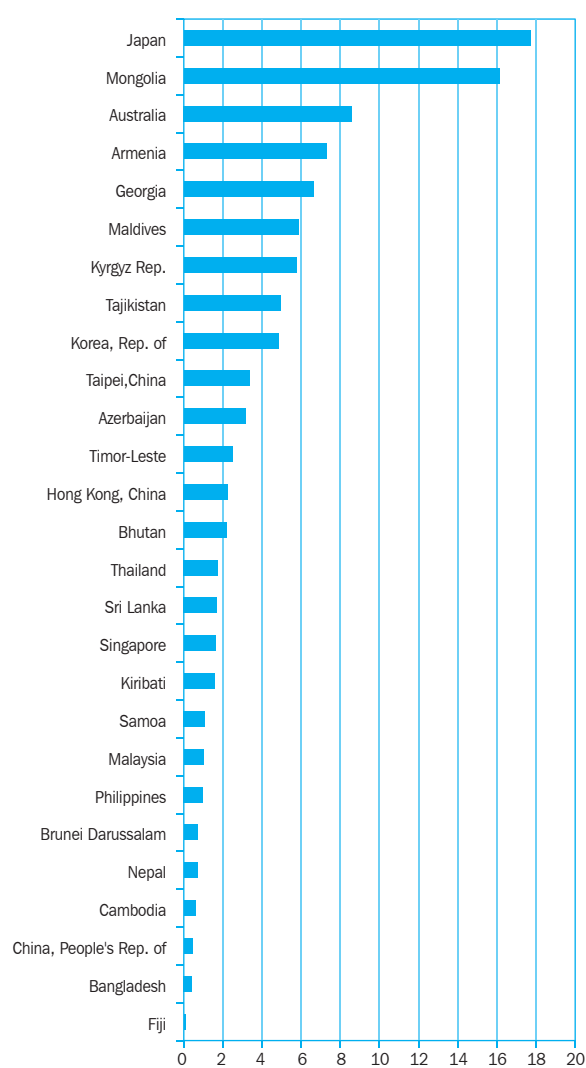
Similarly, spending on social security and welfare was less than 2% of GDP in many developing members, against over 8% in Australia and 17% in Japan (Figure 7.4).

**Governments in the region generally spend more on education than on health.** Spending on education by governments exceeded 3% of GDP in just over half the reporting economies in 2012 or the latest year (Figure 7.5). Further, governments of many developing members spend more on education relative to GDP than

do Australia and Japan. About 40% of the economies increased public spending on education relative to GDP since 2000.

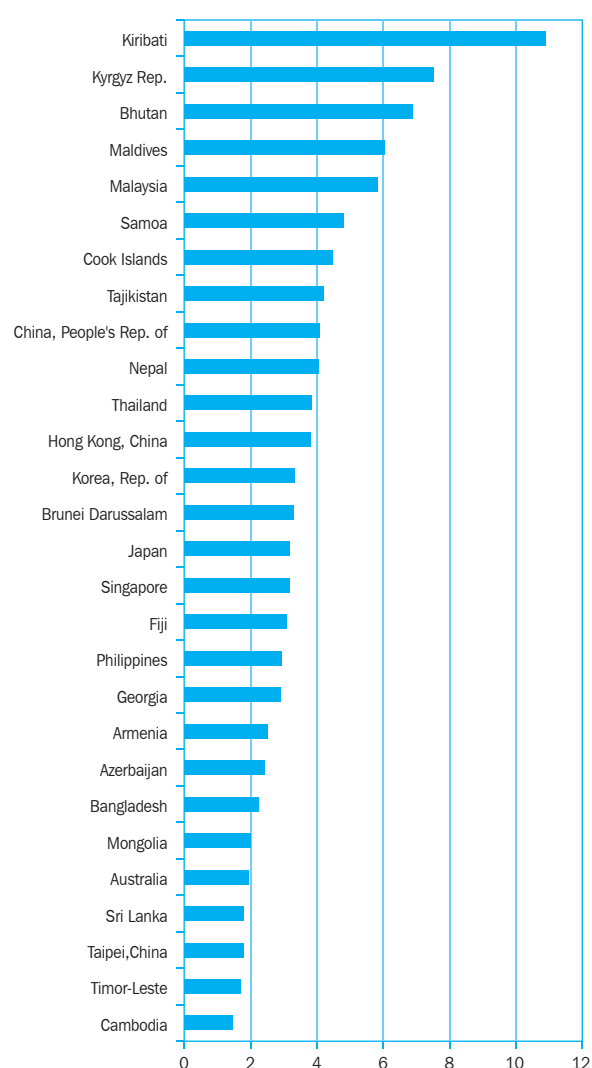
**Tax revenue relative to GDP rose in two-thirds of regional economies in 2012 from 2011** (Table 7.2). Figure 7.6 shows that tax revenue as a percentage of GDP increased in 23 of the 35 economies with data for 2012. Relatively large increases were recorded in the Maldives (from 16.2% to 19.7%), the Kyrgyz Republic

Figure 7.4 **Government expenditure on social security and welfare as share of GDP, 2011 or 2012**



GDP = gross domestic product.  
Source: Table 7.7.

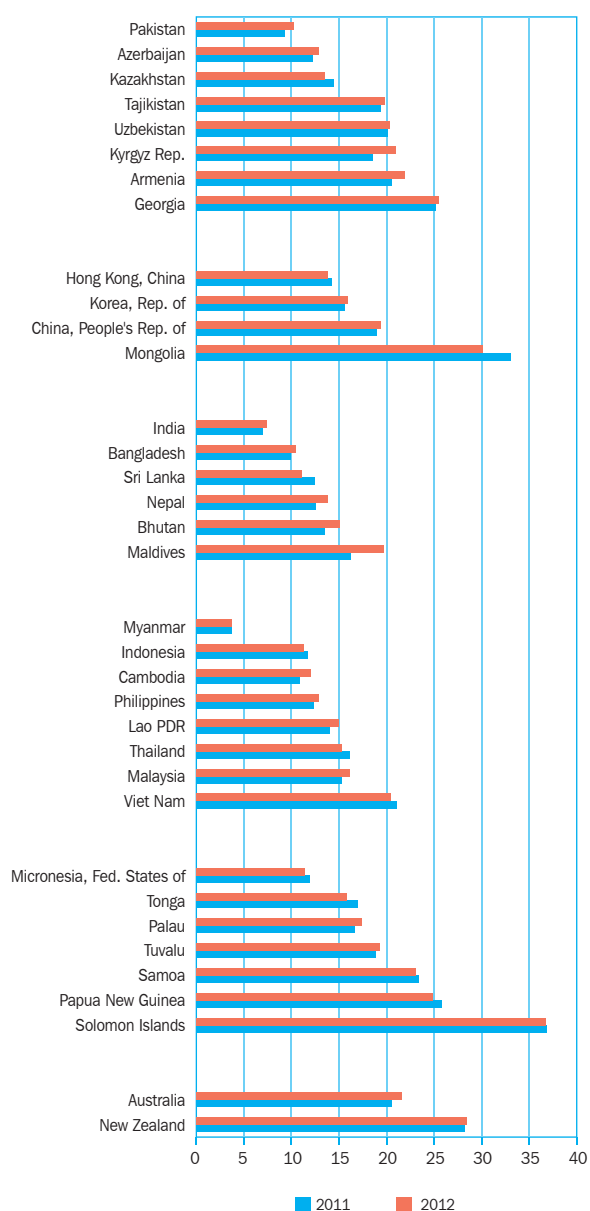
Figure 7.5 **Government expenditure on education as share of GDP, 2011 or 2012**



GDP = gross domestic product.  
Source: Table 7.5.

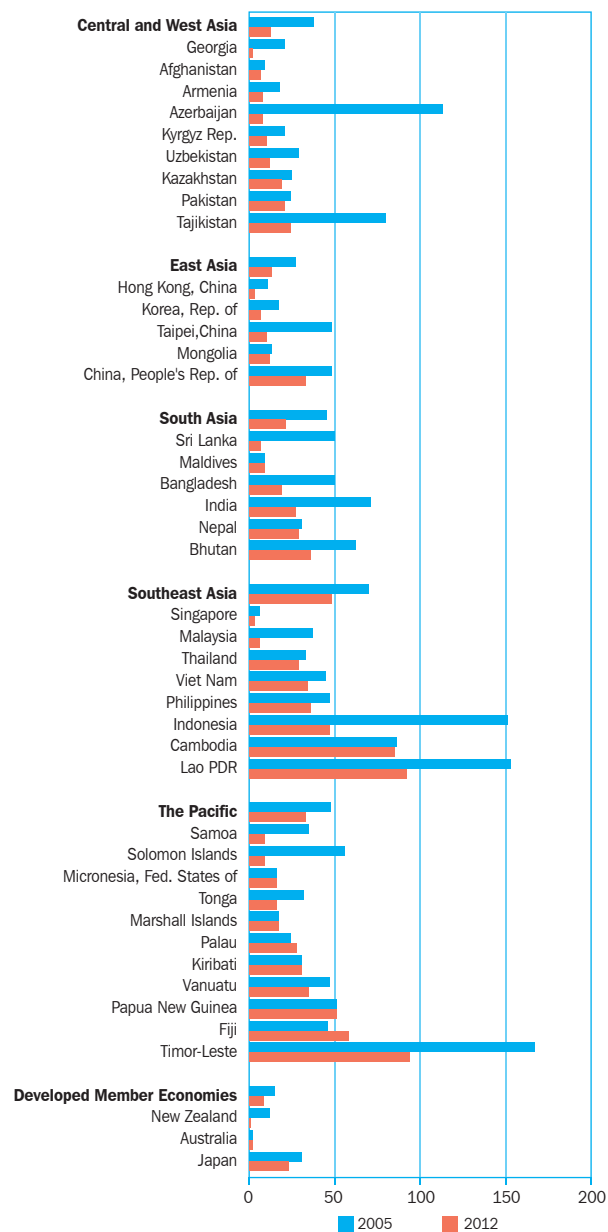
(from 18.5% to 21.0%), and Bhutan (from 13.5% to 15.0%). Low tax-to-GDP ratios can constrain resources available for government investment in economic and social development. Economies with low tax-to-GDP ratios in 2012 included Myanmar (3.8%), India (7.4%), Pakistan (10.2%), Bangladesh (10.5%), Sri Lanka (11.1%), and Indonesia (11.3%).

Figure 7.6 Tax revenue as share of GDP, 2011 and 2012



**Most economies continued to reduce the time and cost of starting a business.** Figure 7.7 presents the number of days required to start a business in 2005 and 2012. On average, the region's economies reduced the number of days taken to start a business from 45 in 2005 to 26 in 2012, below the global average of 30 days. Shorter and simpler business registration procedures encourage the

Figure 7.7 Days required to start-up a business, 2005 and 2012

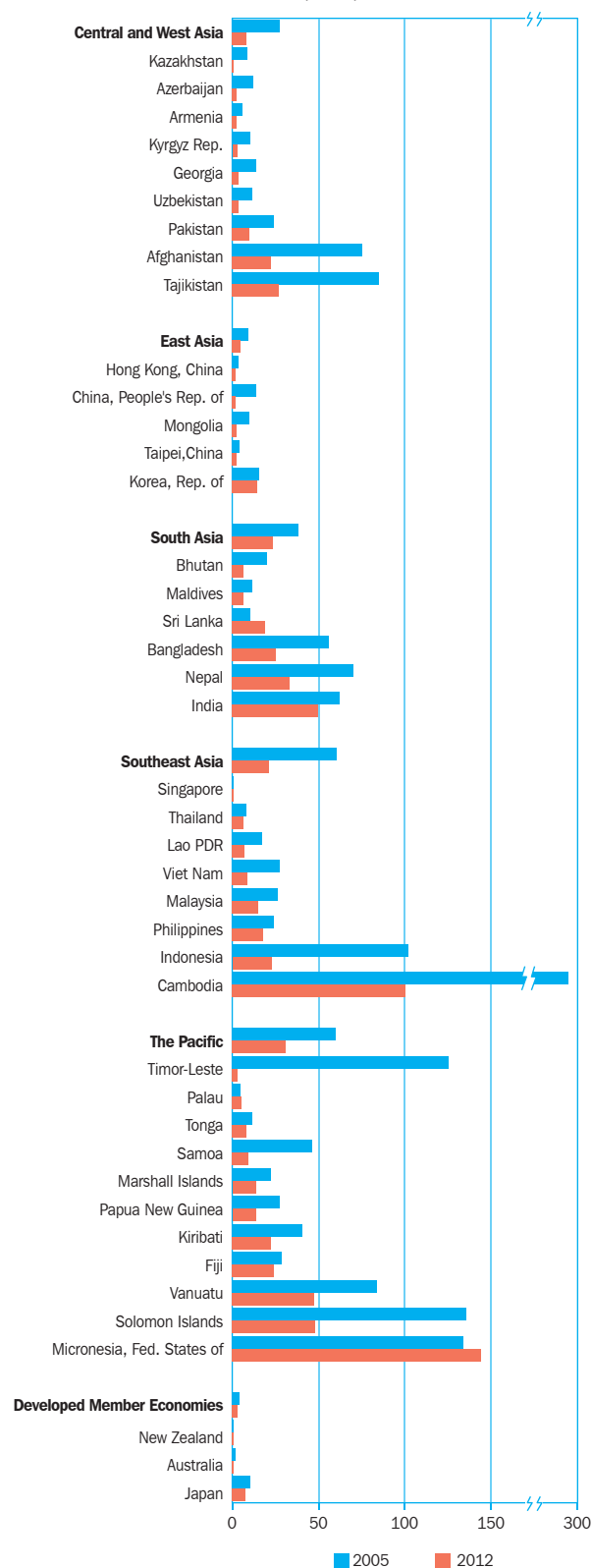


creation of new businesses and reduces opportunities for extorting bribes. Governments can accelerate the process by putting procedures online, establishing a single office to handle business start-ups, and reducing minimum capital requirements.

Just over half the economies brought down the time it takes to start a business to 20 or fewer days. Those with very rapid registration procedures (no more than 3 days) were Australia; Georgia; Hong Kong, China; New Zealand; and Singapore. At the other end of the scale it took 101 days to start a business in Brunei Darussalam and over 90 days in the Lao People's Democratic Republic and Timor-Leste. Between 2005 and 2012, several economies in Central and West Asia sharply lowered the time it takes to start a business. Azerbaijan, for example, cut the time from 113 days to 8. Others recording major reductions were Solomon Islands (from 56 days to 9), Sri Lanka (from 50 days to 7), and Taipei, China (from 48 days to 10).

**For regional members, the average cost of starting a business fell from 40.0% of per capita gross national income (GNI) in 2005 to 18.1% in 2012.** Here, too, the average for Asia and the Pacific in 2012 was below the global average of 31.3%. Figure 7.8 shows that most regional economies lowered the cost of starting a business during this period, in some cases dramatically. Afghanistan cut the cost from 75.2% of its per capita GNI to 22.5%, and Indonesia from 101.7% to 22.7%. Economies with the lowest cost (2.0% of per capita GNI or less) were Australia; Hong Kong, China; Kazakhstan; New Zealand; and Singapore. In contrast, the cost exceeded 100% of per capita GNI in the Federated States of Micronesia and Cambodia (although Cambodia reduced the cost by more than half over the 7-year period).

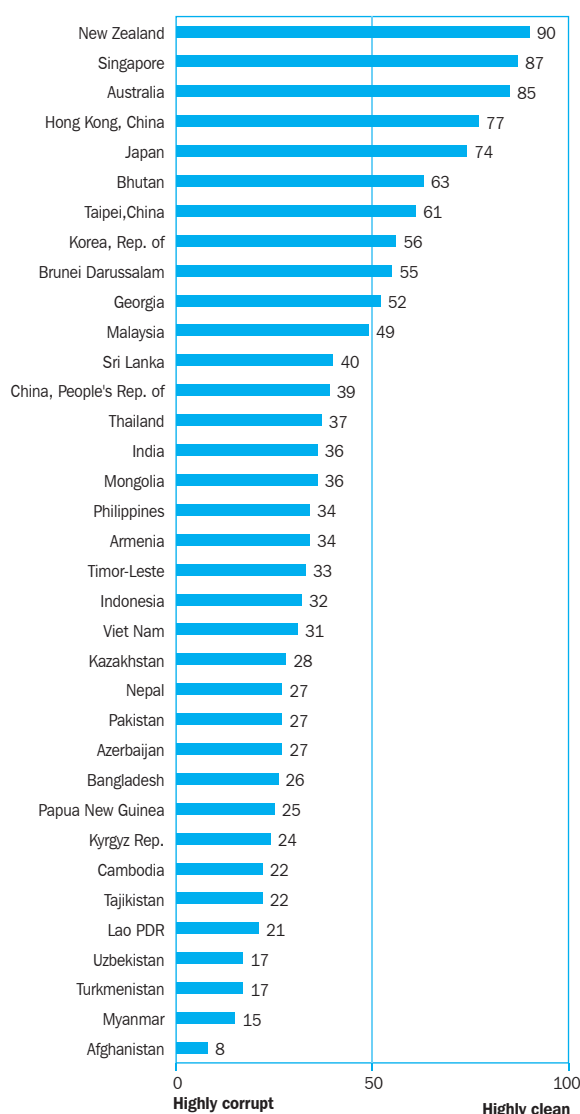
Figure 7.8 **Cost of business start-up procedure, 2005 and 2012**  
(% of GNI per capita)



GNI = gross national income, Lao PDR = Lao People's Democratic Republic.  
Source: Table 7.8.

**Much remains to be done to reduce corruption.** Only 10 of 35 regional economies scored 50 or higher on a scale of 0 (highly corrupt) to 100 (highly clean) in the Corruption Perceptions Index 2012 (Figure 7.9). This index, compiled by Transparency International, is based on the perceived level of corruption in the public sector. The global rankings for 2012 in Table 7.9 put New Zealand as the least corrupt of 176 economies, with Singapore; Australia; Hong Kong, China; and Japan also in the world's 20 cleanest public services. However, about half of the regional economies were in the bottom one-third of the global rankings.

Figure 7.9 Corruption perceptions scores, 2012



Lao PDR = Lao People's Democratic Republic.  
Source: Table 7.9

On the brighter side, slightly over half the regional economies improved their corruption rankings in 2012, with the biggest improvements seen in Armenia, Mongolia, Nepal, the Philippines, and Timor-Leste.

## Data issues and comparability

Data on government expenditures and revenue are from country sources. The coverage of the budget data is not standard throughout the region. Data from many economies refer only to the central government, but in others the data also cover provincial and local governments. Most economies try to follow the International Monetary Fund's Government Finance Statistics guidelines; some economies are still using the 1986 version while others have switched to the 2001 guidelines. Most economies record their transactions on a cash basis; a few, on accrual.

Statistics on the time and cost for registering new businesses and on perceived corruption are taken from nonofficial sources. Common procedures are used in all economies and the researchers producing these data have refined their procedures over several surveys. However, because of the subjective nature of many of the data, they can only be used to give a broad idea of trends, levels, and rankings.

**Table 7.1 Fiscal Balance<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	-4.5	-7.8	-8.1	4.4	0.1	0.4	1.8	...
Armenia	...	-5.9	-4.9	-1.9	-1.5	-1.5	-0.7	-7.6	-5.0	-2.8	-0.3
Azerbaijan	...	-5.2	-1.0	-0.7	0.4	-0.3	0.0	-0.5	-0.9	0.6	0.3
Georgia	...	...	-1.3	1.2	1.9	0.4	-2.9	-6.9	-5.6	-2.1	-1.7
Kazakhstan	...	-4.0	-0.1	0.6	0.8	-1.7	-2.1	-2.9	-2.4	-2.1	-2.9
Kyrgyz Republic	-8.1	-11.5	-2.2	0.2	-0.2	0.1	0.8	-1.5	-4.9	-4.8	-6.6
Pakistan	-6.5	-5.6	-5.4	-3.0	-2.4	-3.8	-7.0	-4.9	-5.9	-6.3	-6.6
Tajikistan	...	-7.4	-0.6	0.2	0.5	-8.1	-7.6	-7.3	-7.1	-5.8	-3.1
Turkmenistan	...	0.4	-0.3	0.8	5.3	3.9	10.0	7.0	2.0	3.6	6.0
Uzbekistan	...	-2.9	-1.0	0.1	0.5	1.1	1.4	0.2	0.3	0.4	0.4
<b>East Asia</b>											
China, People's Rep. of	-2.8	...	-2.8	-1.2	-0.8	0.6	-0.4	-2.3	-1.7	-1.1	-1.8
Hong Kong, China	0.7	-0.3	-0.6	1.0	4.1	7.5	0.2	1.8	4.2	3.8	3.2
Korea, Rep. of	-0.6	0.3	1.1	0.4	0.4	3.5	1.2	-1.7	1.4	1.5	1.5
Mongolia	-11.0	-1.3	-6.4	2.4	3.1	2.7	-4.5	-5.2	0.5	-6.9	-9.0
Taipei, China	1.8	-1.0	-4.5	-0.3	-0.2	-0.2	-0.8	-3.6	-2.7	-1.5	...
<b>South Asia</b>											
Bangladesh	-5.7	-2.2	-4.5	-3.7	-3.3	-3.2	-5.3	-1.6	-3.2	-2.9	-4.6
Bhutan	-7.4	0.1	-3.9	-6.6	-0.8	0.6	0.7	1.8	1.5	-2.0	-1.1
India	-6.6	-4.2	-5.7	-4.0	-3.3	-2.5	-6.0	-6.5	-4.8	-5.7	-5.2
Maldives	...	-6.4	-4.4	-8.2	-4.8	-3.2	-11.2	-20.5	-15.6	-9.7	-12.6
Nepal	-7.6	-4.5	-4.3	-2.4	-2.5	-2.6	-2.8	-3.5	-3.4	-3.7	-1.5
Sri Lanka	-7.9	-8.8	-9.3	-7.0	-7.0	-6.9	-7.0	-9.9	-8.0	-6.9	-6.4
<b>Southeast Asia</b>											
Brunei Darussalam	-0.3	15.1	10.9	21.1	21.5	21.9	27.9	6.2	8.5	28.4	17.5
Cambodia	-4.5	-7.2	-2.1	-0.7	-0.2	-0.5	-0.1	-6.3	-3.1	-4.3	-2.3
Indonesia	-0.8	3.0	-1.1	-0.5	-0.9	-1.3	-0.1	-1.6	-0.7	-1.1	-1.8
Lao PDR	-9.7	-12.9	-4.6	-4.5	-3.1	-2.6	-2.2	-3.3	-2.2	-1.8	-1.4
Malaysia	-2.9	0.8	-5.5	-3.4	-3.2	-3.1	-4.6	-6.7	-5.4	-4.8	-4.5
Myanmar	-2.8	-3.2	0.7	...	-4.3	-3.8	-2.3	-4.6	-4.6	-3.8	-3.2
Philippines	-3.5	0.6	-3.7	-2.6	-1.0	-0.2	-0.9	-3.7	-3.5	-2.0	-2.3
Singapore	10.2	14.0	9.9	6.3	6.3	11.3	7.8	1.6	7.7	9.5	...
Thailand	4.6	2.6	-2.8	0.1	-0.2	-1.3	-0.6	-3.9	-2.4	-1.6	-2.3
Viet Nam <sup>b</sup>	-7.2	-1.3	-4.3	-1.0	1.2	-0.9	0.6	-3.6	-2.1	-3.0	-4.0
<b>The Pacific</b>											
Cook Islands	...	-2.8	-1.5	2.1	1.6	3.4	3.3	-0.7	3.1	4.3	...
Fiji	-1.8	-0.3	-3.1	-3.3	-2.9	-2.1	0.5	-4.0	-2.1	-1.4	...
Kiribati	30.9	16.4	42.3	7.3	13.4	33.9	17.5	12.2	12.2	9.3	...
Marshall Islands	1.9	-27.2	8.1	-3.4	1.4	0.2	3.7	1.4	4.6	...	...
Micronesia, Fed. States of	11.1	-0.4	-3.5	-4.9	-5.2	-2.5	-1.7	1.6	0.5	0.6	1.2
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	0.0	...	...	...	...	...	0.0	...	...
Papua New Guinea	-3.3	-0.5	-2.0	0.1	3.2	2.4	-2.2	-0.2	0.7	-0.2	-1.0
Samoa	-3.7	-7.0	-0.7	0.3	-0.5	0.8	-1.5	-4.2	-6.4	-6.0	-8.5
Solomon Islands	-5.3	-4.6	-0.6	-0.9	2.6	-0.5	-4.0	0.1	8.3	6.4	2.3
Timor-Leste	...	...	...	4.0	-0.2	-0.7	-0.6	-0.2	3.6	-2.4	...
Tonga	0.7	1.0	-0.3	3.0	-0.7	3.9	0.9	1.3	-2.7	-7.6	-7.1
Tuvalu	...	...	-2.0	-7.7	-17.1	-13.4	-2.8	-	-0.1	0.1	0.1
Vanuatu	-8.2	-2.7	-6.2	2.9	0.9	-0.3	2.1	1.0	-2.0	-2.3	...
<b>Developed Member Economies</b>											
Australia	1.7	-2.9	1.8	1.3	1.7	1.6	1.8	-2.3	-4.1	-3.7	-3.0
Japan	-0.5	-4.0	-6.3	-4.1	-0.9	-2.4	-2.9	-7.6	-6.7	-8.3	...
New Zealand	-4.5	3.0	2.1	5.1	5.9	5.1	3.3	-0.2	-3.6	1.4	0.4

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, - = Magnitude equals zero, GDP = gross domestic product.

a Data refer to central government, except for Bangladesh, Georgia, Kiribati, the Kyrgyz Republic, Pakistan, and Tajikistan, where data refer to consolidated government or general government.

b Tax revenue includes local government taxes.

Source: Country sources.

## Government Finance

**Table 7.2 Tax Revenue<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	3.8	3.3	2.3	7.7	6.4	9.2	8.7	...
Armenia	...	10.6	14.8	14.3	14.5	16.1	20.3	19.9	20.2	20.6	22.0
Azerbaijan	...	10.8	12.2	14.0	16.3	18.4	16.8	14.4	12.4	12.3	12.9
Georgia	...	...	14.6	20.8	22.8	25.8	24.9	24.4	23.5	25.2	25.5
Kazakhstan	...	15.8	20.2	26.3	21.6	18.3	17.6	13.1	13.4	14.4	13.6
Kyrgyz Republic	25.7	15.1	11.7	16.2	17.6	18.7	19.1	17.9	17.9	18.5	21.0
Pakistan	14.0	13.8	10.6	10.1	9.8	9.6	9.9	9.1	10.1	9.3	10.2
Tajikistan	...	8.4	13.1	16.5	16.8	17.9	18.6	17.7	18.0	19.5	19.9
Turkmenistan	...	...	23.0	...	...	...	...	...	...	...	...
Uzbekistan	...	27.8	...	21.5	19.8	20.1	20.9	20.7	20.4	20.2	20.3
<b>East Asia</b>											
China, People's Rep. of	15.1	9.9	12.7	15.6	16.1	17.2	17.3	17.5	18.2	19.0	19.4
Hong Kong, China	10.2	11.2	9.7	12.3	12.5	13.9	12.8	12.5	13.6	14.2	13.9
Korea, Rep. of	14.8	15.2	17.9	14.7	15.2	16.6	16.3	15.4	15.1	15.6	16.0
Mongolia	44.6	16.2	21.3	22.8	28.0	30.3	28.8	24.6	31.9	33.1	30.1
Taipei, China	12.7	10.3	13.3	9.1	8.9	9.3	9.8	8.4	8.0	8.8	...
<b>South Asia</b>											
Bangladesh	5.8	7.9	6.8	8.6	8.7	8.3	8.8	9.0	9.0	10.0	10.5
Bhutan	4.4	6.6	10.0	9.4	10.1	8.6	9.6	10.6	13.3	13.5	15.0
India	7.5	6.9	6.5	7.3	8.2	8.8	7.9	7.0	7.3	7.0	7.4
Maldives	...	13.6	13.8	13.6	14.2	14.7	13.9	10.8	11.0	16.2	19.7
Nepal	6.6	8.4	8.1	9.2	8.8	9.8	10.4	11.8	13.1	12.6	13.8
Sri Lanka	19.3	17.9	14.2	13.7	14.6	14.2	13.3	12.8	12.9	12.4	11.1
<b>Southeast Asia</b>											
Brunei Darussalam	...	18.4	23.4	33.1	30.3	34.4	36.4	24.0	...	...	...
Cambodia	2.2	5.3	7.3	7.7	8.0	10.2	11.2	10.1	10.7	10.9	12.0
Indonesia	17.8	16.0	8.3	12.5	12.3	12.4	13.3	11.1	11.2	11.8	11.3
Lao PDR	6.1	9.4	10.6	9.7	9.9	11.7	12.2	13.1	13.5	14.1	15.0
Malaysia	17.8	18.7	13.2	14.8	14.5	14.3	14.7	14.9	13.8	15.3	16.2
Myanmar	6.2	3.7	2.0	...	4.3	3.8	3.6	3.2	3.2	3.7	3.8
Philippines	14.1	16.3	12.8	12.4	13.7	13.5	13.6	12.2	12.1	12.3	12.9
Singapore	14.6	15.9	15.1	11.5	12.1	13.0	14.0	13.3	13.2	13.8	...
Thailand	16.0	16.4	12.9	15.3	15.2	14.6	15.1	13.8	14.6	16.2	15.3
Viet Nam <sup>b</sup>	11.5	19.1	18.0	21.0	22.3	21.5	22.5	20.6	22.4	21.1	20.5
<b>The Pacific</b>											
Cook Islands	...	37.5	22.3	25.3	23.4	22.5	23.2	22.7	23.5	23.1	...
Fiji	22.3	21.9	19.9	21.0	22.8	22.4	21.5	21.2	21.1	23.0	...
Kiribati	30.4	22.3	21.5	22.0	21.8	22.7	20.8	19.5	19.4	20.2	...
Marshall Islands	17.9	16.5	15.4	17.6	17.5	18.1	17.1	16.1	15.5	...	...
Micronesia, Fed. States of	8.8	9.5	11.9	11.7	11.8	10.9	11.2	11.4	12.0	12.0	11.4
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	15.1	15.4	14.9	14.5	15.4	14.8	15.8	16.6	17.4
Papua New Guinea	19.5	19.5	23.8	24.8	29.3	31.1	26.6	22.3	24.4	25.8	24.9
Samoa	35.4	22.0	20.6	20.5	21.7	23.3	23.0	22.8	23.9	23.4	23.1
Solomon Islands	22.9	21.4	19.1	24.3	25.1	28.2	29.7	30.2	34.0	36.9	36.8
Timor-Leste	...	...	...	1.5	1.0	0.9	0.9	1.4	1.2	1.1	...
Tonga	18.3	13.4	15.8	19.2	20.6	20.9	19.1	19.4	16.1	17.0	15.9
Tuvalu	...	18.7	21.6	21.3	16.5	18.7	16.8	16.2	16.2	18.9	19.3
Vanuatu	22.6	19.6	15.7	16.4	16.7	18.2	18.6	16.7	16.0	16.4	...
<b>Developed Member Economies</b>											
Australia	22.4	21.1	23.1	24.9	24.7	24.2	24.3	22.2	20.7	20.6	21.6
Japan	13.9	10.7	10.4	10.2	10.6	10.2	9.0	8.4	8.9	9.5	...
New Zealand	34.3	34.8	31.7	33.9	34.3	34.9	32.2	31.5	28.3	28.3	28.4

... = Data not available at cutoff date, GDP = gross domestic product.

a Data refer to central government, except for Bangladesh, Georgia, Kiribati, the Kyrgyz Republic, Pakistan, and Tajikistan, where data refer to consolidated government or general government.

b Tax revenue includes local government taxes.

Source: Country sources.

**Table 7.3 Total Government Revenue<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	6.9	8.3	6.5	7.7	8.3	10.8	10.4	...
Armenia	...	14.4	15.9	16.2	16.0	17.9	24.1	21.6	21.7	21.8	23.3
Azerbaijan	34.1	11.8	14.7	16.3	20.6	21.2	26.8	29.0	26.8	30.1	32.0
Georgia	...	...	15.5	27.1	30.8	33.9	31.1	28.3	27.1	28.9	29.0
Kazakhstan	...	19.6	22.9	27.6	22.9	20.5	18.5	14.1	14.2	15.1	14.7
Kyrgyz Republic	26.8	16.7	14.2	19.8	21.8	24.1	24.0	22.6	23.1	24.2	26.7
Pakistan	19.3	17.3	13.4	13.8	13.1	14.0	14.1	14.0	14.0	12.4	12.8
Tajikistan	...	10.0	14.1	19.2	19.3	18.9	19.5	18.8	19.3	21.1	21.7
Turkmenistan	...	20.5	23.5	20.5	20.2	17.3	20.9	20.4	16.1	18.9	20.4
Uzbekistan	...	29.7	28.0	22.6	21.2	21.8	22.5	22.0	21.8	21.9	22.0
<b>East Asia</b>											
China, People's Rep. of	15.7	10.3	13.5	17.1	17.9	19.3	19.5	20.1	20.7	22.0	22.6
Hong Kong, China	14.9	16.1	16.8	17.5	19.2	21.7	18.5	19.2	21.2	22.6	21.8
Korea, Rep. of	16.8	17.8	22.5	22.1	23.1	25.0	24.4	24.0	23.1	23.6	24.5
Mongolia	50.9	20.8	28.3	27.4	33.7	37.5	32.9	30.0	36.7	38.1	34.7
Taipei, China	16.3	13.3	18.0	14.8	12.9	12.7	13.1	12.3	11.1	12.4	...
<b>South Asia</b>											
Bangladesh	6.8	9.8	8.5	10.6	10.8	10.5	11.1	11.6	11.5	11.7	12.5
Bhutan	18.8	19.1	23.2	17.0	17.3	20.4	22.6	27.6	27.4	20.7	20.7
India	10.7	9.9	9.8	9.7	10.3	11.7	9.7	9.4	10.6	8.8	9.1
Maldives	...	25.8	30.0	29.8	31.7	33.1	28.7	20.9	23.4	26.5	27.4
Nepal	8.4	10.4	10.5	11.9	11.1	12.1	13.2	14.5	15.1	14.5	15.9
Sri Lanka	21.4	20.6	16.4	15.5	16.3	15.8	14.9	14.5	14.6	14.3	13.0
<b>Southeast Asia</b>											
Brunei Darussalam	42.4	36.5	49.1	53.2	50.4	52.3	55.7	41.0	48.6	61.4	52.5
Cambodia	3.9	7.6	10.0	10.6	11.4	12.1	13.3	11.9	13.2	13.2	14.5
Indonesia	18.8	17.7	14.7	17.8	19.1	17.9	19.8	15.1	15.4	16.2	15.6
Lao PDR	9.9	11.1	13.1	11.7	11.6	13.2	13.9	14.8	15.3	15.7	17.1
Malaysia	24.8	22.9	17.4	19.6	20.7	21.0	20.8	22.3	20.1	21.0	22.2
Myanmar	9.6	6.5	4.2	...	17.6	17.2	15.8	13.9	14.2	14.7	22.7
Philippines	16.6	18.9	14.3	14.4	15.6	16.5	15.6	14.0	13.4	14.0	14.5
Singapore	30.7	34.8	29.8	20.7	21.0	25.1	24.3	19.0	22.5	24.7	...
Thailand	17.5	18.1	14.7	17.4	17.1	16.5	17.1	15.6	16.8	18.1	17.7
Viet Nam <sup>b</sup>	14.7	21.9	20.1	25.7	26.5	26.5	26.3	25.3	26.7	24.4	22.6
<b>The Pacific</b>											
Cook Islands	...	39.8	27.0	29.3	27.3	26.4	27.0	26.1	28.1	28.0	...
Fiji	28.1	25.5	25.4	23.9	26.0	25.3	24.9	24.6	24.7	26.1	...
Kiribati	112.0	81.8	94.4	68.8	76.2	97.3	83.3	70.5	74.4	67.1	...
Marshall Islands	31.3	29.6	22.0	25.8	25.4	25.8	25.6	25.0	24.7	...	...
Micronesia, Fed. States of	27.3	26.4	22.5	20.8	21.7	20.6	21.2	21.4	21.8	21.8	23.3
Nauru	...	...	...	33.1	72.3	44.9	27.5	41.7	39.2	...	...
Palau	...	...	21.5	18.4	18.0	17.6	18.8	18.1	19.1	20.2	21.4
Papua New Guinea	24.9	24.0	25.7	26.8	31.9	33.4	28.1	25.9	26.1	27.0	26.4
Samoa	48.5	29.3	25.6	24.0	25.2	27.1	26.4	26.8	26.9	27.0	26.7
Solomon Islands	26.6	27.7	21.6	26.7	29.9	32.4	33.0	34.4	37.0	40.4	41.9
Timor-Leste	...	...	...	9.7	6.9	7.5	10.4	18.2	22.0	20.1	...
Tonga	34.1	25.6	21.1	22.8	24.5	24.6	22.5	23.3	20.1	19.6	18.1
Tuvalu	...	...	216.4	55.1	51.7	49.4	55.3	59.6	51.9	56.3	59.6
Vanuatu	27.8	24.2	18.7	18.5	18.8	20.4	20.5	18.9	17.6	18.1	...
<b>Developed Member Economies</b>											
Australia	23.6	22.1	25.2	26.3	26.2	25.7	25.8	23.8	22.6	22.0	23.0
Japan	15.3	12.0	11.8	11.9	14.8	12.2	13.0	11.6	11.2	11.3	...
New Zealand	40.9	40.4	36.2	38.4	40.1	40.1	37.1	36.4	33.7	33.4	33.7

... = Data not available at cutoff date, GDP = gross domestic product.

a Data refer to central government, except for Bangladesh, Georgia, Kiribati, the Kyrgyz Republic, Pakistan, and Tajikistan, where data refer to consolidated government or general government.

b Tax revenue includes local government taxes.

Source: Country sources.

## Government Finance

**Table 7.4 Total Government Expenditure<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	16.5	21.1	19.1	21.1	20.8	20.6	22.0	...
Armenia	...	24.0	20.1	18.0	17.4	19.4	25.2	29.9	27.6	26.2	23.9
Azerbaijan	...	20.1	16.2	16.8	19.8	21.3	26.4	29.3	27.6	29.2	31.5
Georgia	...	...	16.3	26.6	28.9	33.7	36.4	38.3	34.0	30.7	30.6
Kazakhstan	35.6	25.7	22.2	25.6	22.0	24.1	26.9	23.3	22.0	21.3	22.1
Kyrgyz Republic	37.1	27.8	18.0	20.4	22.4	25.3	24.0	29.1	31.2	32.0	35.2
Pakistan	25.9	23.0	18.9	16.8	17.0	19.6	21.7	19.1	20.2	18.6	19.2
Tajikistan	...	17.4	14.7	19.4	19.0	27.2	26.7	26.8	25.1	27.4	25.1
Turkmenistan	...	20.1	23.9	19.7	14.9	13.4	10.9	13.4	14.1	15.2	14.4
Uzbekistan	...	32.6	28.9	22.5	20.8	20.7	21.0	21.8	21.5	21.5	21.6
<b>East Asia</b>											
China, People's Rep. of	18.5	...	16.3	18.3	18.7	18.7	19.9	22.4	22.4	23.1	24.2
Hong Kong, China	14.3	16.4	17.4	16.5	15.1	14.2	18.3	17.4	17.0	18.8	18.7
Korea, Rep. of	15.2	15.3	18.1	21.4	22.0	20.8	22.7	23.9	21.4	22.1	23.0
Mongolia	61.9	19.7	30.0	22.7	28.8	33.6	36.4	34.1	33.8	40.7	43.2
Taipei, China	14.5	14.3	22.6	15.1	13.1	13.0	13.9	15.9	13.8	13.9	0.0
<b>South Asia</b>											
Bangladesh	12.4	14.4	14.5	15.0	14.7	14.1	17.1	14.0	15.2	15.2	16.0
Bhutan	33.9	37.2	42.2	35.4	32.8	30.7	36.0	34.1	35.6	34.5	35.7
India	17.3	14.1	15.5	13.7	13.6	14.3	15.7	15.8	15.4	14.5	14.3
Maldives	...	36.6	37.3	45.5	42.4	42.2	42.7	43.7	40.3	39.8	41.6
Nepal	17.7	16.6	16.3	15.3	15.5	17.2	18.4	20.9	21.0	20.2	20.8
Sri Lanka	28.7	29.6	25.0	23.8	24.2	23.2	22.1	24.0	22.1	20.9	19.4
<b>Southeast Asia</b>											
Brunei Darussalam	43.7	66.0	40.6	32.1	28.9	30.3	27.8	34.8	40.1	33.0	35.0
Cambodia	8.4	14.8	14.8	13.2	14.1	14.7	15.9	20.5	21.3	20.7	19.7
Indonesia	19.6	14.7	15.8	18.4	20.0	19.2	19.9	16.7	16.2	17.4	17.5
Lao PDR	23.4	26.7	20.8	18.4	17.2	18.5	18.8	20.8	24.2	23.5	25.0
Malaysia	27.7	22.1	22.9	23.0	23.9	24.1	25.4	28.9	25.5	25.9	26.7
Myanmar	12.4	9.8	3.5	...	21.9	21.0	18.2	18.5	18.9	18.5	27.4
Philippines	20.4	18.2	18.1	16.9	16.7	16.7	16.3	17.7	16.8	15.8	16.6
Singapore	20.2	15.6	18.5	14.4	14.7	13.8	16.6	17.4	14.8	15.2	...
Thailand	13.2	15.3	16.9	17.3	17.3	17.7	17.7	19.6	19.2	19.8	...
Viet Nam <sup>b</sup>	21.9	23.8	22.6	25.1	25.3	27.0	25.5	28.1	27.2	26.6	25.8
<b>The Pacific</b>											
Cook Islands	...	48.3	31.0	33.3	33.2	29.9	28.8	32.8	33.5	33.2	...
Fiji	29.8	26.0	28.5	27.3	29.0	27.4	24.6	28.7	27.0	27.5	...
Kiribati	165.0	89.2	87.4	105.8	92.0	91.7	91.3	84.6	84.9	81.9	...
Marshall Islands	92.2	93.1	58.6	65.6	64.8	72.0	66.4	67.8	62.4	...	...
Micronesia, Fed. States of	92.9	77.0	67.2	59.3	60.4	59.2	59.0	64.2	67.7	65.3	64.0
Nauru	...	...	...	28.5	64.0	82.9	54.5	80.5	83.6	...	...
Palau	...	68.5	53.5	36.8	42.0	46.0	42.2	40.2	45.3	40.6	41.4
Papua New Guinea	34.2	28.3	32.9	35.2	34.2	34.8	35.0	30.0	30.7	30.6	30.7
Samoa	70.0	39.6	31.2	32.6	30.3	31.7	32.7	37.9	79.9	84.0	37.3
Solomon Islands	35.3	32.3	31.6	34.6	31.0	36.5	42.0	39.3	39.7	41.2	46.5
Timor-Leste	...	...	...	5.7	7.1	8.2	11.0	18.4	18.4	22.5	...
Tonga	37.1	26.3	22.2	21.2	27.7	24.6	24.9	27.9	28.0	32.4	29.5
Tuvalu	...	53.2	186.9	77.9	81.2	77.1	75.9	93.3	104.1	93.3	79.8
Vanuatu	37.6	29.3	26.0	18.4	19.7	22.1	24.8	24.9	26.3	23.9	...
<b>Developed Member Economies</b>											
Australia	21.9	25.0	23.5	25.0	24.5	24.0	24.0	26.1	26.7	25.7	26.0
Japan	15.7	16.0	18.1	16.0	15.6	14.6	15.9	19.1	18.0	19.6	...
New Zealand	45.3	37.4	34.2	33.3	34.2	35.0	33.8	36.7	37.3	32.0	33.3

... = Data not available at cutoff date, GDP = gross domestic product.

a Data refer to central government, except for Bangladesh, Georgia, Kiribati, the Kyrgyz Republic, Pakistan, and Tajikistan, where data refer to consolidated government or general government.

b Tax revenue includes local government taxes.

Source: Country sources.

**Table 7.5 Government Expenditure on Education<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	2.8	2.7	2.7	3.0	2.9	3.4	2.8	2.8	2.5
Azerbaijan	7.7	3.5	3.9	3.0	2.6	2.5	2.4	3.2	2.8	2.4	2.4
Georgia	...	...	2.2	2.5	3.0	2.7	2.9	3.2	2.9	2.7	2.9
Kazakhstan	...	...	...	...	...	...	...	...	...	...	...
Kyrgyz Republic	7.5	6.6	3.5	4.9	5.5	6.5	5.9	6.2	5.8	6.8	7.5
Pakistan	...	...	...	...	...	...	...	...	...	...	...
Tajikistan	...	2.2	2.3	3.5	3.4	3.4	3.5	4.1	4.0	4.6	4.2
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of <sup>b</sup>	4.0	2.0	...	3.3	2.6	3.0	3.2	3.1	3.1	3.5	4.1
Hong Kong, China	2.8	3.0	3.9	3.8	3.5	3.3	4.4	3.5	3.4	3.5	3.8
Korea, Rep. of	2.9	2.4	3.2	3.2	3.1	3.1	3.7	3.7	3.2	3.3	...
Mongolia	11.5	3.6	6.7	4.9	4.8	5.1	5.8	6.0	5.9	5.7	2.0
Taipei, China	1.0	1.4	2.3	1.6	1.7	1.6	1.7	2.0	1.8	1.8	...
<b>South Asia</b>											
Bangladesh	1.4	2.2	2.0	1.9	2.0	2.1	1.9	1.7	2.2	2.2	...
Bhutan	...	...	...	5.1	5.1	6.0	5.7	5.9	6.7	7.0	6.9
India	...	...	3.3	2.4	2.6	2.6	2.8	...	...	...	...
Maldives	...	4.8	7.4	6.7	6.3	6.7	6.7	7.6	6.0	5.8	6.0
Nepal	1.6	2.2	2.3	2.9	3.0	3.0	3.3	3.6	3.9	4.0	4.0
Sri Lanka	3.0	2.9	2.4	2.6	2.7	2.6	2.3	2.1	1.9	1.9	1.8
<b>Southeast Asia</b>											
Brunei Darussalam	4.0	4.6	4.2	3.8	3.0	3.4	3.0	4.1	4.0	3.3	...
Cambodia	0.8	0.9	1.3	1.4	1.5	1.4	1.4	1.6	1.6	1.4	1.5
Indonesia	1.7	1.3	...	...	...	...	...	...	...	...	...
Lao PDR	0.5	0.1	1.0	...	...	...	...	...	...	...	...
Malaysia	5.5	4.8	5.6	4.9	5.2	5.5	5.8	7.0	6.3	5.6	5.8
Myanmar	...	...	...	...	...	...	...	...	...	...	...
Philippines	3.1	3.2	3.3	2.3	2.3	2.4	2.4	2.6	2.5	2.8	2.9
Singapore	4.0	2.9	3.9	3.2	2.9	2.9	3.1	3.2	3.1	3.2	...
Thailand	2.7	3.4	3.9	3.5	3.3	3.7	3.8	4.1	4.0	4.3	3.8
Viet Nam	...	...	...	...	...	...	...	...	...	...	...
<b>The Pacific</b>											
Cook Islands	...	5.8	3.2	5.3	5.1	4.8	4.4	4.8	4.5	4.5	...
Fiji	3.5	4.0	4.2	3.7	4.0	4.0	3.8	3.7	3.4	3.1	...
Kiribati	12.3	12.1	11.0	14.3	15.8	14.3	12.9	13.3	10.3	10.9	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	7.3	4.7	5.1	...	...	...	...	...	...	...	...
Samoa	...	4.4	4.9	4.4	4.4	7.1	7.4	4.9	4.8	4.8	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	0.9	0.9	0.7	1.0	1.9	1.7	1.7	...
Tonga	3.9	3.8	4.4	3.7	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	5.0	5.2	4.9	4.5	4.6	4.7	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	...	...	1.6	1.6	1.6	1.5	1.6	1.7	2.8	2.4	2.0
Japan	3.5	3.7	3.9	3.0	3.0	3.0	3.0	3.2	3.1	3.2	...
New Zealand	...	4.9	5.3	...	...	...	...	...	...	...	...

... = Data not available at cutoff date, GDP = gross domestic product.

a Data refer to central government, except for Bangladesh, Georgia, Kiribati, the Kyrgyz Republic, Pakistan, and Tajikistan, where data refer to consolidated government or general government.

b Prior to 2006, includes health data.

Source: Country sources.

## Government Finance

**Table 7.6 Government Expenditure on Health<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	1.0	1.4	1.5	1.5	1.4	1.8	1.6	1.7	1.5
Azerbaijan	2.9	1.4	0.9	0.9	0.9	0.9	0.9	1.1	1.0	0.9	1.1
Georgia	...	...	0.6	1.8	1.6	1.5	1.6	2.0	2.2	1.6	1.6
Kazakhstan	...	...	...	...	...	...	...	...	...	...	...
Kyrgyz Republic	3.7	3.9	2.0	2.3	2.7	2.8	2.5	3.1	3.1	3.3	3.8
Pakistan	...	...	...	...	...	...	...	...	...	...	...
Tajikistan	...	1.4	0.9	1.1	1.1	1.1	1.2	1.4	1.4	1.8	1.8
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of <sup>b</sup>	...	...	...	...	0.6	0.7	0.9	1.2	1.2	1.4	1.4
Hong Kong, China	1.5	2.2	2.4	2.2	2.1	2.0	2.1	2.3	2.2	2.3	2.9
Korea, Rep. of	...	...	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2	...
Mongolia	5.5	2.4	3.8	2.6	2.5	2.8	3.1	3.0	2.9	3.0	3.1
Taipei, China	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	...
<b>South Asia</b>											
Bangladesh	0.6	1.0	1.0	0.8	0.8	0.8	0.8	0.8	1.0	1.1	...
Bhutan	...	...	...	2.6	2.6	3.4	3.3	3.2	3.0	2.7	3.0
India	...	...	0.7	0.6	0.6	0.6	0.7	...	...	...	...
Maldives	...	3.3	4.1	4.1	4.1	4.0	5.5	5.5	3.6	1.2	0.4
Nepal	0.6	0.6	0.8	0.8	0.9	1.0	1.2	1.4	1.4	1.6	1.5
Sri Lanka	1.6	1.7	1.6	1.8	2.0	1.9	1.7	1.5	1.3	1.4	1.3
<b>Southeast Asia</b>											
Brunei Darussalam	1.6	2.3	2.1	1.7	1.4	1.6	1.6	2.0	2.0	1.6	...
Cambodia	1.5	0.3	0.9	0.9	0.9	1.0	1.0	1.2	1.3	1.3	1.3
Indonesia	0.4	0.4	...	...	...	...	...	...	...	...	...
Lao PDR	0.1	0.1	1.0	...	...	...	...	...	...	...	...
Malaysia	1.5	1.2	1.5	1.6	1.7	1.7	1.7	2.1	2.1	1.9	2.0
Myanmar	...	...	...	...	...	...	...	...	...	...	...
Philippines	0.7	0.4	0.4	0.2	0.3	0.3	0.2	0.3	0.4	0.5	0.6
Singapore	0.9	1.2	0.9	0.9	0.8	0.8	1.0	1.3	1.2	1.2	...
Thailand	0.9	1.1	1.3	1.3	1.3	1.5	1.8	1.9	1.9	2.1	2.0
Viet Nam	...	...	...	...	...	...	...	...	...	...	...
<b>The Pacific</b>											
Cook Islands	...	4.8	3.1	4.4	3.8	3.7	3.6	4.3	3.8	3.7	...
Fiji	1.6	2.1	2.3	2.2	2.1	2.2	1.9	2.1	2.0	1.7	...
Kiribati	9.4	9.2	7.6	9.4	9.4	9.9	11.0	9.0	8.7	8.5	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	2.9	2.0	1.6	...	...	...	...	...	...	...	...
Samoa	...	3.0	4.0	3.3	3.8	3.5	4.0	5.0	4.3	4.3	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	0.7	0.7	0.4	0.6	0.9	0.8	1.0	...
Tonga	2.8	2.5	4.8	7.1	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	2.6	2.3	2.4	1.9	1.9	2.0	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	...	...	3.9	3.9	3.8	3.7	3.8	3.9	4.0	4.0	4.2
Japan	4.5	5.2	6.3	5.9	5.8	5.9	6.1	6.8	6.8	7.3	...
New Zealand	...	5.0	5.6	...	...	...	...	...	...	...	...

... = Data not available at cutoff date, GDP = gross domestic product.

a Data refer to central government, except for Bangladesh, Georgia, Kiribati, the Kyrgyz Republic, Pakistan, and Tajikistan, where data refer to consolidated government or general government.

b Prior to 2006, data were included in the education expenditure category.

Source: Country sources.

**Table 7.7 Government Expenditure on Social Security and Welfare<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	2.1	2.0	2.0	2.0	6.0	7.8	7.1	6.8	7.3
Azerbaijan	3.9	1.7	3.0	2.4	1.8	2.1	2.1	3.0	2.6	2.9	3.2
Georgia	...	...	4.3	5.4	5.0	3.8	1.7	2.6	6.9	6.4	6.6
Kazakhstan	...	...	...	...	...	...	...	...	...	...	...
Kyrgyz Republic	4.9	5.7	1.7	2.8	3.2	2.7	2.5	2.8	5.0	5.0	5.7
Pakistan	...	...	...	...	...	...	...	...	...	...	...
Tajikistan <sup>b</sup>	...	0.1	1.8	3.2	3.4	2.8	2.9	3.5	3.5	3.5	5.0
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>											
China, People's Rep. of	0.3	0.2	0.7	1.4	1.4	2.0	2.2	2.2	2.3	0.2	0.4
Hong Kong, China	0.9	2.5	2.1	2.4	2.2	2.1	2.3	2.4	2.3	2.2	2.3
Korea, Rep. of	1.3	1.0	3.2	3.8	4.1	4.3	4.6	5.1	4.8	4.9	...
Mongolia	7.7	3.6	6.2	6.1	6.4	7.7	11.1	11.2	12.9	15.6	16.1
Taipei, China	2.8	3.4	5.7	3.4	3.4	3.2	3.3	3.5	3.2	3.4	...
<b>South Asia</b>											
Bangladesh	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.4	0.4	...
Bhutan	...	...	...	2.1	...	...	1.4	1.9	1.8	1.9	2.2
India	...	...	0.8	0.7	1.0	0.9	1.0	...	...	...	...
Maldives	...	1.1	1.0	3.9	1.8	1.2	2.6	1.8	2.1	3.1	5.9
Nepal	1.1	0.5	0.8	0.7	0.7	0.6	1.2	1.7	1.0	0.7	0.7
Sri Lanka	3.8	5.1	2.8	3.8	3.0	2.6	2.1	2.2	1.9	1.9	1.7
<b>Southeast Asia</b>											
Brunei Darussalam	1.1	1.3	1.2	...	0.7	0.8	0.7	0.9	0.9	0.7	...
Cambodia	...	0.4	0.2	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6
Indonesia	...	0.9	...	...	...	...	...	...	...	...	...
Lao PDR	...	0.0	0.7	...	...	...	...	...	...	...	...
Malaysia	1.2	0.8	0.9	0.9	0.9	1.0	1.0	1.1	1.2	0.9	1.0
Myanmar	...	...	...	...	...	...	...	...	...	...	...
Philippines	0.2	0.4	0.7	0.8	0.8	0.8	0.9	0.9	0.8	1.3	1.0
Singapore	0.4	0.8	0.7	0.3	1.2	0.6	2.0	2.2	1.1	1.6	...
Thailand	0.5	0.5	0.9	1.4	1.3	1.4	1.3	1.7	1.4	1.8	1.7
Viet Nam	...	...	...	...	...	...	...	...	...	...	...
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	...
Kiribati	0.0	0.0	0.9	1.8	1.9	1.7	1.6	1.7	1.7	1.6	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	0.3	0.2	0.5	...	...	...	...	...	...	...	...
Samoa	...	...	...	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.1
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	0.0	0.0	0.7	0.7	3.4	3.4	2.5	...
Tonga	0.4	0.5	1.6	1.5	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	0.0	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>											
Australia	...	...	8.6	9.0	8.7	8.5	8.3	10.0	8.4	8.3	8.6
Japan	7.4	9.1	10.6	13.7	13.9	14.2	14.9	16.9	17.0	17.7	...
New Zealand	...	12.5	12.6	...	...	...	...	...	...	...	...

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a Data refer to central government, except for Bangladesh, Georgia, Kiribati, the Kyrgyz Republic, Pakistan, and Tajikistan, where data refer to consolidated government or general government.

b From 2000 onward, includes defense.

Source: Country sources.

## Governance

Table 7.8 **Doing Business Start-Up Indicators**

Regional Member	Cost of Business Start-Up Procedure (% of GNI per capita)								Time Required to Start Up Business (days)							
	2005	2006	2007	2008	2009	2010	2011	2012	2005	2006	2007	2008	2009	2010	2011	2012
<b>Developing Member Economies</b>																
<b>Central and West Asia<sup>a</sup></b>	<b>27.4</b>	<b>24.3</b>	<b>20.9</b>	<b>14.6</b>	<b>10.0</b>	<b>11.2</b>	<b>10.0</b>	<b>8.4</b>	<b>38</b>	<b>30</b>	<b>24</b>	<b>20</b>	<b>15</b>	<b>14</b>	<b>13</b>	<b>12</b>
Afghanistan	75.2	67.4	84.6	59.5	30.2	26.7	25.8	22.5	9	9	9	9	7	7	7	7
Armenia	6.1	5.1	4.8	3.6	2.6	3.1	2.9	2.5	18	17	17	17	14	14	8	8
Azerbaijan	12.3	9.3	6.9	3.2	2.9	3.1	2.7	2.3	113	51	36	10	10	8	8	8
Georgia	13.7	10.9	9.5	4.0	3.7	5.0	4.3	3.8	21	16	11	3	3	3	2	2
Kazakhstan	8.6	7.0	7.6	5.2	4.8	1.0	0.8	0.6	25	21	21	21	20	19	19	19
Kyrgyz Republic	10.4	10.7	8.8	7.4	5.2	3.7	3.5	2.8	21	21	21	15	11	10	10	10
Pakistan	23.9	21.3	14.0	12.6	5.8	10.7	11.2	9.9	24	24	24	24	21	21	21	21
Tajikistan	85.1	75.1	39.6	27.6	24.3	36.9	33.3	27.1	80	80	62	62	38	27	24	24
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	11.5	11.7	11.9	8.1	10.1	10.8	5.3	3.8	29	29	15	15	15	15	14	12
<b>East Asia<sup>a</sup></b>	<b>9.3</b>	<b>8.6</b>	<b>7.9</b>	<b>7.1</b>	<b>5.7</b>	<b>5.7</b>	<b>5.1</b>	<b>4.7</b>	<b>27</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>19</b>	<b>17</b>	<b>14</b>	<b>13</b>
China, People's Rep. of	13.6	9.3	8.4	8.4	4.9	4.5	3.6	2.1	48	35	35	41	38	38	38	33
Hong Kong, China	3.4	3.3	3.1	2.0	1.8	2.0	1.9	1.9	11	11	11	11	6	6	3	3
Korea, Rep. of	15.7	18.2	17.1	16.9	14.7	14.7	14.6	14.6	17	17	17	17	14	14	7	7
Mongolia	9.6	7.9	6.6	4.0	3.0	3.2	2.9	2.4	13	13	13	13	13	13	13	12
Taipei, China	4.4	4.3	4.2	4.0	3.9	4.0	2.4	2.4	48	48	48	42	23	15	10	10
<b>South Asia<sup>a</sup></b>	<b>38.3</b>	<b>41.5</b>	<b>43.0</b>	<b>34.9</b>	<b>33.7</b>	<b>29.8</b>	<b>25.5</b>	<b>23.4</b>	<b>46</b>	<b>40</b>	<b>39</b>	<b>38</b>	<b>33</b>	<b>28</b>	<b>26</b>	<b>21</b>
Bangladesh	56.1	52.1	46.2	25.7	36.2	33.3	30.6	25.1	50	50	74	73	44	19	19	19
Bhutan	19.9	16.6	10.4	8.5	8.0	7.2	7.2	6.5	62	62	48	46	46	46	36	36
India	62.0	78.4	74.6	70.1	66.1	56.5	46.8	49.8	71	35	33	30	30	29	29	27
Maldives	11.5	14.0	13.4	11.5	10.0	9.4	8.9	6.7	9	9	9	9	9	9	9	9
Nepal	69.9	78.5	73.9	60.2	53.6	46.6	37.4	33.0	31	31	31	31	31	31	29	29
Sri Lanka	10.4	9.2	39.3	33.1	28.2	25.5	22.1	19.1	50	50	40	39	39	36	36	7
<b>Southeast Asia<sup>a</sup></b>	<b>60.3</b>	<b>47.5</b>	<b>41.1</b>	<b>35.1</b>	<b>26.9</b>	<b>26.2</b>	<b>22.9</b>	<b>21.1</b>	<b>70</b>	<b>66</b>	<b>62</b>	<b>56</b>	<b>54</b>	<b>51</b>	<b>49</b>	<b>48</b>
Brunei Darussalam	...	8.8	9.0	9.2	9.8	13.5	11.8	10.7	...	116	116	116	116	105	101	101
Cambodia	276.1	236.4	190.3	151.7	138.4	128.3	109.7	100.5	86	86	86	85	85	85	85	85
Indonesia	101.7	86.7	80.0	76.7	25.0	25.8	23.5	22.7	151	97	105	76	62	49	47	47
Lao PDR	17.4	15.8	14.7	11.6	9.7	8.9	7.6	7.1	153	123	93	93	93	93	93	92
Malaysia	26.6	25.1	23.1	18.9	15.6	17.5	16.4	15.1	37	37	31	20	18	17	6	6
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	23.9	22.2	24.1	22.7	21.6	22.1	19.1	18.1	47	47	47	41	42	37	36	36
Singapore	0.9	0.8	0.8	0.7	0.7	0.7	0.7	0.6	6	6	5	4	3	3	3	3
Thailand	8.1	7.7	7.9	7.4	7.7	6.9	7.0	6.7	33	33	33	33	32	32	29	29
Viet Nam	27.6	24.3	20.0	16.8	13.3	12.1	10.6	8.7	45	45	39	39	39	38	38	34
<b>The Pacific<sup>a</sup></b>	<b>60.0</b>	<b>51.9</b>	<b>43.4</b>	<b>42.1</b>	<b>35.3</b>	<b>35.2</b>	<b>32.4</b>	<b>30.8</b>	<b>47</b>	<b>48</b>	<b>47</b>	<b>46</b>	<b>44</b>	<b>40</b>	<b>35</b>	<b>33</b>
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	28.4	25.8	25.3	25.2	25.3	23.8	25.1	24.0	46	46	46	46	46	46	45	58
Kiribati	40.3	28.4	32.1	36.6	21.6	22.8	22.2	22.3	31	31	31	31	31	31	31	31
Marshall Islands	22.4	18.1	17.7	17.3	16.2	17.3	17.7	13.6	17	17	17	17	17	17	17	17
Micronesia, Fed. States of	133.6	135.9	137.0	137.5	136.9	150.5	142.8	144.2	16	16	16	16	16	16	16	16
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	4.7	4.9	4.7	4.6	4.3	6.0	5.8	5.2	24	28	28	28	28	28	28	28
Papua New Guinea	27.7	23.8	24.2	21.7	18.9	17.7	15.6	13.6	51	51	51	51	51	51	51	51
Samoa	46.4	45.5	41.3	39.8	9.9	9.8	9.7	9.5	35	35	35	35	9	9	9	9
Solomon Islands	135.5	117.2	101.8	93.5	70.1	78.5	54.5	47.9	56	56	56	56	56	56	42	9
Timor-Leste	125.4	83.3	13.1	7.3	23.5	5.7	5.2	2.9	167	167	158	157	157	110	94	94
Tonga	11.7	10.3	10.8	9.6	8.2	7.0	10.3	8.3	32	32	32	25	25	25	16	16
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	83.5	78.0	69.9	69.7	53.5	48.2	47.1	47.2	47	47	47	47	47	47	35	35
<b>Developed Member Economies<sup>a</sup></b>	<b>4.3</b>	<b>3.2</b>	<b>2.8</b>	<b>2.9</b>	<b>2.9</b>	<b>2.9</b>	<b>2.9</b>	<b>2.9</b>	<b>15</b>	<b>12</b>	<b>12</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>
Australia	1.9	1.8	0.8	0.8	0.8	0.7	0.7	0.7	2	2	2	2	2	2	2	2
Japan	10.7	7.5	7.5	7.5	7.5	7.5	7.5	7.5	31	23	23	23	23	23	23	23
New Zealand	0.2	0.2	0.1	0.4	0.4	0.4	0.4	0.4	12	12	12	1	1	1	1	1
<b>DEVELOPING MEMBER ECONOMIES<sup>a</sup></b>	<b>42.7</b>	<b>38.5</b>	<b>33.9</b>	<b>29.4</b>	<b>24.1</b>	<b>23.5</b>	<b>21.0</b>	<b>19.4</b>	<b>47</b>	<b>42</b>	<b>39</b>	<b>37</b>	<b>33</b>	<b>30</b>	<b>27</b>	<b>26</b>
<b>REGIONAL MEMBERS<sup>a</sup></b>	<b>40.0</b>	<b>35.3</b>	<b>31.2</b>	<b>27.0</b>	<b>22.3</b>	<b>21.9</b>	<b>19.5</b>	<b>18.1</b>	<b>45</b>	<b>41</b>	<b>39</b>	<b>37</b>	<b>33</b>	<b>30</b>	<b>28</b>	<b>26</b>
<b>WORLD</b>	<b>89.0</b>	<b>109.5</b>	<b>68.2</b>	<b>52.6</b>	<b>44.3</b>	<b>42.2</b>	<b>37.1</b>	<b>31.3</b>	<b>50</b>	<b>46</b>	<b>43</b>	<b>39</b>	<b>36</b>	<b>34</b>	<b>30</b>	<b>30</b>

... = Data not available at cutoff date, GNI = gross national income.

a For reporting economies only.

Source: Doing Business Online (World Bank 2013).

Table 7.9 Corruption Perceptions Index<sup>a</sup>

Regional Member	2000	2005	2006	2007	2008	2009	2010	2011	2012	Rank in 2011 <sup>b</sup>	Rank in 2012 <sup>c</sup>
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	2.5	...	1.8	1.5	1.3	1.4	1.5	8.0	180	174
Armenia	2.5	2.9	2.9	3.0	2.9	2.7	2.6	2.6	34.0	129	105
Azerbaijan	1.5	2.2	2.4	2.1	1.9	2.3	2.4	2.4	27.0	143	139
Georgia	...	2.3	2.8	3.4	3.9	4.1	3.8	4.1	52.0	64	51
Kazakhstan	3.0	2.6	2.6	2.1	2.2	2.7	2.9	2.7	28.0	120	133
Kyrgyz Republic	...	2.3	2.2	2.1	1.8	1.9	2.0	2.1	24.0	164	154
Pakistan	...	2.1	2.2	2.4	2.5	2.4	2.3	2.5	27.0	134	139
Tajikistan	...	2.1	2.2	2.1	2.0	2.0	2.1	2.3	22.0	152	157
Turkmenistan	...	1.8	2.2	2.0	1.8	1.8	1.6	1.6	17.0	177	170
Uzbekistan	2.4	2.2	2.1	1.7	1.8	1.7	1.6	1.6	17.0	177	170
<b>East Asia</b>											
China, People's Rep. of	3.1	3.2	3.3	3.5	3.6	3.6	3.5	3.6	39.0	75	80
Hong Kong, China	7.7	8.3	8.3	8.3	8.1	8.2	8.4	8.4	77.0	12	14
Korea, Rep. of	4.0	5.0	5.1	5.1	5.6	5.5	5.4	5.4	56.0	43	45
Mongolia	...	3.0	2.8	3.0	3.0	2.7	2.7	2.7	36.0	120	94
Taipei, China	5.5	5.9	5.9	5.7	5.7	5.6	5.8	6.1	61.0	32	37
<b>South Asia</b>											
Bangladesh	...	1.7	2.0	2.0	2.1	2.4	2.4	2.7	26.0	120	144
Bhutan	...	...	6.0	5.0	5.2	5.0	5.7	5.7	63.0	38	33
India	2.8	2.9	3.3	3.5	3.4	3.4	3.3	3.1	36.0	95	94
Maldives	...	...	...	3.3	2.8	2.5	2.3	2.5	...	134	...
Nepal	...	2.5	2.5	2.5	2.7	2.3	2.2	2.2	27.0	154	139
Sri Lanka	...	3.2	3.1	3.2	3.2	3.1	3.2	3.3	40.0	86	79
<b>Southeast Asia</b>											
Brunei Darussalam	...	...	...	...	...	5.5	5.5	5.2	55.0	44	46
Cambodia	...	2.3	2.1	2.0	1.8	2.0	2.1	2.1	22.0	164	157
Indonesia	1.7	2.2	2.4	2.3	2.6	2.8	2.8	3.0	32.0	100	118
Lao PDR	...	3.3	2.6	1.9	2.0	2.0	2.1	2.2	21.0	154	160
Malaysia	4.8	5.1	5.0	5.1	5.1	4.5	4.4	4.3	49.0	60	54
Myanmar	...	1.8	1.9	1.4	1.3	1.4	1.4	1.5	15.0	180	172
Philippines	2.8	2.5	2.5	2.5	2.3	2.4	2.4	2.6	34.0	129	105
Singapore	9.1	9.4	9.4	9.3	9.2	9.2	9.3	9.2	87.0	5	5
Thailand	3.2	3.8	3.6	3.3	3.5	3.4	3.5	3.4	37.0	80	88
Viet Nam	2.5	2.6	2.6	2.6	2.7	2.7	2.7	2.9	31.0	112	123
<b>The Pacific</b>											
Cook Islands	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	4.0	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	3.3	3.1	2.8	3.2	3.1	...	95	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	2.3	2.4	2.0	2.0	2.1	2.1	2.2	25.0	154	150
Samoa	...	...	...	4.5	4.4	4.5	4.1	3.9	...	69	...
Solomon Islands	...	...	...	2.8	2.9	2.8	2.8	2.7	...	120	...
Timor-Leste	...	...	2.6	2.6	2.2	2.2	2.5	2.4	33.0	143	113
Tonga	...	...	...	1.7	2.4	3.0	3.0	3.1	...	95	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	3.1	2.9	3.2	3.6	3.5	...	77	...
<b>Developed Member Economies</b>											
Australia	8.3	8.8	8.7	8.6	8.7	8.7	8.7	8.8	85.0	8	7
Japan	6.4	7.3	7.6	7.5	7.3	7.7	7.8	8.0	74.0	14	17
New Zealand	9.4	9.6	9.6	9.4	9.3	9.4	9.3	9.5	90.0	1	1

... = Data not available at cutoff date.

a For 2000 to 2011, score relates to perceptions of the degree of corruption as seen by business people and country analysts, and ranges from 10 (highly clean) to 0 (highly corrupt). For 2012, computation of the score used an updated methodology and is now presented on a 100 (highly clean) to 0 (highly corrupt) scale. Scores from 2011 and previous editions should not be compared with scores from 2012.

b Based on 183 economies.

c Based on 176 economies.

Source: Transparency International (2013).

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## PART IV

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# Definitions





This part contains the definitions of the indicators for the Millennium Development Goals (MDGs) and Regional Trends and Tables. The definitions are taken mostly from the Asian Development Bank's *Development Indicators Reference Manual*, including websites and publications of international and private organizations such as the Food and Agriculture Organization (FAO); International Labour Organization (ILO); International Monetary Fund (IMF); International Road Federation (IRF); International Telecommunication Union (ITU); The Joint United Nations Programme on HIV/AIDS (UNAIDS); Organisation for Economic Co-operation and Development (OECD); Transparency International; United Nations Children's

Fund (UNICEF); United Nations Educational, Scientific and Cultural Organization (UNESCO); United Nations Population Division (UNPD); United Nations Statistics Division (UNSD); World Bank; World Health Organization (WHO); and United Nations World Tourism Organization (UNWTO). The indicators for the MDGs are arranged according to their respective goals and targets before they are defined, while the indicators for the Regional Trends and Tables are grouped according to their themes and subtopics before they are defined. In many instances, the indicators themselves, rather than their growth rates or ratios to another indicator, are defined.

## Millennium Development Goals

Goals and Targets	Indicators for Monitoring Progress	Definition
<b>Goal 1: Eradicate extreme poverty and hunger</b>		
<b>Target 1.A:</b> Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1.1 Proportion of population below \$1 (PPP) per day	Proportion of the population living on less than \$1.25 a day, measured at 2005 international prices, adjusted for purchasing power parity (PPP).  PPP conversion factor for private consumption, is the number of units of a country's currency required to buy the same amount of goods and services in the domestic market as a US dollar would buy in the United States.
	1.2 Poverty gap ratio	Mean shortfall of the total population from the poverty line (counting the nonpoor as having zero shortfall), expressed as a percentage of the poverty line. This measure reflects the depth of poverty as well as its incidence.
	1.3 Share of poorest quintile in national consumption	Percentage share of consumption or income that accrues to the poorest fifth (bottom quintile) of the population.
<b>Target 1.B:</b> Achieve full and productive employment and decent work for all, including women and young people	1.4 Growth rate of gross domestic product (GDP) per person employed	Growth rate of output per unit of labor input.  Output is measured as "value added", which is the total production value minus the value of intermediate inputs, such as raw materials, semi-finished products, services purchased, and energy inputs. Value added, called "GDP" in the national accounts, represents the compensation for input of services from capital (including depreciation) and labor directly engaged in the production.  Labor input is defined as persons employed.
	1.5 Employment-to-population ratio	Proportion of a country's working-age population that is employed.  Employment is defined as persons above a specified age who performed any work at all, in the reference period, for pay or profit (or pay in kind), or were temporarily absent from a job for such reasons as illness, maternity or parental leave, holiday, training, or industrial dispute. Unpaid family workers who work for at least 1 hour should be included in the count of employment, although many countries use a higher hour limit in their definition.  For most countries, the working-age population is defined as persons aged 15 years and older, although this may vary slightly from country to country.
	1.6 Proportion of employed people living below \$1 (PPP) per day	Share of individuals who are employed, but nonetheless live in a household whose members are estimated to be living below the international poverty line of \$1.25 a day, measured at 2005 international prices, adjusted for PPP.

continued.

Goals and Targets	Indicators for Monitoring Progress	Definition
	1.7 Proportion of own-account and contributing family workers in total employment	<p>Own-account workers are workers who, working on their own account or with one or more partners, hold the type of jobs defined as self-employment jobs (i.e., remuneration is directly dependent upon the profits derived from the goods and services produced), and have not engaged on a continuous basis any employee to work for them during the reference period.</p> <p>Contributing family workers, also known as unpaid family workers, are workers who are self-employed, as own-account workers in a market-oriented establishment operated by a related person living in the same household.</p>
<b>Target 1.C:</b> Halve, between 1990 and 2015, the proportion of people who suffer from hunger	1.8 Prevalence of underweight children under-five years of age	<p>Percentage of children aged 0–59 months whose weight for age are less than two standard deviations below the median weight for age of the international reference population.</p> <p>The international reference population, often referred to as the NCHS/WHO reference population, was formulated by the National Center for Health Statistics (NCHS) as a reference for the United States and later adopted by the World Health Organization (WHO).</p> <p>The NCHS/WHO reference standard represents the distribution of height and weight by age and sex in a well-nourished population. In a well-nourished population, 2.3% of children fall below minus two standard deviations.</p> <p>Percentage of children under 5 years old that are underweight = (number of children under age 5 that fall below minus two standard deviations from the median weight for age of the NCHS/WHO standard [moderate and severe])*100/ total number of children under age 5 that were weighted.</p>
	1.9 Proportion of population below minimum level of dietary energy consumption	Percentage of the population that is undernourished or food-deprived, whose food intake falls below the minimum level of dietary energy requirements.
<b>Goal 2: Achieve universal primary education</b>		
<b>Target 2.A:</b> Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	2.1 Net enrollment ratio in primary education	Number of children of official primary school age (according to International Standard Classification of Education [ISCED97]) who are enrolled in primary education as a percentage of the total children of the official primary school age population. Total net primary enrollment rate also includes children of primary school age enrolled in secondary education. Where more than one system of primary education exists within the country, the most widespread or common structure is used for determining the official school age group.
	2.2 Proportion of pupils starting grade 1 who reach last grade of primary	<p>Percentage of a cohort of pupils enrolled in grade 1 of the primary level of education in a given school year who are expected to reach the last grade of primary school, regardless of repetition.</p> <p>Primary education is defined by ISCED97 as programs normally designed on a unit or project basis to give pupils a sound basic education in reading, writing, and mathematics along with an elementary understanding of other subjects such as history, geography, natural science, social science, art, and music.</p>
	2.3 Literacy rate of 15–24-year-olds, women and men	Percentage of the population aged 15–24 years who can both read and write with understanding a short, simple statement on everyday life.

continued.

Goals and Targets	Indicators for Monitoring Progress	Definition
<b>Goal 3: Promote gender equality and empower women</b>		
<b>Target 3.A:</b> Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	3.1 Ratio of girls to boys in primary, secondary, and tertiary education	Ratio of the number of female students enrolled at primary, secondary, and tertiary levels of education to the number of male students in each level. To standardize the effects of the population structure of the appropriate age groups, the gender parity index (GPI) of the gross enrollment ratio (GER) for each level of education is used.  The GER is the number of pupils enrolled in a given level of education, regardless of age, expressed as a percentage of the population in the theoretical age group for the same level of education.
	3.2 Share of women in wage employment in the nonagricultural sector	Number of women in nonagricultural paid employment divided by the total number of persons in paid employment in the nonagricultural sector. It is expressed as a percentage of total wage employment in that same sector.
	3.3 Proportion of seats held by women in national parliament	Number of seats held by women members in single or lower chambers of national parliaments, expressed as a percentage of all occupied seats.  National parliaments can be bicameral or unicameral. This indicator covers the single chamber in unicameral parliaments and the lower chamber in bicameral parliaments. It does not cover the upper chamber of bicameral parliaments. Seats are usually won by members in general parliamentary elections. Seats may also be filled by nomination, appointment, indirect election, rotation of members, and by election.  Seats refer to the number of parliamentary mandates or the number of members of parliament.
<b>Goal 4: Reduce child mortality</b>		
<b>Target 4.A:</b> Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	4.1 Under-five mortality rate	Probability (expressed as a rate per 1,000 live births) of a child born in a specified year, dying before reaching the age of 5, if subject to current age-specific mortality rates.
	4.2 Infant mortality rate	Probability (expressed as a rate per 1,000 live births) of a child born in a specified year, dying before reaching the age of 1 year, if subject to current age-specific mortality rates.
	4.3 Proportion of 1-year-old children immunized against measles	Percentage of children under 1 year of age who have received at least one dose of a measles vaccine.
<b>Goal 5: Improve maternal health</b>		
<b>Target 5.A:</b> Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	5.1 Maternal mortality ratio	Ratio of the number of maternal deaths during a given time period per 100,000 live births during the same time-period.  A maternal death refers to a female death from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy.
	5.2 Proportion of births attended by skilled health personnel	Percentage of deliveries attended by health personnel trained in providing life-saving obstetric care, including giving the necessary supervision, care, and advice to women during pregnancy, labor, and the postpartum period; conducting deliveries on their own; and caring for newborns. Traditional birth attendants, even if they receive a short training course, are not included.

continued.

Goals and Targets	Indicators for Monitoring Progress	Definition
<b>Target 5.B:</b> Achieve, by 2015, universal access to reproductive health	5.3 Contraceptive prevalence rate	Percentage of women married or in union aged 15–49 years who are currently using, or whose sexual partner is using, at least one method of contraception, regardless of the method used.
	5.4 Adolescent birth rate	Annual number of births to women 15–19 years of age per 1,000 women in that age group. It represents the risk of childbearing among adolescent women 15–19 years of age. Also referred to as the age-specific fertility rate for women aged 15–19 years.
	5.5 Antenatal care coverage (at least one visit and at least four visits)	For coverage of at least one visit, refers to the percentage of women aged 15–49 years with a live birth in a given time period that received antenatal care provided by a skilled health personnel (doctors, nurses, or midwives) at least once during pregnancy, as a percentage of women aged 15–49 years with a live birth in a given time period.  For coverage of at least four visits, refers to the percentage of women aged 15–49 years with a live birth in a given time period that received antenatal care four or more times from any provider (whether skilled or unskilled), as a percentage of women aged 15–49 years with a live birth in a given time period.
	5.6 Unmet need for family planning	Women with unmet need are those who are fecund and sexually active women but are not using any method of contraception, and report not wanting any more children or wanting to delay the next child. It is expressed as a percentage of women aged 15–49 years who are married or in a consensual union.  The concept of unmet need points to the gap between women's reproductive intentions and their contraceptive behavior.  For MDG monitoring, unmet need is expressed as a percentage based on women who are married or in a consensual union.
<b>Goal 6: Combat HIV/AIDS, malaria, and other diseases</b>		
<b>Target 6.A:</b> Have halted by 2015 and begun to reverse the spread of HIV/AIDS	6.1 HIV prevalence among population aged 15–24 years	Estimated number of persons aged 15–24 years living with HIV divided by the population aged 15–24 years. HIV prevalence among population aged 15–49 years is the percentage of individuals aged 15–49 years living with HIV.  Human Immunodeficiency Virus (HIV) is a virus that weakens the immune system, ultimately leading to AIDS, the acquired immunodeficiency syndrome. HIV destroys the body's ability to fight off infection and disease, which can ultimately lead to death.
	6.2 Condom use at last high-risk sex aged 15–24 years	Percentage of young men and women to number of respondents aged 15–24 reporting the use of a condom during sexual intercourse with a non-cohabiting, non-marital sexual partner in the last 12 months.
	6.3 Proportion of population aged 15–24 years with comprehensive correct knowledge of HIV/AIDS	Percentage of young persons aged 15–24 years who correctly identify the two major ways of preventing the sexual transmission of HIV (using condoms and limiting sex to one faithful, uninfected partner), who reject the two most common local misconceptions about HIV transmission and who know that a healthy-looking person can transmit HIV.
	6.4 Ratio of school attendance of orphans to school attendance of nonorphans aged 10–14 years	Ratio of the current school attendance rate of children aged 10–14 whose biological parents have died to the current school attendance rate of children aged 10–14 whose parents are still alive, and who currently live with at least one biological parent.
<b>Target 6.B:</b> Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	6.5 Proportion of population with advanced HIV infection with access to antiretroviral drugs	Percentage of adults and children with advanced HIV infection currently receiving antiretroviral therapy according to nationally approved treatment protocols among the estimated number of people with advanced HIV infection.

continued.

Goals and Targets	Indicators for Monitoring Progress	Definition
<b>Target 6.C:</b> Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	6.6 Incidence and death rates associated with malaria	Incidence refers to the number of reported new cases of malaria per 100,000 people each year; death rate refers to the number of deaths caused by malaria per 100,000 people each year.
	6.7 Proportion of children under 5 years old sleeping under insecticide-treated bednets	Percentage of children aged 0–59 months who slept under an insecticide treated mosquito net the night prior to the survey.
	6.8 Proportion of children under 5 with fever who are treated with appropriate antimalarial drugs	Percentage of children aged 0–59 months with fever in the 2 weeks prior to the survey who received any antimalarial medicine.
	6.9 Incidence, prevalence, and death rates associated with tuberculosis (TB)	Incidence is the estimated number of new TB cases arising in 1 year per 100,000 population. All forms of TB are included, as are cases in people with HIV. Prevalence rate is the number of cases of TB (all forms) in a population at a given point in time (sometimes referred to as point prevalence). It reflects the number of cases per 100,000 population. Estimates include cases of TB in people with HIV. Death rate is the estimated number of deaths due to TB in a given time period. It is expressed as the number of deaths per 100,000 population per year. Deaths from all forms of TB are included. Deaths from TB in people with HIV are included.
	6.10 Proportion of tuberculosis cases detected and cured under directly observed treatment short course (DOTS)	Case detection, as used here, means that TB is diagnosed in a patient and is reported within the national surveillance system, and then to WHO. The case detection rate is the percentage of estimated new infectious tuberculosis cases detected under the internationally recommended tuberculosis control strategy DOTS. Success rate is the proportion of new smear-positive TB cases registered under DOTS in a given year that successfully completed treatment, whether with bacteriologic evidence of success (cured) or without (treatment completed). At the end of treatment, each patient is assigned one of the following six mutually exclusive treatment outcomes: cured; completed; died; failed; defaulted; and transferred out with outcome unknown. The proportions of cases assigned to these outcomes, plus any additional cases registered for treatment but not assigned to an outcome, add up to 100% of cases registered.
<b>Goal 7: Ensure environmental sustainability</b>		
<b>Target 7.A:</b> Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources	7.1 Proportion of land area covered by forest	Area of forest as a share of total land area, where land area is the total country area excluding the area of inland water bodies (major rivers, lakes, and water reservoirs). Forest is land spanning more than 0.5 hectare with trees higher than 5 meters and a canopy cover of more than 10%; or trees able to reach these thresholds <i>in situ</i> ; and does not include land that is predominantly under agricultural or urban land use.
	7.2 Carbon dioxide (CO <sub>2</sub> ) emissions, total, per capita and per \$1 GDP (PPP)	<p>Estimates of total carbon dioxide (CO<sub>2</sub>) emissions include anthropogenic emissions less removal by sinks of carbon dioxide (CO<sub>2</sub>). The term “total” implies that emissions from all national activities are considered. The typical sectors for which CO<sub>2</sub> emissions/removals are estimated are energy, industrial processes, agriculture, waste, and the sector of land use, land-use change and forestry (LULUCF).</p> <p>CO<sub>2</sub> emissions/removals by land use, land-use change, and forestry are often known with much less certainty than emissions from the other sectors, or emissions/removals estimates for LULUCF may not be available at all. In such cases, “total” emissions can be calculated as the sum of emissions for the sectors of energy, industrial processes, agriculture, and waste. Carbon emissions per capita are measured as the total amount of CO<sub>2</sub> emitted by the country divided by the population of the country.</p> <p>CO<sub>2</sub> emissions per \$1 GDP (PPP) are total CO<sub>2</sub> emissions divided by the total value of GDP expressed in PPP.</p>

continued.

Goals and Targets	Indicators for Monitoring Progress	Definition
	7.3 Consumption of ozone-depleting substances	Sum of the national annual consumption in weighted tons of the individual substances in the group of ozone-depleting substances multiplied by their ozone-depleting potential. Ozone-depleting substance is any substance containing chlorine or bromine that destroys the stratospheric layer, which absorbs most of the biologically damaging ultraviolet radiation.
	7.4 Proportion of fish stocks within safe biological limits	Percentage of fish stocks of which abundance is at or above the level that produces the maximum sustainable yield.
	7.5 Proportion of total water resources used	Proportion of total renewable water resources withdrawn is the total volume of groundwater and surface water withdrawn from their sources for human use (in the agricultural, domestic, and industrial sectors), expressed as a percentage of the total volume of water available annually through the hydrological cycle (total actual renewable water resources). Water resources and water withdrawal are terms understood as freshwater resources and freshwater withdrawal.
<b>Target 7.B:</b> Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	7.6 Proportion of terrestrial and marine areas protected	Protected area is an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.
	7.7 Proportion of species threatened with extinction	<p>The indicator Changes in the Status of Species measures the change in threatened status of species in their natural habitat, based on population and range size and trends, as quantified by the categories of the International Union for the Conservation of Nature (IUCN) Red List of Threatened Species™ (hereafter 'IUCN Red List'; <a href="http://www.redlist.org">http://www.redlist.org</a>).</p> <p>The IUCN Red List Index (IUCN RLI) uses data from the IUCN Red List to show changes over time in the overall threat status (relative projected extinction risk) of representative sets of species.</p> <p>The IUCN Red List is widely recognized as the most authoritative and objective method of classifying the status of species. It uses quantitative criteria based on population size, rate of decline, and area of distribution to assign species to the following categories of relative extinction risk: Least Concern, Near Threatened, Vulnerable, Endangered, Critically Endangered, Extinct in the Wild, Extinct, and Data Deficient (IUCN 2001).</p>
<b>Target 7.C:</b> Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	7.8 Proportion of population using an improved drinking water source	Percentage of the population who use any of the following types of water supply for drinking: piped water into dwelling, plot, or yard; public tap/standpipe; borehole/tube well; protected dug well; protected spring; rainwater collection and bottled water (if a secondary available source is also improved). It does not include unprotected well, unprotected spring, water provided by carts with small tanks/drums, tanker truck-provided water and bottled water (if secondary source is not an improved source) or surface water taken directly from rivers, ponds, streams, lakes, dams, or irrigation channels.
	7.9 Proportion of population using an improved sanitation facility	Percentage of the population with access to facilities that hygienically separate human excreta from human contact. Improved facilities include flush/pour flush toilets or latrines connected to a sewer, septic tank, or pit, ventilated improved pit latrines, pit latrines with a slab or platform of any material which covers the pit entirely, except for the drop hole and composting toilets/latrines. Unimproved facilities include public or shared facilities of an otherwise acceptable type, flush/pour-flush toilets or latrines which discharge directly into an open sewer or ditch, pit latrines without a slab, bucket latrines, hanging toilets or latrines which directly discharge in water bodies or in the open and the practice of open defecation in the bush, field or bodies of water.

continued.

Goals and Targets	Indicators for Monitoring Progress	Definition
<b>Target 7.D:</b> By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	7.10 Proportion of urban population living in slums	<p>Proportion of urban population living in slum households defined as a group of individuals living under the same roof lacking one or more of the conditions below:</p> <ul style="list-style-type: none"> <li>• access to improved water</li> <li>• access to improved sanitation</li> <li>• sufficient living area</li> <li>• durability of housing</li> <li>• security of tenure</li> </ul> <p>However, since information on secure tenure is not available for most of the countries, only the first four indicators are used to define slum households, and then to estimate the proportion of urban population living in slums.</p> <p>Durability of housing: A house is considered “durable” if it is built on a non-hazardous location and has a structure permanent and adequate enough to protect its inhabitants from the extremes of climatic conditions, such as rain, heat, cold and humidity.</p> <p>Sufficient living area: A house is considered to provide a sufficient living area for the household members if not more than three people share the same habitable (minimum of four square meters) room.</p> <p>Secure tenure: Secure tenure is the right of all individuals and groups to effective protection by the State against arbitrary unlawful evictions. People have secure tenure when there is evidence of documentation that can be used as proof of secure tenure status or when there is either de facto or perceived protection against forced evictions.</p>
<b>Goal 8: Develop a global partnership for development</b> <i>Some of the indicators listed below are monitored separately for the least developed countries, Africa, landlocked developing countries, and small island developing states.</i>		
<b>Target 8.A:</b> Develop further an open, rule-based, predictable, non-discriminatory trading and financial system  Includes a commitment to good governance, development, and poverty reduction—both nationally and internationally	Official Development Assistance (ODA)  8.1 Net ODA, total and to the least developed countries, as percentage of OECD/ Development Assistance Committee (OECD/DAC) donors' gross national income	<p>Net ODA comprises grants or loans to developing countries and territories on the OECD/DAC list of aid recipients that are undertaken by the official sector, with promotion of economic development and welfare as the main objective and at concessional financial terms.</p> <p>Donors' gross national income (GNI) at market prices is the sum of gross primary incomes receivable by resident institutional units and sectors. GNI at market prices was called gross national product (GNP) in the 1953 System of National Accounts (SNA). In contrast to GDP, GNI is a concept of income (primary income) rather than value added.</p>

continued

Goals and Targets	Indicators for Monitoring Progress	Definition
<b>Target 8.B:</b> Address the special needs of the least developed countries  Includes: tariff and quota free access for the least developed countries' exports; enhanced program of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction	8.2 Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water, and sanitation)	ODA comprises grants or loans to developing countries and territories on the OECD/DAC list of aid recipients that are undertaken by the official sector with promotion of economic development and welfare as the main objective and at concessional financial terms.  Basic education comprises primary education, basic life skills for youth and adults, and early childhood education. Primary health care includes basic health care, basic health infrastructure, basic nutrition, infectious disease control, health education, and health personnel development.
	8.3 Proportion of bilateral official development assistance of OECD/DAC donors that is untied	ODA comprises grants or loans to developing countries and territories on the OECD/DAC list of aid recipients that are undertaken by the official sector, with promotion of economic development and welfare as the main objectives, and offered at concessional financial terms.  Untied bilateral ODA is assistance from country to country for which the associated goods and services may be fully and freely procured in substantially all countries.
	8.4 ODA received in landlocked developing countries as a proportion of their gross national incomes	ODA comprises grants or loans to developing countries and territories on the OECD/DAC list of aid recipients that are undertaken by the official sector with promotion of economic development and welfare as the main objective and at concessional financial terms.  Recipient countries' GNI at market prices is the sum of gross primary incomes receivable by resident institutional units and sectors. GNI at market prices was called GNP in the 1953 SNA. In contrast to GDP, GNI is a concept of income (primary income) rather than value added.
<b>Target 8.C:</b> Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)	8.5 ODA received in small island developing States as a proportion of their gross national incomes	ODA comprises grants or loans to developing countries and territories on the OECD/DAC list of aid recipients that are undertaken by the official sector with promotion of economic development and welfare as the main objective and at concessional financial terms.  Recipient countries' GNI at market prices is the sum of gross primary incomes receivable by resident institutional units and sectors. GNI at market prices was called GNP in the 1953 SNA. In contrast to GDP, GNI is a concept of income (primary income) rather than value added.
	Market Access  8.6 Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty	Proportion of duty free imports (excluding arms) into developed countries from developing and least developed countries.
	8.7 Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries	Average tariffs imposed by developed countries on subsets of selected items (agricultural products, textile, and clothing exports) that are deemed to be of interest to developing countries.  Average tariffs are the simple average of all applied ad valorem tariffs (tariffs based on the value of the import) applicable to the bilateral imports of developed countries. Agricultural products comprise plant and animal products, including tree crops but excluding timber and fish products. Clothing and textiles include natural and synthetic fibers and fabrics and articles of clothing made from them.

continued.

Goals and Targets	Indicators for Monitoring Progress	Definition
<b>Target 8.C:</b> <i>(continued)</i>	8.8 Agricultural support estimate for OECD countries as a percentage of their gross domestic product	<p>Agricultural support is the annual monetary value of all gross transfers from taxpayers and consumers, both domestic and foreign (in the form of subsidies arising from policy measures that support agriculture), net of the associated budgetary receipts, regardless of their objectives and impacts on farm production and income, or consumption of farm products.</p> <p>Total support estimate for agricultural products represents the overall taxpayer and consumer costs of agricultural policies. When expressed as a percentage of GDP, the total support estimate is an indicator of the cost to the economy as a whole.</p>
	8.9 Proportion of ODA provided to help build trade capacity	ODA comprises grants or loans to developing countries and territories on the OECD/DAC list of aid recipients that are undertaken by the official sector with promotion of economic development and welfare as the main objective and at concessional financial terms (if a loan, a grant element of at least 25%). Technical cooperation is included. Grants, loans, and credits for military purposes are excluded. Also excluded is aid to more advanced developing and transition countries as determined by DAC.
<b>Target 8.D:</b> Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	Debt Sustainability	
	8.10 Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative)	<p>The indicator is the number of heavily indebted poor countries that have qualified for HIPC initiative assistance and that have reached their decision (or completion) point under the enhanced HIPC initiative.</p> <p>Countries reach HIPC decision point if they have a track record of macroeconomic stability, have prepared an Interim Poverty Reduction Strategy through a participatory process, and have cleared or reached an agreement on a process to clear the outstanding arrears to multilateral creditors. The amount of debt relief necessary to bring countries' debt indicators to HIPC thresholds is calculated, and countries begin receiving debt relief.</p> <p>Countries reach HIPC completion point if they maintain macroeconomic stability under a Poverty Reduction and Growth Facility-supported program, successfully complete key structural and social reforms agreed on at the decision point, and implement satisfactorily the Poverty Reduction Strategy for one year. The country then receives the bulk of debt relief under the HIPC initiative without any further policy conditions.</p>
	8.11 Debt relief committed under HIPC and Multilateral Debt Relief Initiative (MDRI) Initiatives	<p>Debt relief is committed under the HIPC Initiative when a country reaches its decision point. It is calculated as the amount needed to bring the net present value (NPV) of the country's debt level to the thresholds established by the HIPC Initiative (150% of exports, or in certain cases 250% of fiscal revenues).</p> <p>MDRI assistance is the net present value of debt relief from four multilateral agencies—the International Development Association, International Monetary Fund (IMF), African Development Fund, and Inter-American Development Bank—delivered in full to countries having reached the completion point under the enhanced HIPC Initiative.</p>
	8.12 Debt service as a percentage of export of goods and services	Debt service is the sum of principal repayments and interest actually paid in foreign currency, goods, or services. The series differs from the standard debt-to-export ratios. It covers only long-term public and publicly guaranteed debt and repayments (repurchases and charges) to the IMF. IMF repurchases are total repayments of outstanding drawings from the general resources account during the year specified, excluding repayments due in the reserve tranche. Exports of goods, services, and income are the sum of goods (merchandise) exports, exports of (nonfactor) services, and income (factor) receipts and do not include workers' remittances.

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Goals and Targets	Indicators for Monitoring Progress	Definition
<b>Target 8.E:</b> In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	8.13 Proportion of population with access to affordable essential drugs on a sustainable basis	Percentage of population that has access to a minimum of 20 most essential drugs.
<b>Target 8.F:</b> In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	8.14 Telephone lines per 100 population	A fixed telephone line connects the subscriber's terminal equipment to the public switched network and has a dedicated port in the telephone exchange equipment. This term is synonymous with the term main station or direct exchange line that is commonly used in telecommunication documents. It may not be the same as an access line or a subscriber. The number of Integrated Services Digital Network channels should be included. Fixed wireless subscribers should also be included. If they are not included, this is specified in a note.
	8.15 Cellular subscriptions per 100 population	Subscriptions to a public mobile telephone service and provides access to Public Switched Telephone Network using cellular technology, including number of prepaid SIM cards active during the past three months. This includes both analog and digital cellular systems (IMT-2000 Third Generation, 3G) and 4G subscriptions, but excludes mobile broadband subscriptions via data cards or USB modems. Subscriptions to public mobile data services, private trunked mobile radio, telepoint or radio paging, and telemetry services should also be excluded. This should include all mobile cellular subscriptions that offer voice communications.
	8.16 Internet users per 100 population	The internet is a linked global network of computers in which users at one computer, if they have permission, can get information from other computers in the network.

## Regional Trends and Tables

Indicator	Definition
<b>PEOPLE</b>	
<b>Population</b>	
Midyear Population	Estimates of the midyear de facto population. De facto population includes all persons physically present in the country during the census day, including foreign, military, and diplomatic personnel and their accompanying household members; and transient foreign visitors in the country or in harbors.
Growth Rates in Population	Number of people added to (or subtracted from) a population in a year because of natural increase and net migration expressed as a percentage of the population at the beginning of the year.
Net International Migration Rate	Number of immigrants minus the number of emigrants over a period, divided by the person-years lived by the population of the receiving country over that period. It is expressed as net number of migrants per 1,000 population.
Urban Population	Population living in urban areas, defined in accordance with the national definition or as used in the most recent population census. Because of national differences in the characteristics that distinguish urban from rural areas, the distinction between urban and rural populations is not amenable to a single definition that would be applicable to all countries. National definitions are most commonly based on size of locality. Population that is not urban is considered rural.
Urban population (as % of total population)	The estimated population living in urban areas at midyear as a percentage of the total midyear population in a country.
Age Dependency Ratio	Ratio of the nonworking-age population to the working-age population. Since countries define working age differently, a straightforward application of the definition will lead to noncomparable data. ADB therefore uses the following UN definition that can be computed directly from an age distribution: $\frac{\text{Population aged (0–14) + (65 and over) years}}{\text{Population aged (15–64) years}} \times 100$
<b>Labor Force and Employment</b>	
Labor Force Participation Rate	Percentage of the labor force to the working-age population. The labor force is the sum of those in employment and those unemployed but looking for it. The labor force participation rate measures the extent an economy's working-age population is economically active. It provides an indication of the relative size of the supply of labor available for the production of goods and services in the economy. It must be noted that definition of working-age population varies across countries.
Unemployment Rate	Percentage of unemployed to the labor force. Unemployed are persons without work but available and actively seeking it. This is probably the best known labor market measure. Together with the employment rate, it provides the broadest indicator of the status of the country's labor market. It must be noted that definition of unemployed varies across countries for some of them do not consider availability to work as part of the definition.
Unemployment Rate of 15–24-Year-Olds	Number of unemployed people aged 15–24 years divided by the labor force of the same age group.
Employment in Agriculture	Employment in agriculture that corresponds to division 1 (International Standard of Industrial Classification [ISIC] revision 2), tabulation categories A and B (ISIC revision 3), and category A of ISIC revision 4; includes hunting, forestry, and fishing.
Employment in Industry	Employment in industry that corresponds to divisions 2–5 (ISIC revision 2), tabulation categories C–F (ISIC revision 3), or tabulation categories B–F (ISIC revision 4), and includes mining and quarrying (including oil production); manufacturing; construction; and public utilities (electricity, gas, and water).
Employment in Services	Employment in services that corresponds to divisions 6–9 (ISIC revision 2), tabulation categories G–P (ISIC revision 3), or tabulation categories G–U (ISIC revision 4) and includes wholesale and retail trade and hotels and restaurants; transport, storage, and communications; financing, insurance, real estate, and business services; and community, social, and personal services.
<b>Poverty Indicators</b>	
Proportion of Population below \$2 (PPP) a day	Percentage of the population living on less than \$2 a day at 2005 international prices.
Income Ratio of Highest 20% to Lowest 20%	Income or consumption share that accrues to the richest 20% of the population divided by the income share of the lowest 20% of the population.

continued.

Indicator	Definition
Gini Coefficient/Index	Measure of the degree to which an economy's income distribution diverges from perfect equal distribution. A value of zero (0) implies perfect equality while a value of one (1) implies perfect inequality.
Human Development Index	Composite index of longevity (measured by life expectancy at birth), knowledge (measured by expected years of schooling and mean years of schooling), and decent standard of living (measured by the adjusted per capita income in PPP US\$).
<b>Social Indicators</b>	
Life Expectancy at Birth	Number of years that a newborn is expected to live if prevailing patterns of mortality at the time of his/her birth are to stay the same throughout his/her life.
Crude Birth Rate	Ratio of the total number of live births in a given year to the midyear total population, expressed per 1,000 people.
Crude Death Rate	Ratio of the number of deaths occurring within 1 year to the midyear total population, expressed per 1,000 people.
Total Fertility Rate	Number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates.
Primary Education Completion Rate	Percentage of students completing the last year of primary school. It is calculated as the total number of students in the last grade of primary school, minus the number of repeaters in that grade, divided by the total number of children of official graduation age.
Adult Literacy Rate	The percentage of population aged 15 years and over who can both read and write with understanding a short simple statement on his/her everyday life. Generally, literacy also encompasses numeracy, the ability to make simple arithmetic calculations.
Primary Pupil–Teacher Ratio	Average number of pupils (students) per teacher at the primary level of education in a given school year. This indicator is used to measure the level of human resources input in terms of number of teachers in relation to the size of the primary pupil population.
Secondary Pupil–Teacher Ratio	Average number of pupils (students) per teacher at the secondary level of education in a given school year. This indicator is used to measure the level of human resources input in terms of number of teachers in relation to the size of the secondary pupil population.
Physicians	Physicians, including generalist and specialist medical practitioners, expressed in terms of 1,000 people.
Hospital Beds	In-patient beds for both acute and chronic care available in public, private, general, and specialized hospitals and rehabilitation centers expressed in terms of 1,000 people.
Number of Adults Living with HIV	All adults, defined as men and women aged 15 and over years old, with HIV infection, whether or not they have developed symptoms of AIDS.
<b>ECONOMY AND OUTPUT</b>	
<b>National Accounts</b>	
Gross Domestic Product	<p>Unduplicated market value of the total production activity of all resident producer units within the economic territory of a country during a given period. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Transfer payments are excluded from the calculation of GDP. GDP can be computed using the production, expenditure, and income approaches.</p> <p>Production-based GDP is the sum of the gross value added by all resident producers in the economy plus any taxes and minus any subsidies not included in the value of the products. Gross value added is the net output of an industry after adding up all outputs and subtracting intermediate inputs.</p> <p>Income-based GDP is the sum of the compensation of employees, mixed income, operating surplus, consumption of fixed capital, and taxes less subsidies on production and imports.</p> <p>Expenditure-based GDP is the sum of private (or household) consumption expenditure, general government consumption expenditure, gross fixed capital formation (private and public investments), changes in inventories, and exports minus imports of goods and services.</p> <p>GDP can be measured at current prices (i.e., the prices of the current reporting period) and constant prices, which are obtained by expressing values in terms of a base period.</p>

continued.

Indicator	Definition
GDP at PPP	Measures obtained by using PPP to convert the GDP into a common currency, and by valuing them at a uniform price level. They are the spatial equivalent of a time series of GDP for a single country expressed at constant prices. At the level of GDP, they are used to compare the economic size of countries.
GDP per Capita at PPP	GDP at PPP divided by the midyear population.
GNI per Capita, Atlas Method	The gross national income (formerly GNP per capita) converted to US dollars using the World Bank Atlas method, divided by the midyear population. GNI is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. GNI, calculated in national currency, is usually converted to US dollars at official exchange rates for comparisons across economies, although an alternative rate is used when the official exchange rate is judged to diverge by an exceptionally large margin from the rate actually applied in international transactions. To smooth fluctuations in prices and exchange rates, a special Atlas method of conversion is used by the World Bank. This applies a conversion factor that averages the exchange rate for a given year and the two preceding years, adjusted for differences in rates of inflation between the country, and the G-5 countries (France, Germany, Japan, the United Kingdom, and the United States).
Agriculture Value Added	The gross output of agriculture less the corresponding value of intermediate consumption. The industrial origin of value added is determined by ISIC revision 4 where agriculture corresponds to ISIC divisions 1–3 and includes hunting, forestry, and fishing. The gross output of agriculture less the corresponding value of intermediate consumption. The industrial origin of value added is determined by ISIC revision 4 where agriculture corresponds to ISIC divisions 1–3 and includes hunting, forestry, and fishing.
Industry Value Added	The gross output of industry sectors less the corresponding value of intermediate consumption. The industrial origin of value added is determined by ISIC revision 4 where industry corresponds to ISIC divisions 5–43 and includes mining, manufacturing, construction, electricity, gas, steam, and air conditioning supply.
Services Value Added	The gross output of services sectors less the corresponding value of intermediate consumption. The industrial origin of value added is determined by ISIC revision 4. Services corresponds to ISIC divisions 45–99 and includes wholesale and retail trade, transport and storage, accommodation and food service activities, financial and insurance activities, real estate, and professional and technical services.
Private Consumption Expenditure	Market value of all goods and services, including durable products (such as cars, washing machines, and home computers), purchased or received as income in kind by households. It excludes purchases of dwellings but includes imputed rent for owner-occupied dwellings. It also includes payments and fees to governments to obtain permits and licenses. The expenditure of nonprofit institutions serving households is also recorded as the consumption of households.
Government Consumption Expenditure	Includes all current outlays on purchases of goods and services (including wages and salaries). It also includes most expenditure on national defense and security, but excludes government military expenditures that are part of public investment.
Gross Domestic Capital Formation	Total value of gross fixed capital formation, changes in inventories, and acquisitions less disposals of valuables. Gross fixed capital formation is the value of acquisitions less disposals of tangible goods such as buildings and intangible goods such as computer software that are intended for use in production during several accounting periods. Changes in inventories are changes in stocks of produced goods and goods for intermediate consumption, and the net increase in the value of work in progress. Valuables are goods such as precious metals and works of art that are acquired in the expectation that they will retain or increase their value over time.
Exports of Goods and Services	Consist of sales, barter, or gifts or grants, of goods and services from residents to nonresidents. The treatment of exports in the SNA is generally identical with that in the balance of payments accounts as described in the Balance of Payments Manual.
Imports of Goods and Services	Consist of purchases, barter, or receipts of gifts or grants, of goods and services by residents from nonresidents. The treatment of imports in the SNA is generally identical with that in the balance of payments accounts as described in the Balance of Payments Manual.
Gross Domestic Saving	Difference between GDP and total consumption, where total consumption is the sum of private consumption expenditure and government consumption expenditure.
<b>Production</b>	
Agriculture Production Index	Relative level of the aggregate volume of agricultural production for each year in comparison with the base period. It is based on the sum of price-weighted quantities of different agricultural commodities produced after deductions of quantities used as seed and feed weighted in a similar manner. The resulting aggregate represents, therefore, disposable production for any use except as seed and feed.

continued.

Indicator	Definition
Manufacturing Production Index	An index covering production in manufacturing. The exact coverage, the weighting system, and the methods of calculation vary from country to country but the divergences are less important than, for example, in the case of price and wage indexes.
<b>MONEY, FINANCE, AND PRICES</b>	
<b>Prices</b>	
Consumer Price Index (CPI)	An index that measures changes in prices against a reference period of a basket of goods and services purchased by households. Based on the purpose of the CPI, different basket of goods and services can be selected. For macroeconomic purposes, a broad based basket is used to represent the relative price movement of household final consumption expenditure.
Food Consumer Price Index	An index that measures the change over time in the general level of prices of food and non-alcoholic beverage items that households acquire, use, or pay for consumption. This is done by measuring the cost of purchasing a fixed basket of consumer food and beverage of constant quality and similar characteristics, with the products in the basket being selected to be representative of households' expenditure during a specified period.
Wholesale Price Index	A measure that reflects changes in the prices paid for goods at various stages of distribution up to the point of retail. It can include prices of raw materials for intermediate and final consumption, prices of intermediate or unfinished goods, and prices of finished goods. The goods are usually valued at purchasers' prices.
Producer Price Index	A measure of the change in the prices of goods and services either as they leave their place of production or as they enter the production process. A measure of the change in the prices received by domestic producers for their outputs or of the change in the prices paid by domestic producers for their intermediate inputs.
GDP Deflator	A measure of the annual rate of price change in the economy as a whole for the period shown obtained by dividing GDP at current prices by GDP at constant prices.
<b>Money and Finance</b>	
Money Supply (M2)	A measure of the money supply in an economy, with broad coverage. In the latest definition of the IMF, Broad Money includes currency in circulation outside depository corporations, deposits in depository corporations (DCs). For some countries, money-holding sectors' deposits in other depository corporations (ODCs) only are included. In other countries, some types of central bank deposits are included in broad money along with money-holding sectors' deposits in ODCs. In addition, some countries' definitions of broad money include deposits of all maturities, whereas other countries' definitions include only those deposits with maturities up to a specified maximum (up to two-year maturity, up to three-year maturity, etc.). In some countries, broad money is defined to include some types of liabilities of nonfinancial corporations. The most prevalent types are deposits in public nonfinancial corporations (typically, savings deposits in the post office) and electronic deposits issued by other nonfinancial corporations (a relatively new type of deposit account in a few countries). For some countries, broad money is defined to include central bank-issued and/or ODC-issued securities other than shares. To qualify as securities other than shares in the Monetary and Financial Statistics Manual methodology, a financial instrument must be tradable in the secondary market. If nontradable, the financial instrument usually is classified as a loan. However, if included in broad money, the nontradable financial instrument should be classified as a deposit.
Interest Rate on Savings Deposits	Rate paid by commercial and similar banks for savings deposits.
Interest Rate on Time Deposits	Rate paid by commercial and similar banks for time deposits.
Lending Interest Rate	Bank rate that usually meets the short- and medium-term financing needs of the private sector. This rate is normally differentiated according to creditworthiness of borrowers and objectives of financing.
Yield on Short-Term Treasury Bills	Rate at which short-term securities are issued or traded in the market.
Domestic Credit Provided by Banking Sector	Includes all credits to various sectors on a gross basis, except credit to the central government, which is net. The banking sector includes monetary authorities, deposit money banks, and other banking institutions for which data are available (including institutions that do not accept transferable deposits but do incur such liabilities as time and savings deposits). Examples of other banking institutions are savings and mortgage loan institutions and building and loan associations..

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Indicator	Definition
Ratio of Bank Nonperforming Loans to Total Gross Loans	Value of nonperforming loans divided by the total value of the loan portfolio (including nonperforming loans before the deduction of loan loss provisions). The amount recorded as nonperforming should be the gross value of the loan as recorded in the balance sheet, not just the amount that is overdue.
Stock Market Price Index	Index that measures changes in the prices of stocks traded in the stock exchange. The price changes of the stocks are usually weighted by their market capitalization.
Stock Market Capitalization	The share price times the number of shares outstanding (also known as market value).
<b>Exchange Rates</b>	
Official Exchange Rate	The exchange rate determined by national authorities or the rate determined in the legally sanctioned exchange market. It is calculated as an annual average based on the monthly averages (local currency units relative to the US dollar).
Purchasing Power Parity Conversion Factor	Number of units of country B's currency that are needed in country B to purchase the same quantity of an individual good or service, which one unit of country A's currency can purchase in country A.
Price Level Index (PLI)	Ratio of the relevant PPP to the exchange rate. It is expressed as an index on a base of 100. A PLI greater than 100 means that, when the national average prices are converted at exchange rates, the resulting prices tend to be higher on average than prices in the base country (or countries) of the region (and vice versa). At the level of GDP, PLIs provide a measure of the differences in the general price levels of countries. PLIs are also referred to as comparative price levels.
<b>GLOBALIZATION</b>	
<b>Balance of Payments</b>	
Trade in Goods Balance	Difference between exports and imports of goods.
Trade in Services Balance	Difference between exports and imports of services.
Current Account Balance	Sum of net exports of goods, services, net income, and net current transfers.
Workers' Remittances and Compensation of Employees, Receipts	Consist of: (1) Current transfers from migrant workers who are residents of the host country to recipients in their country of origin. To count as resident, the workers must have been living in the host country for more than a year. (2) Compensation of employees of migrants who have lived in the host country for less than a year. (3) Migrants' transfers defined as the net worth of migrants who are expected to remain in the host country for more than 1 year that is transferred from one country to another at the time of migration.
Foreign Direct Investment	Refers to net inflows of investment to acquire a lasting management interest (10% or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments.
<b>External Trade</b>	
Merchandise Exports/Imports	Covers all movable goods, with a few specified exceptions, the ownership of which changes between a resident and a foreigner. For merchandise exports, it represents the value of the goods and related distributive services at the customs frontier of the exporting economy, i.e., the free-on-board value. Merchandise imports, on the other hand, are reported in cost, insurance, and freight values.
Trade in Goods	Sum of merchandise exports and merchandise imports.
<b>International Reserves</b>	
International Reserves	Total holdings by monetary authorities (central banks, currency boards, exchange stabilization funds, and treasuries to the extent that they perform similar functions) of gold, special drawing rights (SDRs), reserve positions in the IMF, and foreign exchange. For purposes of comparability, the regional table on international reserves values gold holdings at London market prices, unless otherwise specified. SDRs are unconditional international reserve assets created by the IMF, whereas reserve positions are unconditional assets arising from countries' reserve assets subscriptions to the IMF, from the IMF's use of members' currencies, and from IMF borrowings. Foreign exchange is defined as monetary authorities' claims on foreigners in the form of bank deposits, treasury bills, short- and long-term government securities, and other claims usable in the event of a balance of payments deficit, including nonmarketable claims arising from intercentral bank and intergovernmental arrangements, without regard to whether the claim is denominated in the currency of the debtor or the creditor.

continued.

Indicator	Definition
Ratio of International Reserves to Imports	International reserves outstanding at the end of the year as a ratio of imports of goods from the balance of payments during the year, where imports of goods are expressed in terms of monthly average. It is a useful measure for reserve needs for countries with limited access to capital markets, and comparison across a wide range of countries.
<b>Capital Flows</b>	
Official Flows	<p>Net flows of long-term public and publicly guaranteed debt from official creditors and grants, including technical cooperation grants.</p> <p>Public and publicly guaranteed debt comprises long-term external obligations of public debtors, including the national government, political subdivisions (or an agency of either), and autonomous public bodies, and external obligations of private debtors that are guaranteed for repayment by a public entity.</p> <p>Grants are defined as legally binding commitments that obligate a specific value of funds available for disbursement for which there is no repayment requirement.</p> <p>Technical cooperation grants include free-standing technical cooperation grants, which are intended to finance the transfer of technical and managerial skills or technology for the purpose of building up general national capacity without reference to any specific investment projects; and investment-related technical cooperation grants, which are provided to strengthen the capacity to execute specific investment projects.</p>
Net Private Flows	<p>Sum of net foreign direct investment, portfolio equity flows, net flows of long-term public and publicly guaranteed debt from private creditors, and net flows of total private nonguaranteed debt.</p> <p>Foreign direct investments are the net inflows of investment to acquire a lasting management interest (10% or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors.</p> <p>Portfolio equity includes net inflows from equity securities other than those recorded as direct investment and including shares, stocks, depository receipts (American or global), and direct purchases of shares in local stock markets by foreign investors.</p> <p>Public and publicly guaranteed debt from private creditors include bonds that are either publicly issued or privately placed; commercial bank loans from private banks and other private financial institutions; and other private credits from manufacturers, exporters, and other suppliers of goods, and bank credits covered by a guarantee of an export credit agency. Net flows (or net lending or net disbursements) received by the borrower during the year are disbursements minus principal repayments.</p> <p>For (a) Nonguaranteed long-term commercial bank loans from private banks and other private financial institutions; and (b) Nonguaranteed long-term debt from bonds that are privately placed, net flows (or net lending or net disbursements) received by the borrower during the year are disbursements minus principal repayments.</p>
Aggregate Net Resource Flows	Sum of net official and private capital flows. Net flow is disbursements less principal repayments.
<b>External Indebtedness</b>	
Total External Debt	Debt owed to nonresidents repayable in foreign currency, goods, or services. It is the sum of public, publicly guaranteed, and private nonguaranteed long-term debt, use of IMF credit, and short-term debt. Short-term debt includes all debt having an original maturity of one year or less and interest in arrears on long-term debt.
External Debt as Percent of Exports of Goods and Services	Total external debt as a percentage of exports of goods and services (excluding workers' remittances).

continued.

Indicator	Definition
Total Debt Service Paid	The sum of principal repayments and interest actually paid in foreign currency, goods, or services on long-term debt, interest paid on short-term debt, and repayments (repurchases and charges) to the IMF.
Total Debt Service Paid as Percent of Exports of Goods and Services and Income	Total debt service as a percentage of exports of goods and services (excluding workers' remittances).
<b>Tourism</b>	
International Tourist Arrivals	The number of tourists (overnight visitors) who travel to a country other than in which they usually reside, and outside their usual environment, for a period not exceeding 12 months and whose main purpose of visit is other than the activity remunerated from within the country visited. In some cases, data may also include same day visitors when data on overnight visitors are not available separately. Data refer to the number of arrivals and not to the number of persons.
International Tourism, Receipts	The receipts earned by a destination country from inbound tourism and covering all tourism receipts resulting from expenditures made by visitors from abroad. These include lodging, food and drinks, fuel, transport in the country, entertainment, shopping, etc. This concept includes receipts generated by overnight as well as by same-day trips. It excludes, however, the receipts related to international transport contracted by residents of the other countries (for instance ticket receipts from foreigners travelling with a national company).
<b>TRANSPORT, ELECTRICITY, AND COMMUNICATIONS</b>	
<b>Transport</b>	
Roads, Total Network	Covers motorways, highways, main or national roads, secondary or regional roads, and all other roads in a country; measured in kilometers.
Road Density	Total road network (measured in kilometers) of a country divided by its land area (expressed in thousand square kilometers).
Paved Roads	Roads surfaced with crushed stone (macadam) and hydrocarbon binder or bituminized agents, with concrete, or with cobblestones.
Access to an All-Season Road	Measure of the number of rural people who live within 2 kilometers (typically equivalent to a 20-minute walk) of an all-season road as a proportion of the total rural population. An all-season road is a road that is motorable all year by the prevailing means of rural transport (often a pick-up or truck that does not have four-wheel-drive). Predictable interruptions of short duration during inclement weather (e.g., heavy rainfall) are accepted, particularly on low volume roads.
Motor Vehicles	Include cars, buses, and freight vehicles but not two-wheelers.
Vehicular Fatalities	Persons immediately killed or dying within 30 days as a result of a vehicular injury or accident.
Injury Accident	Any accident involving at least one road vehicle in motion on a public road or private road that the public has right of access to, resulting in at least one person injured or killed.
Rail Lines	Length of railway route available for train service (measured in kilometers), irrespective of the number of parallel tracks.
Rail Network	Length of rail lines divided by the land area (in square kilometers).
<b>Electricity</b>	
Electricity Production	Total amount of electricity generated by a power plant. It includes own-use electricity, as well as transmission and distribution losses.
Sources of Electricity	Electricity is produced as primary as well as secondary energy. Primary electricity is obtained from natural sources such as hydro, wind, solar, tide, and wave power. Secondary electricity is produced from the heat of nuclear fission of nuclear fuels, from geothermal heat and solar thermal heat, and by burning primary combustible fuels such as coal, natural gas, oil and renewables and wastes. After electricity is produced, it is distributed to final consumers through national or international transmission and distribution grids.
Electric Power Consumption Per Capita	Measure of the production of power plants and combined heat and power plants less transmission, distribution, and transformation losses and own use by heat and power plants, divided by midyear population.
Household Electrification Rate	Percentage of households with an electricity connection.

continued.

Indicator	Definition
<b>Communications</b>	
Fixed Telephone Lines	<i>Please see MDG 8.14.</i>
Mobile Cellular Telephone Subscriptions	<i>Please see MDG 8.15.</i>
Fixed (wired) Broadband Internet Subscriptions	Subscriptions to high-speed access to the public Internet (a TCP/IP connection), at downstream speeds equal to, or greater than, 256 kbit/s. This can include for example cable modem, DSL, fibre-to-the-home/building and other fixed (wired) broadband subscriptions.
<b>ENERGY AND ENVIRONMENT</b>	
<b>Energy</b>	
GDP per Unit of Energy Use	The ratio of GDP per kilogram of oil equivalent of energy use with GDP converted to 2005 constant international dollars using PPP rates. An international dollar has the same purchasing power over GDP as a US dollar has in the United States.
Energy Production	Forms of primary energy—petroleum (crude oil, natural gas liquids, and oil from nonconventional sources); natural gas; solid fuels (coal, lignite, and other derived fuels); and combustible renewables and waste—and primary electricity, all converted into oil equivalents. Primary electricity is electricity generated by nuclear, hydro, wind, and solar power.
Energy Use	Usage of primary energy before its transformation to other end-use fuels, which is equal to indigenous production plus imports and stock changes, minus exports and fuels supplied to ships and aircraft engaged in international transport.
Energy Imports, Net	Estimated as energy use less production, both measured in oil equivalents.
<b>Environment</b>	
Agricultural Land/Area	Land area that is arable, under permanent crops, and under permanent meadows and pastures.
Arable Land	Land under temporary agricultural crops (multiple-cropped areas are counted only once), temporary meadows for mowing or pasture, land under market and kitchen gardens and land temporarily fallow (less than 5 years). The abandoned land resulting from shifting cultivation is not included. Data for arable land are not meant to indicate the amount of land that are potentially cultivable.
Permanent Cropland	Land cultivated with long-term crops which do not have to be replanted for several years (such as cocoa and coffee); land under trees and shrubs producing flowers, such as roses and jasmine; and nurseries (except those for forest trees, which should be classified under "forest"). Permanent meadows and pastures are excluded from land under permanent crops.
Deforestation Rate	Rate of permanent conversion of natural forest area into other uses, including shifting cultivation, permanent agriculture, ranching, settlements, and infrastructure development. Deforested areas do not include areas logged but intended for regeneration or areas degraded by fuelwood gathering, acid precipitation, or forest fires. A negative rate indicates reforestation or increase in forest area.
Nitrous Oxide Emissions	Emissions mainly from fossil fuel combustion, fertilizers, rainforest fires, and animal waste. It is a powerful greenhouse gas, with an estimated atmospheric lifetime of 114 years, and a per kilogram warming potential 310 times that of carbon dioxide within 100 years.
Methane Emissions	Emissions largely from agricultural activities, industrial production landfills and wastewater treatment, and other sources such as tropical forest and vegetation fires. This gas has an estimated warming potential 21 times as a kilogram of carbon within 100 years.
Consumption of Ozone-Depleting Chlorofluorocarbons	Sum of the consumption of the weighted tons of the individual substances in the group metric tons of the individual substance (defined in the Montreal Protocol on substances that deplete the ozone layer) multiplied by its ozone-depleting potential. Negative values imply that total amount exported, destroyed or used as feedstock exceed production and imports.
Organic Water Pollutant Biochemical Oxygen Demand (BOD) Emissions	The amount of oxygen (measured as BOD) that bacteria in water will consume in breaking down waste, a standard water treatment test for the presence of organic pollutants. Emissions per worker are total emissions of organic water pollutants divided by the number of industrial workers.

continued.

Indicator	Definition
<b>GOVERNMENT AND GOVERNANCE</b>	
<b>Government Finance</b>	
Fiscal Balance	Difference between total revenue (including grants) and total expenditure (including net lending). This provides a picture of the overall financial position of the government. When the difference is positive, then the fiscal position is in surplus; otherwise, it is in deficit.
Tax Revenue	Compulsory transfers to the government for public purposes. Certain compulsory transfers such as fines, penalties, and most social security contributions are excluded. Refunds and corrections of erroneously collected tax revenue are treated as negative revenue.
Total Government Revenue	Includes current and capital revenues. Current revenue is the revenue accruing from taxes, as well as all current nontax revenues except transfers received from foreign governments and international institutions. Major items of nontax revenue include receipts from government enterprises, rents and royalties, fees and fines, forfeits, private donations, and repayments of loans properly defined as components of net lending. Capital revenue constitutes the proceeds from the sale of nonfinancial capital assets.
Total Government Expenditure	Sum of current and capital expenditures. Current expenditure comprises purchases of goods and services by the central government, transfers to noncentral government units and to households, subsidies to producers, and interest on public debt. Capital expenditure, on the other hand, covers outlays for the acquisition or construction of capital assets and for the purchase of intangible assets, as well as capital transfers to domestic and foreign recipients. Loans and advances for capital purposes are also included.
Government Expenditure on Education	Consists of expenditure by government to provide education services at all levels.
Government Expenditure on Health	Consists of expenditure by government to provide medical products, appliances, and equipment; outpatient services; hospital services; public health services; among others.
Government Expenditure on Social Security and Welfare	Consists of expenditure by government to provide benefits in cash or in kind to persons who are sick, fully or partially disabled, of old age, survivors, or unemployed, among others.
<b>Governance</b>	
Cost of Business Start-Up Procedure	Cost to register a business normalized by presenting it as a percentage of GNI per capita. It includes all official fees and fees for legal or professional services if such services are required by law. Fees for purchasing and legalizing company books are included if these transactions are required by law. The company law, the commercial code, and specific regulations and fee schedules are used as sources for calculating costs. In the absence of fee schedules, a government officer's estimate is taken as an official source. In the absence of a government officer's estimate, estimates of incorporation lawyers are used. If several incorporation lawyers provide different estimates, the median reported value is applied. In all cases the cost excludes bribes.
Time Required to Start Up a Business	Number of calendar days needed to complete the procedures to legally operate a business. If a procedure can be speeded up at additional cost, the fastest procedure, independent of cost, is chosen.
Corruption Perceptions Index	A ranking by Transparency International of countries in terms of the degree to which corruption is perceived to exist among their public officials and politicians. It is a composite index, a poll of polls, drawing on corruption-related data from expert and business surveys carried out by a variety of independent and reputable institutions. It reflects views from around the world, including those of experts who are living in the countries evaluated. The scores ranges between 100 (highly clean) and 0 (highly corrupt). A country's rank indicates its position relative to the other countries/territories included in the index. It is important to keep in mind that a country's rank can change simply because new countries enter the index or others drop out.

## Key Indicators for Asia and the Pacific 2013

The *Key Indicators for Asia and the Pacific 2013 (Key Indicators)*, the 44th edition of this series, includes the latest available economic, financial, social, and environmental indicators for the 48 regional members of the Asian Development Bank. It presents the latest key statistics on development issues concerning the economies of Asia and the Pacific to a wide audience, including policy makers, development practitioners, government officials, researchers, students, and the general public. Part I of this issue is a special chapter—Asia's Economic Transformation: Where to, How, and How Fast? Parts II and III are composed of brief, nontechnical analyses and statistical tables on the Millennium Development Goals and seven other themes. This year, the *Key Indicators* is supplemented by the third edition of the *Framework of Inclusive Growth Indicators*.

## About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two-thirds of the world's poor: 1.7 billion people who live on less than \$2 a day, with 828 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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