

# ASIAN DEVELOPMENT

# **Preparing for Demographic Transition**

Asian Development Bank

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# ASIAN DEVELOPMENT Outlook 2011 Update

# **Preparing for Demographic Transition**

Asian Development Bank

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# Foreword

Uncertainty is casting a shadow over global economic prospects. In the 5 months since the *Asian Development Outlook 2011* was published, the downgrading of United States long-term sovereign credit, tensions in eurozone sovereign debt markets, and the knock-on effects of Japan's earthquake in March have undermined the tentative recovery in the major industrial economies.

Setbacks to their recovery have spilled over to the region. Yet developing Asia's economies are continuing their steady growth. This *Update* forecasts a healthy expansion of around 7.5% in 2011 and 2012. Although led by the People's Republic of China and India, momentum is felt across the whole region.

There are signs that growth in the region is shifting to more sustainable sources. Strong private domestic demand and intraregional trade boosted output in the first half of the year, as did rising employment and incomes, buoyant export prices, and investment. With ample fiscal space and low debt, governments also have room to support domestic demand.

Inflation remains a concern. Strong growth in commodity prices in the first half and rapid, regional economic growth pushed up consumer price inflation, which is forecast to hit 5.8% in 2011 and 4.6% in 2012. Although the runup in commodity prices has been cooling, authorities must be ready to meet the continued threat of elevated inflation with monetary tightening. Policy makers need to be prepared for increased volatility in international capital flows as capital is pulled in opposite directions by international investors' reduced risk appetite and the strong growth prospects of developing Asia.

Developing Asia needs to press forward with its structural reforms cultivating domestic demand, promoting price stability, and fostering inclusive growth—to make its prospects less dependent on the major industrial economies. It also needs to look beyond the immediate future. One challenge on the horizon is the demographic transition. The fast-growing economies of East and Southeast Asia added nearly 1 percentage point to their annual growth in the past 30 years, by taking full advantage of having relatively young populations. This boost to growth, which was neither accidental nor automatic, helped them to transform their economies and reduce poverty. Cashing the demographic dividend required concerted policy efforts to see that workers had the right skills and that the right jobs were created to absorb them. Countries with young populations today can learn from their example by investing in education and physical capital.

For the region as a whole, demographic factors will be a less significant source of economic growth. In some "aging" economies, age structures already act as a drag, and their governments need to reform financial markets, education systems, and labor markets in response. To provide economic security for a significantly older population, they also need to develop reliable and sound social security systems, to complement and possibly take over from the weakening informal family support system.

As policy makers respond to today's worries about the global economy, they should continue preparing for the future.

H. Kurode

Haruhiko Kuroda President Asian Development Bank

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# **Definitions**

The economies discussed in *Asian Development Outlook 2011 (ADO 2011) Update* are classified by major analytic or geographic groupings. For purposes of *ADO 2011 Update*, the following apply:

- Association of Southeast Asian Nations (ASEAN) comprises Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam.
- **Developing Asia** is composed of the 44 developing member countries of the Asian Development Bank and Brunei Darussalam, an unclassified regional member.
- Central Asia covers Armenia, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan.
- East Asia comprises the People's Republic of China; Hong Kong, China; Republic of Korea; Mongolia; and Taipei, China.
- South Asia is made up of the Islamic Republic of Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.
- Southeast Asia refers to Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam.
- The Pacific comprises the Cook Islands, Fiji, Kiribati, the Marshall Islands, the Federated States of Micronesia, Nauru, Papua New Guinea, Palau, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu.

Unless otherwise specified, the symbol "\$" and the word "dollar" refer to United States dollars. *ADO 2011 Update* is generally based on data available up to **2 September 2011**.

# Acronyms and abbreviations

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
bpd	barrels per day
CPI	consumer price index
EU	European Union
FDI	foreign direct investment
FY	fiscal year
GDP	gross domestic product
IMF	International Monetary Fund
OECD	Organisation for Economic Co-operation and Development
PRC	People's Republic of China
US	United States

# ADO 2011 Update—Highlights

Developing Asia maintained its growth momentum through the first half of 2011, putting it on course to grow by 7.5% over the whole year. Despite sluggish recovery in the major industrial economies, the region can continue to grow at that rate through 2012 on the back of its buoyant domestic demand and intraregional trade.

Still, policy makers need to be alert on two fronts. Inflation pressures built up in the first half, severely affecting some regional economies, and although the slowdown in international commodity price rises is providing some respite, managing inflation remains a priority. Additionally, capital has so far been flowing into the region at a manageable pace, but global economic uncertainty means policy makers should be prepared for greater volatility in capital flows.

To compensate for anemic growth in advanced economies, developing Asia must press forward with its structural reforms to cultivate domestic demand, promote price stability, and foster inclusive growth. The region also needs to start preparing for its demographic transition, given the major implications of its changing age structure for economic growth and for economic security among the elderly.

# **Key Messages**

- Developing Asia continued its steady growth in the first half of 2011. The sluggish recovery in the major industrial economies will moderate the region's growth in the second half of the year and beyond.
- Despite this moderation, strong domestic demand and intraregional trade are likely to sustain the region's growth momentum. Growth is forecast to reach 7.5% in 2011 and 2012, down slightly from April's Asian Development Outlook 2011 (ADO 2011) projections of 7.8% in 2011 and 7.7% in 2012.
- Many economies in the region are well placed to cope with a soft global economy in the coming months, provided that the major industrial economies do not fall back into recession. Ample fiscal space and low debt—even after the spate of fiscal stimulus related to the recent global crisis—plus large foreign reserves provide a buffer against further downside risks.
- All subregions posted solid growth in the first half of the year. While continued momentum in the two largest economies—the People's Republic of China (PRC) and India—is driving the overall trend, the growth momentum is distributed widely across the region. East Asia is forecast to grow the fastest over the full year, followed by South Asia.
- Inflation is a continuing concern. Price pressures intensified in the first half of the year with the rapid growth in the region and the rise in international commodity prices. Inflation is forecast to hit 5.8% in 2011, somewhat higher than the 5.3% expected in *ADO 2011*, before settling back to 4.6% in 2012.
- Inflation pressures should abate with the slowdown in international commodity price rises and the expected weakness in the major industrial countries. However, unless global economic activity drops off sharply, the threat of inflation will remain. Managing inflation is a key policy task for inclusive growth.
- Large capital flows to developing Asia were expected in light of interest rate differentials and the region's robust economic activity, and inflows have been manageable so far. With uncertainty in the global environment reducing investors' risk appetite on the one hand, and the lure of developing Asia's strong fundamentals on the other, it is difficult to predict how capital flows will react. Either way, regional policy makers need to prepare for more volatile capital flows.
- To compensate for anemic growth in advanced economies, developing Asia must press forward with its structural reforms to cultivate domestic demand, promote price stability, and foster inclusive growth.

- It must also start now to prepare for the very different demographic landscape of the future. To reap the demographic dividend, countries with a younger age structure should create job opportunities through labor market policies and vocational training. Older countries need to pursue structural reforms, such as worker retraining and flexible working arrangements, to bolster the contribution of elderly workers especially. Enhancing worker mobility through regional cooperation and integration may benefit both sets of countries.
- As traditional family support to the elderly weakens, public old-age transfer systems will become more important. Governments of all countries must prepare to play a larger role in providing economic security for the elderly.

# **Continuing Growth Amid Global Uncertainty**

### Growth Outlook for 2011 and 2012

- **Developing Asia is sustaining its growth momentum.** The region's steady growth in the first half of 2011 is likely to moderate in the second half and through into 2012, hampered by sluggish performance in the major industrial economies. Gross domestic product (GDP) growth is projected to reach 7.5% in 2011—a strong performance, albeit lower than April's 7.8% forecast—and should continue at that pace in 2012. The PRC and India have posted strong growth results so far in 2011, driving the overall regional performance, but the growth momentum is distributed widely across the region.
- The region is diversifying its sources of growth, with private domestic demand firming. During the worst of the crisis in 2009, public spending stepped in to offset the drop in private consumption and investment. Since 2010, there have been signs that more durable sources of growth are coming to the fore. Rising private consumption accounted for most of first-half 2011 GDP growth in Hong Kong, China; Malaysia; the Philippines; and Thailand, as well as a large portion of growth in other economies. Although slower to recover than private consumption, fixed capital investment recovered in 2010, and was a strong contributor to first-half growth in Indonesia, Malaysia, and the Philippines. The strength of private domestic demand bodes well for more durable, market-led growth in the region.
- Intraregional trade is picking up, which may make the region more resilient to external shocks. Underpinned by the PRC's central role, trade among developing Asian economies is on the rise. Intraregional exports among the largest economies in the region increased from 42% of their total exports in 2007—before the global recession—to 47% in the first half of 2011. These expanding trade links provide further confidence that the region's momentum can continue.
- Despite the steady growth so far, policy makers must not become complacent. The region's healthy underlying macroeconomic fundamentals—including sound fiscal positions, low debt levels, and high foreign reserves—help to protect the region from downside risks. To compensate for anemic growth in the advanced economies, developing Asia must press forward with its structural reforms to cultivate domestic demand, promote price stability, and foster inclusive growth.

### Inflation as a Continuing Concern

- Inflation accelerated throughout the region in the first half of 2011. Pressures from food and commodity markets and the pickup in the region's economic activity pushed up consumer prices. Inflation is expected to hit 5.8%, up from a forecast 5.3% in *ADO 2011*. While cooling somewhat, inflation next year is forecast to stay relatively high, at 4.6%, with large variations across countries.
- **Continued growth will keep inflation on the region's policy agenda.** The slowing rise in international commodity prices is providing some respite for policy makers. If commodity prices resume their climb and the current weakness in the global recovery turns out to be temporary, regional central banks will have to speed up the process of monetary tightening, especially where inflation is already high. Current developments of inflation and the output gap in Asia call for continued vigilance.

### Managing Unpredictable Capital Flows

- **Capital is still flowing in, but more slowly.** Inflows picked up sharply after developing Asia's economy rebounded strongly in the second half of 2009 and stayed solid through 2010. But the rate of inflows has since moderated as fears of slower growth in the advanced economies, concerns over the path of fiscal consolidation in the United States, and anxiety over European sovereign debt problems intensified in the second quarter of 2011.
- The region's policy makers must prepare for more volatile capital flows. With uncertainty in the global environment reducing investors' risk appetite on the one hand, and the lure of developing Asia's strong fundamentals on the other, it is difficult to predict how capital flows will react. Either way, regional policy makers need to prepare for more volatile capital flows. Well-targeted measures to improve financial supervision and regulatory rules would be appropriate. More flexible exchange-rate regimes could also help to provide an automatic filter to fend off speculative short-term capital inflows. In addition, imposing selective and carefully designed temporary capital control measures that are conducted in a regionally coordinated manner could be part of the policy mix.

# **Outlook by Subregion**

- East Asia will again be the fastest-growing subregion. Aggregate growth in the five economies in 2011 is now forecast at 8.1%, trimmed from April's 8.4%, mainly owing to a slight reduction in the projection for the PRC (from 9.6% to 9.3%). Growth in the subregion's largest economy has moderated as a result of monetary tightening to curb inflation coupled with softening external demand, but the economy is still set to expand by a robust 9.1% in 2012. The forecast for the Republic of Korea, the second-biggest economy in East Asia, is clipped, too. Next year, the subregional pace should manage a robust 8.0% in spite of mild easing in the PRC's growth. Rising food prices drove inflation in the PRC higher than anticipated earlier in the year, which prompted an upward revision in the East Asian inflation forecast for 2011 to 4.9%. Projected declines in global food and fuel prices coupled with the lagged effects of monetary tightening are expected to bring next year's inflation down to 3.8%.
- **Combating inflation slowed South Asian growth.** Despite firm tightening of monetary policies, inflation stayed high in 2011. Escalating food prices were the worry for most countries, risking a spillover into wage-price spirals. In India, 2011's growth is now put at 7.9%, as higher interest rates crimped consumer spending and trimmed investment. Still, favorable export prices kept growth brisk in Bangladesh and Sri Lanka. Pakistan—the weakest GDP performer in 2009 and 2010, and likely this year, too—has yet to break out of its low-growth straitjacket. Dominated by India, the forecast for subregional inflation is revised up to 9.1%, while that for subregional growth is revised down to 7.2%. In 2012, growth is seen edging up to 7.7% (though down from the *ADO 2011* forecast), again largely influenced by India. Inflation is expected to moderate to 6.9% as global price pressures fall and monetary policy stabilizes domestic demand.
- Southeast Asia's growth is underpinned by generally robust private consumption and investment. Solid domestic demand is supported by rising employment and buoyant global prices for export commodities. The growth forecast for Indonesia, the biggest subregional economy, is edged up from April. This is offset by a pruning of projections for Malaysia, the Philippines, Thailand, and Viet Nam such that subregional growth for 2011 of 5.4% is a touch off from the April forecast. Upward pressure on prices has been higher than anticipated (particularly in Viet Nam where inflation hit 23.0% in August) and monetary policies have been tightened. The subregional inflation forecast is now 5.4%, raised only slightly. Subregional inflation is expected to subside by about 1 percentage point in 2012.

- Central Asia is profiting from resource and remittance booms. Most countries are performing well due to favorable export prices (oil, gas, metals, and cotton) and strongly revived remittances. Unforeseen technical difficulties in Azerbaijan have hit oil production in 2011, bringing down the subregional growth forecast to 6.1% in 2011 and 6.6% in 2012 (from 6.7% and 6.9% in *ADO 2011*). Subregional price pressures firmed in the first half of 2011, but the strong policy response is likely to keep inflation to an average 8.6% this year and 8.2% next. The resource-poor countries hardest hit by the global recession are still fragile, however, and have yet to complete structural adjustments.
- High growth in resource-rich Pacific economies masks low growth in the rest. As expected, Papua New Guinea and Timor-Leste are benefiting from their resources of oil and natural gas, and Solomon Islands from its logging and gold. The forecast for aggregate growth is raised slightly to 6.4% in 2011, owing to a modest improvement in the outlook for Fiji, which outweighs downgrades in growth forecasts for Cook Islands and Vanuatu. Outside the resource-rich economies, however, growth remains subdued. In 2012, Papua New Guinea's expansion rate is still projected to moderate, bringing down aggregate Pacific growth to 5.5%. Inflation has taken a steeper trajectory than was foreseen, mainly a result of higher global oil and food prices. The subregional forecast is raised to 8.3% for 2011, with inflation decelerating in 2012 to 5.9%.

# **Special Theme: Preparing for Demographic Transition**

### Developing Asia's Changing Demographics

- Developing Asia is undergoing a demographic transition; in fact, several transitions. The share of the elderly in the population is rising across all countries, but not uniformly. Some, such as India and the Philippines, are still relatively young; the PRC and Thailand are somewhat older; and others, such as the Republic of Korea and Singapore, are at an advanced stage of their transition.
- Asia is aging rapidly—and the pace is quickening. A transition in age structure that took the rich countries of the West more than a century is being played out in Asia over just a few decades. East Asia, in particular, stands out. In the Republic of Korea, for example, the old-age dependency ratio (the number of people over 65 divided by the number of those of working age) will rise by a factor of six between 2000 and 2050. In the same period, old-age dependency in the PRC will quadruple—surpassing that of the United States by 2050.

# Demographic Transition: Implications for Growth and Support for the Elderly

- In the last 3 decades, fast-growing East and Southeast Asian economies benefited from favorable demographics—the "demographic dividend." Favorable age structures added more than 1 percentage point to average annual per capita GDP growth in 1981–2010 in the PRC, Indonesia, the Republic of Korea, Malaysia, Thailand, and Viet Nam. In Thailand, the age structure accounted for about one-third of its total annual growth rate.
- But demographic dividends will dwindle as populations age—and, in some cases, turn into a "demographic tax." For the region as a whole, demographic factors will be a less significant source of economic growth. In 2011–2030, the contribution of the age structure to per capita growth will fall to 0.6 percentage points.
  - Where aging is most advanced, the demographic dividend will become a demographic tax. In both Hong Kong, China and Singapore, their age structure already acts as a drag on growth, and will subtract about 1 percentage point from average annual per capita growth in 2011–2030. Even the PRC will begin to pay a demographic tax, in a 0.3 percentage point cut to its annual growth rate in this period.
  - Younger countries like India, Pakistan, and the Philippines have the potential to earn significant demographic dividends in the years ahead—between 0.6 to just under 1 percentage point.

- Traditional family support to the elderly is declining, but public old-age transfer systems are underdeveloped. The elderly in developing Asia have traditionally relied on informal family support, but urbanization, industrialization, and other social and cultural changes are diluting this approach. At the same time, public old-age transfer systems play a smaller role in old-age support in the region than elsewhere. Ensuring economic security for the elderly in the future will thus require a larger role for the state.
  - The contribution of public transfers to supporting consumption in old age is smaller not only relative to high-income Europe and the United States but also to Latin America. For example, public transfers finance 5% or less of the consumption needs of the elderly in India and Indonesia, but more than 70% in Brazil.

### Policy Priorities to Prepare for Demographic Transition

- Developing Asia must act now to prepare for the different demographic landscape of the future, but it is well positioned to do this. The region will need to find ways to sustain its economic expansion as its population profile becomes less favorable for growth, and to provide old-age support for its growing elderly population. In its favor, many Asian countries are still relatively young—giving them time; many have strong fiscal positions—giving them the resources to address the demographic challenge.
- Younger Asian countries must capitalize on their demographic dividend while it lasts. The demographic dividend is neither guaranteed nor automatic. Younger Asian countries must strive to create enough job opportunities for their young workforce through active labor-market policies and vocational training programs. These countries can learn valuable lessons from the East and Southeast Asian countries that reaped big dividends in the past.
- Middle- and advanced-aging countries must follow structural reforms to offset the decline of the demographic dividend. As populations age, physical and human capital become more important growth drivers. Structural reforms include retraining programs to raise the productivity of older workers, and flexible working arrangements to postpone the age of retirement.

- Old-age support systems in developing Asia—especially the advanced-aging economies—are at a critical juncture. To meet future needs, Asian governments must begin to strengthen—or even build—their national pension, health care, and (more generally) social security systems for their coming large elderly populations. However, as some industrial countries show, ensuring these systems' fiscal sustainability is crucial.
- Demographic diversity provides the base for potentially large gains from regional cooperation and integration. Greater mobility of workers from younger, labor-abundant countries to older, labor-scarce countries can help to alleviate labor shortages in older countries while providing employment opportunities for younger countries' workers.
- **Beyond the challenges, population aging offers new opportunities.** Older countries, for example, may use their large and growing pool of retirement savings to foster finance sector development, especially long-term capital markets, and invest in profitable investment opportunities in other countries, in the region, and more widely.

Table 1 Growth rate of GDP (% per year)						
Subregion/Economy	2010	20	11	2012		
		ADO 2011	Update	ADO 2011	Update	
<mark>Central Asia</mark>	<mark>6.6</mark>	<b>6.7</b>	<mark>6.1</mark>	<mark>6.9</mark>	<mark>6.6</mark>	
Azerbaijan	5.0	5.8	3.0	5.8	4.5	
Kazakhstan	7.0	6.5	6.5	6.8	6.8	
East Asia	9.6	8.4	8.1	<b>8.1</b>	8.0	
China, People's Rep. of	10.3	9.6	9.3	9.2	9.1	
Hong Kong, China	7.0	5.0	5.5	4.7	4.7	
Korea, Rep. of	6.2	4.6	4.3	4.6	4.3	
Taipei,China	10.9	4.8	4.8	5.0	4.7	
<mark>South Asia</mark>	<b>7.9</b>	<b>7.5</b>	<b>7.2</b>	8.1	7.7	
Bangladesh	6.1	6.3	6.7	6.7	7.0	
India	8.5	8.2	7.9	8.8	8.3	
Pakistan	3.8	2.5	2.4	3.7	3.7	
Sri Lanka	8.0	8.0	8.0	8.0	8.0	
Southeast Asia	7.9	5.5	<b>5.4</b>	5.7	<b>5.6</b>	
Indonesia	6.1	6.4	6.6	6.7	6.8	
Malaysia	7.2	5.3	4.8	5.3	5.1	
Philippines	7.6	5.0	4.7	5.3	5.1	
Singapore	14.5	5.5	5.5	4.8	4.8	
Thailand	7.8	4.5	4.0	4.8	4.5	
Viet Nam	6.8	6.1	5.8	6.7	6.5	
The Pacific	5.7	6.3	6.4	5.4	5.5	
Fiji	0.3	0.5	1.2	0.8	1.2	
Papua New Guinea	8.0	8.5	8.5	6.5	6.5	
Developing Asia	9.0	7.8	7.5	7.7	<b>7.5</b>	

Notes: Developing Asia refers to 44 developing member countries of the Asian Development Bank and Brunei Darussalam, an unclassified regional member; East Asia comprises the People's Republic of China; Hong Kong, China; the Republic of Korea; Mongolia; and Taipei, China; Southeast Asia comprises Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam; South Asia comprises Islamic Republic of Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka; Central Asia comprises Armenia, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan; and The Pacific comprises the Cook Islands, Fiji, Kiribati, Republic of the Marshall Islands, the Federated States of Micronesia, Nauru, Papua New Guinea, Republic of Palau, Samoa, Solomon Islands, Democratic Republic of Timor-Leste, Tonga, Tuvalu, and Vanuatu.

Data for Bangladesh, India, and Pakistan are recorded on a fiscal-year basis. For India, the fiscal year spans the current year's April through the next year's March. For Bangladesh and Pakistan, the fiscal year spans the previous year's July through the current year's June.

Table 2 Inflation (% per year)						
Subregion/Economy	2010	20	11	2012		
		ADO 2011	Update	ADO 2011	Update	
Central Asia	7.2	8.2	8.6	6.6	8.2	
Azerbaijan	5.7	7.5	7.5	7.0	7.0	
Kazakhstan	7.1	8.5	8.5	6.0	9.0	
East Asia	3.1	4.3	4.9	3.9	3.8	
China, People's Rep. of	3.3	4.6	5.3	4.2	4.2	
Hong Kong, China	2.3	4.5	5.2	3.3	3.3	
Korea, Rep. of	2.9	3.5	4.4	3.0	3.0	
Taipei,China	1.0	2.8	1.6	2.9	1.5	
South Asia	9.5	8.7	9.1	7.3	6.9	
Bangladesh	7.3	8.0	8.8	8.5	8.5	
India	9.6	7.8	8.5	6.5	6.0	
Pakistan	11.7	16.0	13.9	13.0	13.0	
Sri Lanka	5.9	8.0	8.0	7.5	7.5	
Southeast Asia	4.0	5.1	5.4	4.2	4.4	
Indonesia	5.1	6.3	5.6	5.8	5.4	
Malaysia	1.7	3.0	3.4	3.0	3.0	
Philippines	3.8	4.9	4.9	4.3	4.3	
Singapore	2.8	3.2	4.3	2.0	2.4	
Thailand	3.2	3.5	3.8	3.0	3.2	
Viet Nam	9.2	13.3	18.7	6.8	11.0	
The Pacific	5.7	6.5	8.3	5.6	5.9	
Fiji	7.8	4.0	8.0	3.0	3.0	
Papua New Guinea	6.0	8.0	9.5	7.5	8.5	
Developing Asia	4.4	5.3	5.8	4.6	4.6	

*Note*: Developing Asia refers to 44 developing member countries of the Asian Development Bank and Brunei Darussalam, an unclassified regional member; East Asia comprises the People's Republic of China; Hong Kong, China; the Republic of Korea; Mongolia; and Taipei, China; Southeast Asia comprises Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam; South Asia comprises Islamic Republic of Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka; Central Asia comprises Armenia, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan; and The Pacific comprises the Cook Islands, Fiji, Kiribati, Republic of the Marshall Islands, the Federated States of Micronesia, Nauru, Papua New Guinea, Republic of Palau, Samoa, Solomon Islands, Democratic Republic of Timor-Leste, Tonga, Tuvalu, and Vanuatu.

Data for Bangladesh, India, and Pakistan are recorded on a fiscal-year basis. For India, the fiscal year spans the current year's April through the next year's March. For Bangladesh and Pakistan, the fiscal year spans the previous year's July through the current year's June.

# CONTINUING GROWTH AMID GLOBAL UNCERTAINTY



# Continuing growth amid global uncertainty

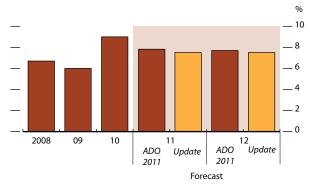
# Finding a more solid footing

Developing Asia's economy is closely tracking the forecast made in *Asian Development Outlook 2011 (ADO 2011)*, released in April. The region largely kept its growth momentum through the first half of 2011, and this *Update* envisages growth of 7.5% for full-year 2011. This slight reduction from the 7.8% forecast in *ADO 2011* (Figure 1.1.1) stems from softer than expected recovery in the major industrial countries; relative to 2010, the outlook reflects a return to more normal monetary and fiscal policies in the region. Yet there are signs that the drivers of growth are shifting toward more sustainable sources, which bodes well for near-term performance.

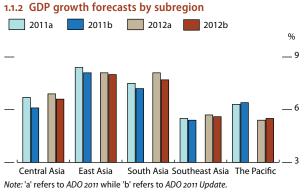
Showing geographically broad-based growth, developing Asia's subregions, too, are moving broadly along the path envisaged in *ADO 2011* (Figure 1.1.2). Forecasts for 2011 have been trimmed—for East Asia to 8.1% (from 8.4%) and for South Asia to 7.2% (from 7.5%), in part because of slightly lower than expected growth in the large economies of the People's Republic of China (PRC) and India. Southeast Asia's forecast is shaved to 5.4% (from 5.5%), and Central Asia's is nudged down to 6.1% (from 6.7%). The Pacific is the only subregion revised up marginally—to 6.4% (from 6.3%).

The main headwinds to the region's growth come from faltering prospects in the major industrial economies. Gross domestic product (GDP) data for the United States (US) and Japan for the first half of 2011 did not live up to the expectations embodied in the *ADO 2011* forecasts (Box 1.1.1). Persistent high unemployment in the US is undermining private consumption there, at the same time as the authorities are beginning to rein in fiscal deficits, while in the eurozone, resolving the sovereign debt

1.1.1 GDP growth, developing Asia



Source: Asian Development Outlook database.



Source: Asian Development Outlook database.

This chapter was written Martin Bodenstein, Minsoo Lee, Arief Ramayandi, Akiko Terada-Hagiwara, and Joseph E. Zveglich, Jr. of the Economics and Research Department. Background materials from Jeff Brown, Benno Ferrarini, Shikha Jha, Kee-Yung Nam, Donghyun Park and Pilipinas Quising are gratefully acknowledged.

### 1.1.1 Industrial-economy growth: Disappointing 2011 and tepid—at best—2012

After growing by 2.7% in 2010, gross domestic product (GDP) growth in the major industrial economies has struggled in 2011. Weak private domestic demand growth and fiscal consolidation underlay the slow expansion in the first half. In Japan, already slowing growth was further knocked off track by the March 2011 earthquake, tsunami, and consequent nuclear energy crisis.

Although the current weakness in the major industrial economies is likely to be temporary, GDP growth is put at a meager 1.3% in 2011, and thus significantly below April's forecasts. It is projected to regain momentum in 2012, climbing to 2.0%.

Baseline assumptions on the international economy, 2011–2012					
	2009	2010	2011	2012	
	Actual		Update projection		
			(ADO 2011 ii	n brackets)	
GDP growth (%)					
Major industrial economies	-4.2	2.7	1.3 (2.1)	2.0 (2.1)	
United States	-3.5	3.0	1.6 (2.8)	2.2 (2.6)	
Eurozone	-4.3	1.8	1.7 (1.6)	1.3 (1.6)	
Japan	-6.3	4.0	-0.5 (1.5)	2.8 (1.8)	

The outlook for the United States is heavily colored by domestic demand weakness. Housing prices have started falling again and unemployment is stubbornly high, undermining the ability of private consumption expenditures to recover enough to generate self-sustaining private demand growth. Firms are reluctant to invest in light of the modest growth outlook and their significant spare production capacity. And given political controversy about the path of maintaining long-run fiscal sustainability, fiscal policy is unlikely to provide new stimulus in 2011 or 2012. Indeed, downward revisions to GDP growth in 2012 reflect government spending cuts that were not foreseen in April. Although inflation appears to be staying low and stable, it is unclear under what conditions the Federal Reserve will take further measures beyond its promise of keeping policy interest rates near zero until mid-2013.

In the eurozone, growth in the first quarter of 2011 was unexpectedly strong, but showed weakness in the second. The outlook for 2011 has been revised slightly to 1.7%. The eurozone will see continued divergence between its core and noncore countries in the forecast period. Although the core countries entered a soft patch in mid-2011, they appear to be on their path to recovery, but domestic consumption growth needs to gain more strength. The speed of fiscal consolidation in the core countries will affect the recovery in 2012; growth in the noncore countries will be undermined by the strong fiscal consolidation efforts being made to appease financial markets.

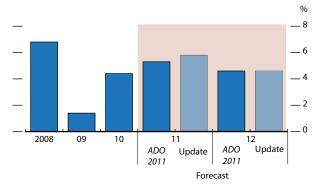
Reconstruction efforts in Japan are projected to pick up to full strength toward the last quarter of 2011 and should boost output in 2012. The impact of the March earthquake on exports in the form of lost production and logistical capacity seems to have been overcome, but the continued appreciation of the yen will weigh on Japanese exports. GDP is forecast to contract by 0.5% in 2011 and expand by 2.8% in 2012, the steep upward revision for 2012 reflecting a sharper fall in 2011 than projected in April. Fiscal austerity measures are likely to be postponed until 2013. Monetary policy has remained very accommodative throughout the year and will continue to support the recovery while deflation remains a concern.

crisis is putting pressure on recovery. Japan's economy was showing signs of slowing even before March's devastating earthquake, though reconstruction efforts are now providing some support to economic activity.

Yet despite the tepid outlook for the major industrial economies, developing Asia is forecast to continue its steady 7.5% expansion through 2012. This sustained momentum will come from robust private consumption and fixed-capital investment—backed by strengthening intraregional trade. However, given the many downside risks, it should pursue conservative fiscal and monetary policy to be ready to combat any negative shocks.

Inflation pressures, however, cast a pall over the region's macroeconomic outlook. Consumer price inflation has been on the uptick in the region generally, with the *Update* now expecting 2011 inflation to hit 5.8% in developing Asia (up from 5.3% projected in *ADO 2011*) before tapering off to 4.6% next year (Figure 1.1.3). The increase in 2011 inflation projections





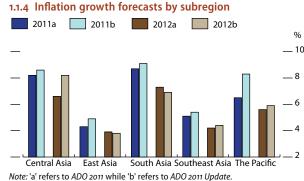
Source: Asian Development Outlook database.

cuts across all subregions (Figure 1.1.4). Consumer prices are expected to rise by 4.9% in East Asia (up from 4.3%), by 9.1% in South Asia (from 8.7%), by 5.4% in Southeast Asia (from 5.1%), 8.6% in Central Asia (from (8.2%), and 8.3% in the Pacific (from 6.5%). A leveling off of global commodity price rises should offer some respite, but authorities in the region must be prepared to respond to internal price pressures—especially where inflation is already high—in order to maintain macroeconomic stability.

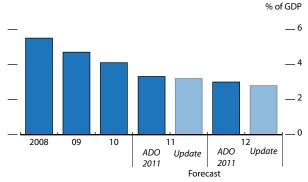
Developing Asia's current account surplus is projected to decrease slightly to 3.2% of GDP in 2011 and to 2.8% in 2012 (Figure 1.1.5). Although the sizable global current account imbalances have narrowed somewhat as the world economy weathered the recent financial crisis, recovery could widen them again as global trade picks up.

To resolve global current account imbalances, structural reforms in both industrial and developing economies are still needed. The former need to raise their saving rates and reduce their budget deficits. Among the latter, developing Asia especially needs to stimulate domestic consumption, develop social welfare systems, and improve social infrastructure. The PRC government, for example, has already started to shift its long-term focus on spending away from infrastructure toward a general social safety net system including pensions, education, and health care. The goal of this kind of spending is to reduce consumer saving and thus to raise consumer spending.

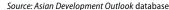
The fundamental issue is how authorities can enable their economies to rely less on export-driven and more on consumerdriven growth—in other words, diversify.



Source: Asian Development Outlook database.



1.1.5 Current account balance, developing Asia



# **Diversifying demand sources**

In the depth of the recent global crisis, developing Asia's economies—like others across the globe—relied heavily on fiscal and monetary stimulus to buoy flagging private demand. Since then, the region has seen a strong shift back to private consumption and investment.

The anemic industrial-economy performance that has continued into the recovery has heightened the need for developing Asia to diversify its sources of growth, though the growing importance of intraregional trade—with the PRC a driving force—has added to the region's resilience.

# **Rising domestic demand**

Even before the global crisis, developing Asia's domestic demand—consumption and investment— was expanding more rapidly than that of the advanced economies, as was its total GDP. A decomposition of the sources of growth for a sample of developing Asian economies in recent years (Figure 1.2.1) shows an interesting pattern with respect to the role of domestic demand.

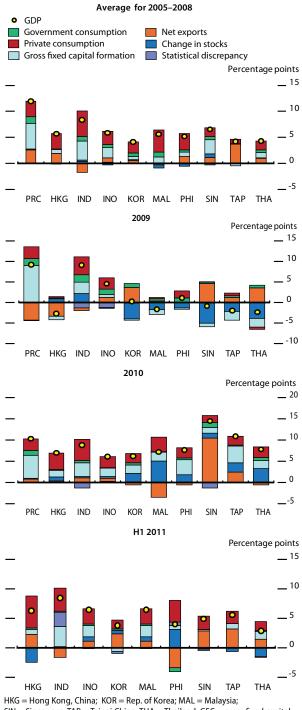
In the years leading up to the crisis, the expansion of private consumption was a key contributor to overall growth. Even though the middle-income population in developing Asia has significantly lower income and spending power relative to its industrial economy counterparts, consumption in the immediate precrisis period rose by at least 5% annually in the PRC, India, Indonesia, and Malaysia. Total investment (fixed capital investment plus change in stocks) was also a strong growth driver, particularly in the largest economies—PRC, India, and Indonesia.

During the depth of the crisis in 2009, however, private consumption and fixed capital investment generally stalled, while inventory destocking was a drag on growth, particularly for the more open economies. The PRC and India were notable exceptions maintaining strong fixed capital investment—likely linked to the stimulus measures taken there—and little change in the rate private consumption was rising.

Private consumption bounced back quickly in 2010 and into the first half of 2011, buttressed by strong labor markets. Unemployment rates in several East and Southeast Asian economies showed discernible peaks around the crisis, but even there the rates were low in comparison with US and eurozone and fell back to precrisis levels relatively quickly (Figure 1.2.2). Rising real wages in some countries is an additional sign that labor demand is strong in some key regional economies.

Retail sales in the PRC rose by nearly 11% in real terms in





SIN = Singapore; TAP = Taipei, China; THA = Thailand. GFC = gross fixed capital. Note: Private gross fixed capital for Hong Kong, China includes costs of ownership transfer. Latest data for Rep. of Korea are first quarter of 2011. Source: ADB calculations based on data from CEIC Data Company (accessed 2 September 2011). the first half of 2011 as incomes improved, and will get support during the forecast period from an easing in inflation and reduction in personal income taxes (from September 2011). In Malaysia, private consumption rose by a robust 6.6% in the first 6 months of 2011, reflecting a firm labor market, positive consumer sentiment, and gains in rural incomes from high prices for most agricultural commodities. Taken together, the indications are there that private consumption growth will continue apace through 2012.

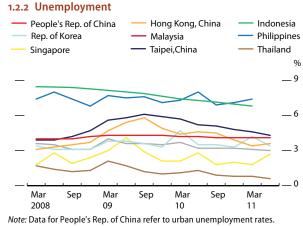
Like consumption, investment-both fixed capital and changes in stocks—bounced back quickly in 2010. This rebound in part reflects the fiscal and monetary stimulus adopted to mitigate the effects of the drop in trade. Governments throughout the region ramped up spending, much of it on infrastructure, and loosened monetary policy. For the PRC and India, property construction and publicly funded infrastructure development propped up overall fixed capital investment pushing overall GDP growth up, even during the worst of the 2009 global slowdown.

The effect of policy stimulus can be seen more clearly in the changes to the composition of investment. For countries with data on public and private fixed capital investment (Figure 1.2.3), the 2009 trough in economic activity was characterized by a steep decline in private investment and rapid inventory destocking. Here, public investment offset part of that decline. More importantly, the increase in private credit may have helped to put a floor under the decline in private investment by helping avoid a credit squeeze on business. However, the speed of credit growth in the PRC and Hong Kong, China also raised questions about the quality of investment. Regulators were particularly concerned about the quality of banks' mortgage portfolios.

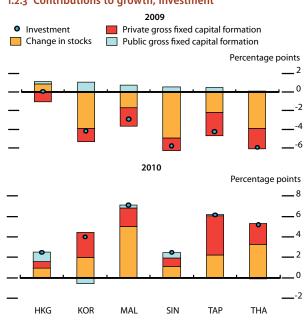
With the benefit of policy stimulus, the impact of the global recession on Asia's investment rate was short-lived and the trends for private investment were quickly reversed. Private investment recovered in 2010 and once again contributed a large part of the growth in gross fixed capital in the Republic of Korea; Malaysia; Taipei, China; and Thailand. Fixed capital investment continued to support growth in the first half of 2011-in spite of the winding down of fiscal stimulus packages and tighter monetary stances. Public infrastructure investment in the PRC moderated after the end of the stimulus plan, but private investment in manufacturing is expected to rise. The limited disaggregated investment indicators available also show that the resurgence of private capital is continuing—another sign that the region may be on a durable growth trajectory.

### Increasing role of intraregional trade

Because Asian economies have relied on industrial economies as major export markets, the region has been highly vulnerable to economic downturns in those markets. Take 2009, when total real exports declined in most regional economies closely following the contraction in GDP of



Source: CEIC Data Company (accessed 2 September 2011).



HKG = Hong Kong, China; KOR = Rep. of Korea; MAL = Malaysia; SIN = Singapore; TAP = Taipei, China; THA = Thailand. Source: See Figure 1.2.1

### 1.2.3 Contributions to growth, investment

major industrial economies. Highly integrated and synchronized global supply chains were a leading factor in the large drop and rapid recovery of global trade.

Particularly since the early 2000s, intraregional trade has been expanding in developing Asia, driven by growing vertical specialization and the dispersion of production processes across borders. These production networks create tight links between Asian economies, with Japan and the PRC acting as regional hubs, and between Asia and the economies in North America and Europe (Box 1.2.1). Continued strengthening in intraregional trade in final goods can help to reduce the vulnerability of Asian economies to downturns in industrial economies.

Regional trade is underpinned by the PRC's crucial import absorption role. Through integrated trade links, the PRC has supported the GDP growth momentum of other economies in the region (Figure 1.2.4).

But that role presents a double-edged sword. During the global crisis, exports contracted sharply in all Asia's large exporting economies, from Q4 2008 to Q3 2009. Among the non-PRC economies, some suffered steeper contractions for exports destined to the PRC than to elsewhere; for others, it was the opposite case. Yet as exports recovered, all these economies saw stronger export growth to the PRC than to the rest of the world. Exports of most of the 10 economies to the PRC, as a share of their total exports, have also increased since before the global crisis (Figure 1.2.5).

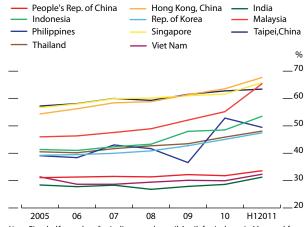
Viewed from the other end of the transaction, even with those 10 economies' increasing exports, their shares to the PRC's total imports have been stable or even declining, as in the case of Republic of Korea and Taipei, China except in Malaysia where the share modestly rose (Figure 1.2.6). The US and eurozone's shares in the PRC's imports are stable, however, implying the major industrial countries' role in that country's trade remains significant.

Several Asian economies have diversified their export partners from the major industrial economies toward developing Asia (Figure 1.2.7). For most countries in the region, the PRC is now the main export market, with direct demand playing an increasing role in the PRC's regional imports, as seen in a rising share of final goods and declining share of parts and components in its imports from the region. However, trade within the Asian production networks and the crossborder flows of parts and components trade still represent a high share of the PRC's imports from the region.

# Shrinking current account surpluses

Global imbalances, measured as the sum in absolute terms of the current account positions of the world's major countries or regions fell by nearly half in the aftermath of the global crisis after reaching a postwar high of

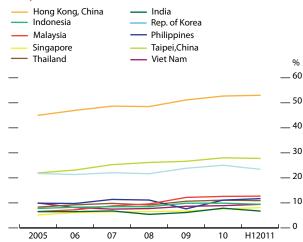
# 1.2.4 Share of exports to developing Asia, 11 Asian economies



*Note:* First half 2011 data for India are only until April, for Indonesia May, and for Viet Nam March.

Source: ADB calculations based on data from CEIC Data Company (accessed 5 September 2011) and International Monetary Fund, Direction of Trade Statistics, July 2011.

# 1.2.5 Exports to the People's Republic of China, as share of total, 10 Asian economies



*Note:* First half 2011 data for India are only until April, for Indonesia May, and for Viet Nam March.

Source: ADB calculations based on data from CEIC Data Company (accessed 5 September 2011).

### 1.2.1 Evidence for factory Asia

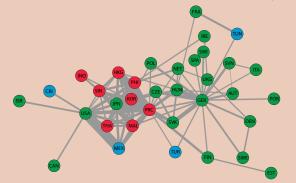
To visualize global trade networks, Ferrarini (2011) measures countries' mutual dependence as suppliers or assemblers of parts and components on the basis of detailed bilateral trade data for 75 countries.

The importance of Japan, for example, as a provider of electronics components to the United States (US) is gauged by its share among all supplying countries and the weight of final electronics goods in US total exports. The intensity of such "vertical trade" relationships is thus measured at the level of industries and for each country pair in both directions, for example from Japan to the US and vice versa. Through the use of special algorithms, these bilateral network links are then related to each other to draw a world map of vertical trade networks.

Maps are drawn in relation to the strongest network links in two industries where vertical trade is most pronounced—the electrical/electronics industry (Box Figure 1) and the automotive industry (Box Figure 2). Developing Asian economies are shown in red, highincome countries in green, and non-Asian developing countries in blue. The lines' width is proportional to the intensity of bilateral network links, and countries' position on the map reflects their centrality to global supply chains.

Global processing trade centers on three major regional hubs. The first is "factory Asia," which stands out as a tightly knit web of production sharing within the electrical/electronics industry. With the PRC and Japan at the center, vertical trade involves a number of economies in East and Southeast Asia and extends globally to all the major network hubs. Less pronounced are the automotive networks in Asia, which mainly involve Japan as the key

1 Vertical trade in the electrical and electronics industry

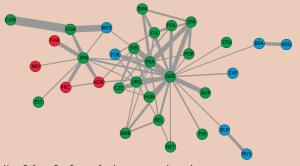


ARG = Argentina; AUT = Austria; BEL = Belgium; BLR = Belarus; BRA = Brazil; CAN = Canada; PRC = People's Rep. of China; CRI = Costa Rica; CZE = Czech Rep.; DEN = Denmark; EST = Estonia; FIN = Finland; FRA = France; GER = Germany; HKG = Hong Kong, China; HUN = Hungary; INO = Indonesia; IRE = Ireland; ISR = Israel; ITA = Italy; JPN = Japan; KOR = Rep. of Korea; LTU = Lithuania; MAL = Malaysia; MEX = Mexico; NET = Netherlands; PHI = Philippines; POL = Poland; POR = Portugal; RUS = Russian Federation; SIN = Singapore; SPA = Spain; SVK = Slovak Rep.; SVN = Slovenia; SWE = Sweden; SWI = Switzerland; THA = Thailand; TUN = Tunisia; TUR = Turkey; UKG = United Kingdom; USA = United States; ZAF = South Africa; *Source:* Authors' representation.

supplier of parts and components to assembly centers, such as Indonesia.

The second global hub is the United States, mainly though strongly networked automotive and electrical/ electronics supply chains involving Canada and Mexico, underpinned by joint membership of the North American Free Trade Agreement (NAFTA). Moreover, the North American network is tightly linked to factory Asia.

2 Vertical trade in the automotive industry



*Note:* Refer to Box figure 1 for the country codes and names *Source:* Authors' representation.

Third is the European network with Germany at its center, primarily reflecting the single market's extensive automotive value chains. In relation to electrical/ electronics vertical trade, Box Figure 2 highlights Eastern Europe's proximity to factory Asia.

Box Figure 1 shows that Mexico has a multitude of vertical trade ties with several countries and the width of the connecting lines shows that these are strongest with the US (mainly because of its maquiladora system of factories along the US–Mexican border). However, apart from Mexico and of course the East and Southeast Asian countries making up factory Asia, developing countries are not yet strongly involved in the global production networks. There is no equivalent to factory Asia in Latin America, let alone in Africa.

Vertical trade maps help to visualize the apprehensions earlier this year about possible global fallout from the supply disruptions after the March disaster in Japan. Japan's position within the electrical/electronics and automotive global supply chains (highlighted in blue) testifies to its central role as a provider of parts and components to both factory Asia and the North American and European production networks. In Asia, the network dependence on Japan is deemed highest for those countries relying most heavily on its provision of electronic parts, such as the PRC and the Philippines, and on automotive parts, notably Thailand.

Source: Ferrarini B. 2011. Mapping Vertical Trade. ADB Working Paper No. 263. June 2011.

over 5% of world GDP in 2008 (Figure 1.2.8). The narrowing was largely due to the decline in oil price that led to a halving of the current account surplus of the Middle Eastern economies matched by the rise in savings in the US. Asia's contributions to the narrowing trend have been minimal given its robust growth relative to the rest of the world.

Previous experience suggests that narrowing of current account imbalances aftermath of the crisis is only partial and temporary, as fundamental policy change takes time. The rebalancing trend is likely to stay only while the world economy is weak. The *Asian Development Outlook* (ADB 2009a) and its *Update* (ADB 2009b) pointed out the need for structural adjustments in various sectors for sustainable rebalancing to be realized. Although the need for substantial reforms are generally understood and accepted by policy makers in economies with wide imbalances, such policies take time to gain traction, and hence the concern about spillover effects arising from the global imbalance in the short to medium term.

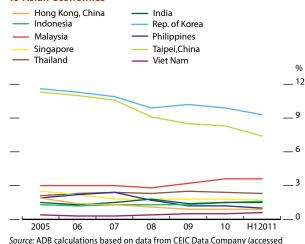
Accelerating economic growth in developing Asia has been accompanied by sharp increases in domestic rates of saving, especially in the PRC, which has shown a steep rise in its current account surplus since 2005. Combined with stagnant investment rates in some Asian countries hit by the crisis in the late 1990s and a still significant surplus in Japan, Asia as a whole is responsible for much of the global current account surplus.

In 1990–2004, the average current account balance was much lower (in absolute terms) than in more recent years for all the economies. It averaged 1.9% of GDP for the PRC during this period but 8.5% in the 5 years running up to the global financial crisis. Japan showed similar trends.

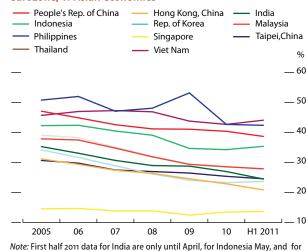
Are these observations supported by underlying structural factors? A saving-investment model can highlight the mediumterm relationship between each country's current account (saving-investment balance) and structural factors such as fiscal balance, relative demographic profile, economic growth, and country-specific factors. Such an exercise suggests that the recent past's current account balance in the PRC and Japan, for example, were higher than the levels suggested by the underlying structural factors, and thus needed corrections (Hutchison and Terada-Hagiwara, 2011)

A key question is whether global imbalances will continue to narrow, or if they will widen again once the recovery firms. Trade-side analyses suggest that a moderate widening of the global imbalance is likely without aggressive reform. Saving–investment projections tell a similar story. Savings rates in developing Asia are projected to stay elevated, while investment rates move broadly sideways or decline. Assuming no fundamental changes in policies, relatively fewer young people to raise, and income on developing Asia's accumulated foreign assets indicates a possible widening of current account balances in the near term, though perhaps not to the levels seen before the global crisis.

# 1.2.6 Share in imports of the People's Republic of China, 10 Asian economies



Source: ADB calculations based on data from CEIC Data Company (accessed 5 September 2011).



# 1.2.7 Share of exports to the United States, Japan, and eurozone, 11 Asian economies

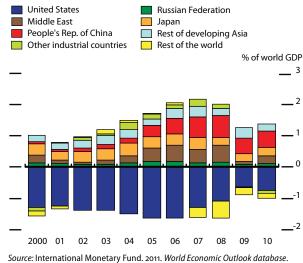
Viet Nam March. Source: ADB calculations based on data from CEIC Data Company (accessed 5 September 2011). Furthermore, although population aging can be expected to raise consumption and reduce savings, analysis indicates that this effect is limited in developing Asia (Box 1.2.2).

Consistent with countries persistently running current account deficits or surpluses, the net international investment position—a country's foreign asset holdings less its foreign liabilities—in those countries has been widening. The US was a net creditor until 1990, but it has since run down its net foreign asset position by close to 20% of GDP. India similarly has been a net borrower, driving down its net position by more than 20% of GDP. In contrast, Japan's persistent surpluses have caused it to accumulate an additional 50% of GDP in net foreign assets. Since 2000, the PRC has been accumulating foreign assets.

Holdings of net foreign assets generate foreign income flows—an important current account component. Hence widening foreign asset positions, themselves a product of persistent current account imbalances, can undermine prospects for correcting global imbalances.

Achieving balanced growth is in Asia's interest, in both the short and medium run. Steps toward rebalancing by allowing currencies to fluctuate more freely would assist in anchoring inflation expectations and containing capital inflows in the short term. Further out, balanced growth would mean more stable sources of growth

### 1.2.8 World current account balance



Source: International Monetary Fund. 2011. World Economic Outlook database April. http://www.imf.org (accessed 7 September 2011).

### 1.2.2 Link between population aging and aggregate consumption in developing Asia

Rebalancing ultimately requires a greater role for domestic demand—consumption, investment, or both in gross domestic product growth. Developing Asia has considerable room for growth in consumption, due to the expansion of purchasing power as a result of fast growth. Aggregate consumption, and the share of aggregate consumption in national income, depends on a number of factors, including the population age structure. Individuals tend to save during their working years, and run down their savings to support their consumption after retirement.

This implies that economies where the share of elderly in total population (that is, the old-age dependency ratio) is low, saving will tend to be higher, but that economy-wide saving will decline as the old-age dependency ratio rises. Further, higher government outlays on health care and pensions as the population ages may also boost aggregate public consumption.

For developing Asia, this characterization of saving behavior implies that its demographic transition would naturally lead to greater aggregate consumption (lower aggregate saving) over time. A forthcoming study (Estrada, Park, and Ramayandi) examines this hypothesis using a global data set for the period 1998–2007. Controlling for other factors that may also influence consumption– saving decisions, the study finds that globally a higher old age dependency ratio is indeed associated with higher consumption shares (equivalently, lower saving rates).

However, once developing Asia is isolated, the results become weaker. For the region, the study finds that higher old-age dependency has a negative and significant effect on consumption. This implies that aging has a weaker impact on consumption in the region than in the rest of the world, leading to persistently high saving rates even as the demographic transition progresses.

One possible explanation for this difference from the global result lies in the way the elderly population in Asia finance their consumption in retirement. While the elderly elsewhere in the world tend to rely more on government transfers, Asia's elderly tend to rely mostly on family support and accumulated assets, which encourages Asians to save and accumulate more assets for their retirement and to use up their saving more slowly.

### Reference

Estrada, G., D. Park, and A. Ramayandi. Forthcoming. Population Aging and Aggregate Consumption in Developing Asia, ADB Economics Working Paper, forthcoming, Manila: Asian Development Bank. as production geared toward domestic markets and a wider range of export destinations is better shielded from shocks to individual markets. Likewise, the need for adjusting fiscal imbalances is clear for some of the advanced economies.

Rebalancing Asia's growth could enable the region to become a more important source of global demand, but would require a series of domestic structural reforms in Asia and regional policy coordination. Economies with persistent imbalances—both developing and industrial need to carry out comprehensive policy packages and to continue marketoriented reforms. Such reforms are not risk free, however, and might create or exacerbate policy-making trade-offs such as temporarily reduced exports and lower growth. Taking advantage of the narrower imbalances currently prevailing and the continued steady growth driven by domestic demand, developing Asia has an excellent opportunity to make the needed structural changes.

# Underlying strength, with risks

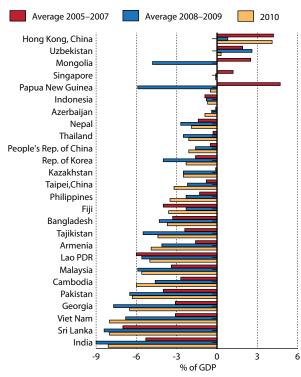
Developing Asia is well placed to sustain GDP growth through 2012, and the *Update* anticipates that the region will continue its 7.5% growth pace next year. The forecasts for East Asia (8.0%) and Southeast Asia (5.6%) are close to those made in April. That for South Asia is lower, at 7.7%, largely on the revision for India—now 8.3% from 8.8%, as monetary tightening will continue weighing on growth. The Pacific is expected to perform a shade better than earlier foreseen (5.5% versus 5.4%). The forecast for Central Asia is lowered to 6.6%.

Developing Asia will, needless to say, still be affected by spillover from global developments. In the US, the political debate about the future path of fiscal policy will probably affect the economic recovery, and fiscal retrenchment will most likely hit growth. The downgrade of US government debt took down world equity markets as investors fled risk assets.

Tensions in segments of eurozone bond markets for sovereign debt will continue worrying investors. Even though measures—from new financial assistance programs to turning the European Financial Stability Facility (EFSF) into a permanent institution—have been expanded, markets remain volatile. Prolonged, wide spreads between long-term government-bond yields for Germany and peripheral European countries persist. Concerns about the ability and willingness of the core countries of the eurozone to commit further funds can continue to periodically upset financial markets.

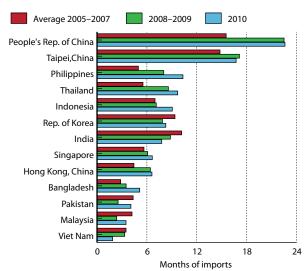
Despite these risks to the global outlook, which are more pronounced than earlier this year, developing Asia will likely be supported by sound macroeconomic fundamentals, an essential foundation for strong sustainable economic growth. The region's sound fiscal positions, low public debt levels, and high foreign reserves likely limit sovereign credit risk contagion from advanced economies (Figures 1.3.1.–1.3.2).

Fiscal positions of Asian economies appear to have improved, moving closely to the pre–global crisis levels. In India, Indonesia, Malaysia, and Thailand, fiscal deficits in 2010 were lower than the average of 2008 and 2009. Hong Kong, China's surplus is also back to its precrisis level. The improvement in its healthy macroeconomic fundamentals can increase the resilience of the region's economies. These fundamentals will also help the region weather a possible resurgence in global commodity prices by employing fiscal measures and stimulus to mitigate the pass-through of higher international prices to domestic markets.



Source: Asian Development Outlook database

### 1.3.2 Gross international reserves



Source: Asian Development Outlook database.

### 1.3.1 Fiscal balance

# Inflation—a persistent concern

The strength of the economic recovery in Asia and rising prices of food and commodities continued to put upward pressure on consumer prices in the first half of 2011 (Figures 1.4.1 and 1.4.2). After the 2008 global economic and financial crisis, inflation pressures had cooled and reached their lows in mid-2009. As regional economic activity picked up, however, so did inflation.

Over the first half of 2011, inflation accelerated to uncomfortably high levels, particularly in India and Viet Nam. In India, headline inflation (which includes food and energy prices) remained close to double digits and in Viet Nam it reached 20% by end-July. In Southeast Asia and the PRC, inflation had climbed to around 6% by July. The notable exception was Taipei, China, where inflation stayed below 2% throughout the first half, although it also accelerated (as other countries throughout the region did). Core inflation—excluding food and energy prices—has also been rising since mid-2009 across the region as commodity price increases feed through to wages and other prices (Box 1.4.1).

The slowing rise in international commodity prices is providing some respite for policy makers. But if commodity prices resume their climb and the current weakness in the global recovery turns out to be temporary, regional central banks will have to speed up the process of monetary tightening, especially where inflation is already high. Nominal exchange rate appreciation may provide some relief as it would induce a fall in import prices. Combined with carefully designed temporary capital controls, such appreciation may also reduce the likelihood of unwanted short-term capital inflows that have prevented some policy makers from raising policy interest rates high enough to curb inflation.

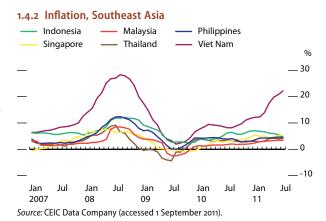
An environment of low and stable inflation provides predictable financial conditions for borrowers and lenders, reduces sovereign and corporate interest rate spreads, and thus boosts interest rate-sensitive components of GDP (that is, consumption and investment). Unless expected and actual inflation are controlled by the makers of monetary policy, stable economic growth may be hard to achieve and millions of the region's inhabitants will find their move out of poverty delayed. How policy makers actually tackle inflation is looked at more closely after the following discussion on the channels of inflation.

### Inflation channels

As seen in Box 1.4.1, global commodity prices represent an important source of inflation. Energy and food price increases affect consumer price indexes directly by their large share in consumption baskets, but also indirectly through raising production costs of goods that use

### 1.4.1 Inflation, East Asia and India





commodities and food as inputs. The speed and size of this pass-through into other prices and wages vary across countries and sectors of the economy. The correlation between headline and core inflation is high for many Asian countries: according to the *Regional Economic Outlook* of April 2011 from the International Monetary Fund, a 1 percentage point increase in local food and energy prices induces on average an increase of core inflation by 0.2 percentage points in emerging Asia, but only about half that amount in Japan or Australia. This high correlation suggests that the pass-through is fast.

The source of commodity price inflation affects the choice of the appropriate monetary policy response. For example, if commodity prices rise because of foreign supply disruptions, Asian economies experience additional inflation pressures because of a fall in the economies' production capacities. By contrast, if Asian demand for commodities rises because of increased production capacity in the region, the resulting increase in commodity prices will not be reinforced by tighter conditions on production capacity.

With emerging Asian economies increasing their global share in consuming energy such as oil (Figure 1.4.3), other industrial commodities, and many food categories, explanations of price increases for these goods need to look beyond supply shocks but at the strong regional demand growth.

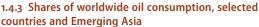
Beyond commodity and food prices, overall strong demand both domestically and from abroad relative to supply capacity adds to inflation pressures. Output gaps, which measure the distance between an economy's actual and potential output, in many Asian countries turned positive during 2010 (that is, actual output exceeded potential output), after being negative since the global crisis, and so increased upward pressure on prices. In particular, the strong inflation pressures in Viet Nam, India, and the PRC indicate positive output gaps and a risk of overheating.

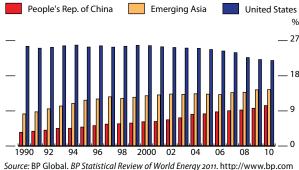
# Approaches to tackling inflation

To combat inflation, policy makers have to decide on the measure of inflation to focus on—headline or core. For Asian economies, the case for a focus on headline inflation often comes from the important role that food and oil play in regional consumption patterns. However, based on the experience of industrial economies, a focus on core inflation has many supporters as well.

Three main groups have emerged. The first argues that monetary policy should focus on core price inflation; the second and third argue for a focus on overall (headline) price stability. The difference between the latter two groups is that the second group assigns a tactical role to a focus on core inflation, the third does not.

The first group bases its view on the following theoretical argument. If inflation expectations are well anchored and distributional (or incomeinequality) issues are of little relevance, food and commodity price inflation warrant a monetary policy response only to the extent that such inflation passes through to the prices of other goods (Aoki 2001). As food

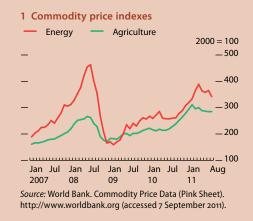




#### 1.4.1 Commodity prices

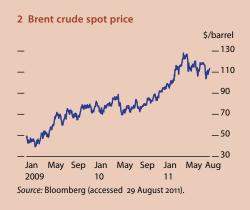
After a sharp decline during the global crisis, commodity prices have risen since mid-2009 (Box figure 1) and in some categories surpassed their precrisis peaks by early 2011. Subsequently, prices have softened and are expected to stabilize over the forecast period, owing to supply disruptions and a weaker outlook for the global recovery.

The two global commodities receiving most attention in developing Asia are oil and food.



#### Oil

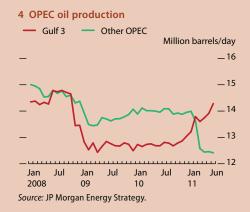
During the first 4 months of 2011, global oil prices, measured by the Brent Crude spot price, rose continually from around \$95 at the start of the year to \$127 on 29 April. In 2010, they averaged \$80. The runup in prices reflected both supply and demand factors. Robust growth in emerging economies and an optimistic global outlook pushed up oil demand, whereas supply disruptions in Libya and, more important, wider geopolitical concerns about political and economic stability in the Middle East hit actual and expected global oil supply. As oil supply constraints eased and the outlook for the recovery in the major industrial economies lost momentum, at least temporarily, oil prices stabilized in the second quarter of 2011 (Box figure 2).



Although oil demand in the major industrial economies is expected to remain stable in 2011 and 2012, projected oil demand growth in countries outside the Organisation for Economic Co-operation and Development is 4% in both years. Whether the overall growth in world oil demand can be met depends on a variety of supply factors (Box figure 3).



Production in members of the Organization of the Petroleum Exporting Countries, led by the Gulf trio of Saudi Arabia, Kuwait, and the United Arab Emirates, is expected to grow moderately in 2011 and to average about 30 million barrels per day (bpd) in both 2011 and 2012 (Box figure 4).



After reportedly intending to raise its oil production from 9.3 million bpd to 10 million bpd, Saudi Arabia is approaching its overall oil production capacity of 12.5 million bpd. Thus the price effects of future major oil supply disruptions may become harder to buffer.

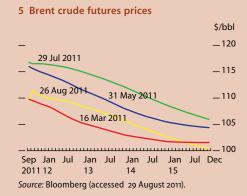
Elsewhere, supply difficulties are likely in Iraq and Libya. In Iraq, logistical challenges in ramping up output through its southern ports are likely to limit production

#### 1.4.1 Commodity prices (continued)

until at least the end of this year. If the Libyan conflict was resolved soon—a prospect supported by August's events—and thus production and logistical constraints eased quickly, Libyan output could surge. However, reliable indicators of how much production capacity was destroyed are hard to obtain, leaving Libyan projections extremely uncertain.

Non-OPEC output is also expected to grow moderately this year. Production problems in the North Sea have been more than offset by higher output in Brazil, Colombia, and elsewhere. Global oil inventories remain at healthy levels, reaching 2,680 million barrels in May.

The slowdown in oil prices over the second quarter of 2011 has been accompanied by a decline in market expectations about oil prices as measured by forwards on Brent crude oil price (Box figure 5). Based on the assumptions of a weaker outlook for the major industrial economies, robust growth in the emerging economies, and easing of supply constraints, the price of oil is projected at \$100-\$110 in the second half of 2011, implying an annual average in the same range. Limited spare capacity will prevent oil prices from easing much, even if the current slowdown in the industrial countries is prolonged.

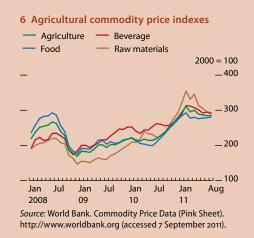


#### Food

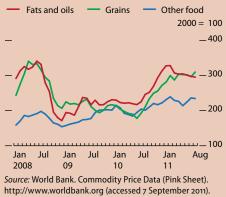
In line with movements in the overall price index for agricultural goods, food prices have been picking up sharply since their 2009 trough. In July 2011, they were just shy of their precrisis peak in 2008 (Box figure 6).

The same demand aspects as for oil apply to food (Box figure 7). Strong growth in Asia and other developing regions has pushed up demand, but it has slowed in industrial economies. Supply has been constrained by increased production costs (on higher fuel prices) and adverse weather. Crop failures in Australia, Europe, North America, and Argentina in the second half of 2010 continue to have some effect on prices.

Looking forward, developments across different







segments of the food market are expected to diverge. The latest estimates of the United States Department of Agriculture show a lower ending stock for grains in the crop year 2011/2012 than the previous year as growth of total usage is expected to outpace growth of total supply. In particular, lower stocks are projected for wheat and coarse grains.

Rice stocks are expected higher due to anticipated production increases in the rice-exporting countries of India, Pakistan, and Thailand, as well as Bangladesh, the People's Republic of China, and Indonesia.

Although prospects for the overall supply of food have improved with better weather and the lifting of earlier export bans (by for example the Russian Federation and the Ukraine), global stocks remain so low that small shortfalls can greatly affect prices. On this basis, food prices are now seen increasing by 20% in 2011. Although expected to stabilize on average in 2012, they will remain volatile. and energy prices tend to be highly flexible, these price fluctuations reflect real shifts in demand and supply that do not lead to distorted relative prices between commodities and other goods. Thus, these price changes do not lead to a misallocation of resources. To the extent that food and energy prices feed into less flexible prices and wages, however, relative prices get distorted, which calls for monetary policy tightening in order to prevent relative price distortions.

As summarized by Bryan and Cecchetti (1994) and Wynne (2008), the second group emphasizes overall (headline) price stability as an objective of the central bank, but assign to core inflation an important tactical role in achieving overall price stability for three reasons: core inflation is a better predictor of future overall inflation in the medium term; the weight of food and energy in a country's overall consumer price index is light; and commodity price changes have little persistence, are hard to predict, and are driven by supply shocks. The nature of commodity price fluctuations raises the question whether monetary policy is the right tool to control inflation induced by changes in commodity prices.

The third group—with a strict focus on headline price inflation challenges the empirical validity of the second group's arguments, contending that little formal evidence supports the claim that core inflation is a better predictor. It also argues that food and energy price changes have become much more persistent in recent years.

Developing economies especially have to focus on distributional concerns. In many Asian countries, food and energy easily account for a third or more of average consumer spending (Table 1.4.1). But if nominal wages are not adjusted rapidly to preserve purchasing power, the poor are especially vulnerable to higher food prices because they spend a disproportionately large fraction of their income on food. Thus inflation, especially of the food-price kind, can push into poverty those who subsist on or are just above the poverty line.

On the downside of an aggressive monetary policy response to higher inflation, tighter monetary policy slows down economic and employment growth opening up the question whether monetary policy is the appropriate tool to resolve long-existing inequalities over the medium term. As can be evinced from Table 1.4.2, policy makers in the region are aware that tools other than monetary policy may be successfully employed against rising food prices.

In addition to distributional concerns, a focus on headline inflation may also be warranted to maintain or build credibility of monetary policy. By adopting an inflation target, policymakers have been able to build credibility for the commitments made by the monetary authorities improving their control over current inflation and medium-term inflation expectations. For the inflation target to provide the monetary anchor, the central bank must be in a position to convince the public of its success in delivering on its promises. If inflation pressures are insufficiently addressed, policy credibility may be severely damaged and as a result inflation expectations become unhinged. Higher current or expected inflation causes workers to demand higher nominal wages to maintain or increase real wages which in turn raises inflation in the future, setting off a wage-price spiral. Communication of an appropriately defined nominal anchor becomes the key concern.

### 1.4.1 Food weights in consumer price index baskets (%), developing Asia

Economy	Share (%)
Developing Asia	
Bangladesh	58.84
Philippines	46.58
India	46.19
Sri Lanka	45.50
Cambodia <sup>a</sup>	44.78
Pakistan <sup>b</sup>	40.34
Viet Nam	39.93
Indonesia <sup>c</sup>	36.20
Thailand <sup>a</sup>	33.01
Malaysia <sup>a</sup>	31.40
China, People's Rep. of <sup>b</sup>	30.20
Hong Kong, China	26.67
Taipei,China	26.08
Singapore <sup>a</sup>	22.05
Korea, Rep. of <sup>a</sup>	14.04
Major industrial economies	
Japan <sup>b</sup>	25.90
United States <sup>b</sup>	14.80
Eurozone	14.00

<sup>a</sup> Includes nonalcoholic beverages. <sup>b</sup> Includes beverages. <sup>c</sup> Includes beverages and tobacco. *Sources:* CEIC Data Company (accessed 1 March 2011); National statistics websites.

1.4.2 Responses to soaring international food prices							
Economy	Response						
India	Extended ban on wheat and rice exports and approved the provision of 5 million tons of wheat and rice from federal stocks to poor families, 1 June–30 November 2011.						
Indonesia	Suspended import duties on soybean oil, 18 April-31 December 2011. Previously suspended import duties on food-related items, 24 January-31 December 2011.						
Korea, Rep. of	Suspended tariffs on bananas, pineapples, radishes, and white cabbages, 8 August–30 September 2011. Lifted tariffs for selected agricultural products through 31 December 2011.						
	Extended tariff quotas for several food items, which will be subject to either zero tariff or lower tariffs, including fresh and frozen pork in 2011.						
	Lowered tariff quota rates for flour until 31 December 2011.						
Philippines	Extended zero tariff on milling wheat up to July 2011.						
Taipei,China	Reduced import duty on seven food staples by up to 50%, 10 February–10 August 2011.						
Viet Nam	Reduced import duties for refined and raw sugar to 15% on April 2011.						
Source: ADB staff compilation.							

Given the problems that even well-resourced central banks in advanced economies face in explaining an inflation target for core inflation rather than headline inflation, central banks in emerging economies may prefer formulating their inflation objectives in terms of headline inflation for the sake of greater transparency and easier communication. The large weight of food and energy in the region's consumption baskets further underscores the focus on headline inflation.

### **Challenges to monetary policy**

The set of policy options that can curb inflation pressures and influence economic activity is rich. Most developed economies attempt to control inflation by setting targets for a specific short-term interest rate. Openmarket operations between the central bank and private banks lead to injections or reductions of liquidity in the banking sector. In liquid financial markets, arbitrage ensures that other short- and long-term interest rates adjust accordingly. A tight nexus between short- and longer-dated rates is crucial for the monetary transmission mechanism to operate successfully, as the interest rate-sensitive components of domestic demand (that is, investment and consumption) respond to movements in the yield curve at longer maturities. The induced change in domestic demand widens or reduces the gap between output and potential output and thereby increases or reduces inflation pressures.

A central bank's effectiveness to influence economic activity and inflation when using short-term interest rates depends on the level of financial development. If financial markets are segmented and relatively illiquid, changes in short-term rates do not strongly propagate to all maturities of the yield curve. To change economic activity by a given size, central banks in less-developed financial markets typically have to raise short-term interest rates by a larger amount than central banks in more developed jurisdictions. With the monetary transmission mechanism facing obstacles, developing-country central banks usually accompany open-market operations with changes in rediscount rates and reserve requirements. Although these additional instruments may strengthen such central banks' control over inflation and economic activity in the short term, it may be desirable to develop deeper and more liquid financial markets. Absent reform, bank financing will continue to dominate funding by the formal finance sector, debt markets will stay dominated by government bonds, stock market capitalization will remain low, and small financial flows will have large impacts on asset prices. Heavy reliance on bank financing often goes with inefficiently allocated credit; it also implies excess reserve holdings when the central bank uses reserve-requirement changes as a policy tool. Excess reserves in turn weaken the effectiveness of these reserve requirements.

In developing Asia specifically, an additional challenge to monetary policy is posed by the desire of many policy makers to keep nominal exchange rates stable relative to the US dollar or a basket of major trading partner currencies. Undervalued exchange rates support exports, as seen in the region's export growth of recent years. They also require the accumulation of foreign reserves by the central bank to prevent the nominal exchange rate from appreciating and to secure international cost competitiveness.

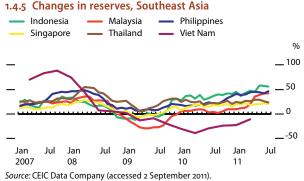
Indeed, countries that were most affected by the 1997–1998 Asian crisis have seemingly welcomed the accumulation of foreign reserves in the hope that these reserves provide effective self-insurance against capital flow reversals in the absence of sufficient regional and global liquidity mechanisms. During the recent global crisis, many countries lowered their rate of accumulating reserves or even reduced their holdings. As the world economy slowly recovers, reserve accumulation has again picked up (Figures 1.4.4 and 1.4.5).

Allowing even modest nominal exchange rate appreciation could reduce inflation pressures from imports, particularly in countries that import energy or food. This is particularly important for Asia as a region, because in 2000–2010 food imports rose faster there than in any other region, increasing in volume terms by almost 75 percent (FAO 2011). Exchange rate appreciation will not, however, help to ease inflation pressures in countries that are net exporters of food and commodities. For net importers, it will, though, reduce speculative capital inflows that are rooted in the expectation that global imbalances and import price inflation make regional exchange rate appreciations inevitable. (See the section *Recent capital flows to developing Asia*, below, for further discussion.)

A key insight of the field of international finance is that a country cannot simultaneously allow for full capital mobility, run an independent monetary policy, and freely target its nominal exchange rate. Capital controls can, however, ease constraints on monetary policy when exchange rates are flexible. Although countries' attempts to implement capital controls typically meet opposition, discussions on capital controls intensified in late 2009 when an increasing number of emerging economies shifted more openly to experimenting with different measures that fall under the broad rubric







of "capital controls," including measures to restrict inflows or encourage outflows.

In justifying such measures (Table 1.4.3), regional policy makers do not emphasize their importance in easing the tension between exchange rate inflexibility or undervaluation and monetary policy independence. Rather, they stress the need to control "hot money" and large financial flows caused by loose monetary policy in the advanced economies.

Instrument	Strengths	Weaknesses	Recent examples
Tax measures	Targeted measures	Calibration can be difficult in practice	<i>Korea, Rep. of:</i> Reimposition of 14% withholding and 20% capital gains tax on foreign purchases of government bonds (November 2010); tax on foreign exchange liabilities other than deposits (April 2011).
			<i>Thailand:</i> 15% tax on interest income and capital gains earned by foreign investors (October 2010).
Minimum investment periods	Increase incentives to invest in longer-term assets	Reduces but does not eliminate the flow	Indonesia: One-month minimum holding period for central bank money market certificates (June 2010); extended the holding period for central bank money market certificates to 6 months from 1 month effective 13 May 2011.
Quantitative limits	Allow direct control of how much capital is let in	Allocation and monitoring of allowance can be difficult	China, People's Rep. of: Limits on Hong Kong, China banks' net open position and ability to access yuan through the PRC's foreign exchange market (January 2011).
			Indonesia: Short-term external bank borrowing limited to 30% o capital (December 2010).
			Korea, Rep. of: Cap on bank's foreign exchange derivatives books (December 2010), plus further cap (July 2011). Subsequent quarterly adjustments to caps likely.
Unremunerated reserve requirements	Strong disincentive to investors	Can drive away beneficial investment	<i>Philippines</i> : Increased reserve requirements twice in June 2011.
Relaxed restrictions on outflows	Reduces regulations on outflows and increases transparency	Does not affect inflows directly	<i>China, People's Rep. of:</i> Allowed exporters to keep foreign exchange earnings abroad instead of exchanging them into yuan (January 2011).
			<i>Philippines</i> : Raised annual limits on certain types of foreign exchange purchases by residents (October 2010).
			<i>Thailand</i> : Relaxed restrictions on foreign direct investment by Thai firms, residents' investment in foreign securities, and holdings of foreign exchange by residents (February to October 2010).
Measures for property market	Directly regulates a market heavily affected by inflows	Does not affect inflows directly	Hong Kong, China: Reduced the cap on the loan-to-value ratio for certain properties (August 2010).
			<i>Malaysia:</i> Set new caps on loan-to-value ratio at 70% for loans on third house (November 2010).
			<i>Taipei, China</i> : Reduced cap on the loan-to-value ratio for home purchases in speculative areas (December 2010).
			<i>Thailand</i> : Set new cap on loan-to-value ratio for residential property at 90% on condominiums (November 2010).
			Singapore: Reduced cap on loan-to-value ratio for mortgage loans on second properties (August 2010).

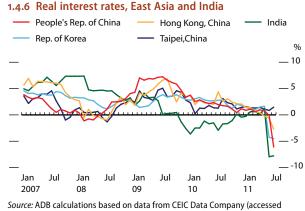
#### **Policy directions**

After lowering policy interest rates considerably as the global financial crisis depressed worldwide economic activity in 2009, monetary authorities in the region were slow in reacting to the resurgence of economic activity, positive output gaps, and inflation pressures during 2010. Real interest rates have been declining throughout the region since early 2010 and turned negative in the second quarter of 2011 in several Asian economies (Figures 1.4.6 and 1.4.7). Despite catching up with these developments in the first half of 2011, more monetary tightening may need to follow to keep inflation under control and to preserve the public's trust in the central bank's ability and commitment to control inflation.

Interest rates in many countries of the region are below their pre-global crisis level, whereas private credit growth exceeds precrisis values. Viet Nam, India, and the PRC are notable exceptions. Authorities in India and Viet Nam have raised their benchmark policy rates, but real rates remain negative. Monetary policy tightening in the PRC is less reflected in its benchmark policy rates—although they have been rising—but in the increases of bank-reserve requirements.

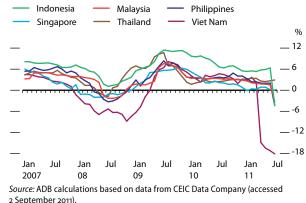
In part, the reluctance to take resolute monetary policy decisions stems from the desire to keep interest rate differential to the advanced economies relatively low and, thus, to constrain capital inflows to the region. Liquidity generated by central banks in advanced economies, so the argument goes, searches indiscriminately for higher yields, which could cause dislocations in emerging markets' financial systems by fueling asset price bubbles and excessive risk taking by domestic financial intermediaries. The capital control measures discussed in Table 1.4.3. should be viewed as an attempt to discourage excessive capital inflows and provide some room for monetary policy to act.

Inflation has been accelerating in many of the region's <sup>2</sup> Septemble economies and is expected to remain elevated, although commodity prices increases and economic growth in the major industrial economies are expected to slow over the second half of 2011 and through 2012. However, growth in Asia is still projected to be strong and the expansion in demand will need to be carefully assessed relative to the growth in production capacities. With real interest rates having turned negative in several countries, more monetary tightening is necessary to control inflation both over the next 2 years and the medium term, when the global economy will regain momentum.





#### 1.4.7 Real interest rates, Southeast Asia



# Recent capital flows to developing Asia

In view of the sluggish growth forecast in the major industrial countries, monetary authorities there are expected to maintain a relatively loose monetary policy stance. Policy makers in emerging economies developing Asia included—have different worries: that excess liquidity from advanced economies may lead to an influx of short-term capital. 1.5.1 Ca

These worries seemed to be justified for the region's policy makers in the early days of the recovery from the global slowdown. Indeed, after the strong economic rebound of emerging Asia in the second half of 2009, net capital inflows to the region picked up sharply, staying high for the rest of 2010.

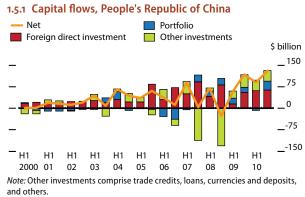
However, despite continued strong fundamentals in the region and higher interest rates, evidence suggests the inflows to the region slowed in the first half of 2011. Paradoxically, this slowdown occurred as the economic news from the major industrial economies was worsening.

Two opposing forces are at play. On the one hand, developing Asia's strong economic performance and higher interest rates seem to be attracting capital. On the other hand, when risk aversion is generally on the rise, other things equal, investors will seek safe assets in advanced economies.

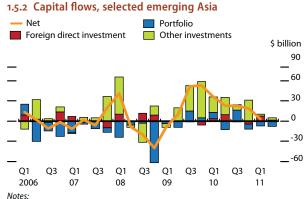
This second factor prevailed after the collapse of Lehman Brothers in late 2008. In the current environment, greater fears of slower growth in the advanced economies, compounded by uncertainties over the path of US fiscal consolidation and European sovereign debt in the second quarter of 2011, have seemingly caused global investors to become risk averse, disrupting the stream of capital coming into emerging Asian markets.

Capital inflows to the PRC, which dominate the overall flows to the region, were on roughly a rising trend from 2000 pushed by FDI inflows, until the squeeze from the global financial crisis in the second half of 2007 and 2008 (Figure 1.5.1). During that period, continued FDI and portfolio inflows could not make up for the massive outflow of "other investments," which mainly consists of bank-related transactions that went down as the global financial crisis heightened. The postcrisis resurgence of capital flows was again led by FDI, with other investments also returning strongly.

Capital flows elsewhere in the region, in contrast to the PRC, are generally driven by fluctuations in the other investments and portfolio categories (Figure 1.5.2). In the immediate postcrisis period, other investments made up the bulk of the inflows (when the PRC is excluded).



Source: Computed from CEIC Data Company (accessed 25 August 2011).



1. Emerging Asia consists of Hong Kong, China; India; Indonesia; Rep. of Korea; Philippines; Singapore; Taipei, China; and Thailand; for Q2 2011 only, data are based on four economies only (Indonesia; Rep. of Korea; Singapore; and Taipei, China).

2. Other investments comprise trade credits, loans, currencies and deposits, and others.

Source: Computed from CEIC Data Company (accessed 25 August 2011).

Given high uncertainties in the global economic environment, it is hard to project the likely trends in capital flows to the region. In this *Update*'s international baseline scenario, recovery in the advanced economies is expected to reaffirm itself (albeit weakly), with US fiscal consolidation plans and eurozone debt issues handled in a way that does not inflame market tensions.

Emerging Asia could therefore once again see a rise in short-term capital inflows—not always a blessing. Among emerging economies, capital inflow bonanzas tend to increase economic vulnerability and possibly lead to crisis (Reinhart and Reinhart, 2009). Hence the need for regional policy makers to respond appropriately to heavy capital inflows.

Their response should include increased attention to the composition of inflows. FDI is often less volatile than other financial flows, and is often preferable given its longerterm nature. It can therefore be more easily channeled into productive investments.

As with overall capital inflows, the PRC dominates FDI (Figure 1.5.3). Non-FDI flows (portfolio and other investments) tend to be short term and more likely to change direction. They are largely dependent on the risk appetite of global investors— and hence potentially destabilizing for an economy. As mentioned, they have played the major part in the recent revival of capital inflows to emerging Asia (excluding the PRC).

For a few countries, net foreign portfolio holdings rebounded strongly in the second half of 2009, remain high for the rest of 2010, but slowed in the first half of 2011 (Figure 1.5.4). In that half, net inflows of foreign bonds moderated, while net foreign equity inflows trended down (but still showing volatility), suggesting a pickup in global risk aversion.

In the category of other investments flowing to emerging Asia (excluding the PRC), the banking sector was usually the largest channel, specifically "loans" and "currencies and deposits."

At least two reasons cause concern over a possible resurgence of shortterm capital inflows. First, it could complicate the region's effort to cool down its economies, particularly through consuming the effectiveness of their monetary policy in managing domestic liquidity. Second, the risk of a reversals (following an influx) could destabilize economies.

Regional policy makers may therefore find it appropriate to use well-targeted measures to improve their financial supervision and regulatory rules, as the recent short-term flows are dominated by those coming through the banking channels. This approach may also extend to addressing the potential buildup of speculative asset bubbles and inflation. As pointed out in *ADO 2011*, more flexible exchange rate regimes could also be useful in providing an automatic filter to fend off speculative short-term capital inflows. In addition, and only when necessary, imposing selective and carefully designed temporary capital control measures that are conducted in a regionally coordinated manner could also be part of the policy mix.



200607080910Note: Other emerging Asia comprises Hong Kong, China; India; Indonesia; Rep. of<br/>Korea; Philippines; Singapore; Taipei, China; and Thailand. The data labels show<br/>the PRC's share in net FDI into these nine economies.Source: CEIC Data Company (accessed 25 August 2011).



Source: CEIC Data Company (accessed 25 August 2011).

# Intra-Asian cooperation—for today and tomorrow

As seen, developing Asia grew rapidly in the first half of 2011 in a robust recovery that maintained its momentum despite the persistent fragility of the recovery in the major industrial economies. The issue of developing Asia's resilience against extra-regional shocks is coming back to the fore in the face of the heightened uncertainty surrounding the outlook for the major industrial economies. Appropriately, the region's policy makers are mainly concerned about safely navigating their economies in this extremely volatile and uncertain global environment.

Nevertheless, preoccupation with the short term should not prevent them from appreciating the many medium- and long-term structural challenges on the horizon. Indeed, resolving challenges, of whatever timescale, is often inextricably intertwined. For example, strengthening intraregional trade can protect the region from the major industrial economies' slower than expected recovery in the short run but also lay the foundation for rebalancing in the long term.

One of the biggest longer-term structural challenges facing developing Asia is preparing for the effects of the demographic transition to older populations taking place across the region, as discussed in Part 2. A favorable population age structure in which large numbers of younger workers supported small numbers of older retirees served as an important driver of economic growth in the past. An ample supply of workers underlay the labor-intensive, export-oriented manufacturing sectors which transformed the region into the factory of the world within a few decades.

But much of this demographic dividend will end in the coming years—although countries vary a great deal in their demographic profiles, with a good mix of younger and older countries. This points to potentially large gains from cooperation between the two groups of countries. Greater migration from younger countries with large pools of workers can alleviate shortages of workers in the older economies. Beyond that, the growing pool of retirement savings in the older countries can finance productive investments in the younger countries. And just as intra-Asian trade can protect developing Asia from extra-regional shocks, intra-Asian migration and capital flows can help the region to sustain growth in the face of demographic transitions. Intra-Asian cooperation is therefore a valuable asset to the region in coping, now, with its short-term challenges—as well as preparing for those further out.

#### References

- Aoki, K. 2001. Optimal monetary policy responses to relative-price changes. Journal of Monetary Economics. 48(1). pp. 55–80.
- Asian Development Bank. 2009a. *Asian Development Outlook 2009*. Manila. ——. 2009b. *Asian Development Outlook 2009 Update*. Manila.
- Bank of International Settlements. 2006. Monetary policy in Asia: approaches and implementation. BIS Papers No. 31. Basel, Switzerland. http://www. bis.org/publ/bppdf/bispap31.htm
- Barro, R.J., and Gordon, D.B. 1983. Rules, discretion and reputation in a model of monetary policy. Journal of Monetary Economics. 12(1). pp. 101–121.
- Bodenstein, M., C. Erceg, and L. Guerrieri. Optimal monetary policy in a model with distinct core and headline inflation rates. Journal of Monetary Economics. 55. pp. S18–S33.
- Bodenstein, M., and L. Guerrieri. 2011. Oil Efficiency, Demand, and Prices: a Tale of Ups and Downs. Unpublished working paper.
- Bryan, M., and S. Cecchetti. 1993. The Consumer Price Index as a Measure of Inflation. Federal Reserve Bank of Cleveland Economic Review. 29(4). pp. 15–24. http://www.clevelandfed.org/research/review/1993/93-q4-bryan. pdf
- Du, L., H. Yanan, and C. Wei. 2010. The relationship between oil price shocks and China's macro-economy: An empirical analysis. Energy Policy. 38(8). pp. 4142–4151.
- Food and Agriculture Organization of the United Nations (FAO). 2011. The State of Food and Agriculture 2010–11: Women in Agriculture—Closing the gender gap for development. Rome. http://www.fao.org/docrep/013/ i2050e/i2050e00.htm
- Institute of International Finance. 2011. Capital flows to emerging market economies. IIF Research Note, p. 11, 24 January.
- Kydland, F.E., and Prescott, E.C. 1977. Rules Rather Than Discretion: The Inconsistency of Optimal Plans. Journal of Political Economy. 85(3). pp. 473–491.
- Reinhart, C. and V. Reinhart, 2009, Capital flow bonanzas: An encompassing view of the past and present, in NBER International Seminar on Macroeconomics 2008, Eds. J. Frankel and C. Pissarides, pp. 9-62, University of Chicago Press.
- Stefanski, R. 2011. Structural Transformation and the Oil Price. OxCarre Working Papers 48. Oxford, United Kingdom: Oxford Centre for the Analysis of Resource Rich Economies, University of Oxford. http://www. oxcarre.ox.ac.uk/images/stories/papers/ResearchPapers/oxcarrerp201048. pdf
- Wynne, M. 2008. How Should Central Banks Define Price Stability? Globalization and Monetary Policy Institute Working Paper 8. Dallas, Texas: Federal Reserve Bank of Dallas. http://www.dallasfed.org/institute/ wpapers/2008/0008.pdf

## Annex The external environment

The slowdown in growth in the major industrial economies—the United States (US), the eurozone, and Japan—has been more severe than foreseen in *Asian Development Outlook 2011 (ADO 2011)* in April this year. After the 2.7% bounce in gross domestic product (GDP) in 2010 from the depths of the global recession, unfavorable results in the first half of 2011 have cast doubt on the pace of recovery in these economies, where growth is now projected to slow to 1.3% in 2011, remaining low through 2012 (Table A1.1.1).

Slowing private domestic demand and fiscal consolidation efforts have clouded the earlier optimism about these countries' strength in the coming months. Yet despite the expected sluggishness, the *Update* does not envisage a double-dip recession. World trade is expected to return to its trend growth, currently projected at 6.5% for 2011, supported by GDP growth in the emerging market economies in developing Asia and Latin America. With price increases for commodities slowing, inflation in the major industrial countries will be low and stable over the forecast horizon (2.2% in 2011 and 1.8% in 2012).

A1.1.1 Baseline assumptions on the international economy, 2011–2012							
	2009	2010	20	)11	2012		
	Actual	Actual	ADO	Update	ADO	Update	
			2011		2011		
GDP growth (%)							
Major industrial economies <sup>a</sup>	-4.2	2.7	2.1	1.3	2.1	2.0	
United States	-3.5	3.0	2.8	1.6	2.6	2.2	
Eurozone	-4.3	1.8	1.6	1.7	1.6	1.3	
Japan	-6.3	4.0	1.5	-0.5	1.8	2.8	
World trade (04 change)							
World trade (% change) Merchandise exports	-12.2	14.5	7.5	6.5	8.5	7.5	
Merchandise exports	-12.2	14.5	7.5	0.5	0.5	7.5	
Prices and inflation							
Brent crude spot prices	61.7	79.6	104.0	110.0	112.0	105.0	
(average, \$ per barrel)							
Energy price index (% change)	-36.8	26.0	17.8	29.8	5.2	-0.6	
Food and beverage price index (% change)	-13.1	11.7	15.0	20.0	1.0	-1.0	
CPI inflation (G3 average, %)	-0.2	1.2	1.3	2.2	1.8	1.8	
Interest rates							
US Federal Funds rate (average, %)	0.2	0.2	0.3	0.1	0.6	0.1	
EU refinancing rate (average, %)	1.3	1.0	1.0	1.4	1.0	1.5	
Japan interest rate (average, %)	0.1	0.1	0.2	0.1	0.4	0.1	
US\$ Libor <sup>b</sup> (%)	0.3	0.3	0.5	0.3	1.0	0.3	

 $^{\rm a}\,$  Average growth rates are weighed by GNI, Atlas method.  $\,^{\rm b}$  Average interbank quotations on 1-month loans.

Sources: US Department of Commerce, Bureau of Economic Analysis, http://www.bea.gov; Eurostat, http://epp.eurostat.ec.europa.eu; Economic and Social Research Institute of Japan, http://www.esri.cao. go.jp; World Trade Organization, http://www.wto.org; Consensus Forecasts; Bloomberg; International Monetary Fund, Primary Commodity Prices, http://www.imf.org; World Bank, Global Commodity Markets, http://www.worldbank.org; ADB estimates.

## Recent developments in the major industrial countries

#### **United States**

Disappointing GDP growth numbers for the first half of 2011, stubbornly high unemployment rates, and the rating downgrade of US Treasuries from AAA to AA+ by Standard and Poor's have shaken confidence in the strength of the recovery. US industrial production and retail sales have risen only gradually (Figure A1.1.1) from the trough in early 2009. The unsteady climb in consumer confidence ended in 2011, with the June 2011 indicator registering the lowest level in nearly 2 years.

From the second half of 2010 the recovery of the US economy lost speed, falling to its slowest rate in the first quarter of 2011 when quarterly growth was barely positive (Figure A1.1.2). Over the same period, US GDP expanded each quarter, led by moderate gains in private consumption and fixed investment. The revival of private demand, however, took a hit in the first half of 2011.

The weak growth rate of private consumption in particular casts doubt on whether the recovery can regain its momentum. With housing prices showing no signs of recovery and with persistently high unemployment, households' net worth is failing to regain lost ground. Yet self-sustaining growth based on robust private consumption will require concrete progress in these areas.

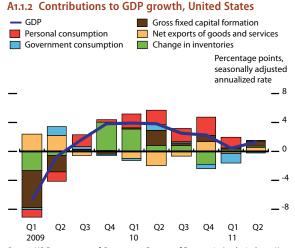
Similar to consumption, recent data for private investment and inventories suggest that businesses are still hesitant to expand production facilities and that the economy is far from reaching capacity constraints. Fixed investment was growing over the last 6 quarters (that is, through end-June 2011), but modestly. Inventories are still adjusting after a large decline toward end-2010.

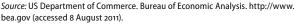
After receding in 2009, external demand for US goods picked up in 2010. Real exports grew by 8.8% quarter on quarter, at a seasonally adjusted annualized rate (qoq saar) on average that year; quarterly real export growth so far in 2011 has averaged around 5.5% qoq saar. However, despite a depreciating dollar, the export rise was mostly offset by import growth. Real imports grew by 12.5% in 2010. First quarter real import growth in 2011 amounted to 8.3% qoq saar, but slowed down drastically to 1.9% in the second quarter, leading to a small positive contribution of net exports to GDP growth.

Crucially, government consumption slowed the recovery of GDP over the last 3 quarters. With the advent of debate about the path to fiscal consolidation, government consumption started to contract in the last quarter of 2011 and contributed to the stagnating job market as public sector employment contracted. The times of fiscal expansion appear to be over, which makes the question more urgent: How can monetary policy fill the vacuum?

### A1.1.1 Business activities and consumer confidence indicators, United States







Consumer price inflation remained low, although rising energy prices took headline inflation in the first half of 2011 to above 3%. Owing to generally limited pass-through of energy and food prices to core prices, core inflation has remained well below 2% (Figure A1.1.3). This gives the Federal Reserve room to continue its expansionary monetary policy. After the end of its large-scale asset purchase program in June this year, it made a promise to leave the Federal Funds rate close to zero until mid-2013.

Labor and housing markets are key weaknesses. The labor market has shown no inkling of improving so far this year. Unemployment has stayed around 9%, and labor force participation has lingered at historical lows (64.1% in June compared with just over 66% throughout the last decade). In the 5 years before the crisis (2003–2007), the long-term unemployed made up about 20% of the total, and the length of median unemployment was under 10 weeks. In contrast, the share of the long-term unemployed was 42.9% in August 2011, and the median duration was around 21.8 weeks (Figure A1.1.4).

Housing prices have resumed their slide and residential construction has followed suit, despite historically low mortgage rates (Figure A1.1.5). Concerns over possible further declines in home values may have kept potential homebuyers from looking for new homes.

Political controversy over the future course of fiscal policy and the downgrade of US Treasury debt may prevent further fiscal stimulus. Although not fully unexpected, the announcement of the downgrade stirred turbulence in world financial markets, revealing the nervousness of international investors. Further downgrades could follow if bipartisan measures are not agreed on to tackle the lingering debt issues, which could potentially raise US borrowing costs.

#### Eurozone

The eurozone's first-quarter solid expansion, at 3.1% annualized qoq (2.4% year on year), was followed by a second-quarter slowdown to a meager 0.6% qoq in the second quarter(1.6% year on year).

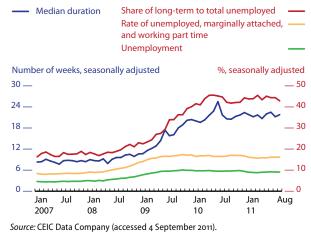
The core economies are still driving the eurozone's growth. Germany slipped back to 0.5% growth qoq (2.8% year on year) in the second quarter after growing a healthy 5.5% qoq (4.6% year on year) in the first. Positive contributions in the second quarter came from exports and inventory restocking. However, imports grew faster than exports, causing trade to subtract from German growth overall, jointly with a slowdown in household consumption expenditure and capital formation in construction. In France, second-quarter growth slowed to zero, down from 3.6% qoq in the first quarter. Italy and Spain's second-quarter growth came in at 1.0% and 0.6% qoq, respectively.

Weaker than expected growth added to financial markets' nervousness about the debt crisis spreading to the eurozone core. This has created a dilemma for policy makers in France



Source: CEIC Data Company (accessed 2 September 2011).

#### A1.1.4 Unemployment, United States





#### A1.1.5 Housing indicators, United States

Source: CEIC Data Company (accessed 2 September 2011).

and Italy. On the one hand, the markets increasingly perceive these countries' public-debt sustainability as hinging on their ability to expand their economies at a sufficient rate to outgrow their debts in the longer term. Yet, in the medium term, markets expect these countries to meet stringent fiscal budget targets—possibly at the expense of growth.

Net exports during the first half of 2011 continued to be a main contributor to GDP growth (Figure A1.1.6). Both eurozone's imports and exports of goods with the rest of the world continued to rise in the five months to May 2011, by 20.4% and 21.6% (year on year) respectively (Figure A1.1.7), but showed signs of a slowdown in June.

Trade between the eurozone and developing Asia has been on the rise, but Asia still makes up a relatively small share of its total international trade. Germany (Figures A1.1.8–A1.1.11), for example, has experienced spectacular growth rates in both merchandise exports to and imports from developing Asia, but its traditional trade partners outside of Asia (such as France and Italy) continue to exert stronger influence on its export growth rate.

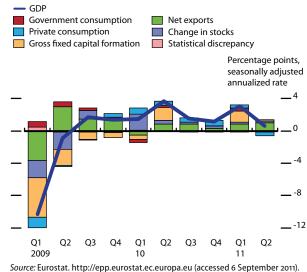
Fixed capital formation contributed 1.4 percentage points to GDP growth in the first quarter. This marked an important turnaround after mostly negative investment growth during the entire postcrisis recovery period. However, fixed capital spending slowed considerably in the second quarter, contributing only 0.1 percentage points to GDP. Industrial production continued on a slow upward trend, spurned by rising industrial new orders (Figure A1.1.12). Jointly with a marked trend reversal in industrial confidence indicator (Figure A1.1.13) this raises concerns about the outlook for industrial activity and gross fixed capital investment in the second half of 2011.

Eurozone private consumption remains weak. It contributed o.4 percentage points to GDP growth in the first quarter but detracted o.5 percentage points in the second. Retail trade increased between o.5% and o.8% year on year in January, February and April, but decreased between o.5% and 1.7% during the other months to June 2011 (Figure A1.1.12). Consumer confidence strongly declined in the month of August (Figure A1.1.13) and so did the overall economic sentiment index (Figure A1.1.14).

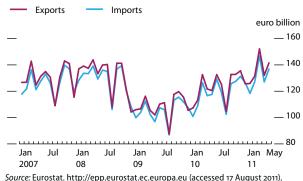
Unemployment in the eurozone stood at 10% in July, thus unchanged since the beginning of the year. Zone-wide unemployment data mask considerable disparity among the member states. Notably, Spain's unemployment rate stood at 21.2% in July, about five times the rate in the Netherlands or Austria and more than three times Germany's.

Consumer price inflation remained steady at 2.5% in August (flash estimates) and in July, down from its peak of 2.8% in April 2011 (Figure A1.1.15). This reflects declining oil prices in the second quarter, as well as changes in measuring seasonal

#### A1.1.6 Contributions to GDP growth, eurozone



A1.1.7 Trade indicators, eurozone



A1.1.8 Germany exports levels, 3-month moving average **Developing Asia** World Rest of the world euro billion \_\_\_100 80 60 \_ 40 . 20 0 Jan Jan Jan Jan Jan Jan Jan Jun

Note: Merchandise trade.

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2005

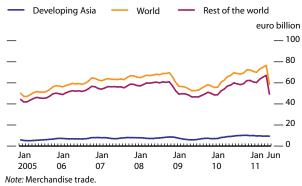
Source: Eurostat. http://epp.eurostat.ec.europa.eu (accessed 17 August 2011).

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A1.1.9 Germany imports levels, 3-month moving average

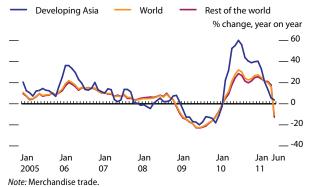
Source: Eurostat. http://epp.eurostat.ec.europa.eu (accessed 17 August 2011).

A1.1.10 Growth of Germany's exports , 3-month moving average

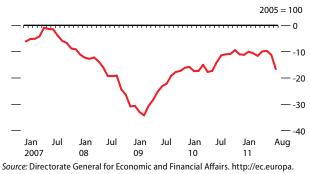


Source: Eurostat. http://epp.eurostat.ec.europa.eu (accessed 17 August 2011).

## A1.1.11 Growth of Germany's imports , 3-month moving average



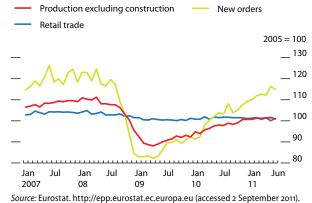
Source: Eurostat. http://epp.eurostat.ec.europa.eu (accessed 17 August 2011).



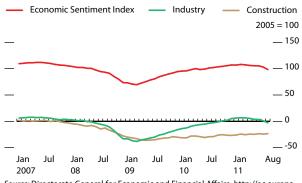
A1.1.13 Consumer confidence index, eurozone

eu/dgs/economy\_finance/index\_en.htm (accessed 6 September 2011).

#### A1.1.12 Industry and services indicators, eurozone



### A1.1.14 Economic sentiment index and subindexes, eurozone



*Source*: Directorate General for Economic and Financial Affairs. http://ec.europa.eu/dgs/economy\_finance/index\_en.htm (accessed 2 September 2011).

goods in computing the index. Food price inflation was higher than nonfood price inflation in the first half of the year, at 0.6% in July 2011. Energy and commodity prices are likely to exert upward pressure on inflation in the second half.

To stem rising inflation pressures, on 13 April and again on 13 July the European Central Bank (ECB) raised the fixed rate for its main refinancing operations by 0.25%, up to 1.50% from the 1% rate it had been maintaining throughout the postcrisis recovery. Even at this low level, worries remain that interest rate hikes might stifle the already feeble growth outlook of those member countries enacting stringent fiscal austerity packages to appease financial markets.

Stress in segments of the European sovereign debt markets intensified in July and August when the political debate about a second rescue package for Greece confirmed again deep disagreement among eurozone member countries about how to resolve the crisis. Although a Greek default was prevented and additional measures to prevent further spreading of the crisis were agreed, sovereign interest rate spreads over German interest rates rose sharply in vulnerable economies, most importantly Spain and Italy. Tensions eased only as the ECB intervened in secondary markets for sovereign debt. Whether the ongoing debt problems will affect the growth prospects in the core countries is the key factor of uncertainty for the eurozone forecast.

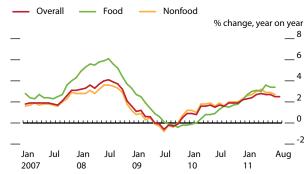
#### Japan

Real GDP contracted in Japan in the first half of 2011 by 3.0% saar (Figure A1.1.16). However, the 2.1% second-quarter GDP decline was smaller than expected and may be a sign of recovery from the March 2011 earthquake. The contraction mostly occurred in exports of automobiles and electronic parts and stemmed from supply chain disruptions and weak private demand. An equally important factor has been persistent deflationary pressure.

On the expenditure side, domestic demand components buffered the contraction, with the public consumption being the largest contributor (adding 0.5 percentage points to GDP). Private consumption remained weak subtracting 0.2 percentage points, despite a boost in durable goods purchases of flat-screen televisions. Reconstruction efforts led to an increase in public investment, which grew by 18.4% after contracting for five consecutive quarters. Net exports subtracted 3.0 percentage points from GDP growth. Exports contracted by 18.1% due to the supply disruptions in automobile parts and integrated circuit production (Figure A1.1.17).

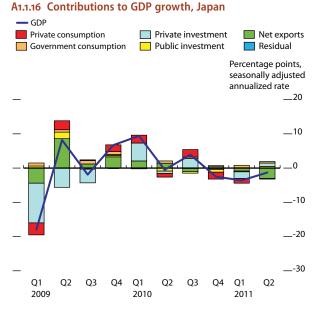
With a compulsory power usage cut of 15% for large-scale users, Tepco, the supplier to metropolitan Tokyo, met electricity demand in the summer peak this year. Concerns about power shortages remain as one-third of Japan's active nuclear reactors are scheduled for maintenance in the coming couple of years.

## A1.1.15 Harmonized indexes of consumer price inflation, eurozone



*Note:* Starting January 2011, a new methodology defines how seasonal products are to be treated in HICP affecting all-items index in the euro area by a reduction of 0.1 percentage points for January 2011, and may have an effect on the continuity of the affected HICP series.

Source: Eurostat. http://epp.eurostat.ec.europa.eu (accessed 17 August 2011).



*Source*: Economics and Social Research Institute, Cabinet Office, Government of Japan, available: http://www.esri.cao.go.jp/en (accessed 17 August 2011).





*Source*: Ministry of Economy, Trade and Industry. http://www.meti.go.jp (accessed 5 September 2011).

Each reactor is planned to be only temporarily out of action, but restarting requires prior prefectural approval which cannot be taken for granted in the current political climate. Imports of fossil fuels and LNG have surged to fill up the gap so far, but loss of the stable domestic power supply may lower the potential growth rate in the long-term (Box A1.1.1).

Consumer prices are stable but deflationary pressures still plague the economy (Figure A1.1.18). An additional concern to policy makers is the appreciating yen, which rose by about 6% against the US dollar from end-December 2010 to end-August, for a 4-year appreciation of close to 40%. The government has intervened several times in the foreign exchange market to stop the Yen's appreciation, but only with short-term success. Despite Japan's problems in recovering its growth momentum, upward pressure on the currency will remain as long as substantial foreign income from large holdings of foreign debt instruments keeps its current account in surplus.

Public finances are in poor shape, although markets10\_for Japanese sovereign debt show no signs of tension5\_(Figure A1.1.19). Most government entities can finance5\_themselves at low interest rates from domestic sources—95%0\_of public debt is domestically held. While fiscal consolidation5\_must begin in the medium term, public investment is expected5\_to increase this year to fund reconstruction efforts. After the5\_enactment of the first supplementary budget for the fiscal year 2011 on5\_

2 May (of about Y4 trillion), the second supplementary budget of about Y2 trillion passed the Diet on 25 July.

#### A1.1.1 Impact of the Fukushima nuclear accident

Asia had 116 nuclear power reactors in operation at the end of 2010, in six economies—Armenia; the People's Republic of China; India; Japan; the Republic of Korea; Pakistan; and Taipei, China.<sup>1</sup> They had a total installed generating capacity of 86 gigawatts electrical, or 23% of the global total. Current—as well as near- and longer-term—expansion is centered on Asia: of the 67 reactors under construction, 44 are in the region.

But the nuclear accident at Japan's Fukushima nuclear power plants in March 2011 has called into question the future of this expansion, particularly in Asia. Among other things, the disaster has prompted the Japanese authorities and those in other countries—to reconsider new projects and review the design and safety systems of all nuclear power reactors. This will likely delay the region's expansion efforts, especially those plants already commissioned for construction or in the approval pipeline. Such a slowdown, coupled with a possible phasing out of nuclear power program in some countries, would lead to power supply shortages.

In response, governments would need to accelerate renewable-source use or go back to fossil-based fuels (or both). However, renewable energy may not be an option in the short run as it requires huge investments before it is ready for large-scale use or before it can compete economically for base-load power generation. Using fossil fuels to make up the shortfall, in contrast, will increase the import dependency for energy supplies, increase countries' energy bills, and make them vulnerable to geopolitical and supply risks.

Another critical impact of the non-nuclear option will be additional carbon dioxide emissions. A recent study shows that the potential increases of carbon dioxide emissions by substituting the nuclear power with other fossil fuel supply technologies are estimated in the range of a cumulative 563 million–1,599 million tonnes of carbon dioxide equivalent (MTCE) in 2020–2030.<sup>2</sup> (By way of comparison, in 2008 power generation was responsible for emitting 3,137 MTCE in the People's Republic of China and 804 MTCE in India.)<sup>3</sup>

#### References

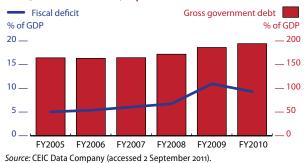
1. IAEA Reference Data Series No. 2: "Nuclear Power Reactors in the World". 2010. Vienna.

2. Nam, K.Y. "Aftermath of Japan's Fukushima nuclear accident: Impact on nuclear capacity development and environment", ADB Working paper, forthcoming, Manila.

3. IEA/OECD World Energy Outlook. 2010.



Source: CEIC Data Company (accessed 2 September 2011).



#### A1.1.19 Fiscal indicators, Japan

#### **Baseline international economy forecasts**

In major industrial economies, economic activity will improve in the second half of the year—and through 2012—but it will be held back by slow private demand growth. With public budgets already under scrutiny, fiscal policy will be unable to provide new stimulus. In the US and the eurozone, spending cuts have already materialized and more cuts are expected over the forecast period. While reconstruction efforts in Japan have put fiscal consolidation efforts on temporary hold, fiscal tightening is expected once the reconstruction efforts end. With commodity price increases tapering off and industrial-country inflation remaining low and stable, monetary policy will remain supportive of growth with short-term interest rates kept at extremely low levels. Additional monetary easing is possible, but the conditions under which that would occur remain unclear.

For the US, growth will slow to 1.6% in 2011 but pick up a little to 2.2% in 2012. The outlook in the eurozone for 2011 has been revised up slightly (from 1.6% to 1.7%) following the strong performance in the first quarter of 2011. However, with the uncertain impact of the ongoing sovereign debt difficulties and little likelihood of further fiscal stimulus, the eurozone should settle back to its slower precrisis quarterly growth rates in 2012. This implies slower annual growth of 1.3% in 2012.

Japan's GDP dynamics for 2011 and 2012 are driven by the destructive effects of the March 2011 earthquake and the subsequent policy response. The growth forecast for 2011 is set at -0.5% for 2011 and 2.8% for 2012. The lower GDP growth projections should have an impact on world merchandise trade as well. The postcrisis jump in world trade is expected to cool off, but should still reach a healthy 6.5% in 2011 and 7.5% in 2012, similar to its long-term trends.

Overall, the global economic recovery continues to be in a fragile state and significant risks, as discussed in the main text, may cause deviations from the baseline forecast. The baseline forecast assumes that the slowdown that occurred in the first half of 2011 will be overcome in the second half of the year and that a double-dip can be avoided. In particular, it is assumed that policy differences in the eurozone and the US can be resolved without disrupting international financial markets. Global policy coordination may play a crucial role in preventing possible negative spillovers to the global economy.

## PREPARING FOR DEMOGRAPHIC TRANSITION





## Preparing for demographic transition

## Introduction

Developing Asia is set to continue its steady growth in the near term. The region is, however, going through major structural shifts (such as rebalancing between exports and domestic consumption, and rising inequality), which impinge on its medium- and long-run growth prospects. One of these shifts concerns the "demographic dividend" that is now coming to an end for some of its largest economies—the drivers of regional growth (Box 2.1.1).

A major factor in Asia's economic success, the demographic dividend refers to an acceleration of economic growth associated with a rising share of the working-age population in the total population. Other things equal, an economy's output is larger, the larger the population share of its workforce. The immediate catalyst for the region's demographic dividend was a decline in fertility rates, which started as early as 1950. This decline caused a corresponding decline in the youth-dependency ratio. As the relative size of the working-age population increased, not only was there a direct effect on economic growth, but an indirect effect as well: according to the life cycle theory of saving (discussed below), individuals tend to save during their working years and to draw on their savings after they retire. If so, Asia's demographic dividend also contributed to the region's high saving and investment rates.

The demographic dividend is not, however, an automatic consequence of favorable demographic changes. Rather, it depends on the ability of an economy to productively use its additional workers—the "East Asian Miracle" is a case in point.

But East Asia's productivity gains were not preordained. They were reaped because these East Asian economies had the social, economic, and political institutions that allowed them to capitalize on the growth potential created by the demographic transition (Bloom, Canning, and Malaney, 2000; Bloom and Williamson, 1998). For example, high saving and investment rates enabled the countries to rapidly accumulate physical capital and expand productive capacity in line with the rapid expansion

This chapter was written by Donghyun Park, Arief Ramayandi, and Gemma Estrada of the Economics and Research Department. It draws on eight background papers, listed at the end of the chapter.

of the workforce. Moreover, flexible labor markets allowed workers to be efficiently allocated, and the expansion of public education systems improved workers' basic skills, raising the level of human capital per worker.<sup>1</sup>

Unfortunately for Asia, this favorable demographic structure is now giving way to older population profiles in which economically inactive retirees account for a high and growing share of the total population. In Japan and the Republic of Korea—two large countries most advanced along the demographic trajectory in Asia—the proportions of the population age 65 and older were 22.6% and 11.0% in 2010, respectively, up from 7.9% and 3.5% in 1975. But even in Thailand, the corresponding proportions were 7.7% in 2010 and 3.6% in 1975. In a word, regionwide, population aging is setting in.

As in other parts of the world, Asia's aging population reflects the confluence of two factors—falling fertility and rising life expectancy. Higher living standards and rapidly changing social conditions resulting from urbanization induce families to have fewer children and enable people to live longer. To some extent, the prospective decline in the labor force can be mitigated by policies such as opening up to immigration, encouraging higher female participation in the workforce, and raising the retirement age.

Ultimately, however, population aging has an adverse impact on labor supply and, in turn, on output. Moreover, a consequence of aging is that each worker has to support more and more retirees under public pension and health care systems. Thus while demographic trends were conducive for economic growth in the past, they will be markedly less so in the future.

Within the broader regionwide trend of population aging, however, Asia's subregions and countries are at different stages of the demographic transition due to large differences in the timing and rates of declines in fertility and mortality. For example, South Asian countries still have relatively young populations, and East Asian economies have much older populations. India in 2010—still in the early stages of the demographic transition—had an old-age dependency ratio of 7.7%, a figure that is projected to rise only to 9.4% in 2020 and to 12.2% in 2030. In contrast, the People's Republic of China (PRC)—in the middle stages of the transition—has corresponding estimates of 11.4%, 16.8%, and 23.7%; and the Republic of Korea, now in the advanced stages, 15.2%, 21.7%, and 36.1% (UN 2008).<sup>2</sup>

These differences in countries' (and subregions') location in, and speed passing through, their demographic transition generate demographic dividends of different timing and sizes. Countries with preponderantly young populations, for instance, can expect to reap sizable dividends. Analysis below indicates that, between 1981 and 2010, India's population age structure accounted for 0.56 percentage points of its annual per capita output growth; between 2011 and 2030, that contribution will rise to 0.73 percentage points. In contrast, countries in the middle and late stages of the transition may see their dividends turning into "demographic taxes." The annual 1.16 percentage points boost to per capita output growth for the PRC between 1981 and 2010 due to its demographic structure is expected to become a 0.31 percentage points drag on annual

#### Box 2.1.1 Three concepts

This chapter refers frequently to three distinct but related concepts: the demographic transition, population aging, and the demographic dividend (or its opposite, the demographic tax).

The demographic transition refers to the change from a high mortality– high fertility configuration to a low mortality–low fertility pattern. Because of improvements in public health, particularly in containing contagious diseases that affect children, mortality rates initially decline, which cause population growth rates to rise. In time, fertility rates gradually decline, thus slowing population growth rates.

The demographic transition alters the age distribution of the population (also referred to as the population age structure). Initially, the proportion of young persons increases (generating a pyramidal age structure). As fertility rates decline, the modal age (that is, the age with the largest frequency) of the population increases with the age of the large cohorts.

This change is referred to as population aging: technically, a rising median age (that is, the age that divides the population in half). This causes the age structure gradually to become uniform if women average about two births each, or to take the shape of an inverse pyramid if lower fertility persists.

The demographic dividend refers to the acceleration in economic growth due to an increasing population share of working-age individuals (and corresponding lower population shares of youth and the elderly). As the large cohorts age, however, population aging sets in, turning the dividend into a tax on economic growth.

This chapter follows the United Nations convention of using age 24 and younger, ages 25–59 (also referred to as the prime working-age category), and age 60 and older when discussing the issue of aging; and the age groups 0–14, 15–64 (also referred to as the working ages), and 65 and older when considering the dependency burden.

The old-age dependency ratio is defined as the population age 65 and over divided by the working-age population.

Similarly, the youth-dependency ratio is the population age 14 and younger divided by the working-age population. growth between 2011 and 2030 because of population aging. And the Republic of Korea's 1.08 percentage points increase in annual per capita output growth between 1981 and 2010 will become a 0.77 percentage points per year tax between 2011 and 2030.

Still, Asian countries are experiencing important common changes to their age structures. First, in all countries, the percentage of children in the population is declining or has already reached low levels, largely because of rapid declines in birth rates.

Second, and more significantly, the proportion of the elderly population is increasing throughout Asia. The acceleration has been particularly pronounced in high-income countries, mainly because of their very low fertility rates. But lower-income countries in the region will experience significant increases in the relative size of this demographic segment as well, in the next few decades.

Strategies for sustaining economic growth in the face of the demographic transition will therefore differ among countries. For those in the early stages of the transition, the appropriate action may be to learn from the East Asian experience, particularly on how to convert the potential demographic dividend into an actual dividend. For countries in the late stages, the challenge lies in finding ways to compensate for the loss of demographic dynamism and to fund the consumption needs of their large, elderly populations. But for all Asian countries, the demographic transition also presents opportunities for greater crosscountry cooperation, for example, by facilitating migration from laborsurplus to labor-deficit countries and by making cross-border movements of people easier to lower the costs of health and long-term care for the elderly.

This chapter discusses Asia's changing age structures and the rising population shares of the elderly, in a context of regional demographic diversity. Using an indicator called the economic support ratio, it explores how much of every currency unit of aggregate consumption is funded by labor incomes as country age structures change over time. This ratio rises and falls with the population share of working ages, and may be expected to fall in the future as consumption needs rise with the proportions of elderly populations.

This chapter also considers the impact of the demographic transition on the growth performance of 12 representative developing Asian economies. Estimates suggest that demographic dividends over the last 30 years were substantial, but are likely to dwindle, if not turn into a tax on growth, over the next 20 years.

As the population shares of the elderly rise, old-age support systems may come under strain. The chapter compares the configurations of these systems across Asian countries and with those in Europe and the United States (US) as well as Latin America. Throughout the world, the elderly generally rely on personal savings to fund their consumption needs. These savings, however, decline with age, and have to be covered by public and familial transfers. Because familial transfers are also diminishing in Asia, public transfers will need to be expanded. How this will be done without causing fiscal instability and reducing growth is one of the forthcoming challenges of Asia's demographic transition for which the region has to prepare.

## The demographic transition in Asia: Key trends and stylized facts

Countries throughout Asia and the rest of the world are experiencing significant changes in the age structures of their populations. The economic challenges that these changes present depend on the key features of the transitions themselves and the factors driving the demographic changes. These challenges vary of course by country.

#### Three phases of the demographic transition

Important changes in Asia's age structure began to take place as early as 1950. Then, the age distributions of most Asian countries were heavily concentrated among the young, with the majority of Asians under age 25. The proportions of the age 60 and older group ranged from a mere 3% to 15%.

Figure 2.2.1 provides a graphic summary of this relatively homogeneous demographic age structure. The horizontal axis in the figure measures the population share of individuals age 60 and older, while the vertical axis measures the corresponding proportion of persons age 24 and younger. Thus a point such as (3, 60) means that 3% of the population are elderly, and 60% are young—and it can then be inferred that 37% [= 100-63] of the population are of prime working age (Box 2.1.1 above). The diagonal gridline consists of the locus of points for which the population shares of the elderly and the youth sum to exactly 50%. A point above that line thus means that fewer than 50% of the population belongs to the prime working ages, and a point below it implies that a country has a relatively low dependency burden (the combined population shares of the youth and elderly).

As seen in Figure 2.2.1, the country points for 1950 are clustered in the upper left-hand corner, just above the diagonal line. Moreover, except in Georgia and the Kyrgyz Republic, the under age 25 group had more than a 50% share of each country's population. In other words, Asia in 1950 was predominantly young and had a youth-dependency burden (the share of the population age 24 and younger divided by the total population.).

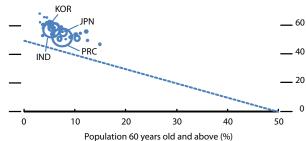
In stark contrast, the population age profiles of Asian countries were more heterogeneous in 2010 (Figure 2.2.2). Although a cluster remains in the upper left-hand corner, a number of country points have moved down and to the right, with some crossing the diagonal line. Japan has become an outlier, its population having aged most rapidly.

In effect, between 1950 and 2010, the prime working ages gradually became the modal age group of the population in a number of Asian countries, which eased their dependency

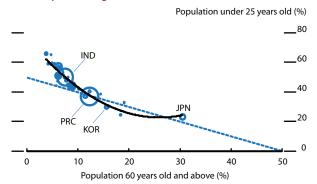


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2.2.1 Population age structure for Asia, 1950



PRC = People's Rep. of China; IND = India; JPN = Japan; KOR = Rep. of Korea. Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat. World Population Prospects: The 2008 Revision. http://esa.un.org/unpp (accessed 6 May 2011).



#### 2.2.2 Population age structure for Asia, 2010

PRC = People's Rep. of China; IND = India; JPN = Japan; KOR = Rep. of Korea. Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat. World Population Prospects: The 2008 Revision. http://esa.un.org/unpp (accessed 6 May 2011).

burden and provided them with potential demographic dividends. The fact that some of Asia's larger economies—including the Republic of Korea and the PRC—were part of this group that crossed the diagonal line may have had positive external effects on other countries in the region as well (such as through the flying-geese paradigm or factory Asia model), and contributed to Asia's excellent economic performance during this period.

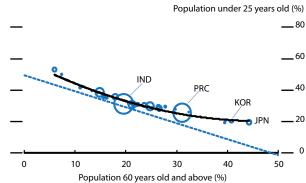
What of the future? Figure 2.2.3 indicates that, by 2050, the country points will be even more dispersed, but this time horizontally (that is, relative to the elderly population) rather than vertically (that is, relative to the youth population). Put differently, the general movement of the country distribution of population age structures between 2010 and 2050 will be a stretching out to the right, so that the curve-of-best-fit will become shallower (barely crossing the diagonal line).

Thus between 2010 and 2050, the populations of Asian countries will age quickly, in large part because rapid declines in fertility have the effect of diminishing the sizes of the under age 25 population relative to the total population quickly as well. With the population sizes of the younger cohorts becoming smaller, as the cohorts age and reach the prime working ages, the decreasing number of new entrants into the working-age category will cause the country points to shift more to the right (that is, a larger share of the elderly population in total population) rather than downward (that is, a smaller share of the youth population in total population). In consequence, the dependency burdens will not ease as much between 2010 and 2050 as during 1950–2010, and will fast become of an old-age sort.

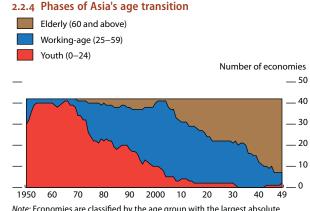
Figure 2.2.4 provides a more dynamic characterization of the transition of Asia's population age structure. It tracks the demographic trend from 1950 to 2010 by classifying countries by the age group that registered the largest annual increase in population in a given year and then presenting the resulting country frequencies of these age categories as a stacked histogram. Thus in 1990, for instance, since the age 24 and younger category registered the largest population increase for 18 countries, while the ages 25–59 and age 60 and older groups did so for 20 and 4 countries, respectively, the 1990 histogram has 18 red cells, 20 blue cells, and 4 brown cells.

The figure shows that the age structure of Asia changed dramatically between 1950 and 2010. Throughout the 1950s and 1960s, the age 24 and under category registered the largest increase in the populations of the majority of Asian countries. Indeed, so pervasive was the phenomenon that, in 1965, Japan was the only exception. Then in the 1970s, the group of prime working ages became the modal category in a growing number of countries. By 1985, more Asian countries were in this second phase of the age transition than in the first. At its peak in 2004, 36 of the 42 countries registered larger increases in their prime working-age populations than in their youth or elderly populations.





PRC = People's Rep. of China; IND = India; JPN = Japan; KOR = Rep. of Korea. *Source:* Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat. World Population Prospects: The 2008 Revision. http://esa.un.org/unpp (accessed 6 May 2011).



*Note:* Economies are classified by the age group with the largest absolute increase in population in each year.

*Source:* Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat. World Population Prospects: The 2008 Revision. http://esa.un.org/unpp (accessed 6 May 2011). Inexorably, Asia is entering the third phase of the age transition. Indeed, a notable feature of Asia's population transition is the speed with which this has taken—and is taking—place. The working-age group is still the dominant category in most countries, of course. And as of 2010, countries in the second phase outnumbered those in the third by three to one. Still, the point is clear: Asia is aging rapidly,<sup>3</sup> primarily because its fertility rates have declined rapidly. Thus the percentage share of the youth will decline persistently, but only modestly, in many countries. And the significant shift of the next 40 years will be the ineluctable shift of the modal age group from 25–59 to 60 and above.

#### Why is Asia's age structure changing?

Changes in age structure are a consequence of the demographic transition. In pre-1950 Asia, birth and death rates were quite high, and populations grew relatively slowly or not at all. In the 1950s and 1960s, however, death rates started to decline. Lower mortality, particularly among infants and children, led to steep increases in numbers of young people.

Then birth rates declined as well. Consequently, as the large birth cohorts of the 1950s and 1960s entered their prime working ages in the 1970s, the population share of the workforce swelled.

Over time, the decline in death rates reached the older ages, resulting in persistent increases in life expectancy (Table 2.2.1). Not only were people more likely to survive their childhood years, they could also expect to live well beyond the retirement age. Old-age populations began to show accelerating growth.

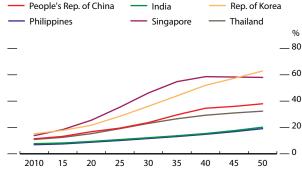
The rates at which the population shares of the elderly in Asian countries are increasing, however, have more to do with the precipitous declines in fertility in Asia (Table 2.2.1) than with increases in life expectancy. The population shares of the elderly in Japan, the Republic of Korea, and Singapore, for instance, are projected to reach such high levels, primarily because the very low fertility rates of these countries will lead to heavy falls in the population shares of working-age adults.

#### Demographic diversity in Asia

Although the broad outlines of the changing population age structure described above appear to be common to all Asian countries, how they will play out in individual countries is uncertain and likely to show large variations. Countries can generally be classified by whether they are in the advanced stages (for example, the Republic of Korea and Singapore), in the middle stages (the PRC and Thailand), or in the early stages (India and the Philippines) of the demographic transition (Figure 2.2.5).

For countries in the advanced stages, life expectancy rates have reached high levels and will continue to rise steadily. Moreover, fertility rates have declined to very low levels (for example, in Japan; the Republic of Korea; Singapore; and Taipei,China)—lower than those of the US and many European





Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat. World Population Prospects: The 2008 Revision. http://esa.un.org/unpp (accessed 6 May 2011).

	1	950	1	975	2	000	2010		2	2025		2050	
	LE	FR											
Central and West Asia													
Afghanistan	28.2	7.7	37.3	7.7	41.8	7.7	44.6	6.4	49.9	5.2	59.7	3.0	
Armenia	61.9	4.5	70.8	2.8	71.2	1.7	74.2	1.8	77.0	1.9	80.2	1.9	
Azerbaijan	57.2	5.6	65.5	4.0	67.1	2.0	70.9	2.2	73.6	1.9	77.0	1.9	
Georgia	59.8	3.1	69.0	2.5	71.4	1.6	72.0	1.6	74.9	1.7	78.7	1.9	
Kazakhstan	54.2	4.3	63.7	3.3	63.6	1.9	65.4	2.3	70.0	2.0	75.8	1.9	
Kyrgyz Rep.	52.0	4.5	61.8	4.4	66.1	2.7	68.4	2.5	71.8	2.0	75.7	1.9	
Pakistan	45.6	6.6	56.1	6.9	63.9	4.7	67.2	3.8	71.3	2.8	76.4	2.1	
Tajikistan	52.3	5.9	61.4	6.4	63.5	4.0	67.3	3.3	70.1	2.4	74.5	1.9	
Turkmenistan	50.5	6.2	59.7	5.8	63.9	2.8	65.3	2.4	69.5	1.9	74.2	1.9	
Uzbekistan	55.0	5.7	64.2	6.0	67.0	2.8	68.2	2.2	71.6	2.0	75.5	1.9	
East Asia													
China, People's Rep. of	39.3	6.5	64.5	3.8	71.3	1.8	73.5	1.8	76.2	1.9	79.6	1.9	
Hong Kong, China	59.2	4.5	72.8	2.6	80.8	1.0	82.5	1.0	84.2	1.1	87.0	1.4	
Mongolia	41.0	5.9	54.7	7.1	64.2	2.2	67.3	2.0	71.5	1.9	76.5	1.9	
Korea, Rep. of	45.5	4.0	62.9	3.6	75.9	1.4	79.8	1.2	81.5	1.4	84.1	1.6	
South Asia													
Bangladesh	36.8	6.7	45.2	6.8	61.3	3.0	66.9	2.3	71.6	2.0	76.6	1.9	
Bhutan	36.0	6.7	43.2	6.7	61.4	3.8	66.8	2.5	71.6	2.0	76.5	1.9	
India	36.8	5.9	52.2	5.1	61.3	3.3	64.4	2.6	68.8	2.0	73.7	1.9	
Maldives	37.6	7.0	53.1	7.0	66.0	2.8	72.3	2.0	75.9	1.9	79.8	1.9	
Nepal	35.6	6.2	45.3	6.1	61.7	4.0	67.5	2.8	72.0	2.3	76.9	1.9	
Sri Lanka	51.4	5.6	65.3	3.8	71.0	2.2	74.4	2.3	77.0	2.0	80.3	1.9	
Southeast Asia	51.4	5.0	05.5	5.0	71.0	2.2	77.7	2.5	77.0	2.0	00.5	1.2	
Brunei Darussalam	60.0	7.0	69.1	4.9	75.9	2.5	77.5	2.0	78.8	1.9	81.4	1.9	
Cambodia	38.6	6.3	34.0	4.9	57.1	3.9	62.2	2.8	68.5	2.3	75.0	1.9	
Indonesia	36.5	5.4	51.0	5.0	67.4	2.5	71.5	2.0	75.2	1.9	78.9	1.9	
Lao PDR	41.9	6.2	47.2	5.0 6.0	61.0	4.6	65.9	3.4	73.2	2.6	76.2	2.0	
Malaysia	41.9	6.7	64.2	0.0 4.6	72.5	3.0	74.7	2.5	77.2	2.0 1.9	80.4	2.0 1.9	
Myanmar	33.4	6.0	54.9	5.5	59.9	2.5	62.8	2.3	69.3	2.0	75.3	1.9	
· ·	55.4 46.4	7.3	54.9 59.1	5.8	69.5	2.5 3.5	72.3	2.5 3.0	75.4	2.0	75.5	1.9	
Philippines	40.4 59.3	7.3 6.4	70.2	2.2	77.9	1.5	80.7	1.3	73.4 82.4	2.4 1.4	84.3	1.9	
Singapore													
Thailand Viet Nam	51.0 39.4	6.4 5.4	62.2 53.0	4.5 6.4	68.1 72.1	1.8 2.3	69.3 74.9	1.8 2.0	73.0 77.6	1.9 1.9	77.6 80.6	1.9 1.9	
	39.4	5.4	55.0	0.4	72.1	2.5	74.9	2.0	//.0	1.9	00.0	1.9	
The Pacific	F1 C	()	<i>c</i> 1 7	4.1	(7.2	2.1	(0.2	27	71 7	2.2	76 5	1.0	
Fiji Misroposia Fod States of	51.6	6.3	61.7	4.1	67.3	3.1	69.2	2.7	71.7	2.2	76.5	1.8	
Micronesia, Fed. States of	53.8	7.3	63.8	6.7	67.3	4.3	69.0	3.4	71.5	2.5	76.5	1.9	
Papua New Guinea	33.7	6.2	46.9	6.0	57.7	4.5	61.6 72.2	4.0	66.0 75.2	2.9	71.8	2.2	
Samoa Salaman Islanda	44.9	3.5	57.4	5.2	69.3	4.5	72.2	3.8	75.3	2.8	78.7	2.1	
Solomon Islands	44.4	6.4	56.9	7.2	62.2	4.6	67.1	3.7	70.9	2.8	75.0	2.1	
Timor-Leste	29.0	6.5	35.1	5.2	56.2	7.1	62.1	6.3	68.3	4.6	74.7	2.7	
Tonga	57.9	7.3	66.3	5.4	70.8	4.2	72.1	3.8	74.1	2.8	77.3	2.1	
Vanuatu	40.8	7.7	55.5	5.9	67.4	4.5	70.8	3.8	74.3	2.8	78.3	2.1	
Industrial countries					76.5		or -						
France	66.1	2.8	72.9	2.1	78.9	1.8	81.7	1.9	83.6	1.9	86.3	1.9	
Germany	66.8	2.1	71.7	1.5	78.0	1.4	80.2	1.3	81.9	1.5	84.7	1.7	
Japan	60.2	3.5	74.2	2.0	81.4	1.3	83.2	1.3	85.1	1.4	87.4	1.6	
United States	68.4	3.2	72.4	1.9	78.0	2.0	79.6	2.1	81.2	1.9	83.6	1.9	
Latin America													
Argentina	61.6	3.2	68.1	3.3	73.8	2.5	75.7	2.2	78.1	2.0	80.9	1.9	
Brazil	50.0	6.2	60.5	4.5	70.2	2.4	72.9	1.8	76.4	1.5	80.2	1.8	
Chile	54.3	4.6	65.3	3.2	76.8	2.1	78.8	1.9	80.5	1.9	82.3	1.9	
Mexico	48.6	6.6	63.9	5.9	74.3	2.5	76.7	2.1	79.2	1.9	81.3	1.9	

LE = Life expectancy; FR = fertility rate.

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, http://esa.un.org/unpp (accessed 6 May 2011).

countries, and have not increased, unlike in the lowest fertility countries in Europe (Goldstein et al. 2009). In consequence, the old-age dependency ratios of these countries are projected to rise steeply and approach the levels of the industrial countries by 2050.<sup>4</sup> The Republic of Korea will have three elderly persons for every five workers; the PRC, two for every five. The challenge facing these countries therefore is how to deal with a fast-worsening old-age dependency burden, as the proportion of the working-age population shrinks and that of the elderly expands.

For countries in the middle or early stages, the trend toward older populations is projected to be neither as strong nor as fast. There is considerable uncertainty, however, about their rates and degrees of fertility declines. Indeed, if these countries follow the path of East Asia and their fertility rates fall precipitously to very low levels, their populations will age faster than indicated by the projections given here.

Clearly, however, countries in the early stages of the demographic transition stand to benefit from population aging. The youth-dependency ratios of India and the Philippines, for instance, are projected to fall from 1:2 to 1:3 by 2050. In contrast, the corresponding ratios of middle- or late-stage countries are not likely to see any substantial changes.

#### **Economic support ratio**

An implication of the demographic transition is that, as the median age of a country's population becomes older, its dependency burden shifts from having to support the young to having to sustain the old. The consumption needs of children and young persons are clearly very different from those of the elderly. What effects do these changes in the age distribution of the population have on the economy's capacity to meet its members' consumption needs?

Demographers use an indicator called the support ratio to help them answer this question. The indicator is customarily a purely demographic index—the working-age population divided by the total population. The problem with this formulation, however, is that it implicitly assigns uniform weights to each worker (in the numerator) and each person (in the denominator).

But the value of labor of an additional worker in the economy varies by age, educational attainment, work experience, and the distribution of workers across industries and occupations, among other things; it is also circumscribed by labor market and institutional parameters, such as labor force participation rates, unemployment rates, working hours, productivity, asset accumulation (such as from pension funds), and labor laws. Consumption expenditures also vary by educational attainment and with age, both of which presumably influence tastes and preferences.

Thus the support ratio adopted here refines the initial approach by taking account of variations in the labor incomes and consumption expenditures of age cohorts. For this reason, it is better referred to as the economic support ratio.

More specifically, the index used is a ratio of the weighted sum of people at each age, where the weights of the numerator are the age-specific labor incomes in a given base year and those of the denominator are the age-specific consumption expenditures in the same

## 2.2.1 National Transfer Accounts database

The National Transfer Accounts (NTA) project is a collective effort to improve the measurement and understanding of how economic resources are reallocated from surplus to deficit ages.

The NTA provides a comprehensive treatment of the resource allocations, including those on which information has thus far been lacking. For instance, it estimates the extent to which the elderly are relying on dissaving and familial transfers, including intrahousehold transfers, to deal with their life cycle consumption. This feature of NTA is very important for the study of support systems in Asia, where familial transfers are especially important.

The analysis also shows how in countries, such as Japan and the Republic of Korea, the dependence of the elderly on their children for economic support is in sharp decline.

More detailed information on methodology of NTA is in Mason, Lee et al. (2009); in Lee, Lee, and Mason (2008); and on the project website, www.ntaccounts.org. base year.<sup>5</sup> In effect, the economic support ratio used here is a measure of a country's labor income per currency unit of its consumption expenditures, assuming that its labor income and consumption profiles are those of a given base year and in view of its population age structure.

How a country's economic support ratio changes over time depends on the speed and size of changes in its population age structure. It also depends on behavioral, policy, and institutional differences that influence the timing of when workers enter and leave the labor force, the age patterns of unemployment and working hours, and how productive workers are. The age profile of consumption expenditures obviously affects the economic support ratio as well. The more expensive health and long-term care of the elderly, the steeper the rate of decline of the ratio as the population becomes older (Mason 2005).

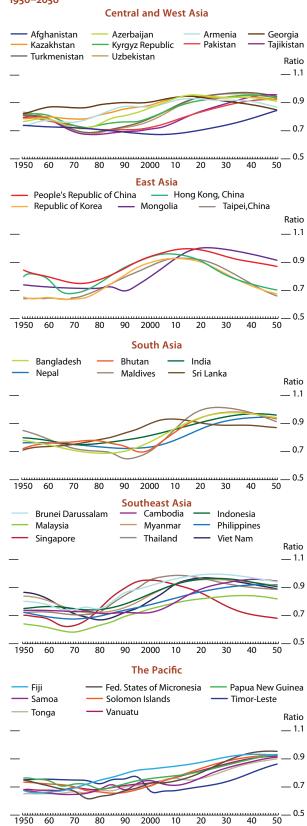
Figure 2.2.6 tracks the economic support ratios of Asian economies from 1950 to 2050. The estimates were constructed using UN population estimates and projections, based on the medium-fertility scenario, and the age profiles of labor incomes and consumption expenditures of the National Transfer Accounts (NTA) database (Box 2.2.1). The NTA's low-income and consumption profiles were used to calculate the base-year weights for all economies, apart from Japan; Hong Kong, China; the Republic of Korea; Malaysia; Singapore; and Taipei,China, for which the Asia high-income and consumption profiles were used.

The figure shows that the timelines of the economic support ratios of the East Asian economies are distinctive, because their age transitions have been so rapid and swings in their age structures have been very large. The trajectory of the PRC's ratio may be used as a representative case to provide a benchmark against which to compare other Asian countries.

Between 1950 and the early 1970s, the PRC's support ratio declined because of improvements in child survival rates. Then, due to lower birth and youth-dependency rates, in 1972, the index started its long ascent; it is now approaching its peak. Finally, in the next few decades, the PRC's support ratio is projected to decline, as smaller cohorts will begin entering the workforce and the elderly population will live to older ages. By 2050, the ratio will be only slightly higher than it was in 1950; labor income will cover only 0.87 of every currency unit spent on consumption, so that other financing mechanisms (such as dissaving or borrowing) will be needed.

In the case of Asian developing economies, most likewise saw initial declines in their economic support ratios, before these started to climb. The timing of this rise, however, varies from country to country. Many of the countries in the region are currently benefiting from ratios. In the future, however, declining economic support ratios will be pervasive (Box 2.2.2).

### 2.2.6 Economic support ratios for developing Asia, 1950–2050



Source: Mason and Lee (forthcoming b).

#### 2.2.2 Economic support ratios

The box figure plots the average annual growth rates of country economic support ratios against the average annual growth rates of their effective workers (that is, labor-income weighted sum of workers at each age, which is just the numerator of the ratio) for 1950–1975, 1975–2000, 2000–2025, and 2025–2050. Between 1950 and 1975, effective workers were growing at 1%–3% a year in all but a few countries. Since effective consumers (that is, the denominator of the ratio) were growing more rapidly, however, the growth rates of economic support ratios were generally negative.

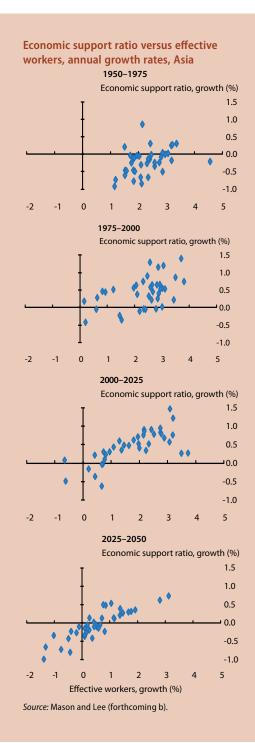
Between 1975 and 2000, the growth rates of effective workers became more dispersed. That the mass of points also shifted to a higher level (reflecting rising economic support ratios in the majority of countries) implies that effective consumers tended to grow at lower annual rates than effective workers. The next 50 years are then marked by a steady shift toward the southwest quadrant where the growth rates of both effective workers and economic support ratios are declining.

Two phases of the trends just analyzed are of particular interest: the period of rising economic support ratios, during which countries are likely to reap demographic dividends, and the period of declining ratios, during which countries are likely to incur demographic taxes.

Box table 1 explores the period of rising ratios for 10 Asian countries. It shows the minimum and maximum values of the ratios, the years in which these were registered, and the time it took for the ratio to go from its minimum to maximum value.

The timing and sizes of the dividends are quite varied. In the Republic of Korea, the ratio began its steep ascent in 1966; in Pakistan, it did so only 20 years later. In the People's Republic of China, it is expected to peak in 2015, after rising for more than four decades, a relatively short period. Time spans are similarly short for the Republic of Korea, Japan, Thailand, and Viet Nam. For others, the period from trough to peak will be much slower—51 years for Bangladesh, 69 years for India, and 77 years for the Philippines.

The final two columns of Box table 1 report the total and annual gains in the economic support ratio during



#### **2.2.2 Economic support ratios** (continued)

the dividend phase. The largest total gains accrue to the Republic of Korea, with an increase in consumption per effective consumer of 46.1%, followed by Viet Nam (44.8%) and Bangladesh (42%). In contrast, the total gains for India and the People's Republic of China are smaller at 29% and 33%, respectively.

Box table 2 covers the period of declining economic support ratios for the same set of countries. Column 4

shows that, in general, ratios are going to decline by 2050. Indeed, they will drop to very low levels for the Republic of Korea and Singapore (not shown in the table).

The last two columns report the total and annual losses in the economic support ratio during the tax phase. They suggest that declining ratios will serve as a serious drag on economic growth for the Republic of Korea, Japan, and the People's Republic of China.

1	Growth in the	economic support	ratio during d	emographic d	ividend phase	e, selected countries

	Minimur	n	Maximu	m	Time span	Total gain (%)	Annual gain
	Economic support ratio	Year	Economic support ratio	Year	(years)	<b>J</b>	(%)
Bangladesh	0.69	1982	0.98	2033	51	42.1	0.69
China, People's Rep. of	0.75	1972	1.00	2015	43	33.0	0.66
India	0.75	1973	0.97	2042	69	29.3	0.37
Indonesia	0.74	1976	0.96	2026	50	30.3	0.53
Japan	0.69	1950	0.86	1978	28	24.5	0.78
Korea, Republic of	0.64	1966	0.93	2010	44	46.1	0.86
Pakistan	0.71	1986	0.92	2050	64	30.7	0.42
Philippines	0.68	1969	0.92	2046	77	36.2	0.40
Thailand	0.71	1971	0.99	2011	40	39.9	0.84
Viet Nam	0.67	1980	0.97	2021	41	44.8	0.90

Source: Mason and Lee (forthcoming b).

2 Growth in the economic support ratio after demographic dividend phase, selected countries

	Minimum		Economic	Time	Total loss (%)	Annual gain
	Economic support ratio	Year	support ratio in 2050	span (years)		(%)
Bangladesh	0.98	2033	0.94	17	-3.7	-0.22
China, People's Rep. of	1.00	2015	0.87	35	-12.7	-0.39
India	0.97	2042	0.96	8	-1.0	-0.12
Indonesia	0.96	2026	0.91	24	-6.1	-0.26
Japan	0.86	1978	0.64	72	-26.2	-0.42
Korea, Republic of	0.93	2010	0.68	40	-27.2	-0.79
Pakistan	0.92	2050	0.92	0	0.0	-
Philippines	0.92	2046	0.92	4	-0.1	-0.03
Thailand	0.99	2011	0.89	39	-10.1	-0.27
Viet Nam	0.97	2021	0.89	29	-8.2	-0.30

- = not available.

Source: Mason and Lee (forthcoming b).

## Impact on developing Asia's past and future growth

The analysis of the previous sections indicates that Asian countries are at different phases of the demographic transition and that these differences, along with the diverse circumstances of Asian countries, pose a variety of challenges for various country groups in general, and for individual countries in particular. The heterogeneity of Asian countries' situations raises, however, another question (the answers to which can prove instructive for policy makers searching for ways to cope with the economic implications of the demographic transition): How has the demographic transition affected developing Asia's past growth trajectory, and how will it affect the region's future growth prospects?

## How do changes in the population age structure affect economic growth?

There are four channels by which changes in the population age structure affect economic growth: the workforce and the dependent population, saving, physical capital accumulation, and total factor productivity (TFP).

The hypotheses on the labor force and saving draw from the life cycle profiles of income and consumption. Working-age adults tend to work and save more than the youth or the elderly. Put differently, consumption per currency unit of labor income is generally low for working-age adults and high for the youth and elderly. A child looks to his or her parents for material needs; a retired person relies on income from savings, transfers from his or her adult children, and pension benefits. Aggregating across all individuals at a point in time, the implication is that a country with relatively small population shares of the youth and elderly has a greater capacity to save. Moreover, a larger labor force has a direct effect on per capita output—an outcome often referred to as the demographic dividend. In turn, this means that an increasing population share for workers translates into a higher growth path for per capita output.

For a given population growth rate and population age structure, however, the larger the stock of human capital in an economy, the higher the labor productivity and, in turn, the rate of growth of per capita output. This has two implications. First, one way to mitigate the effects of a decreasing share of the working-age population is by increasing human capital investments. Second, as Alesina et al. (2003) point out, aggregate productivity would tend to be higher in a country with older, more experienced workers. In particular, since productivity grows fastest and peaks between ages 35–54, the productive capacity of a country with a large proportion of prime-age workers should be markedly higher than for those with relatively more, younger or older workers. Indeed, using a balanced panel of 84 countries, Gomez and Hernandez de Cos (2008) find evidence that an increase in the share of prime-age workers has a positive but curvilinear effect on per capita GDP. For 10 Canadian provinces during 1981 to 2001, Tang and MacLeod (2006), however, obtain the result that older workers are, on average, less productive than younger workers and that labor force aging has a negative effect on productivity.

On physical capital accumulation, there are two competing hypotheses. On the one hand, if physical capital and labor are substitutes, capital accumulation may compensate for a declining population share of the workforce (brought on by population aging) or for the diminished physical capacity or brute strength of an increasing share of older workers. On the other hand, if the two production factors are complementary, the growth effects of physical capital accumulation given a declining population share of the workforce or an increasing proportion of older workers will not be as strong.

Beyond these two hypotheses, there may be a capital supply response from the product demand side. That is, a rising share of the old-age population may change the structure of demand toward goods and services for the elderly, which, in turn, may induce increases in the investment rate to bring about the required structural changes in production.

Finally, TFP improvements may be brought about by structural changes in the economy as a consequence of changes in the population age structure (for example, by innovation or technology adoption) that in turn will increase the growth rate of output per capita.

#### The sources of developing Asia's growth

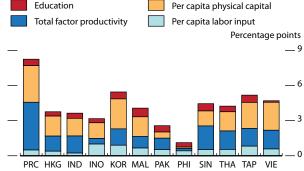
For 12 economies in developing Asia, Park and Shin (forthcoming) decompose the growth rate of per capita GDP into four components: the growth rates of TFP, labor per capita, physical capital per worker, and human capital (Box 2.3.1). Assuming the output share of labor to be 0.6 (the standard in the literature), they measure the contributions of these components to the growth rate of per capita GDP to find the transmission channels of changes in the population age structure to economic growth.

Figure 2.3.1 shows the relative contributions of the growth rates of these factors to that of per capita GDP. The figure indicates that, in most countries, per capita physical capital and TFP played major roles in economic growth. The finding on physical capital is consistent with the literature and the widespread perception that high investment rates contributed substantially to developing Asia's growth by rapidly augmenting physical capital stocks, thereby increasing productive capacity. For the PRC, TFP contributed more than physical capital accumulation to growth (Figure 2.3.1).

## Population age structure and the channels of economic growth

What is the impact of changes in the population age structure on the components of economic growth that were explored in the previous section? Using panel data from 1981 to 2007 for





PRC = People's Rep. of China; HKG = Hong Kong, China; IND = India; INO = Indonesia; KOR = Rep. of Korea; MAL = Malaysia; PAK = Pakistan; PHI = Philippines; SIN = Singapore; THA = Thailand; TAP = Taipei, China; VIE = Viet Nam.

Source: Park and Shin (forthcoming).

#### 2.3.1 Decomposing the growth rate of per capita GDP

To decompose the growth rates of GDP per capita for 12 countries in developing Asia, Park and Shin (forthcoming) undertake growth-accounting exercises for each of the countries. They assume a human-capital augmented Cobb-Douglas aggregate production function,

$$Y = AK^{\alpha}(hL)^{1-\alpha}$$

where *Y* is output, *A* is the total factor productivity, *K* and *L* are physical capital and labor, respectively, *h* is a measure of human capital, and  $\alpha$  is a parameter. Making use of the fact that per capita output can be written as the identity

$$\frac{Y}{N} = \frac{Y}{L}\frac{L}{N},$$

where N is the size of the population, they break down its growth rate as

$$\Delta \ln\left(\frac{Y}{N}\right) = \Delta \ln A + \alpha \Delta \ln\left(\frac{K}{L}\right) + (1-\alpha)\Delta \ln h + \Delta \ln\left(\frac{L}{N}\right).$$

Roughly, this says that the growth rate of per capita output is the sum of the growth rates of TFP, the capitallabor ratio (weighted by the output share of capital,  $\alpha$ ), human capital (weighted by the output share of labor, 1- $\alpha$ ), and the population are of the labor force.

the 12 economies, Park and Shin modify the basic empirical framework of Lee and Hong (2010) to estimate the effects of the old-age and youth-dependency burden on four channels of economic growth: the proportionate increase (or decrease) in the share of the working-age population in the total population, of TFP, and of the capital–labor ratio; and the rate of saving. Their empirical strategy is to estimate the growth rate of labor force participation separately and the other three sources of growth simultaneously in a three-equation model.

Table 2.3.1 reports the results of their fixed-effects regression of the growth rates of the proportion of the working-age population. It shows that the two dependency indicators have negative and significant effects. This implies that the larger the youth and old-age dependency burdens of a country, the lower the growth rate of its workforce.

Table 2.3.2 presents the regression results of TFP growth, capital-labor ratio growth, and the saving rate. For TFP growth, it turns out that both dependency ratios have negative and significant coefficient estimates. Thus a country with large dependent populations relative to the size of its workforce has lower productivity growth on average.

In contrast, the regression results of the growth rate of the capitallabor ratio indicate that both dependency ratios are not statistically different from zero. The saving rate is found to exert a positive and significant effect on the growth rate of the capital-labor ratio.

Finally, the saving-rate regression results reveal that the two dependency ratios each exert a negative and significant influence. The implication therefore is that the dependency ratios do not have a direct effect on the growth rate of a country's capital-labor ratio. Rather, their effects on physical capital accumulation are mediated by the saving rate.

## Impact of demographic change on the future of developing Asia

Using the regression results reported in the previous section, this section

#### 2.3.1 Impact of demographic variables on the growth rate of labor force participation

Variable	Fixed effects coefficients
Old-age dependency	-0.068**
	[0.028]
Youth dependency	-0.016**
	[0.007]
Per capita GDP	0.003
	[0.011]
Per capita GDP, squared	0.000
	[0.001]
Observations	514
R-squared	0.125

\*\* significant at two-tailed test of significance at significance level 0.05.

*Note:* Both dependent and explanatory variables are 10-year averages.

Source: Park and Shin (forthcoming).

makes forward projections on the impact of demographic change on developing Asia's future economic growth. Specifically, for each of the 12 economies, the effects of changes in the youth and elderly dependency rates on the growth rates of labor force participation, TFP, and the capital-labor ratio are forecast and summed to obtain the overall effect on the growth rate of per capita GDP. In making the forecasts, it is assumed that the 2001–2010 averages are the same as those for 2001–2007. (Box 2.3.2, using the parameters of Park and Shin, carries out a similar exercise for the last three decades.)

Table 2.3.3 reports the projections for 2011–2020 and 2021–2030. The following example helps to illustrate how the projections may be interpreted. Between 2011 and 2020, the PRC's youth and elderly dependency rates are expected to change from 0.328 and 0.106 to 0.273 and 0.137, respectively. (These dependency rates are not shown in the table.) Based on the regression results of Table 2.3.1, the effects of these changes in the youth and elderly dependency rates on the population share of the workforce are estimated to be 0.087 percentage points and -0.209 percentage points, respectively (shown under the L/P column).

Similarly, with the regression results of the first panel (TFP growth) of Table 2.3.2, the effects of the youth and elderly dependency rates on TFP growth are forecast to be 0.334 percentage points and -0.208 percentage points, respectively (shown under the TFP column).

Finally, converting the regression results of the second and third panels (K/L growth and saving rate) of Table 2.3.2 into reduced-form equations, the direct effects of the given changes in the youth and elderly dependency rates on the growth of the capital-labor ratio are measured to be 0.112 percentage points and 0.089 percentage points, respectively (under the Direct column of K/L), while their indirect effects through the saving rates are estimated to be 0.072 percentage points and -0.121 percentage points, respectively (under the Indirect column of K/L).

The combined effect of the change in the youth-dependency rate on the four growth channels is therefore to increase the PRC's annual growth rate per capita GDP by 0.605 percentage points, while that of the elderly dependency rate is to reduce the same by 0.449 percentage points (under the Total column). Thus overall, the PRC still comes out ahead in 2020: its demographic changes will raise the growth rate of per capita GDP by 0.156 percentage points.

Between 2021 and 2030, however, the PRC's youth-dependency rate is expected to fall further to 0.260, while its elderly dependency rate is projected to rise to 0.200. The combined effect of the change in the youthdependency rate will be to increase the growth rate of per capita GDP by 0.148 percentage points, while that of the old-age dependency ratio will be to decrease the same by 0.933 percentage points. Thus overall, these demographical changes will decrease the growth rate of per capita GDP by 0.785 percentage points.

For the other 11 economies, like the PRC, the youth-dependency ratio exerts a positive effect on growth, while the old-age dependency ratio exerts a negative effect. However, diversity rules with respect to the size and timing of the effects of demographic changes on growth. In Hong Kong, China; the Republic of Korea; and Singapore, where population

2.3.2	Estimation results	

	2.3.2 Estimation results	
	Variable	Coefficient
1	TFP growth	
I	Initial TFP	-0.018***
		[0.003]
	Initial life expectancy	-0.006
		[0.015]
,	Years of schooling	0.000
	icals of schooling	[0.001]
	Initial population	0.000
ľ		[0.001]
	R&D stock growth	0.031
1	Rad slock growin	[0.021]
1	Old-age dependency	-0.068***
		[0.024]
	Youth dependency	-0.061***
		[0.011]
	K/L growth	
I	Initial per labor physical capital	-0.027***
	- aprila	[0.003]
	Initial TFP	0.010
ľ		[0.009]
	Growth rate of TFP	-0.046
ľ	Glowin fale of TFF	[0.570]
	Cardin ar mater	
	Saving rate	0.141***
	-	[0.030]
1	Openness	0.000
		[0.003]
	Property rights	0.000***
		[0.000]
(	Old-age dependency	0.062
		[0.059]
1	Youth dependency	-0.044
		[0.049]
	Saving rate	
I	Life expectancy	0.003*
		[0.002]
I	Elderly participation	0.261***
		[0.060]
	GDP Growth	2.619***
		[0.838]
	Initial per capita GDP	0.109***
		[0.018]
	Old-age dependency	-0.597***
	one age acpendency	[0.160]
,	Youth dependency	-0.199*
	ioutil dependency	-0.199** [0.113]
	Observations	
	Observations	170

\* significant at a two-tailed test of significance at significance level 0.10.

\*\* significant at two-tailed test of significance at significance level 0.05.

\*\*\*significant at a two-tailed test of significance at significance level 0.01.

Source: Park and Shin (forthcoming).

		2011-2020 (percentage points of growth)				vth)	2011-2030 (percentage points of growth)				
	_			K/L					<b>K/</b>	L	
Economy	Variable	L/P	TFP	Indirect (through saving)	Direct	Total	L/P	TFP	Indirect (through saving)	Direct	Total
China, People's Rep. of	Youth	0.087	0.334	0.072	0.112	0.605	0.021	0.082	0.018	0.027	0.148
	Old	-0.209	-0.208	-0.121	0.089	-0.449	-0.434	-0.432	-0.251	0.184	-0.933
Hong Kong, China	Youth	0.085	0.327	0.070	0.110	0.592	-0.037	-0.143	-0.031	-0.048	-0.260
	Old	-0.319	-0.318	-0.185	0.136	-0.686	-0.891	-0.887	-0.516	0.378	-1.915
India	Youth	0.159	0.615	0.132	0.206	1.113	0.122	0.471	0.102	0.158	0.853
	Old	-0.072	-0.071	-0.041	0.030	-0.154	-0.160	-0.159	-0.093	0.068	-0.344
Indonesia	Youth	0.117	0.453	0.098	0.152	0.819	0.090	0.348	0.075	0.117	0.630
	Old	-0.125	-0.124	-0.072	0.053	-0.268	-0.206	-0.205	-0.119	0.087	-0.442
Korea, Rep. of	Youth	0.112	0.431	0.093	0.145	0.780	0.011	0.041	0.009	0.014	0.074
	Old	-0.407	-0.405	-0.235	0.173	-0.874	-0.708	-0.705	-0.410	0.301	-1.522
Malaysia	Youth	0.142	0.549	0.118	0.184	0.994	0.095	0.369	0.079	0.124	0.667
	Old	-0.162	-0.161	-0.094	0.069	-0.349	-0.274	-0.273	-0.159	0.116	-0.589
Pakistan	Youth	0.169	0.651	0.140	0.218	1.178	0.133	0.512	0.110	0.172	0.927
	Old	-0.048	-0.048	-0.028	0.021	-0.104	-0.069	-0.068	-0.040	0.029	-0.147
Philippines	Youth	0.157	0.606	0.131	0.203	1.097	0.111	0.430	0.093	0.144	0.779
	Old	-0.117	-0.117	-0.068	0.050	-0.252	-0.160	-0.159	-0.093	0.068	-0.344
Singapore	Youth	0.152	0.586	0.126	0.197	1.061	-0.016	-0.061	-0.013	-0.021	-0.111
	Old	-0.540	-0.537	-0.312	0.229	-1.160	-1.119	-1.114	-0.648	0.475	-2.406
Taipei,China	Youth	0.140	0.539	0.116	0.181	0.976	0.032	0.123	0.026	0.041	0.222
	Old	-0.323	-0.321	-0.187	0.137	-0.694	-0.815	-0.812	-0.472	0.346	-1.753
Thailand	Youth	0.068	0.262	0.057	0.088	0.475	0.011	0.041	0.009	0.014	0.074
	Old	-0.184	-0.183	-0.107	0.078	-0.396	-0.434	-0.432	-0.251	0.184	-0.933
Viet Nam	Youth	0.214	0.826	0.178	0.277	1.494	0.058	0.225	0.049	0.076	0.408
	Old	-0.014	-0.014	-0.008	0.006	-0.030	-0.320	-0.318	-0.185	0.136	-0.687

K/L = capital-labor ratio; L/P = population share of working-age individuals; TFP = total factor productivity. Source: Park and Shin (forthcoming).

aging is well under way, a negative impact on growth will already be observed in 2011-2020.

For the PRC; Taipei, China; Thailand, and Viet Nam, where aging began at a later date, the impact is still positive in 2011-2020 but will turn negative in 2021-2030. The remaining countries-India, Indonesia, Malaysia, Pakistan, and Philippines-will continue to reap a demographic dividend in 2021–2030. Even in those five youthful countries, however, the demographic dividend will be visibly smaller in 2021-2030 relative to 2011-2020. All in all, the projections resoundingly support the popular belief that the contribution of demographic changes to developing Asia's growth will decline substantially as the region grows older.

#### 2.3.2 Quantitative estimates of past demographic dividends

This box uses the methodology described in earlier sections to quantitatively estimate the past demographic dividends of the 12 economies in the regression sample. Specifically, the sizes of the demographic dividends are measured for 1981–1990, 1991–2000, and 2001–2010.

Quantitative estimates of past demographic dividends are useful for comparative purposes. In particular, they give a better sense of perspective to quantitative estimates of future dividends. For example, if estimates of past dividends are much larger than estimates of future dividends for a country, then it may be inferred that the country will suffer a large loss of economic dynamism as a result of aging.

Box table 1 reports the backward projections of the demographic dividend for three periods—1981–1990, 1991–2000, and 2001–2010. It shows that, in contrast to forward projections of Table 2.3.3, all countries of developing Asia earned a demographic dividend in the past. This is true even for countries that will begin to pay a demographic tax in the immediate future.

For the period 1981–1990, for example, the collective impact for the Republic of Korea of the change in the youth ratio is to raise the annual growth rate of per capita GDP by 2.196 percentage points, while that of the change in the old-age dependency ratio is to reduce the growth rate by 0.094 percentage points. Therefore, overall, demographic change raised the Republic of Korea's annual growth rate of per capita GDP in 1981–1990 by 2.102 percentage points. Moreover, the Republic of Korea reaped a reduced but still sizable demographic dividend of 1.133 percentage points in 1991–2000. Indeed, the dividend disappeared only in 2001–2010.

The box table also shows that the relative size of the demographic dividend varies across countries, reflecting differences in the timing and speed of their demographic transitions. Overall, however, estimates confirm the notion that the economic growth of developing Asia benefited substantially from favorable demographic trends in the past.

#### Box table Impact of aging on growth, 1981–1990, 1991–2000, and 2001–2010

	1981-	–1990 (p	ercenta	ge points c	of growt	h)	19	1991–2000 (percentage points of growth)			200	1–2010	(percentag growth)	e points	of	
				K/L	-				K/I	L				K/L		
Economy	Variable	L/P	TFP	Indirect (through saving)	Direct	Total	L/P	TFP	Indirect (through saving)	Direct	Total	L/P	TFP	Indirect (through saving)	Direct	Total
China, People's	Youth	0.312	1.204	0.259	0.404	2.180	0.115	0.443	0.095	0.149	0.801	0.130	0.502	0.108	0.168	0.908
Rep. of	Old	-0.017	-0.017	-0.010	0.007	-0.036	-0.077	-0.076	-0.044	0.033	-0.165	-0.097	-0.096	-0.056	0.041	-0.208
Hong Kong,	Youth	0.215	0.830	0.179	0.278	1.502	0.107	0.414	0.089	0.139	0.749	0.104	0.400	0.086	0.134	0.724
China	Old	-0.170	-0.169	-0.098	0.072	-0.366	-0.204	-0.204	-0.118	0.087	-0.439	-0.169	-0.168	-0.098	0.072	-0.363
India	Youth	0.061	0.235	0.051	0.079	0.426	0.087	0.337	0.073	0.113	0.610	0.116	0.449	0.097	0.151	0.813
	Old	-0.024	-0.024	-0.014	0.010	-0.051	-0.021	-0.021	-0.012	0.009	-0.046	-0.036	-0.036	-0.021	0.015	-0.078
Indonesia	Youth	0.159	0.614	0.132	0.206	1.111	0.211	0.816	0.176	0.274	1.476	0.135	0.521	0.112	0.175	0.942
	Old	-0.016	-0.016	-0.009	0.007	-0.034	-0.050	-0.049	-0.029	0.021	-0.107	-0.087	-0.087	-0.050		-0.187
Korea, Rep. of	Youth	0.314	1.213	0.261		2.196	0.202	0.781	0.168	0.262	1.413	0.081	0.311	0.067	0.104	0.563
	Old	-0.044	-0.044	-0.025	0.019	-0.094	-0.130	-0.130	-0.075	0.055	-0.280	-0.262	-0.261	-0.152	0.111	-0.564
Malaysia	Youth	0.163	0.629	0.136	0.211	1.138	0.120	0.462	0.100	0.155	0.837	0.147	0.567	0.122	0.190	1.026
	Old	0.022	0.021	0.012			0.014	0.014	0.008	-0.006	0.030	-0.031	-0.031	-0.018		-0.067
Pakistan	Youth	-0.015	-0.056	-0.012		-0.102	0.042	0.164	0.035	0.055	0.296	0.182	0.702	0.151		1.270
	Old	0.121	0.121	0.070	-0.052		0.057	0.056	0.033	-0.024	0.122	0.012	0.012	0.007	-0.005	0.026
Philippines	Youth	0.124	0.477	0.103		0.864	0.119	0.459	0.099	0.154	0.830	0.134	0.518	0.112	0.174	0.938
	Old	0.002	0.002	0.001	-0.001		0.004	0.004	0.003	-0.002	0.010	-0.037	-0.036	-0.021		-0.079
Singapore	Youth	0.276	1.064	0.229		1.926	0.048	0.186	0.040	0.062	0.336	0.045	0.173	0.037	0.058	0.314
	Old	-0.063	-0.062	-0.036		-0.135	-0.103	-0.103	-0.060	0.044	-0.222	-0.173	-0.173	-0.100		-0.373
Taipei,China	Youth	0.204	0.789	0.170		1.428	0.168	0.649	0.140	0.218	1.175	0.116	0.448	0.097	0.150	0.811
	Old	-0.142	-0.142	-0.082		-0.306	-0.216	-0.216	-0.125	0.092	-0.465	-0.149	-0.149	-0.087		-0.321
Thailand	Youth	0.357	1.377	0.297		2.493	0.239	0.924	0.199	0.310	1.673	0.107	0.414	0.089	0.139	0.750
	Old	-0.003	-0.003	-0.002		-0.007	-0.096		-0.056	0.041	-0.207	-0.121	-0.121	-0.070		-0.260
Viet Nam	Youth Old	0.136 0.055	0.524 0.054	0.113 0.032		0.949 0.117	0.182 -0.018	0.705	0.152 -0.011	0.236 0.008	1.275 -0.039	0.256 -0.046	0.990 -0.046	0.213 -0.027	0.332	1.791 -0.099
	Ulu	0.055	0.054	0.052	-0.025	0.117	-0.018	-0.018	-0.011	0.008	-0.059	-0.040	-0.040	-0.027	0.020	-0.099

K/L = capital-labor ratio; L/P = population share of working-age individuals; TFP = total factor productivity. Source: Park and Shin (forthcoming).

# The economic life cycle, demographic transition, and old-age support systems in Asia

In addition to their ramifications for growth, the demographic transition and the aging of the population bring to the fore the issue of the capability of an economy's old-age support systems to handle the rapidly increasing numbers of the elderly population. In particular, two questions may be raised: How have the elderly populations of the region financed their consumption? How will old-age support systems evolve?<sup>6</sup>

A complex web of institutions and economic mechanisms supports the consumption of the elderly. Understanding it and how it may be affected by changes in the population age structure requires the twin perspectives of the economic life cycle and the reallocation mechanism.

The economic life cycle arises from the fact that the human life cycle fundamentally circumscribes economic behavior. During the two periods of dependency—that is, when young and old—people consume more than the value of their labor. In between, they earn more than they consume. Accordingly, the periods of dependency may be referred to as the deficit ages, while the period of economic sufficiency may be referred to the surplus ages.

During the period of economic sufficiency, individuals earn income from labor, which shows a particular trajectory or profile that depends on their education and ability, and as they become more productive through work experience. This labor-income profile is also greatly influenced by the growth rate of the economy as well as labor market parameters, such as the ages of entry into and exit from the labor market, probabilities of unemployment, the size of pension funds, among others.

Labor income is used to support people's (and their dependents') consumption needs. The excess they save to fund consumption during their retirement years and for bequests. Absent reallocation mechanisms, however, their consumption expenditures cannot exceed their level of wealth, since they cannot draw on future income to fund current consumption. Consequently, their consumption is affected by unanticipated variations in or shocks to income.

Welfare is much improved with a reallocation mechanism. Groupings of people—from the family to the entire economy—and institutions (both formal rules and informal norms) make it possible to support an individual's periods of dependency and crises in the economic life cycle. Family members at different stages of their individual life cycles and the constituents of a pension plan can pool and reallocate resources to smooth the consumption of individual members over their deficit and surplus ages.

In exploring the elderly support systems of Asian countries, however, three stylized facts are important to bear in mind. First, countries vary greatly in their stages of economic development and therefore in their living standards. Second, holding living standards fixed, countries vary greatly in the levels and trajectories of their lifetime income and consumption profiles because of differences in population age structures. Third, countries vary greatly in the mechanisms they employ to fund the life cycle deficit, that is, in their reallocation systems.

#### Labor-income profiles

Figure 2.4.1 shows that in Asian countries, labor incomes peak at relatively young ages and then drop for workers in their late 40s.<sup>7</sup> Labor income is quite high relative to consumption at age 45 in the PRC and Japan, but for different reasons. In the PRC, saving rates are very high and, thus, labor income is high relative to consumption which is low at all ages. In Japan, the seniority-based wage system leads to steady increases in labor income until relatively late in the work life.

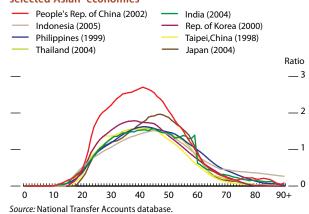
In all countries, there is a relatively rapid transition to low incomes at older ages. Labor income drops below consumption at age 55 in Taipei,China, at age 56 in the Republic of Korea, and at age 58 in Indonesia and Thailand. In none of the countries do individuals age 60 and older earn more than they consume. In general, labor income is more important at older ages in low-income countries. Thus Indonesia and the Philippines have high labor incomes at old ages compared to the more advanced Asian countries. This is borne out as well by the limited timeseries evidence, which suggests that economic growth leads to lower labor income at older ages, and by a relatively long timeseries for Taipei,China, which shows labor income declining sharply at older ages.

That labor incomes at older ages are low in Asia suggests that delaying retirement may reduce old-age dependency in countries that are aging rapidly. Lee and Ogawa (2011) estimate the effect of postponing retirement on the labor incomes of individuals age 65–74. It turns out to be relatively small for many Asian countries. Older adults have lower incomes, not because of limited working hours, but despite having relatively high activity rates.

In other words, the low earnings of older workers are due to low productivity, perhaps because they are employed in low-productivity sectors, have lower educational attainments than younger workers, or are forced into low-productivity jobs by mandatory retirement provisions and inflexible labor markets. Reducing the unused productive capacity of older workers therefore presents little benefit for many low-income Asian countries. Instead, the key to raising labor income at older ages is to improve the productivity of older workers.

Labor force participation, however, declines substantially in many Asian countries beyond a certain age. Hence, reducing impediments to continued employment may also serve to reduce the dependency of older adults.





## Age reallocation system—Shifting resources from surplus to deficit ages

Because children and the elderly consume more than they produce, economic mechanisms are required to shift resources from the surplus ages to the deficit ages. The economic system that addresses this critical need is the age-reallocation system. It is characterized by three components: public transfers, private transfers, and personal savings. Varying widely across countries, the relative importance of these components—that is, how the age-reallocation system is configured—has important implications for how population-aging affects economies.

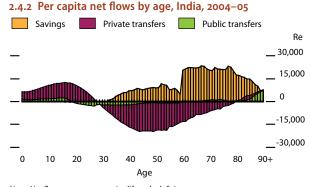
Local, regional, and national governments play an important role by taxing working-age adults and providing benefits to the young and the old—notably publicly provided education, health care, and pensions. Parents and grandparents perform a similar role by using their resources to support children. To varying degrees, adult children provide for elderly parents. There are important differences between government transfers and family transfers, however. Families behave by norms or informal institutions, and transfers between members are more or less voluntary though heavily influenced by social convention and deeply ingrained attitudes. Public transfers, by contrast, are governed by law and are compulsory.

Personal saving (or asset-based reallocations) refer to the acquisition and disposition of assets, including debt, to align a person's labor income with his consumption needs over the life cycle. Personal savings are thus inter-temporal exchanges and are heavily dependent on well-functioning legal institutions and financial markets. Even in traditional settings, however, individuals can accumulate real assets that can be relied on for support later in life. In more contemporary settings, individuals can accumulate pension funds or financial assets during their working years and rely on asset income or dissaving assets during retirement. Individuals can borrow to finance present consumption and reduce consumption in later periods to repay those loans.

Figure 2.4.2 illustrates the main features of an age-reallocation or support system, by presenting the per capita net economic flows by age for the case of India in 2004/05. Flows to both children and the elderly are shown to emphasize that transfers go in both directions—left-ward to the young and right-ward to the elderly. Children depend mostly on a combination of public and private transfers. The support system for the elderly is primarily based on personal savings, although public transfers do increase for very old persons.

Personal savings abruptly increase at age 60, because labor incomes in India increase until the worker reaches age 60 and then drops rapidly thereafter. Individuals younger than age 79 have net private transfer outflows (that is, give more to, than they receive from, private entities), while those in their mid- to late-80s and older are net private transfer recipients.

Two features of the figure 2.4.2 stand out. First, the compositions of



Note: Net flows sum to per capita lifecycle deficit. Source: National Transfer Accounts database.

transfers to the young and to the elderly are substantially different. For the young, per capita private-transfer inflows are much larger than per capita public-transfer inflows. For the old, public transfers dominate. Second, personal savings are very important for the elderly.

#### Old-age support systems for the elderly

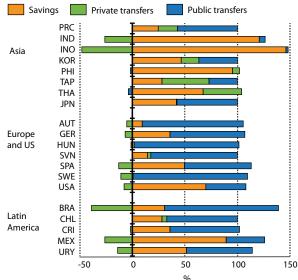
Figure 2.4.3 shows the relative importance of the three sources of old-age support—personal savings, private transfers, and public transfers—in Asian, Latin American, and European countries (for which estimates are available) and the US. Private and public transfers are measured as the ratio of net transfers, that is, transfers received less transfers remitted, to the excess of consumption over the labor income of individuals age 65 and older. Personal savings are measured as net saving income, that is, asset income less saving, per currency unit of consumption in excess of the labor income of individuals age 65 and older. Since the life cycle deficit—consumption less labor income—must equal the sum of net public and private transfers and personal savings, the three indexes of the old-age support Asia

Several interesting patterns in the support systems may be observed from the figure. Familial transfers for old age are much more significant in Asia than in other countries for which estimates are available. Familial transfers fund about 45% of the life cycle deficit for elderly in Taipei,China, one-third in Thailand, and slightly under one-fifth in the PRC and the Republic of Korea. In the Philippines and Japan, the elderly provide as much support to their children and grandchildren as they receive. Indonesia and India are distinctive among Asian countries in that their net private transfers are negative for those 65 and older. Net familial transfers are quite small or negative in the US, Europe, and Latin America.<sup>8</sup>

Relative to European and Latin American countries, Asia generally relies less on the public sector for the support of its elderly populations. In Thailand and the Philippines, net public transfers are negative: the elderly pay more in taxes than the value of their benefits. In Indonesia, the elderly pay somewhat less in taxes than what they receive in benefits. (None of these aforementioned countries have large public pension programs or health care systems that target the elderly.) In the Republic of Korea and Taipei, China, net public transfers fund about one-third of the life-cycle deficits of the elderly.

Thus public transfer programs for the elderly are similar in importance to those in Mexico or the US, but are relatively small compared with countries in Europe and South America. Among the Asian NTA countries (Box 2.2.1 above), only Japan and the PRC have large public transfers. The elderly in Japan and the PRC rely more on public transfers than their US counterparts, but less so than their peers in many European welfare states.

Personal savings are an important source of support in all Asian countries, except the PRC and Taipei, China. In Indonesia and the



AUT = Austria (2000); BRA = Brazil (1996); CHL = Chile (1997); PRC = People's Rep. of China (2002); CRI = Costa Rica (2004); IND = India (2004); INO = Indonesia (2005); KOR = Rep. of Korea (2000); GER = Germany (2003); HUN = Hungary (2005); JPN = Japan (2004); MEX = Mexico (2004); PHI = Philippines (1999); SPA = Spain (2000); SVN = Slovenia (2004); SWE = Sweden (2003); TAP = Taipei, China (1998); THA = Thailand (2004); US = United States (2003); URY = Uruguay (2006).

*Note:* Negative values represent net outflows, that is, the elderly provide more support to their families than they receive. If values in one support system are negative, values in another support system can be greater than 100 percent. *Source:* National Transfer Accounts database.

2.4.3 Support system for people ages 65 and above, selected economies

Philippines, the elderly rely on own-savings. Certainly, some elderly individuals do rely on familial and public transfers; in the aggregate, however, net transfers to the elderly are zero or negative, and personal savings are equal to or exceed the life cycle deficit.

The elderly in Thailand also rely heavily on personal savings, while those in the PRC and Taipei, China do so to a smaller degree, transfers being more important in the latter two. In the PRC, personal savings are the lowest among the Asian countries studied: the elderly save, but have relatively low saving income.

Using average values for the entire elderly group, Figure 2.4.3 provides an important summary of their support systems, but masks large variations in within-group support systems—for instance, between the relatively young elderly (age 60 or so) and the relatively old elderly (age 80 or so).

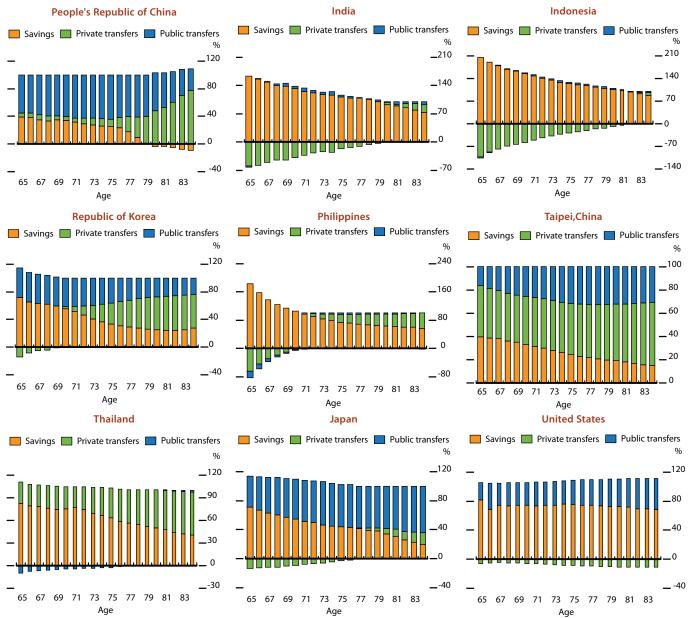
To explore within-group variations, Figure 2.4.4 shows the reallocation systems for ages 65–84 for eight Asian economies and the US by single year of age. In every country, those who are 65 years old are most dependent on savings. As age increases, the importance of savings decline and are replaced in varying degrees by public transfers or by familial transfers. In general, Asia's elderly rely much more on familial transfers as age increases. At the oldest ages, familial transfers are quite important in filling the gap between the life cycle deficit, on the one hand, and decreasing saving income, on the other.

The figure provides an instructive comparison of the elderly support systems of the US and the Republic of Korea. In the US, net familial transfers to the elderly are negative, though quite small, at every age, and public transfers increase for the older elderly, primarily because they benefit from higher levels of publicly funded health care. In the Republic of Korea, net public transfers remain more or less constant at every age, and familial transfers gradually substitute for declining personal savings. Moreover, at the oldest ages, familial transfers become larger as the shares of public transfers and personal savings decline.

Figure 2.4.4 also shows that the age patterns of the support systems of the PRC, India, Indonesia, the Philippines, and Thailand are very similar to the Republic of Korea's in that, as age increases, the share of personal savings declines while that of private transfers increases. In contrast, the patterns of Taipei,China and Japan are somewhat distinctive: the declines in saving income are matched by a combination of increasing familial transfers and public transfers. In Taipei,China, public transfers rise with age among the young elderly, while familial transfers become more important with age among the old elderly. In Japan, the increase is fairly evenly balanced between the two forms of transfers.

Decreasing saving income for the very old is a common feature of the old-age support system in Asia and elsewhere. But whereas the age profiles for most European countries are similar to that of the US, with saving incomes declining in favor of public transfers, those of Latin American countries are similar to the Asian countries' in that saving incomes decline in favor of familial transfers.

The decline in saving incomes, however, does not appear to be a consequence of dissaving among the elderly. Rather, the very old have fewer assets, either because of bequests (that is, assets have been



#### 2.4.4 Support system by single year of age, 65-84, selected economies

Note: Negative values represent net outflows, that is, the elderly provide more support to their families than they receive. If values in one support system are negative, values in another support system can be greater than 100 percent.

Source: National Transfer Accounts database.

transferred to descendants), or because of lower lifetime saving (due to a lower lifetime labor income profile compared to younger cohorts). The latter phenomenon is obviously linked with rapid growth of incomes in countries such as the Republic of Korea, the PRC, and Taipei,China. The PRC is also a special case, because the elderly could not accumulate assets when they were young due to past restrictions on private ownership (Mason et al. 2010).

How support systems are likely to change in the future is an important question, the answer to which has very limited information to stand on. For a few East Asian economies, recent developments (based on time-series NTA estimates) may be summarized as follows. In Japan, the Republic of Korea, and Taipei, China, the importance of familial transfers has declined over time. Preliminary estimates suggest that net familial transfers to the elderly are now essentially zero in the Republic of Korea. In each of the East Asian economies, public transfers and saving income have increased in importance. The causal mechanisms for these changes are as yet unclear.

Nonetheless, Taipei, China and the Republic of Korea have both implemented more generous public pension programs. As these programs mature, net transfers to the elderly can be expected to rise in the absence of pension reform, making them increasingly difficult to sustain against the severe population aging that is anticipated for East Asia.

#### Reliance on savings

Saving or asset accumulation is the final safety net for individuals or families who mobilize resources to fund their needs. At some ages, labor income plus transfers received are insufficient to fund consumption and transfer remitted. The gap between the inflows and outflows at these ages must be filled by relying on savings. Age groups in deficit can balance their budgets by relying on saving income and, if necessary, by accumulating debt or by drawing down assets they own. At other ages, labor income plus transfers received may exceed consumption plus transfers remitted. The surplus between these inflows and outflows plus asset income is then saved. These relationships among economic flows hold by definition. The life cycle deficit—consumption less labor income must equal net transfers plus saving income, that is, asset income less saving.

The extent to which the elderly rely on assets varies quite widely across countries. As shown in Figure 2.4.3 above, the elderly in four South and Southeast Asia countries—India, Indonesia, the Philippines, and Thailand—depend very heavily on savings to support consumption. The elderly in East Asia do not do so as much. Within East Asia, assets play a more important role for the elderly in the Republic of Korea and Japan and are somewhat less important for those in the PRC and Taipei,China.

Conditions in Asia are markedly different from those in many European countries, for example, Austria, Hungary, Slovenia, and Sweden, where the elderly rely almost exclusively on public transfers and have little by way of savings to fund their consumption. East Asia is also very different from Latin America in the relative mix of public and private transfers, although both regions have similar shares of consumption funded by saving income.

A distinctive feature of saving identified above is that the older elderly rely less on saving income than do the younger elderly (Figure 2.4.4). This finding is true for all Asian countries as well as for most Latin American countries. To some extent, this pattern is also observable in rich countries, primarily because publicly funded health care becomes increasingly important for the very old.

The phenomenon in Asian developing countries, however, has a different set of possible explanations. First, the very old may be outliving their resources and thus are forced to rely on family members. Second, the elderly may be opting to live with their children because of health problems and the need for long-term care. Third, the very old may not have been able to accumulate wealth because they had lower (cohort) labor-income profiles. Indeed, this last reason may be particularly true of the very old in the PRC, since they would have been unable to accumulate assets in pre-reform PRC. 2.4.5

Figure 2.4.5 shows one of the two components of personal saving, private saving income. The level of saving income relative to the mean labor income of persons 30–49 varies considerably from economy to economy. Private-saving incomes are quite high in India and the Philippines, and relatively low in the PRC. By definition, private-saving income is determined by both the value of assets held and rates of return. The high saving income found in the Philippines is similar to that found in other low- and middle-income countries and may reflect high rates of return that incorporate the risk premium (Mason et al. 2011).

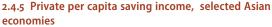
The age pattern of saving income follows the same general *Source*: Nation pattern in all countries rising from very low levels for young adults, reaching a peak, and then declining. The age at which the peak occurs, however, varies enormously. The earliest peaks are found in Indonesia, the PRC, and Taipei, China. The Republic of Korea peaks somewhat later, followed by the Philippines, and, last of all, Japan.

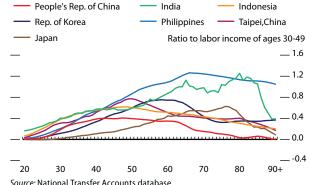
The rise in saving income is part of the normal accumulation process that characterizes the life cycle. Working-age adults save, receive bequests and other capital transfers, and consequently accumulate assets as they age. Obviously, the higher is the rate of accumulation, the more steeply asset income rises as the cohort ages. Because the age profiles consist of different age groups at a point in time, the shape of the profile also depends on differences in the income histories of those different age groups. In rapidly growing economies, younger adults will experience much higher earnings at each age than older adults. Given identical accumulation rates, younger cohorts will have higher asset profiles than older cohorts. The result is a cross-sectional asset income profile that rises more slowly, peaks at a younger age, and declines more steeply. The early peak found in a country like the PRC surely reflects the high rate of growth of income during the last three decades.

# Old-age support systems and policy responses to population aging

How will old-age support systems in Asia evolve given the looming problem of population-aging?

Perhaps the most important policy question in this regard concerns calls for public transfer reform. Public transfer reform debates, however, are fractious, in large part, because there is no consensus about the likely effects of different initiatives. Moreover, policy discussions emphasize public transfers, even though private transfers may be equally important. Of particular concern in Asia is whether the decline in the familial





transfer system will place greater demands on the public transfer system. Indubitably, public pension programs offer some advantages. They represent a politically acceptable means of providing economic safety nets for the elderly who might otherwise experience substantial deteriorations in their standard of living. Public programs also allow pooling against investment and longevity risks.

Many people-often young workers particularly and advocates of small government-do not favor an over-reliance on public transfers, not only because of pressure it may exert on the government budget and the implications for fiscal sustainability, macroeconomic stability, and economic growth, but, perhaps more importantly, because of adverse behaviors they induce, such as lower saving and earlier retirement.

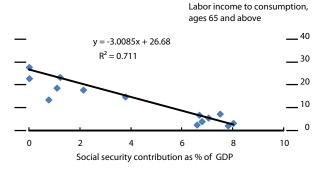
The NTA database provides some evidence on these issues. The labor income of people age 65 and older appears to be strongly negatively correlated with the amount of social contributions-made by employees, employers, self-employed individuals, and other unidentified sources—as a percentage of GDP (Figure 2.4.6). This may imply that the elderly work less in countries where social security pensions are fairly large. Although the social security contributions are defined more broadly than pay-as-you-go social security contributions, the finding appears to be consistent with the tradeoff between social security provision and labor income (Gruber and Wise, 1999).

The tradeoff among components of old-age support systems is better appreciated by comparing the sources of consumptionfinancing for the elderly, using the NTA database. Figure 2.4.7, which presents the relative shares of these funding sources, that is, the degrees to which elderly consumption are financed by transfers, saving income, or labor income,9 shows that labor incomes are still an important source of consumption-financing for people ages 65 and older in Indonesia (40%), the Philippines (29%), India (23%), and the PRC (23%). Work plays a small role for the elderly in Japan and Taipei, China, contributing about 10% and 8% of consumption expenditures, respectively. Similarly, in all European countries work does not have an important role for the elderly, as it contributes less than 10% of consumption.

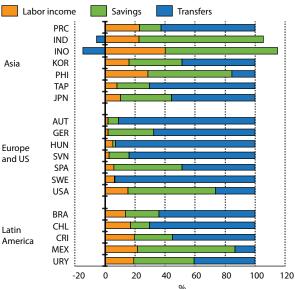
On the other hand, transfers are more important in Japan, the Republic of Korea, Taipei, China, and the PRC than in India, Indonesia, and the Philippines. They are also the most important source of consumption-financing in Taipei, China, funding 70% of elderly consumption. Fifty percent or more of the consumption expenditures of the elderly are supported by transfers in Japan, the Republic of Korea, and the PRC, with the PRC's much higher. In contrast, transfers play a very small role in the Philippines and even negative one in India and Indonesia.

As for saving incomes, Figure 2.4.7 shows that these vary considerably within Asia. They account for 75% or more of the consumption of the elderly in India and Indonesia, 56% in the Philippines, and about 35% in Japan and the Republic of Korea. In the

#### 2.4.6 Social security contribution and labor income



Note: Social contributions include social security contributions by employees, employers, and self-employed individuals, and other contributions whose source cannot be determined. They also include actual or imputed contributions to social insurance schemes operated by governments. Source: Lee and Ogawa (2011).



AUT = Austria (2000); BRA = Brazil (1996); CHL = Chile (1997); PRC = People's Rep. of China (2002); CRI = Costa Rica (2004); IND = India (2004); INO = Indonesia (2005); KOR = Rep. of Korea (2000); GER = Germany (2003); HUN = Hungary (2005); JPN = Japan (2004); MEX = Mexico (2004); PHI = Philippines (1999); SPA = Spain (2000); SVN = Slovenia (2004); SWE = Sweden (2003); TAP = Taipei, China (1998); US = United States (2003); URY = Uruguay (2006). Source: National Transfer Accounts database

#### 2.4.7 Source of funding consumption for ages 65 and above, selected economies

PRC and Taipei, China, saving incomes account for only 20% or less of the consumption of the elderly.

Note that the relative sizes of the three support systems also constitute a descriptive interpretation of tradeoffs among them because a change in one consumption-financing source, by definition, causes compensatory adjustments in the other sources. From this perspective of the findings above, two implications may be drawn. First, in light of the limited role of labor income, the major tradeoff is between savings and transfers. Second, a greater reliance on savings implies a greater reliance on labor income. If so, expanding public transfers may have a negative effect on labor income.

These implications notwithstanding, the fact that informal family support mechanisms are weakening implies that the role of formal public pension systems will be larger in the future (Park 2009; forthcoming). Older Asians have traditionally relied upon their children to take care of their material needs. The family was Asia's pension system, especially in rural environments where extended families spanning three generations lived together and working-age adults supported both their young children and their elderly parents. Far-reaching social changes—the concomitants of the region's rapid economic progress—however, have given rise to smaller nuclear families that are less accommodative of family transfers. Such changes include urbanization and the declining role of agriculture in the economy. In short, rapid economic growth, urbanization, industrialization, and social and cultural changes, including changes in value systems, are creating a growing vacuum in Asia's old-age support, a vacuum that will need to be filled by formal pension systems.

# Key findings and policy recommendations

Two stylized facts emerge from Asia's changing demographic circumstances. First, the demographic transition is well underway in the region, and, as a consequence, the population shares of the elderly are increasing—but at different rates. Some countries, such as India and the Philippines, remain relatively young; others, such as the PRC and Thailand, are somewhat older; a few, such as the Republic of Korea and Singapore, are at an advanced stage of the transition.

Second, for some East and Southeast Asian countries, populationaging is occurring rapidly, because fertility rates declined sharply and to very low levels. Between 2000 and 2050, the old-age dependency ratios of the Republic of Korea and Singapore will increase by a factor of 6, while the PRC's will quadruple.

An implication of the demographic transition is that the demographic dividends (higher economic growth rates due to favorable population age structures) enjoyed by Asian countries in the past will dwindle in the future, if not turn into a demographic tax. Estimates suggest that, between 1981 and 2010, the large shares of the working-age population boosted the growth rate of per capita GDP by more than 1% per year in Indonesia, the Republic of Korea, the PRC, Thailand, and Viet Nam.

For the region as a whole, however, demographic factors will be a less significant source of economic growth in the future. Two exceptions to this trend are India and Pakistan, whose young populations will account for 0.73 and 0.93 percentage points, respectively, of per capita GDP growth per year over 2011-2031 (from 0.56 and 0.62 percentage points between 1981 and 2010). But even the Philippines, which has a relatively young population age structure, will see its demographic dividend dwindle to 0.64 percentage points of annual per capita GDP growth in the next 20 years, from 0.86 percentage points between 1981 and 2010.

And where aging is most advanced, demographic factors will prove to be a drag on economic growth. Projections indicate that between 2011 and 2030, the annual growth rates of per capita GDP of Hong Kong, China and Singapore are projected to be 1 percentage point lower. For the PRC, 0.3 percentage points per year will be subtracted from per capita GDP growth.

For countries whose populations are aging rapidly, old-age support systems will come under severe strain, not only because of the fast rising numbers of the elderly, but also because urbanization, industrialization, and other social and cultural changes are diminishing the importance of family transfers as a source of old-age support. Moreover, public old-age support systems are still generally underdeveloped.

In Asia, the shares of public transfers for the consumption support of the elderly are generally smaller than not only those of the US and the European welfare states, but also of Latin America. For example, public transfers account for about a third of the consumption expenditures of the elderly in the Republic of Korea and Taipei, China, but more than 70% the needs of the elderly in Germany and Brazil.

The challenge for Asia then is to act now to prepare for the different demographic landscape of the future. In particular, the region needs to find ways to sustain its long-run growth momentum as population age structures become less propitious for growth. In addition, it must strengthen the other components (that is, labor incomes, personal savings, and public transfers) of old-age support systems given the declining share of private or familial transfers.

Fortunately, Asia is well positioned to address this demographic challenge. Many Asian countries have relatively young populations, which give them time; others have strong fiscal positions, which give them the financial resources.

Countries in the early stages of the demographic transition must act to reap their demographic dividends, while they last. Given that these dividends are neither guaranteed nor automatic, they must learn from the successful experiences of East and Southeast Asian countries. High investments in physical and human capital are key, as are social, economic, and political institutions that are conducive for growth (for example, broad-based property rights and flexible labor markets).

Countries in the middle- and late-stages of the demographic transition must undertake structural reforms to offset either the decline of their demographic dividends or the demographic tax. As workers become older, physical and human capital become more important growth drivers. Structural reforms, such as developing the financial sector, improving education standards or modifying the curriculum to better prepare students for the world of work, and making labor markets more flexible, raise the productivity of physical and human capital investments.

Old-age support systems throughout Asia, but particularly in the advanced-aging countries, are at a critical juncture. To meet the future needs of their elderly populations, governments must begin to strengthen—if not build—their national pension, health care, and (more generally) social security systems. As the experiences of some industrialized countries indicate, however, ensuring that the formal support systems are fiscally sustainable is crucial.

Asia's demographic diversity provides potentially large gains for intraregional cooperation and integration initiatives. Greater mobility of workers from younger, labor-abundant countries to older, laborscarce countries can help to alleviate labor shortages in the latter while improving employment opportunities for workers in the former.

Beyond the challenges, population aging offers new opportunities. Older countries, for instance, may consider leveraging their large and growing pool of retirement savings to foster financial sector development, especially long-term capital markets, and invest in profitable opportunities in other countries in the region, and more widely.

#### References

- Alesina, A., E. Spolaore, and R. Wacziarg. 2003. Trade, Growth and the Size of Countries. In Aghion, P., and S. Durlauf, eds. *Handbook of Economic Growth*. 1B. pp. 1499-1542.
- Bloom, D.E., and J.G. Williamson. 1998. Demographic Transitions and Economic Miracles in Emerging Asia. *The World Bank Economic Review*. 12(3). pp. 419–455.
- Bloom, D.E., D. Canning, and P.N. Malaney. 2000. Population Dynamics and Economic Growth in Asia. Population and Development Review. 26(Supplement). Pp. 257-290. http://www.jstor.org/stable/3115219
- Bloom, D.E., and D. Canning. 2001. Cumulative Causality, Economic Growth, and the Demographic Transition. In Birdsall, N., A.C. Kelley, and S.W. Sinding, eds. *Population Matters: Demographic Change, Economic Growth,* and Poverty in the Developing World. Oxford: Oxford University Press.
- Bloom, D.E., D. Canning, and J. Sevilla. 2002. *The Demographic Dividend: A new perspective on the economic consequences of population change*. RAND. http://www.rand.org.
- Goldstein, J.R., T. Sobotka, and A. Jasilioniene. 2009. The End of Lowest-Low Fertility? *Population and Development Review*. 35(4). pp. 663–699.
- Gomez, R., and P. Hernandez de Cos. 2008. Does Population Ageing Promote Faster Economic Growth? *Review of Income and Wealth.* 54(3). pp. 350– 372.
- Gruber, J., and D.A. Wise. 1999. Introduction and Summary. In Gruber, J., and D.A. Wise, eds. *Social Security and Retirement around the World*. Chicago: University of Chicago Press.
- Lee, J.-W., and K. Hong. 2010. Economic Growth in Asia: Determinants and Prospects. ADB Economics Working Paper Series No. 220. Manila: ADB. http://www.adb.org/documents/working-papers/2010/economics-wp220. pdf
- Lee, R.D., S.-H. Lee, and A. Mason. 2008. Charting the Economic Lifecycle. In Prskawetz, A., D.E. Bloom, and W. Lutz, eds. *Population Aging, Human Capital Accumulation, and Productivity Growth, a supplement to Population and Development Review.* 33. pp. 208–237.
- Lee, R.D. and A. Mason. 2006. What is the Demographic Dividend? (September) 16-17.
  - \_\_\_\_\_\_. 2011. Population Aging and the Generational Economy: A Global Perspective. Cheltenham, United Kingdom (UK): Edward Elgar.
- Lee, S.H., and N. Ogawa. 2011. Labor income over the lifecycle. In Lee, R., and A. Mason. *Population Aging and the Generational Economy: A Global Perspective*. Cheltenham, UK: Edward Elgar. pp. 109–135.
- Mason, A. 2005. Demographic Transition and Demographic Dividends in Developed and Developing Countries. Paper presented at the United Nations Expert Group Meeting on Social and Economic Implications of Changing Population Age Structures, in Mexico City, 31 August–2 September. http://www.un.org/esa/population/meetings/Proceedings\_ EGM\_Mex\_2005/mason.pdf
- Mason, A., R. Lee, A.-C. Tung, M. S. Lai, and T. Miller. 2009. Population Aging and Intergenerational Transfers: Introducing Age into National Accounts. In Wise, D.A, ed. *Developments in the Economics of Aging*. Chicago: University of Chicago Press. pp. 89–122. http://www.nber.org/books/ wise09-1
- Mason, A., S.-H. Lee, and R. Lee. 2010. Will Demographic Change Undermine Asia's Growth Prospects? In Lee, J.-W., M. Kawai, and P. Petri, eds. Asian Regionalism in the World Economy: Engine for Dynamism and Stability. Cheltenham, UK: Edward Elgar.

- Mason, A., N. Ogawa, A. Chawla, and R. Matsukura. 2011. Asset-based flows from a generational perspective. In Lee, R., and A. Mason, eds. *Population Aging and the Generational Economy: A Global Perspective*. Cheltenham, UK: Edward Elgar.
- National Bureau of Statistics of China and East West Centre. 2007. *Fertility Estimates for Provinces of China*, 1975–2000. Beijing: National Bureau of Statistics and Honolulu: East-West Center.
- Park, D. 2009. Ageing Asia's Looming Pension Crisis. *ADB Economics Working Paper Series* No. 165. Manila: ADB. http://www.adb.org/Documents/ Working-Papers/2009/Economics-WP165.pdf
- Park, D. ed. Forthcoming. *Pension Systems and Old Age Income Support in East and Southeast Asia: Overview and Reform Directions*. New York: Asian Development Bank and Routledge.
- Solow, R.M. 1957. Technical Change and the Aggregate Production Function. *The Review of Economics and Statistics*. 39(3). pp. 312–320. http://www.jstor.org/stable/1926047
- Tang, J., and C. MacLeod. 2006. Labor Force Ageing and Productivity Performance in Canada. *Canadian Journal of Economics*. 39 (2). Pp. 582-603.
- United Nations (UN). 2008. World Population Prospects: The 2008 Revision— Highlights. Population Division, Department of Economic and Social Affairs. New York. http://www.un.org/esa/population/publications/ wpp2008/wpp2008\_highlights.pdf.

## **Background papers**

- Chen, Q., K. Eggleston, and L. Li. Forthcoming. Demographic Change, Intergenerational Transfers, and the Challenges to Social Protection Systems in China. ADB Economics Working Paper Series. Manila: Asian Development Bank.
- Mason, A., and S-H Lee. Forthcoming a. Economic Lifecycle and Support System in Asia. *ADB Economics Working Paper Series*. Manila: Asian Development Bank.

\_\_\_\_\_. Forthcoming b. Population, Wealth, and Economic Growth in Asia and the Pacific. *ADB Economics Working Paper Series*. Manila: Asian Development Bank.

- Laishram, L. and M.R. Narayana. Forthcoming. Demographic Dividends for India: Evidence and Implications based on National Transfer Accounts. *ADB Economics Working Paper Series*. Manila: Asian Development Bank.
- Lee, S-H, A. Mason, and D. Park. Forthcoming. Why Does Population Aging Matter So Much for Asia? Population Aging, Economic Growth and Economic Security in Asia. *ADB Economics Working Paper Series*. Manila: Asian Development Bank.
- Ogawa, N., S.-H. Lee, R. Matsukura, A.-C. Tung, and M. S. Lai. Forthcoming. Population Aging, Economic Growth and Intergenerational Transfers in Japan: How Dire Are the Prospects? *ADB Economics Working Paper Series*. Manila: Asian Development Bank.
- Park, D., and K. Shin. Forthcoming. Impact of Population Aging on Asia's Future Growth. *ADB Economics Working Paper Series*. Manila: Asian Development Bank.

### **Endnotes**

- In contrast, the demographic dividend was not, apparently, reaped in most of Latin America. See, for example, Lee and Mason (2006) and Bloom, Canning, and Sevilla (2002).
- 2 The old-age dependency ratios of the advanced countries are even heavier. Japan's was 35.1% in 2010 and is projected to be 52.8% in 2030; Germany's will rise from 30.9% in 2010 to 47.6% in 2030.
- 3 The populations of the United States and Europe are currently much older than Asia's, but will continue to age significantly. United Nations projections indicate that the 2050 population shares of the age 60 and older group in the United States and Europe will be 27.4% and 34.2%, respectively, up from 18.2% and 22.0% in 2010. Latin American populations are set to become older as well, reaching 25.5% in 2050, up from 10.0% in 2010.
- 4 The average old-age dependency ratio of countries in the Organisation for Economic Co-operation and Development, excluding Japan, was 23.3% in 2010 and is projected to rise to 45.8% by 2050.
- 5 Formally, let P(x, t) be the size of the population cohort of age x in year t, y0(x) the mean labor income of workers of age x in a given base year, and c0(x) the mean consumption expenditures of the age-x cohort. Then the economic support ratio in year t is given by

$$s_t = \frac{\sum_x y_0(x) P(x,t)}{\sum_x c_0(x) P(x,t)}$$

- More precisely, the labor-income and consumption-expenditure age profiles are both normalized, the former by dividing the mean labor income at each age by that of workers ages 30–49 and the latter by setting the mean consumption expenditures of the cohort ages 30–49 to be 0.6 of its mean labor income. These adjustments eliminate the effects of intercountry differences in saving rates on the economic support ratio.
- 6 This section is based on Mason and Lee (forthcoming a).
- 7 Note, however, that these are cross-section profiles, that is, they pool workers of different age cohorts who may face different opportunities or shocks over their life cycles. The implicit assumption of such profiles is that an economy is in long-run equilibrium, which allows the following inference to be made: the labor income of a 30-year-old worker 5 years hence will be that of a 35-year-old worker today. In contrast, longitudinal profiles peak at later ages when an economy is expanding, because economic growth raises (that is, rotates in a counter clockwise direction) the labor-income profiles of younger age cohorts.
- 8 No estimates are currently available for African countries.
- 9 The difference between this figure and those in the previous section is that public and private transfers are now lumped together, and labor income is added as a funding source of elderly consumption. These cross-sectional estimates are treated as a synthetic cohort, calculated using recent data on survival weights of the United States (to prevent the results from being driven by mortality differences across countries).

# ECONOMIC TRENDS AND PROSPECTS IN DEVELOPING ASIA



# Subregional summaries

Central Asia East Asia South Asia Southeast Asia The Pacific

Bangladesh People's Republic of China India Indonesia Malaysia Pakistan Philippines Thailand Viet Nam

# Economic trends and prospects in developing Asia

# Subregional summaries

# **Central Asia**

#### Subregional assessment and prospects

The *Update* maintains the GDP growth projections for six countries (Armenia, Georgia, Kazakhstan, Tajikistan, Turkmenistan, and Uzbekistan) of the eight presented in April's *Asian Development Outlook 2011 (ADO 2011)*. These countries are benefiting from the global and regional economic expansions that have kept trade volumes brisk and in turn underpinned strength in industrial output.

The more favorable than expected prices for major exports such as oil, gas, cotton, minerals, and metals have not only worked to boost export revenues and underpin current account balances but also have strengthened tax revenues and fiscal balances in these six countries. Kazakhstan, the Kyrgyz Republic, and Tajikistan, however, face headwinds from recent banking crises that have left a legacy of weak credit conditions due to high levels of nonperforming loans at banks and a debt overhang in parts of the private sector.

Economic recovery in the Russian Federation sparked an upturn in Central Asia owing to extensive relations through trade, investment, and, most notably, workers' remittances. Such inflows helped to bolster growth and lift incomes of many families in major recipient countries—Armenia, Georgia, the Kyrgyz Republic, Tajikistan, and Uzbekistan.

Turkmenistan was relatively unaffected by the global crisis and recession largely because of little global integration. With the opening of new gas export pipelines to the Islamic Republic of Iran and the People's Republic of China (PRC), its economy is expected to grow by 9.0% in 2011 and 10.0% in 2012.

Of the other two countries, the Update lowers the GDP growth

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projections of *ADO 2011* for Azerbaijan and edges up the forecast for the Kyrgyz Republic. Azerbaijan's oil production fell by about 5% in the first half of 2011 due to stoppage at one of the main production platforms. Lower oil production is expected through 2012 while safety processes are reviewed on the other main oil platforms. Although growth in the non-oil sector is buoyant, the drag from reduced oil production is expected to lower overall growth to 3.0% in 2011 and to 4.5% in 2012 (reductions of 2.8 and 1.3 percentage points, respectively).

The *Update* raises a little the GDP growth projection for the Kyrgyz Republic from 5.0% to 5.5% for both 2011 and 2012. The economy in the first half of 2011 has rebounded from the widespread political instability and civil unrest of April–June 2010. Growing economic momentum should be sustained by high prices for gold, the main export, strong inflows of workers' remittances, and large, donor-funded reconstruction expenditure. Improving the fiscal position and shrinking the high level of nonperforming loans at banks will, however, pose medium-term challenges.

On balance, developments during 2011 indicate that most countries are moving along the growth path forecast in *ADO 2011*. For Central Asia, the *Update* cuts its growth forecast from 6.7% to 6.1%, solely due to Azerbaijan (Figure 3.1.1). The outlook in 2012 is a replay: GDP growth is edged down to 6.6% from 6.9%, again entirely due to Azerbaijan's revision.

Inflation in subregional countries escalated in the first half of 2011, mainly due to increases in global food and fuel prices. In response, most authorities tightened monetary policies to avoid second-round effects from higher prices, while enhancing social safety nets to protect the poor, and in some cases used administrative measures to counter price pressures.

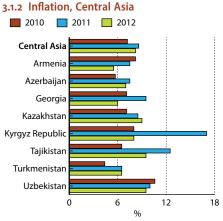
In Armenia the central bank raised the refinancing rate to 8.5% to restrain demand and the government supplied free seeds to boost foodgrain production. In Kazakhstan the central bank increased the refinancing rate, and the government regulated prices on socially important foods and oil products, launching programs to lift food and meat production. Tajikistan's central bank reduced liquidity loans to commercial banks and the government postponed a planned wage increase.

Given the strong policy response and a moderation in global commodity price pressures in the second half of the year, *ADO 2011* inflation forecasts are expected to be met in many countries with moderate upward adjustments in forecasts for Tajikistan, Turkmenistan, and Uzbekistan and a steep upward revision (for 2011) for the Kyrgyz Republic. The *Update* increases the inflation projections of *ADO 2011* from 8.2% to 8.6% for 2011 and for 2012 from 6.6% to 8.2% (Figure 3.1.2). Inflation in most countries in 2012 is expected to be less than in 2011, reflecting expected stabilization in global oil and food prices. However, the upward adjustment in Kazakhstan's forecast (from 6.0% to 9.0%, largely reflecting anticipated relaxation in price controls) is an exception, and essentially accounts for the boost in the 2012 subregional average.

Energy exporters (Azerbaijan, Kazakhstan, Turkmenistan, and Uzbekistan) are seeing strong current account surpluses on favorable

#### 3.1.1 GDP growth, Central Asia 2010 2011 2012 Central Asia Armenia Azerbaiian Georgia Kazakhstan Kyrgyz Republic Tajikistan Turkmenistan Uzbekistan -3 9 12 0 3 6

Source: Asian Development Outlook database.



#### Source: Asian Development Outlook database.

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global prices. Azerbaijan's projected surplus (both years) is slightly lowered because of the reduced volume of oil available for export; Kazakhstan's is raised owing to more favorable oil prices in 2012.

Energy importers face pressures on their current account deficits, though these countries have managed to cope with these pressures and keep deficits in check. Export growth remains robust across most of the energy-importing countries in the subregion and remittances are on the rise. Higher import demand limited improvements in current account deficits. The *Update* cuts the estimated current account deficit for Georgia and Tajikistan in 2011 and raises it for Armenia.

Central Asia's current account surplus is projected to decrease slightly from 7.8% to 7.5% of GDP in 2011 (largely reflecting the oil-output problem in Azerbaijan) and to increase from 7.1% to 7.6% of GDP in 2012 (owing mainly to an upgrade in the export forecast for Kazakhstan) (Figure 3.1.3).

#### **Country highlights**

#### Armenia

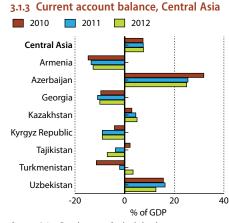
After growing by 2.1% in 2010, GDP growth slowed to 1.2% in the first quarter of 2011. Industry and services remained the mainstays, as construction and agriculture showed continued weakness. Public consumption contracted and private consumption showed only modest growth in the quarter, even given a robust expansion in workers' remittances (mostly from the Russian Federation). An expected strong rebound in agriculture should bolster the modest GDP growth of the first quarter of the year; accordingly, the *Update* maintains the *ADO* growth forecasts.

Average inflation was relatively high during the first half of 2011 at 9.9%, mainly due to steep rise in domestic prices for agricultural products and an increase in global commodity prices. As monthly inflation picked up, the central bank gradually raised its refinancing rate by 125 basis points to 8.5%. The government has subsidized farmers and provided them with seeds of barley and buckwheat free, to increase the harvest and the area under crop. Inflation pressures are therefore expected to fall in the second half of this year, allowing the *Update* to maintain the April inflation forecasts.

The government continues a restrained fiscal policy, and the budget deficit is expected to further narrow to its planned level (3.9% of GDP in 2011). Weaknesses remain in the balance of payments: the trade deficit widened, and even with rising inward remittances, the current account deficit reached 25.7% of GDP in the first quarter. However, this is explained by seasonality of economy; a broadening of the export base, combined with remittance inflows, should substantially lower this ratio in the remaining quarters of the year. The *Update* slightly raises forecasts for the current account deficit for both years.

#### Azerbaijan

Stoppage at one of the main oil platforms caused an overall 5.1% decline in production in the first half of 2011 (the oil and non-oil sectors each accounts for about half of GDP). Though growth in the non-oil sector was buoyant, the large fall in oil production brought overall GDP growth for



Source: Asian Develo	nmont Outlook	databaco
Jource. Asian Develo		ualabase

3.1.1 Selected economic indicators, Armenia (%)						
	20	)11	20	12		
	ADO	Update	ADO	Update		
	2011		2011			
GDP growth	4.0	4.0	4.5	4.5		
Inflation	7.5	7.5	5.5	5.5		
Current acct. bal.	-13.0	-13.5	-12.3	-12.7		
(share of GDP)						

Source: ADB estimates.

the first 6 months of the year to only 0.9% year on year. The reduction in oil production, which is expected to continue indefinitely while safety processes are reviewed on the three main oil platforms, leads to lower GDP growth forecasts for both years.

The non-oil sector performed strongly with 7.2% growth mainly supported by public investment programs. Favorable weather conditions and agriculture support from the government boosted agricultural growth to 6.2% year on year. The manufacturing and services sector both grew by slightly more than 7%.

The government tapped the oil fund for two purposes: boosting budget revenue to increase civil service salaries and pensions; and allocating more funds for more infrastructure projects. The result is a 37% increase in fiscal spending for this year's budget, providing substantial stimulus to help counter faltering overall growth.

Average year on year inflation was 8.8% during the first half of 2011, pushed up mainly by imported food. In view of inflation and rebounding domestic demand due to increased salaries, the central bank in May raised the refinancing rate from 5.0% to 5.25% and increased the reserve requirement from 2% to 3%. The *Update* maintains the April inflation forecasts.

Exports grew by 36.6% in the first quarter as buoyant prices for oil (95% of total exports) swamped the impact of reduced production. Imports (about one-fifth the size of exports) surged by 63.7% as machinery and other intermediate goods rebounded supporting higher investment and manufacturing production. Even with much higher outward profit remittances by the oil sector, the current account ran a surplus of 23.6% of GDP during the quarter. Taking account of lower oil production and baseline changes in oil prices forecasts, the *Update* revises down the current account surplus slightly in 2011 and maintains the forecast for 2012.

#### Georgia

GDP grew by 5.8% in the first quarter of 2011 on the back of robust growth in the manufacturing, transport, tourism, financial and utilities sectors, which more than offset a contraction in construction. The high growth sectors were mainly those receiving the foreign direct investment of \$174 million in the quarter. The *Update* maintains the April *ADO* GDP growth forecasts.

Annual inflation peaked at 14.3% in May 2011 owing to escalating global commodity prices before declining sharply to 10% in June reflecting a decrease in food prices. Monetary policy remained largely accommodative, with the policy rate cut by 25 basis points in July to 7.75% as inflation concerns abated. Second-round effects of commodity price inflation have not materialized and core inflation remained subdued at under 2%. The *Update* maintains the inflation forecasts in both years.

Resurgence in economic activity along with a new tax code in force from 1 January 2011 led to a surge in tax revenue in the first quarter, when the budget recorded a surplus of 3.8% of GDP. The fiscal deficit is expected to equal 3.6% of GDP in 2011, bettering the 4.0% target. Although total public external debt at 39% of GDP is relatively high, debt service should be readily manageable owing to a successful second

3.1.2 Selected economic indicators, Azerbaijan (%)					
	2011 2012				
	ADO 2011	Update	ADO 2011	Update	
GDP growth	5.8	3.0	5.8	4.5	
Inflation	7.5	7.5	7.0	7.0	
Current acct. bal. (share of GDP)	27.8	25.5	25.0	25.0	
Source: ADB estimates.					

3.1.3 Selected economic indicators, Georgia (%)					
	20	)11	20	12	
	ADO	Update	ADO	Update	
	2011		2011		
GDP growth	5.5	5.5	5.0	5.0	
Inflation	9.5	9.5	6.0	6.0	
Current acct. bal. (share of GDP)	-12.6	-10.9	-11.4	-10.0	
Source: ADB estima	tes.				

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Eurobond issue—for \$500 million for 10 years at 7.125%—in April. This placement allowed Georgia to buy back most of an earlier 5-year \$500 million issue, improving the debt service profile. The issue's success and improved ratings from credit agencies should help to pave the way for corporate borrowing in international markets.

The current account deficit amounted to \$355 million in the first quarter of 2011, 6.5% less than that in the previous quarter due to a reduction in the trade deficit as exports grew strongly compared with imports, due to economic recovery in trade partners and the improvement in the terms of trade. Tourism and workers' remittances strengthened, as well as private capital inflows notably in the banking sector (largely foreign owned). The *Update* thus lowers the current account deficit forecasts in both years.

#### Kazakhstan

Assisted by favorable commodity prices, the economy grew by 6.8% in the first half of 2011. Growth in services was buoyant and industrial production increased by 5.8%, although expansion in construction activity and private investment remained weak. GDP growth forecasts are unchanged from *ADO 2011*, as oil production will increase only moderately (until large new development projects are completed) and credit conditions will stay tight as excesses from the recent banking crisis are unwound.

Despite some progress in banks' restructuring, nonperforming loan amount to a third of the total, and about one-quarter of banks are unprofitable. Credit to the private sector in 2011 again grew only marginally, as banks are faced with a shortage of good borrowers and projects.

Consumer price inflation rose by 8.4% in the first half of 2011, just above the central bank's target of 6%–8%, prompting an increase in the refinancing rate to 7.5% from 7.0%. Inflation was driven by food prices (up by 12.6%); non-food prices climbed by 5.4%. It is expected to average 8.5% in 2011 despite intensified price regulations, though it may hit 9.0% in 2012 if current regulations are relaxed.

The first quarter current account surplus reached \$4.4 billion (58% higher than a year earlier). Based on *ADO* baseline oil price projections, the current account surplus will be about 1 percentage point higher than forecast in *ADO 2011*. In the first 6 months of 2011, gross international reserves of the central bank increased to \$34.6 billion, up 22%, while the tenge–US dollar exchange rate appreciated slightly.

#### Kyrgyz Republic

Political instability in April followed by ethnic violence in the south in June battered the economy and GDP fell by 1.4% in 2010, however, elections in the later part of that year helped to normalize the situation. In the first half of 2011 the economy made a robust recovery with GDP growing by 5.5%, albeit from a low 2010 base. The recovery was driven by an 11.2 % increase in mining (mostly gold) GDP and a 4.6% gain in non-gold GDP that was buttressed by double-digit manufacturing and utilities growth. Agriculture saw only a modest recovery, and construction and fixed investment contracted moderately, despite the need for reconstruction. With an expected strengthening of momentum

Kazakhstan (%)							
	20	)11	20	12			
	ADO	Update	ADO	Updat			
	2011		2011				
GDP growth	6.5	6.5	6.8	6.8			
Inflation	8.5	8.5	6.0	9.0			
Current acct. bal. (share of GDP)	3.5	4.5	3.5	5.0			

3.1.4 Selected economic indicators

Source: ADB estimates.

3.1.5 Selected economic indicators, Kyrgyz Republic (%)					
	20	11	2012		
	ADO	Update	ADO	Update	
	2011		2011		
GDP growth	5.0	5.5	5.0	5.5	
Inflation	13.0	17.0	8.0	8.0	
Current acct. bal. (share of GDP)	-9.0	-9.0	-9.0	-9.0	
Source: ADB estimat	toc				

Source: ADB estimates.

in the second half, the economy is now forecast to grow slightly faster than the *ADO 2011* projections (provided that political and social stability is maintained).

The government will face significant fiscal headwinds in 2011. The budget deficit is expected to widen to an estimated 7.6% of GDP on higher social spending, an increase in public sector salaries, and planned reconstruction work in the south. It intends to finance most of it externally, including \$1.1 billion pledged by the July 2010 international donor conference. Debt relief of \$194 million from the Russian Federation and of \$50 million from Turkey will help keep the large government external debt in check at about 57% of GDP in 2011.

In response to escalating global prices for food and energy, the central bank tightened monetary policy by increasing sales of its short-term notes and raising the banks' reserve requirement (to 9% in February 2011). Still, in the first half of 2011 inflation averaged 21.5% year on year, broadly reflecting the pass-through of higher global prices. The *Update* increases the inflation forecast for 2011, but maintains that for 2012 because global price pressures are expected to abate.

In the first 5 months of 2011, exports grew by 13.6% and imports by 24.5%. Export growth was driven by higher gold output and prices, and imports by steeper food and oil prices. The forecasts for the current account deficit remain unchanged.

#### Tajikistan

GDP growth in the first 6 months of 2011 is estimated at 6.9%, reflecting a broad expansion of activity underpinned by rapid growth in export earnings and workers' remittances, both of which are expected to continue through the rest of 2011. However, economic growth is likely to stay strong next year even with some decrease in the present high global prices of aluminum and cotton. GDP growth projections of around 7% are maintained for 2011 and 2012.

Inflation has been on an upward trend since the second half of 2010, reaching 13.4% year on year in June 2011, mainly reflecting sharply rising food and fuel prices. The price of wheat—the staple—jumped by more than half. Fuel prices were up by two-fifths, in part due to an oil export tax imposed by the Russian Federation. To reduce the likelihood of inflation passing through to wages, the government postponed a planned salary increase for public sector employees until September 2011. Indeed, there is no evidence of second-round effects—core inflation was only 1.3% year on year in June 2011. However, because of stronger than expected increases in food and fuel prices, the *Update* revises the forecast of overall average inflation for 2011 somewhat, but keeps the 2012 forecast.

To better cope with inflation pressures, the central bank reduced liquidity loans to commercial banks by 200 million somoni in March 2011 and increased its refinancing rate from 8.25% to 9.0%, though this move had only limited effects on other interest rates. The somoni–dollar exchange rate gradually depreciated by 4.5% in the first half of 2011.

Exports rose by more than 23% year on year in the first half of 2011 mainly due to a greater volume of aluminum exports and higher prices for aluminum and cotton. Imports jumped by 35%, reflecting higher food and fuel prices as well as strong demand stemming from higher workers'

3.1.6 Selected economic indicators, Tajikistan (%)						
	2011			2012		
	ADO	Update	ADO	Update		
	2011		2011			
GDP growth	6.8	6.8	7.0	7.0		
Inflation	10.5	12.5	9.5	9.5		
Current acct. bal. (share of GDP)	-4.3	-3.7	-6.4	-7.0		
Source: ADB estima	tes.					

remittance inflows. The *Update* narrows the forecast for the current account deficit in 2011 but widens it in 2012, reflecting a weakening in export prices.

#### Turkmenistan

The economy has grown strongly in the first half of 2011 on higher gas exports and large-scale public investments in infrastructure. Gas production grew by 40% and total investments grew 26% compared with the previous year. Growth is expected to remain robust in both years (unchanged from the *ADO* forecasts).

The authorities plan to gradually increase exports of gas through a new pipeline to the PRC, to reach full capacity of 30 billion cubic meters next year. A recent agreement with the PRC plans to lift pipeline capacity further to 40 billion cubic meters a year by 2015. The increased gas exports through the new pipeline to the PRC, as well as existing pipelines to the Russian Federation and the Islamic Republic of Iran, will be the main elements in GDP growth and a major source of financing of the development agenda outlined in the National Development Strategy 2011–2030.

The *Update* raises projected inflation slightly in both years, on higher international food and commodity prices. The government's price controls, fixed exchange rate, strong social safety net, and universal subsidies on basic goods and services, including some food items, are set to keep inflation in single digits.

Gas exports are seen doubling in 2011, and as they constitute 90% of total exports, will substantially boost foreign exchange revenues. Even with a large increase in imports for public investment projects and a persistent deficit on services, the current account deficit is expected to narrow sharply to 2.0% of GDP in 2011 from the revised large deficit (11.4% of GDP) in 2010. A continued rapid expansion in gas exports should bring the current account to a small surplus of 3.4% of GDP in 2012.

#### Uzbekistan

The economy grew by 8% in the first half of 2011, on a par with firsthalf 2010 growth. The *Update* maintains its April GDP growth forecasts for 2011 and 2012, on the back of projections of a continued increase in exports and workers' remittances, hikes in public sector wages and social benefits, and a sustained large public sector investment program.

Inflation, reported at 6.0% for the first 6 months of 2011, did not exceed the official target of 7.0%. But as higher global commodity prices, augmented by a steady depreciation of the local currency, have heightened inflationary pressures, this *Update* lifts the 2011 and 2012 forecasts for inflation.

The budget posted a small surplus in the first half of 2011. With significant surpluses from the national Fund for Reconstruction and Development underpinned by strong earnings from energy exports, the consolidated budget surplus is expected to be close to 4.0% of GDP. The government's industrial modernization program continued to support increased infrastructure spending, helping to sustain high growth. Moreover, investment was bolstered by \$1.2 billion of foreign direct investment in the first half of 2011, the majority going into energy and chemicals.

3.1.7 Selected e Turkmenistan (%	lected economic indicators, iistan (%)						
	20	)11	2012				
	ADO	Update	ADO	Update			
	2011		2011				
GDP growth	9.0	9.0	10.0	10.0			
Inflation	5.0	6.5	6.0	6.5			
Current acct. bal.	3.4	-2.0	7.0	3.4			
(share of GDP)							

Source: ADB estimates.

3.1.8 Selected economic indicators, Uzbekistan (%)						
	20	11	2012			
	ADO 2011	Update	ADO 2011	Update		
GDP growth	8.5	8.5	8.4	8.4		
Inflation	8.8	10.0	8.5	9.5		
Current acct. bal. (share of GDP)	16.3	16.3	12.6	12.6		

Source: ADB estimates.

Export performance was strong in the first 6 months of 2011. Economic recovery in the Russian Federation, the major trade partner, and favorable international prices for precious metals and cotton, as well as stronger manufactured exports (especially automobiles) led to merchandise export growth of 18.7%. Merchandise imports concurrently grew by 22.0%, mainly on account of rising prices for food, increased demand for consumer goods, and larger imports of capital goods and materials for infrastructure and other investments.

As economic developments closely track prospects outlined in April, the *Update* maintains its forecasts for the current account surplus in both years.

#### East Asia

#### Subregional assessment and prospects

East Asia is expected to record stronger expansion than other subregional economies this year and next. Nevertheless, forecasts for its aggregate growth are shaved from *ADO 2011* owing to softening demand in major industrial economies for East Asia's manufactured exports and to the impact of monetary policy tightening in the PRC; the Republic of Korea; and Taipei,China.

Aggregate GDP growth for the five East Asian economies is now forecast at 8.1% in 2011 and 8.0% in 2012 (Figure 3.1.4), both reduced slightly from April.

The PRC, by far the largest economy in this group, has close trade ties with the others (the three above plus Hong Kong, China and Mongolia). Strong, though moderating, growth in the PRC during the first half of 2011 set the trend for most of the rest.

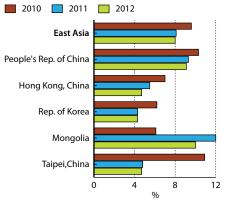
Growth of 9.6% year on year in the PRC during January–June was driven by investment and private consumption. In Hong Kong, China, solid increases in exports of goods and services resulted in brisk 6.3% growth. The Republic of Korea's expansion of 3.8% was largely based on exports and consumption, restrained by a fall in construction. Taipei,China also benefited from solid growth in exports and consumer spending, which generated much of its 5.6% rise in first-half GDP.

Mongolia, at a much earlier stage of development and reliant on mining for growth, recorded a stronger than expected 14.3% surge in GDP. Contributing factors were high global prices for its coal and copper, large investments in new mines, buoyant government spending, and strong growth in services, reflecting robust consumer spending. Agriculture, an important source of employment and incomes, recovered in the first half of 2011 from a contraction in 2010.

A common thread across East Asian economies in the first half was the importance to growth of private consumption, underpinned by rising employment in all and income gains in most. More recently, a cut in personal income taxes in the PRC should further stimulate its relatively low level of private consumption.

GDP growth is expected to ease from the first half pace in most of the subregional economies, as domestic and external demand softens.

#### 3.1.4 GDP growth, East Asia



Source: Asian Development Outlook database.

Monthly purchasing managers' indexes indicated that manufacturing in East Asia was slowing in August. GDP growth forecasts for the full year are lowered a little for the PRC (to 9.3%) and the Republic of Korea; are unchanged for Taipei, China; and are edged up for Hong Kong, China and Mongolia.

For 2012, forecasts are brought down slightly for the PRC (to 9.1%), the Republic of Korea, and Taipei, China; kept steady for Hong Kong, China; and raised for Mongolia.

Inflation was stronger than anticipated in January–June for the PRC; Hong Kong, China; and the Republic of Korea, with higher food prices a common cause (housing cost hikes were also a factor in Hong Kong, China). Price pressures are seen moderating in June-December. Still, subregional inflation is now projected at 4.9% for the whole year, revised up by about a half percentage point (primarily reflecting a raised forecast for the PRC to 5.3%) (Figure 3.1.5).

Lower global oil and food prices next year, and the lagged effects of monetary tightening, are seen damping subregional inflation in 2012 to 3.8%. Monetary authorities have raised policy interest rates in the PRC; the Republic of Korea; Mongolia; and Taipei, China this year to curb inflation. The PRC took additional measures, including limits on credit and increases in bank reserve requirements. Most subregional currencies have appreciated against the United States (US) dollar this year. Several governments have also moved to cool overheated housing markets.

External current account surpluses are projected to decline in the major East Asian economies as export growth slows while costs of imported oil and commodities remain relatively high. The subregional current account surplus is now forecast at 4.1% of GDP this year and 3.8% in 2012, reduced from April mainly because of a downward revision in PRC surpluses (Figure 3.1.6).

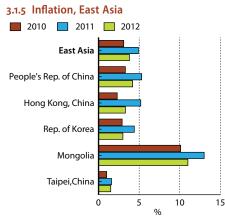
#### **Country highlights**

#### People's Republic of China

Tighter monetary policy and softer external demand were factors moderating economic growth to 9.6% in the first half of 2011. Investment in fixed assets remained the main driver of growth, expanding by nearly 18% in real terms, although it decelerated in the second quarter. Public investment in infrastructure eased as the impact of economic stimulus policies put in place during 2008-2010 softened. Retail sales, an indicator of private consumption, also decelerated in January-June, a result of inflation and ending of subsidies on new car purchases, but still recorded double-digit real growth.

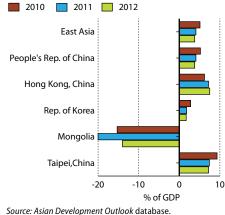
Faster than expected inflation became a concern for the authorities. In July, it reached 6.5%, the highest in 3 years, primarily owing to rising costs of food. Monetary tightening to curb inflation has involved a lowering of targets for growth in money supply and credit from 2010, six increases in the reserve requirement for banks in the first half of 2011, and three increases in the benchmark lending interest rate. The authorities allowed the yuan to appreciate by 3.8% in the first 8 months of 2011 against the US dollar.

To restrain rising prices of residential property, the government also



Source: Asian Development Outlook database.

#### 3.1.7 Current account balance, East Asia



3.1.9 Selected economic indicators, People's Republic of China (%)

			5		
	20	)11	2012		
	ADO	Update	ADO	Update	
	2011		2011		
GDP growth	9.6	9.3	9.2	9.1	
Inflation	4.6	5.3	4.2	4.2	
Current acct. bal. (share of GDP)	4.6	4.1	4.2	3.8	
Source: ADB estimat	tes.				

restricted investors from buying second or third houses in major cities and introduced property taxes on a pilot basis in two cities.

The factors that damped economic growth in the first half moderating domestic demand and soft external demand—are projected to continue through the second half and into 2012 (although exports should start to pick up next year on the assumption that world trade growth picks up). While strong GDP growth is still expected—9.3% this year and 9.1% in 2012—the forecasts are revised down slightly from *ADO 2011* largely based on the weaker than anticipated performance of the major industrial economies.

Some relief on food prices is expected in the second half of 2011 owing to a good autumn harvest and an upturn in pork supplies. Inflation for the year as a whole is now put at 5.3%, revised up from *ADO 2011* because the trajectory of food prices has been steeper than earlier foreseen. Next year, inflation is seen subsiding to 4.2%, reflecting lower average global prices for oil and food and lagged effects of monetary tightening.

Lower inflation is likely to stimulate private consumption, a key requirement for the economy to achieve a better balance between drivers of growth. Several policy changes made this year – lower personal income taxes, increases in minimum salaries, and improvements in pension coverage – will contribute to this goal.

The surplus in merchandise trade this year will be smaller than was forecast in April, and the deficit in services trade will widen. Forecasts for external current account surpluses are lowered to 4.1% of GDP this year and 3.8% next year.

#### Hong Kong, China

Growth in private consumption and exports drove a 6.3% lift in GDP in the first half of 2011 from the prior-year period. Private consumption increased strongly by 8.6%, supported by rising employment and incomes, and it contributed most of the GDP growth. Exports of goods rose by 7.8% in real terms and exports of services by 8.6%. Fixed investment recovered from a soft period at the start of the year to post growth of 4.1%.

Among key export-oriented services industries, tourist arrivals rose by 14.7% to 19.3 million, spurring demand in stores, hotels, and restaurants. Financial and business services benefited from active crossborder financing and fund raising. Trade-related and transport services started to slow in the second quarter, when a weakening of external demand, mainly in industrial economies, caused exports of goods to decelerate sharply.

Reflecting the strong labor market, employment was at an all-time high in the first 6 months and the seasonally adjusted unemployment rate fell to 3.5%.

For the full year, GDP is forecast to expand by 5.5%, raised from *ADO 2011* owing to the better than expected outcome in the first half. Growth will moderate in July–December, in line with trends in the PRC and weakness in the global environment. GDP growth is still seen coming in at 4.7% in 2012. Current account surpluses of 7.2%–7.5% of GDP are projected.

Inflation accelerated in the second quarter to put the average rate for January–June at 4.5%, also higher than forecast in *ADO 2011*. Increases in

#### 3.1.10 Selected economic indicators, Hong Kong, China (%)

	2011		2012	
	ADO	ADO Update		Update
	2011		2011	
GDP growth	5.0	5.5	4.7	4.7
Inflation	4.5	5.2	3.3	3.3
Current acct. bal. (share of GDP)	7.2	7.2	7.5	7.5

Source: ADB estimates.

food and housing costs each accounted for about one-third of the rise in the consumer price index. The inflation forecast for 2011 is raised to 5.2%. It is still projected to ease to 3.3% in 2012 as global food prices as well as domestic housing costs moderate.

Prices of apartments continued to climb in the first half, by about 14%. There are signs that government steps to curtail speculation in housing, coupled with rising mortgage interest rates and the uncertain global environment, are cooling the property market. Residential property transactions fell by 8.6% in the second quarter from the first, and a government land auction in August attracted a tepid response from developers.

#### **Republic of Korea**

GDP decelerated in the second quarter, putting growth at 3.8% for the first half. Much of the impetus to growth came from exports, which rose by 13.3% in real terms. In particular, exports of ships and telecommunications equipment were buoyant. Private consumption rose by 3.0%, supported by growth in employment. Investment in equipment, related to expanding export-oriented manufacturing such as semiconductors, picked up by 9.5%. A slump in public works was largely responsible for a 10.0% contraction in construction investment.

Construction is expected to improve in the second half, however, and private consumption will get support from rising incomes, though slowing growth in exports and equipment investment will offset these gains somewhat. Economic growth for the full year is now projected at 4.3%, revised down from *ADO 2011* in light of the weaker than expected performance in the first half and downward revision in growth in the major industrial economies. The forecast for 2012 is also lowered to 4.3% owing to the modest growth outlook for these economies.

Merchandise exports in nominal US dollar terms rose by 24.0% in the first half. For imports, the increase was 27.3%, owing to growth in domestic demand and bolstered by higher global prices for oil and commodities. The trade surplus declined to \$14.5 billion but the deficit in services trade also narrowed, leaving the current account surplus at \$9.1 billion, little changed from the earlier-year period. Forecasts for the current account surplus are kept at 1.8% this year and 1.7% in 2012.

Inflation quickened more rapidly than expected to average 4.5% in the first 8 months of this year (5.3% in August), driven primarily by the higher prices of oil and food. Although price pressures are expected to moderate in the second half, the full-year forecast is raised to 4.4%. Rising inflation prompted the central bank to increase its policy interest rate in five steps between July 2010 and June 2011, to 3.25% (still below the inflation rate). The won appreciated by 6.4% against the US dollar in the first 8 months of 2011. Monetary tightening, coupled with lower global oil and food prices projected for next year, should bring down inflation to about 3.0%.

The government has taken steps to manage large and potentially volatile capital inflows, including reinstatement of a withholding tax on foreign holdings of government bonds.

#### 3.1.11 Selected economic indicators, Republic of Korea (%)

	2011		2012	
	ADO	Update	ADO	Update
	2011		2011	
GDP growth	4.6	4.3	4.6	4.3
Inflation	3.5	4.4	3.0	3.0
Current acct. bal. (share of GDP)	1.8	1.8	1.7	1.7
Source: ADB estima	tes.			

#### Mongolia

A 14.3% surge in GDP in the first half of 2011 was stronger than expected. Industrial production, including coal and copper mining, rose by 10%. Agriculture, which directly supports about one-third of the population, recovered by 6% after contracting in 2010 when a severe winter cut livestock numbers. Services recorded strong growth of 16% in January– June, largely reflecting an uptick in private consumption due to gains in employment and incomes.

Higher global prices for minerals this year and continued construction of the large Oyu Tolgoi mine made major contributions to growth. Investment in this project is expected to total about \$5 billion before it starts copper and gold production in 2013. In other mining projects, the government in July 2011 selected several international companies to develop the West Tsankhi block of the huge Tavan Tolgoi coal deposit, although it is unclear when construction will start.

The surge in GDP in the first 6 months has prompted an upward revision in the full-year growth forecast to 12.0%. Growth is seen easing in 2012, but is now expected to stay in double-digits at 10.0%.

Although still high, inflation was lower than expected in the first half, and the 2011 forecast is revised down to 13%. It is seen easing to average about 11% in 2012 as economic growth moderates.

The Bank of Mongolia raised the reserve requirement for banks in two stages from 5.0% to 11.0% by early September 2011 and increased its policy interest rate from 11.0% to 11.5% in April and further to 11.75% in August, to rein in inflation. Government spending has surged (up by 27% in real terms in July 2011 year on year). However, stronger than expected gains in government revenue, coupled with an upward revision in GDP, suggests that the fiscal deficit as a ratio to GDP will be smaller than previously foreseen.

The value of merchandise exports—mainly minerals—rose by 52% to \$2.0 billion in the first 6 months of 2011 from the prior-year period. Imports more than doubled to \$2.7 billion, driven by purchases of equipment for mining as well as higher prices for oil and food. The current account deficit widened to \$925 million. For the full year, the current account gap is now projected at 20.0% of GDP, wider than forecast in April. Gross international reserves at mid-2011 totaled \$2.5 billion, up by 11.2% from end-2010.

#### Taipei, China

Economic growth of 5.6% in the first half of 2011 was based on increases in net exports and private consumption. The contribution from private investment was relatively small owing to a high base effect. Consumption was underpinned by a stronger labor market—unemployment fell to 4.5% for the first half from 5.5% a year earlier.

From the production side, manufacturing, largely for export, expanded by 10% and contributed about 3 percentage points of the total GDP growth. However, manufacturing decelerated sharply in the second quarter from the first on the back of weaker external demand for semiconductors and flat panels. That slowed overall growth in April–June.

Robust demand for some electronic products drove 16.9% expansion in merchandise exports in the first 6 months. Higher global prices for

3.1.12 Selected economic indicators, Mongolia (%)					
	20	11	20	12	
	ADO	Update	ADO	Upda	
	2011		2011		

	2011		2011	
GDP growth	10.0	12.0	8.0	10.0
Inflation	17.0	13.0	14.0	11.0
Current acct. bal. (share of GDP)	-15.0	-20.0	-14.0	-14.0

Source: ADB estimates.

3.1.13	Selected economic indicators,
Taipei	i,China (%)

	20	2011		12
	ADO	Update	ADO	Update
	2011		2011	
GDP growth	4.8	4.8	5.0	4.7
Inflation	2.8	1.6	2.9	1.5
Current acct. bal. (share of GDP)	6.9	7.4	7.0	7.2
Source: ADB estimat	tes.			

oil and commodities contributed to a 20.3% increase in imports in the period. Trade with Japan was disrupted after the March earthquake, which slowed production of motor vehicles in Taipei,China.

GDP growth is expected to slow in the July–December half as both external and domestic demand soften. For the full year, GDP is still forecast to rise by 4.8%. The projection for 2012 is lowered to 4.7%, owing to the expected easing of growth in the PRC and sluggish growth in the major industrial economies. Forecasts for the current account surplus are raised to 7.4% of GDP this year and to 7.2% in 2012.

Inflation averaged 1.4% in the first 7 months of this year, contained by a tightening of monetary policy and appreciation of the local currency. During the period, monetary authorities raised the policy interest rate in two steps, from 1.625% to 1.875%, and issued certificates of deposit to mop up excess liquidity. The NT dollar appreciated by 4.6% against the US dollar from end-2010 to end-August 2011. Forecasts for average inflation are lowered.

## **South Asia**

#### Subregional assessment and prospects

Inflation is the major concern in South Asia. Higher than expected international commodity prices, increases in administrated domestic fuel prices, currency depreciation, and agriculture-related factors are the main elements. Most of these are from the supply side, but strong pro-growth policies have also maintained demand-side pressures in several countries.

Monthly inflation breached double digits in Afghanistan, Bangladesh, Maldives, Nepal, and Pakistan in the first half of 2011, while inflation in Bhutan, India, and Sri Lanka hovered just below that threshold. Inflation in Pakistan reached about 16% in the first half of 2011 due to extensive flood damage to crops, food scarcity, and transport difficulties. Flood damage also pushed inflation higher early in 2011 in Sri Lanka, but by much less. A favorable monsoon in 2010 boosted agricultural yields and output in most countries, yet food prices fell little owing to inefficiencies in agricultural marketing and distribution, higher input prices (including fuel and fertilizers), and, in India, upwardly revised minimum support prices.

Food prices were the main drivers of inflation in most South Asian countries, but there are signs of spillover to other goods. In India, inflation in nonfood manufactured goods has become a key factor in overall inflation because of the pass-through of higher input prices and wage increases. In Bhutan and Nepal, higher than expected inflation in India (the major trade partner) has been transmitted through import prices by their pegged currency arrangements. High inflation in importdependent Maldives owes much to a 20% depreciation of the local currency against the US dollar in April 2011, which added to the force of climbing global commodity prices.

Monetary authorities have tightened their policy rates: in India by 11 times for a total of 325 basis points (bps) since March 2010; in Bangladesh four times (225 bps since August 2010); and in Pakistan three times (150 bps in July–November 2010) but with a reduction in July 2011 of 50 bps in view of slightly slower inflation. The immediate impact of these adjustments has been limited, but inflation is expected to begin a downward trend in the second half of 2011, reflecting the usual lagged impact of monetary tightening and expected stabilization of international commodity prices.

This *Update* has lifted South Asia's inflation forecast to 9.1% for 2011 from 8.7% made in *ADO* in April (Figure 3.1.7). This mainly reflects the revision for India (which accounts for about four-fifths of South Asia's GDP). Inflation in 2012 is expected to moderate to 6.9%, little changed from the earlier *ADO* forecast.

Developments in economic activity have been mixed but closely track *ADO*'s forecasts. Growth in Afghanistan, India, Nepal, and Pakistan is slightly less robust than expected while Bangladesh and Bhutan performed slightly better. The main causes were, respectively, the security situation in Afghanistan, slowing investment activity in India, weak business conditions in Nepal, and lackluster industry in Pakistan, against strong export and domestic demand for Bangladesh and sound hydropower project implementation in Bhutan.

Reflecting minor downward revisions for larger countries, the South Asia GDP growth projection is edged down from 7.5% to 7.2% for 2011, and from 8.1% to 7.7% for 2012 (Figure 3.1.8).

South Asia's external position in 2011 will be close to that projected in *ADO 2011* for most countries, although the changes in India and Pakistan led to a small reduction in the subregional deficit. Higher international commodity prices pushed up import bills, but robust growth in exports, strong inflows of remittances, and recovery in tourist receipts generally offset the impact. Strong global demand for garments sharply lifted exports in Bangladesh, Pakistan, and Sri Lanka. Growth in workers' remittances was a main feature shaping the current account in Bangladesh, Nepal, Pakistan, and Sri Lanka. Increased tourist arrivals strengthened earnings in Bhutan, Maldives, and Sri Lanka.

In this *Update*, estimates of an unexpected modest current account surplus in Pakistan and a smaller deficit in India reduce the subregional deficit to 2.3% of GDP for 2011 from the April projection of 3.1% (Figure 3.1.9). The current account deficit in 2012 is expected to improve slightly to 2.7% of GDP from the earlier estimate of 3.1% of GDP, again owing to adjustments for these two countries.

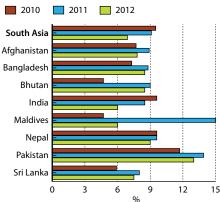
#### **Country highlights**

#### Afghanistan

Economic growth was robust during FY2010 (ended March 2011) primarily driven by domestic demand that was stimulated by increased donor inflows and security spending. On the supply side, expansion in services was the major contributor, followed by agriculture. The finance sector was severely rocked by the Kabul Bank crisis.

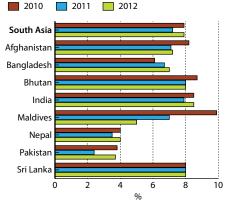
The deflationary trend since April 2009 turned around after May 2010 and inflation climbed in February 2011 to 17.9%, owing to sharp global price hikes for food, fuel, and consumer goods, before moderating to 14.9% in July as prices for power and local produce declined.

#### 3.1.7 Inflation, South Asia



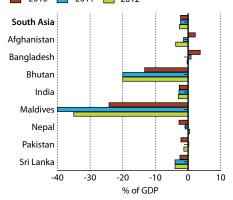
Source: Asian Development Outlook database.

#### 3.1.8 GDP growth, South Asia



Source: Asian Development Outlook database.

# 3.1.9 Current account balance, South Asia



Source: Asian Development Outlook database.

The fiscal position (including grants) slightly improved, for a surplus of 0.2% of GDP in FY2010 as domestic revenue climbed to 11.2% of GDP from 10.3% in FY2009. Domestic revenue will, however, finance a slightly smaller share of the operating budget in FY2011 as rapidly mounting security spending (a little over half the recurrent budget) puts growing pressure on domestic fiscal and grant resources.

The current account deficit (including grants) improved from a deficit in FY2009 to a small surplus in FY2010 through increases in official development grants and exports.

Afghanistan has a managed floating exchange rate regime. The local currency appreciated by about 6% against the US dollar during FY2010, reflecting a strong overall balance-of-payments surplus and an increase in foreign exchange reserves.

GDP growth is projected to be slightly slower in FY2011 and FY2012 than forecast in April, on deteriorating security and less generous aid flows. It is assumed that agriculture and services maintain their strong performance and that agreement on the next International Monetary Fund program is reached. Inflation is now forecast to be somewhat lower than it was earlier in the year, assuming that prudent monetary policy is adopted to minimize the impact of global oil and food prices. Finally, the current account balance (including grants) is downgraded from *ADO 2011*, reflecting decreased external assistance over the period.

#### Bangladesh

GDP growth of 6.7% in FY2011 (ended June 2011) was higher than projected in *ADO 2011*, underpinned by robust exports and domestic demand. Industry grew briskly by 8.2% aided by the rapid expansion in garment exports. Agriculture also posted high growth (5.0%) with all major crops doing better than expected, helped by favorable weather and wide range of policy support. Services growth was also buoyant, at 6.6%.

A major concern was inflation—rising to 10.2% year on year in June 2011. Annual inflation came in higher than the *ADO 2011* projection largely because of the escalation in global food and commodity prices and demand pressures from rapid credit expansion, alongside hikes in administrated fuel prices and the taka's depreciation against the US dollar.

Imports grew as rapidly as exports, and on a higher base sharply widened the trade deficit. The larger trade deficit, combined with slower remittance growth, greatly reduced the current account surplus in FY2011. The central bank adopted credit-tightening policies to control inflation and restrain import growth, though rapid expansion in imports in the second half of the fiscal year put pressure on the exchange rate.

Growth in FY2012 is projected to be slightly faster than forecast in April, reflecting a continued expansion in exports, together with growthoriented policies and stronger remittances boosting domestic demand.

Inflation is projected to moderate slightly, but to do this, the central bank will need to keep credit and monetary growth within its Monetary Policy Statement targets. Demand pressures will be strong and, even with exports and remittances on the rise, the current account is still expected to post a small deficit, a switch from the previous year's surplus.

3.1.14	Selected economic indicators,
Afgha	nistan (%)

	2011		2012	
	ADO	Update	ADO	Update
	2011		2011	
GDP growth	8.0	7.1	8.5	7.2
Inflation	9.8	8.9	9.1	7.8
Current acct. bal. (share of GDP)	1.4	-1.4	-0.8	-3.8

Source: ADB estimates.

3.1.15 Selected economic indicators, Bangladesh (%)				
	2011 2012			
	ADO 2011	Update	ADO 2011	Update
GDP growth	6.3	6.7	6.7	7.0
Inflation	8.0	8.8	8.5	8.5
Current acct. bal. (share of GDP)	0.2	0.9	-0.3	-0.3
Source: ADB estima	tes.			

#### Bhutan

GDP growth in FY2010 (ended June 2010) is adjusted from 7.0% to 8.7%, mainly reflecting revised estimates of construction activity at the new Punatsangchhu hydropower project. Electricity production (nearly a quarter of GDP), most of which goes to India, is being maintained at its maximum operational level as no additional generation capacity has been added since the large Tala plant came on line in FY2007. Tourist arrivals, another source of foreign revenue, have increased since late 2010. Given the strong momentum in hydropower investment on construction activity, projected growth in FY2011 is now edged up; the forecast for FY2012 remains unchanged.

Rising inflation is a concern: it reached 9.6% year on year in the first quarter of 2011. Consumer prices have been moving up over the last year and half, driven by food and nonfood items. Higher than expected inflation in India, the major trade partner for Bhutan, has been fully transmitted through import prices given the parity peg between the two currencies. In line with expected price increases in India, Bhutan's inflation forecast is revised upward a little in the forecast period.

Projections of the current account deficit as a share of GDP for both fiscal years are unchanged. The deficits reflect very large imports during the construction phase of the power project (which will be fully financed by grants and loans). An overall surplus on the balance of payments is expected.

The revised fiscal estimate for FY2011 and budget for FY2012 continue an expansionary government stance. Expenditure will increase, leading to fiscal deficits of 4.8% and 6.4% of GDP. However, as in past budgets, under-implementation of capital investment plans and additional foreign grants and loans are likely to lead to near fiscal balance.

#### India

After a robust recovery from the global crisis in the past 2 years, industrial output and investment are showing signs of slowing. Growth of 7.7% in the first quarter of FY2011 (which started in April 2011) and 7.8% in the last quarter of FY2010 was lower than the nearly 9% average growth of the previous 4 quarters. Simultaneously, domestic and global factors have kept inflation near double digits despite substantial, sustained monetary tightening.

This *Update* trims the forecast for growth in FY2011 on various investment-retarding factors as well as the increased cost of borrowing that is moderating both consumer and investment demand. Growth in FY2012 is also revised downward a little, reflecting the lagged effect of monetary tightening. Prospects for growth in industrial economies, easing of commodity prices, and higher growth of world trade are expected to keep growth higher in FY2012 than in FY2011.

Inflation is seen coming in higher in FY2011 than forecast in *ADO 2011* due to persistently high food inflation, which reflects structural problems in the food production and distribution systems, escalation of global food prices, and, since January 2011, a steep increase manufactured goods prices—evidence of a nascent wage-price spiral. Factoring in these developments, expected inflation in FY2011 is raised moderately. Stabilizing commodity prices, some supply-side bottleneck easing, and the

#### 3.1.16 Selected economic indicators, Bhutan (%)

	2011		20	12
	ADO	Update	ADO	Update
	2011		2011	
GDP growth	7.5	8.0	8.0	8.0
Inflation	8.0	9.0	7.5	8.5
Current acct. bal. (share of GDP)	-20.0	-20.0	-20.0	-20.0
Source: ADB estima	tes.			

3.1.17	Selected economic indicators,	
India	%)	

	2011		20	12
	ADO	Update	ADO	Update
	2011		2011	
GDP growth	8.2	7.9	8.8	8.3
Inflation	7.8	8.5	6.5	6.0
Current acct. bal. (share of GDP)	-3.5	-2.8	-3.3	-3.0
Source: ADB estimat	toc			

Source: ADB estimates

delayed impact of interest rate hikes are likely to bring inflation down in FY2012, to below April's forecast.

Current product and market diversification is likely to help exports grow robustly, offset somewhat by the slowdown in industrial economies. Imports will maintain their strong growth in FY2011 due to elevated commodity prices, before moderating the following year as global prices cool. With invisibles expected to climb at a healthy rate, the current account deficit is revised to narrower levels from April's outlook, in both years.

#### Maldives

This *Update* heavily revises projections for this country for several reasons: the recent rebasing of GDP statistics, the sharp rise in international commodity prices, and a large depreciation of the local currency, the rufiyaa. Using the revised series, GDP growth for 2011 is now put up, partly reflecting a solid gain in tourist arrivals, while that for 2012 remains unchanged.

#### 3.1.1 Currency depreciation and GDP rebasing

To help address the large external imbalance, the Maldives government dropped its rufiyaa peg to the US dollar in April 2011 and allowed the exchange rate to fluctuate within a band of 20% around the former peg rate of Rf12.85 per dollar. The rate depreciated to Rf15.2 per dollar. The depreciation increased inflation pressure and substantially boosted foreign debt and debt service in local currency.

The government has rebased GDP statistics to the year

2003 from the previous base year of 1995. The 2003 series is based on a comprehensive assessment of the economy using a "supply and use" model. This rebasing estimated higher real growth rates in recent years. The new series is based on the actual price performance of the various sectors and integrates information from companies' annual reports into the new system for estimation. (Older estimates used various price indexes to estimate nominal GDP.)

Since the Maldives imports almost all its food and all its fuel, domestic prices are extremely susceptible to changes in the exchange rate and international commodity prices. Owing to the higher than expected jumps in global fuel and food prices and depreciation of the rufiyaa by 20% in April 2011, the forecast for inflation for 2011 is nearly doubled. In line with the *Update* baseline assumption that food and fuel prices are expected to stabilize in 2012, inflation is seen coming down in 2012, to slightly below the *ADO* forecast.

With this revision of GDP growth, changes to international commodity prices, and currency depreciation, the current account deficit is projected to widen significantly from 2010, to 40% and 35% of GDP in 2011 and 2012—respectively, wider than and unchanged from the April forecasts.

The government implemented a voluntary civil-service redundancy program in April–May 2011 to cut expenditure, an important step in fiscal consolidation. In July 2011, it announced a vocational skills training program for 8,500 unemployed young people within a year. The program will try to resolve the mismatch of skills in the labor market that causes high local unemployment while foreign workers fill many jobs.

3.1.18 Selected economic indicators, Maldives (%)				
	2011		2012	
	ADO 2011	Update	ADO 2011	Update
GDP growth	5.0	7.0	5.0	5.0
Inflation	8.0	15.0	7.0	6.0
Current acct. bal. (share of GDP)	-35.0	-40.0	-35.0	-35.0
Source: ADB estimates.				

### Nepal

Nepal's GDP slowed somewhat in FY2011 (ended in July 2011). A weatherinduced rebound in agriculture could not fully offset the deceleration in nonfarm activities. High international food and oil prices kept inflation near double digits. Competition from nonbank financial institutions has siphoned off deposits, exacerbating liquidity constraints on lending by banks. A 4-month delay in approving the FY2011 budget hit revenues and capital spending, undermining already weak economic conditions. The external position strengthened modestly, as import growth gradually decelerated and remittance growth stabilized at around 12%. The overall current account, however, posted a small (but wider than forecast) deficit, with exports staying weak.

In FY2012, GDP growth will likely edge back up—to reach the *ADO 2011* forecast—with the marginal improvement coming from agriculture and services. Given a favorable monsoon, agricultural output is expected to grow faster than FY2011's 4%. For services, some slackness is expected to tighten in FY2012, reflecting Nepal Rastra Bank's more accommodative monetary stance, a pickup in remittance inflows, robust tourist arrivals, and the already announced FY2012 budget. Industry, however, is likely to remain unchanged, as power outages, sporadic fuel shortages, and poor labor relations are likely to persist.

Continuing inflation among key trading partners, high international oil prices and upward adjustments in domestic oil prices, and a generous hike in civil servants' salaries will exert upward pressure in FY2012, thereby raising the forecast, despite expectations of a solid food crop. Remittances, the bulwark of Nepal's external position, are expected to grow, as they did even during the turmoil in the Middle East earlier in 2011. The current account is therefore expected to move to a small surplus, even as the trade deficit remains wide.

### Pakistan

Despite severe flooding at the start of the fiscal year, Pakistan managed to post GDP growth in FY2011 (ended June 2011) as a rebound in agriculture during the second half of the year and more robust expansion in services offset lackluster industry, which faced extensive power shortages. Prices accelerated after the summer 2010 floods, mainly due to food shortages and steeper transport costs. Inflation eased from a high of nearly 16% in mid-FY2011, but the annual average was about 2 percentage points higher than in F2010.

Emergency and relief spending after the floods contributed to an overrun in current expenditure, pushing the budget deficit to well above the postflood revised target of 5.5%. The government reduced development spending by 30% from earlier budgeted amounts and put through temporary revenue measures from March 2011. Deficit financing relied more on central and commercial banks as expected foreign inflows fell short. Higher export prices, especially for cotton, alongside strong workers' remittances helped produce an unexpected modest surplus in the current account in FY2011. Foreign exchange reserves continued to strengthen and exceeded \$18 billion at end-June 2011, reflecting positive developments in external accounts that lent stability to the exchange rate.

Growth is projected to pick up only a little in FY2012 (a forecast

3.1.19 Selected economic indicators, Nepal (%)				,
	2011		20	12
	ADO	Update	ADO	Update
	2011		2011	
GDP growth	3.8	3.5	4.0	4.0
Inflation	10.0	9.6	8.0	9.0
Current acct. bal.	-0.5	-0.9	-0.5	0.5
(share of GDP)				
Source: ADB estimates				

Source: ADB estimates

3.1.20 Selected economic indicators, Pakistan (%)				
	20	11	2012	
	ADO 2011	Update	ADO 2011	Update
GDP growth	2.5	2.4	3.7	3.7
Inflation	16.0	13.9	13.0	13.0
Current acct. bal. (share of GDP)	-1.7	0.2	-2.3	-1.3

Source: ADB estimates.

unchanged from April), a low figure that reflects power shortages. Inflation is expected to moderate slightly relative to FY2011 in view of expectations of further increases in power tariffs and high international commodity prices. The current account is likely to move to a small deficit as cotton prices ease and imports pick up in a strengthening economy. The steps taken to limit power-related subsidies including electricity tariff increases and automatic fuel adjustment will help to keep the budget deficit to 4% of GDP in FY2012.

### Sri Lanka

Still building on the recovery begun in 2010, the economy grew firmly in the first quarter of 2011. The advance was driven by very strong performances in industry and services, which expanded by 11.1% and 9.5% respectively; they easily offset the drag on growth from a 5.1% contraction in agriculture caused by flooding in the last quarter of 2010.

The *Update* maintains April's growth forecasts. A successful \$1 billion, 10-year government bond issue in July, as well as upgrades from credit rating agencies, signaled capital market confidence in growth prospects.

Inflation crept up during the first 5 months of the year, peaking at 8.9% in April (point to point) and then receding to 7.5% in July. The rise was largely driven by escalating food prices owing to the poor performance in agriculture and higher global prices. With recovery in domestic food production and easing global prices, April's projections for inflation in the forecast period are unaltered.

The central bank held policy rates unchanged, mopping up excess liquidity with an increase in the statutory reserve requirement in April. Credit to the private sector grew rapidly through mid-2011—reflecting buoyant economic activity—but from a depressed base.

Progress is being made in fiscal consolidation. Tax reform measures announced in the 2011 budget were implemented and revenue collection was up by nearly 25% in the first half of the year, and recurrent expenditure was contained. The International Monetary Fund in its September mission review stated that the fiscal program was on track for meeting the 2011 deficit target of 6.75% of GDP.

Imports and exports jumped by about half in the first half of the year, widening the trade deficit. Higher international prices and domestic demand pushed up imports, while exports were buoyant reflecting higher global demand, especially for garments, and improved prices. Remittances, earnings from tourism, and port services were buoyant through midyear and kept the current account deficit in check. Official foreign exchange reserves stayed very comfortable at about 7 months of imports. No change is made to the forecasts for the current account deficits over the forecast period.

## Southeast Asia

### Subregional assessment and prospects

Aggregate GDP for the 10 countries in this subregion is forecast to grow by a relatively robust 5.4% in 2011, slightly below the projection in

Sri Lanka (%)					
	2011		20	12	
	ADO	Update	ADO	Update	
	2011		2011		
GDP growth	8.0	8.0	8.0	8.0	
Inflation	8.0	8.0	7.5	7.5	
Current acct. bal. (share of GDP)	-4.0	-4.0	-4.0	-4.0	

2.1.21 Selected economic indicator

Source: ADB estimates.

*ADO 2011.* Growth forecasts for this year are upgraded for Indonesia, the biggest economy in the subregion, as well as for Cambodia and the Lao People's Democratic Republic. These increases are offset by generally modest downgrades for Malaysia, the Philippines, Thailand, and Viet Nam, owing to their lower than expected growth in the first half of 2011 and the deterioration in the external environment.

While the aggregate growth forecast is little changed from April, the downside risks have increased significantly, particularly for those Southeast Asian countries most open to international trade—Malaysia, Singapore, and Thailand—because of faltering recovery in the US and debt concerns in Europe.

This year, the bigger economies in the subregion have grown at a more moderate pace than in 2010 (Figure 3.1.10), when they were rebounding from the global recession. Their expansion in the first half of 2011 was driven in most cases by robust and broad-based domestic demand. Private consumption was strong across most countries, despite rising inflation. Consumption benefited from increases in employment, farm incomes (owing to favorable prices for agricultural commodities), and wages (in some countries). The exception was Viet Nam, where private consumption softened in response to a tightening of monetary and fiscal policies needed to address rapid inflation.

Private investment was also robust in most of Southeast Asia in the first half, encouraged by high capacity utilization, growth in credit, and positive business sentiment. Foreign direct investment inflows picked up in several countries.

The contribution to growth from net exports was mixed. Shipments from those countries more open to trade saw much slower export growth than in 2010 on weaker external demand, although Malaysia and Thailand made up some of this loss through higher exports to Asian markets. Cambodia registered buoyant exports for garments and tourism, as the Lao People's Democratic Republic (the Lao PDR) did for gold, copper, and hydropower.

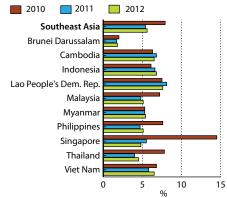
Imports rose across the subregion, driven by buoyant private consumption and investment, and by larger volumes of oil and commodities.

March's earthquake and tsunami in Japan disrupted global supply chains, affecting manufacturing and exports from five countries, although the perturbations were fading by midyear. In the Philippines, interruptions to imported inputs slowed semiconductor output and exports. In Thailand, shortages of components from Japan disrupted automobile manufacturing and production of computer hard-disk drives. Similar problems led to a decline in Malaysia's production of autos and electronics in the second quarter. The impact was felt less in Indonesia and Viet Nam.

In 2012, Southeast Asia is forecast to grow by 5.6% (also trimmed from *ADO 2011*). The forecast pace of growth has been revised down slightly from *ADO 2011* for Cambodia, the Lao PDR, Malaysia, the Philippines, Thailand, and Viet Nam, mainly owing to downgrades in prospects for major trading partners. The forecast is bumped up for Indonesia and kept unchanged for Singapore.

Inflation accelerated across the subregion in the first half of 2011,





Source: Asian Development Outlook database.

largely reflecting higher commodity and food prices. Core inflation rose in many countries, prompting central banks to tighten monetary policy through increases in policy interest rates (Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam), reserve requirements (the Philippines); the exchange rate (Singapore); and curbs on credit growth (the Lao PDR and Viet Nam). Fiscal policy tightened in the Philippines and Viet Nam in the first 6 months.

In the second half of 2011, some softening of global commodity and food prices will help to curb inflation, as will exchange rate appreciation against the US dollar. Still, several countries are seeing pressures on prices from increasing capacity utilization (particularly Indonesia, the Philippines, Singapore, and Thailand) and from short-term capital inflows (Indonesia, the Philippines, Malaysia, and Thailand). The latter pressures complicate macroeconomic management.

Inflation forecasts for 2011 are edged up for six countries, although the subregional projection is only a touch higher than April's, reflecting a lowered forecast for Indonesia. In 2012, subregional inflation is seen decelerating by about 1 percentage point, as global oil and food prices soften (Figure 3.1.11). (Inflation in Viet Nam may well stay in double digits.)

Moderation in external demand, coupled with the upward impact on imports of rising domestic demand and higher costs of imported oil and commodities, point to a decline in the subregion's current account surplus in 2011 (the projection is unchanged from *ADO 2011*) (Figure 3.1.12). The forecast for 2012's surplus is lowered a little, mainly owing to downgrades for the Philippines and Viet Nam.

In Myanmar, a steep appreciation of the kyat against the US dollar in the unofficial market has eroded local-currency earnings from agricultural exports, tourism, and remittances. Forecasts for economic growth are lowered slightly from April and the current account deficit is expected to be wider than previously anticipated,

### **Country highlights**

### Indonesia

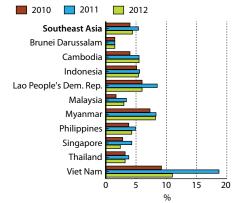
Powered by stronger investment, solid growth in private consumption, and robust exports, GDP grew by 6.5% in the first half of 2011. Fixed investment rose by 8.3%, despite weakness in government capital expenditure, and private consumption grew by 4.5%, buoyed by higher employment, lower food prices, and improving consumer confidence. Net exports also contributed to overall growth.

Services generated most of the GDP growth from the production side. Manufacturing, mainly automobiles, faced some input shortages after the earthquake in Japan, but the impact was brief and the sector contributed to overall growth. Better weather helped agriculture but oil production fell in the first half.

Reflecting international confidence in the economy, portfolio and foreign direct investment inflows remained substantial, with the latter surging to \$10 billion, the highest in a decade. Ratings agencies upgraded the country's foreign currency debt ratings during the first 6 months.

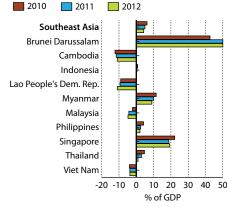
Government budget disbursement is projected to increase in the second





Source: Asian Development Outlook database.

## 3.1.12 Current account balance, Southeast Asia



Source: Asian Development Outlook database.

3.1.22 Selected economic indicators, Indonesia (%)				
	20	)11	20	12
	ADO	Update	ADO	Update
	2011		2011	
GDP growth	6.4	6.6	6.7	6.8
Inflation	6.3	5.6	5.8	5.4
Current acct. bal. (share of GDP)	0.5	0.4	0.1	0.1
Source: ADB estimat	tes.			

half of 2011. Furthermore, consumer confidence in July was at its highest in 18 months. Most important, the outlook for investment has improved, with the government planning increases in outlays on infrastructure, addressing long-running land acquisition problems, and providing more tax breaks for investment. Foreign investment inflows have increased and bank lending to businesses has expanded robustly this year. Largely on these factors, forecasts for GDP growth are edged up for this year and next.

A good harvest and the suspension of import duties on some food items paved the way for food prices to decline in the first 8 months of this year, taking inflation from 7.0% in January to 4.8% in August (although core inflation remained elevated). The central bank raised its policy rate in February 2011, but kept it unchanged as inflation abated. Food prices are expected to ease further in the second half and into 2012. Forecasts for inflation are lowered for both years.

Current account surpluses for 2011 and 2012 will be smaller than foreseen in *ADO 2011*, reflecting higher volumes and prices of imports as well as greater corporate profit repatriation. The overall balance-ofpayments surplus is projected to remain strong, supported by strong capital inflows, but their potential—possibly sudden—reversal poses a risk to the outlook. The capital inflows were factors in a 5% appreciation of the rupiah against the US dollar in the first 8 months of this year.

### Malaysia

A weaker external environment contributed to lower than expected 4.4% GDP growth in the first 6 months. Private consumption rose by 6.6%, benefiting from a firm labor market, generally positive consumer sentiment, and favorable prices for agricultural commodities. Fixed investment was kept to 4.7% growth by a decline in public investment.

By sector, services contributed nearly all the GDP growth, reflecting the buoyant private consumption. Manufacturing growth was undermined by weakness in external demand for electronics and production disruptions to electronics and automobiles from the disaster in Japan. Oil production fell (partly due to shutdowns for maintenance) and construction growth was subdued by delays in infrastructure projects.

Alhough downside risks have increased following heightened uncertainties in the external environment, growth in the second half of the year is projected to accelerate, boosted by sustained private consumption, strong private investment, and a faster implementation of public projects. Still, the growth projection for 2011 is lowered relative to *ADO 2011* owing to the weaker than expected first-half outcome and downward revision in the growth for major industrial countries.

Growth is seen gathering pace in 2012, when construction of government-backed projects is expected to pick up, stimulating private investment as well. The better performance assumed for major industrial economies will help, too. The forecast for growth next year is trimmed from *ADO 2011*, though.

Inflation rose from 2.2% in December 2010 to 3.5% in June, mirroring the ascent of global fuel and food prices. Despite some monetary tightening earlier in the year, inflation is seen moving up further, so that the projection for 2011 is raised from *ADO 2011*. Exchange rate

### 3.1.23 Selected economic indicators, Malaysia (%) 2011 2012 ADO Update ADO Update 2011 2011

	2011		2011		
GDP growth	5.3	4.8	5.3	5.1	
Inflation	3.0	3.4	3.0	3.0	
Current acct. bal. (share of GDP)	10.0	10.0	9.0	9.0	
Source: ADB estimates.					

appreciation against the US dollar and lower global prices for oil and food in 2012 are expected to bring down inflation next year.

The current account surplus is still expected to decline slightly during the forecast period, reflecting moderate export growth and sustained private consumption and investment, which will draw in higher imports. Net portfolio inflows more than doubled in the first 6 months of 2011, and the overall balance of payments recorded a large surplus. Supported by the capital inflows and the strong external accounts, the ringgit appreciated by 3.5% against the US dollar in the first 8 months.

### Philippines

Growth in the first half of the year was hampered by weaknesses in exports and government spending, though private consumption and private investment remained robust. Consumption benefited from a strengthening labor market and substantial—though slowing remittances from overseas workers. Growth in private investment came mainly from construction and new machinery and equipment. After exceptional expenditures in 2010 linked to national elections and typhoons, public investment moderated and public construction was sharply curtailed.

On the supply side, growth in January–June was led by services, especially real estate and business process outsourcing. Exports recorded weak growth, weighed by a decline in the shipment of electronic products, including semiconductors, reflecting supply-chain disruptions from the earthquake in Japan and weakness in global demand for semiconductors.

Government expenditure fell short of target by nearly 17% in the first half, which contributed to a marked narrowing of the fiscal deficit. In the second half of 2011, the government has stepped up public spending; growth looks set to be sustained in both private consumption and investment. The forecast for GDP for the whole year is, however, lowered slightly from April because of the weaker than expected first-half outcome and the deteriorating outlook for major industrial economies. Next year, growth is forecast to step up as investment gathers momentum and external demand improves somewhat.

Higher costs of fuel and food were the main reasons for inflation rising to an average of 4.8% in first 8 months of 2011 (using a new 2006based consumer price index). The acceleration induced the central bank to raise its policy interest rate twice in the first half of the year. The full-year forecast is maintained from April and inflation is still seen declining in 2012, as global food and fuel prices soften.

Imports increased much faster than exports in the first half—partly owing to high global oil prices—and the merchandise trade deficit widened. Current account surpluses are projected for this year and next, mainly from business process outsourcing earnings and remittances. Yet the surpluses will be smaller than projected in April owing to the weakness of exports coupled with the steeper cost of imports. Net portfolio inflows remained relatively strong in the first half, supporting the peso (which appreciated by about 3% against the US dollar) as well as domestic stock and bond markets. International reserves rose to high levels (\$71 billion), representing nearly 11 months of imports of goods and services.

3.1.24 Selected economic indicators, Philippines (%)				
	20	)11	2012	
	ADO 2011	Update	ADO 2011	Update
GDP growth	5.0	4.7	5.3	5.1
Inflation	4.9	4.9	4.3	4.3
Current acct. bal. (share of GDP)	4.1	2.5	3.9	2.1
Source: ADB estimat	tes.			

### Singapore

Robust private consumption and an increase in net exports drove GDP growth of 4.9% in the first half of 2011. Private consumption grew by 6.3% and contributed nearly half the overall GDP growth. It was underpinned by a buoyant labor market (employment expanded and the unemployment rate fell to 2.1%). Net exports also made a large contribution to overall growth.

Services performed strongly, especially in finance and tourism (arrivals rose by 15%), and accounted for most of the GDP growth on the production side. Manufacturing weakened sharply in the second quarter, largely due to a softening in global demand for semiconductors and a steep (but temporary) fall in output of biomedical products. For the first 6 months, the contribution to overall growth from manufacturing was 1.1 percentage points. Construction recorded modest growth in that period.

After a pullback in GDP growth to just 0.9% in April–June from 9.3% in January-March, the economy is expected to pick up in the second half. Biomedical production is projected to recover and the services stalwarts of finance and tourism remain buoyant (they are largely driven by Asian demand). GDP growth is seen easing to around its long-run trend in 2012. Forecasts are unchanged from *ADO 2011*. Substantial current account surpluses are still projected for both years.

Inflation, fueled by higher costs of transport and housing, accelerated in the first half, averaging 5.0%. That prompted the Monetary Authority of Singapore to recenter its exchange rate policy band upward in April, signaling more room for the Singapore dollar to strengthen (it appreciated by about 5% against the US dollar over the first 6 months).

Although inflation is expected to ease in the second half of this year, the 2011 forecast is raised because of the stronger than anticipated price pressures earlier in the year and high rates of resources utilization, including a tight labor market. Inflation is seen decelerating in 2012, but will likely be a bit higher than previously forecast.

### Thailand

Headwinds in the first half of 2011 held GDP growth to a modest 2.9%. Rising inflation constrained consumer spending, public investment fell, and manufacturing faced supply-chain disruptions stemming from the earthquake in Japan. On the supply side, growth came mainly from services, spurred by a sharp rise in tourist arrivals, and higher agricultural output, recovering from drought and pest infestations in 2010.

Manufacturing output was hurt by a shortage of components from Japan due to the earthquake, particularly for the automobile and hard-disk drive industries.

Growth is seen picking up in the second half. Consumer confidence rose after national elections in July went smoothly. The new government has indicated that fiscal policy will be more expansionary. Moreover, business sentiment is positive and the impact of supply-chain disruptions has abated.

The growth projection for 2011 is lowered from *ADO 2011* because of the modest first-half outcome and the downgrade of growth assumptions for major industrial economies. Next year, the economy is seen picking

3.1.25 Selected economic indicators, Singapore (%)				
	20	)11	2012	
	ADO	Update	ADO	Update
	2011		2011	
GDP growth	5.5	5.5	4.8	4.8
Inflation	3.2	4.3	2.0	2.4
Current acct. bal.	18.8	18.8	19.2	19.2
(share of GDP)				
Cource: ADP actima	tor			

Source: ADB estimates.

3.1.26 Selected economic indicators, Thailand (%)					
	20	)11	2012		
	ADO 2011	Update	ADO 2011	Update	
GDP growth	4.5	4.0	4.8	4.5	
Inflation	3.5	3.8	3.0	3.2	
Current acct. bal. (share of GDP)	2.0	3.0	1.0	1.0	
Source: ADB estima	tes.				

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up momentum, on the assumption that the new government carries out proposed spending programs and minimum-wage increases and that growth in world trade quickens. Nevertheless, the forecast growth rate for 2012 is reduced from *ADO 2011*.

Rising prices for food and fuel pushed inflation up over the first 8 months, to 4.3% in August. Consequently, the monetary authorities raised the policy interest rate six times (though it is still below inflation). Forecasts for inflation are edged up for 2011 and 2012.

Improved earnings from services, notably tourism, lifted the current account surplus in the first half, even though the trade surplus fell. The forecast for the current account surplus is revised up for 2011 and kept unchanged for next year.

### Viet Nam

Policy tightening to curb inflation and stabilize the external position damped economic growth in the first half of 2011, when GDP rose by 5.6%. Reductions in government investment and curbs on credit for real estate cut growth in construction and the Japanese earthquake temporarily disrupted supplies of some manufacturing components. Retail sales started to sag under the weight of very high inflation. Still, industrial production, excluding mining rose by a brisk 7.0%.

Growth in the second half is expected to get some lift from a pickup in government budget disbursement and increases in minimum wages, which will bolster private consumption. However, the forecast for the year as a whole is revised down from *ADO 2011*, owing to the damping impact of higher than expected inflation and consequent policy tightening, coupled with the deterioration in the outlook for major industrial economies. Next year, growth is projected to strengthen as inflation eases and a more stable domestic macroeconomic environment kindles investor and consumer confidence.

Inflation accelerated sharply in the first half of 2011, reaching 23.0% year on year in August. It was driven by a steep rise in food prices and hikes in administered prices of fuel and electricity, rapid credit growth in 2010, and the lagged effects of exchange rate devaluations against the US dollar.

Responding to high inflation and dwindling foreign reserves, the government in February 2011 adopted a package of measures that includes curbs on growth of money supply and credit, increases in policy interest rates, and reductions in public spending and investment. Inflation is expected to ease during the second half of this year—as food prices level off and policy measures begin to bite—but to remain relatively high through this year and next. Forecasts for both years are raised from *ADO 2011*.

As a result of buoyant exports—including commodities, clothing and footwear, seafood, and electronic goods—moderating import growth, and higher tourism earnings and remittances, the current account deficit narrowed in the first half of 2011. For the full year, the deficit is now projected to narrow to 3.7% of GDP, and to remain at around that level in 2012. Foreign exchange reserves rose in the first 6 months of this year but remain low at about 2.1 months of import cover.

A premature easing of fiscal and monetary policies would risk

Viet Nam (%)					
	20	)11	2012		
	ADO	Update	ADO	Update	
	2011		2011		
GDP growth	6.1	5.8	6.7	6.5	
Inflation	13.3	18.7	6.8	11.0	

-3.7

-3.6

-3.7

3.1.27 Selected economic indicators

(share of GDP) Source: ADB estimates.

Current acct. bal. -3.8

derailing the macroeconomic stabilization efforts. It would likely keep inflation high for longer and could cause the external accounts to deteriorate.

### Other economies

### Cambodia

Prospects for this economy have improved owing to stronger than expected growth in clothing exports to the US in the first half of 2011 (up by 23% in value), steady gains in tourism (arrivals rose by 13% in the first half) and uptrend in rice exports. The forecast for GDP growth this year is edged up from ADO 2011. Next year, economic growth is seen easing due to a deceleration in garment exports

The surge in international fuel and food prices in the first half of 2011 took inflation from 3.3% year on year in January to 7.1% in July. The forecast for average inflation in 2011 and 2012 is kept at 5.5%.

Latest revised data indicate the current account deficit (excluding grants) was 12.3% of GDP in 2010, slightly wider than estimated previously, owing to higher imports. Forecasts for the current account deficit are revised up for this year and next.

### Lao People's Democratic Republic

Higher electricity production and mining output, alongside improved tourism and construction activity, are driving growth in 2011. Two major projects-operations at the Nam Theun 2 hydropower plant and construction of the Hongsa coal-fired power plant-are making full-year contributions to GDP for the first time. The Phu Bia and Sepon copper and gold mines have expanded production capacity this year and other projects are getting under way.

GDP growth this year is now projected to be stronger than foreseen in April. Growth is forecast to decelerate in 2012, when mining and power generation are likely to show more moderate expansion.

The value of exports is boosted by high global prices for minerals and gains in electricity exports. However, the robust economic growth is drawing in imports of consumer and capital goods, so that deficits in the current account are now forecast to be wider than previously anticipated.

Inflation accelerated to 9.0% in April year-on-year and stayed around that level through August, mainly owing to faster-than-expected increases in food prices. While some seasonal moderation is expected in the fourth quarter from higher food production, the forecast for inflation is raised for 2011. Price pressures are seen easing in 2012 as economic growth moderates and global prices of food and fuel ease.

### Myanmar

Currency appreciation has eroded growth prospects by reducing the local currency value of agricultural exports, tourism, and remittances. The exchange rate of the kyat on the unofficial market appreciated to about MK750/\$1 in July 2011 from MK830/\$1 in January 2011 (it was MK1,000/\$1 in January 2010). Contributory factors include inflows of foreign investment into energy and energy pipelines, as well as increased export

#### 3.1.28 Selected economic indicators, Cambodia (%) 2011 2012 ADO Update ADO Update 2011 2011 GDP growth 6.5 6.8 6.8 6.5 5.5 5.5 5.5 5.5 Inflation Current acct. bal. -10.7 -11.6 -10.2 -11.0

(share of GDP) Source: ADB estimates.

3.1.29 Selected economic indicators, Lao People's Democratic Republic (%)				
	2011			12
	ADO	Update	ADO	Update
	2011		2011	
GDP growth	7.7	8.1	7.8	7.6
Inflation	6.5	8.5	6.0	6.0
Current acct. bal. (share of GDP)	-9.0	-9.4	-10.0	-11.0
Source: ADB estimat	tes			

3.1.30 Selecte Myanmar (%)	d econo	mic ind	icators	2
	20	2012		
	ADO	Update	ADO	Upda
	2011		2011	
GDP growth	5.5	5.3	5.5	5.4
Inflation	8.0	8.3	8.0	8.2

-4.1

-4.3

-4.7

-4.8

Source: ADB estimates.

Current acct. bal.

(share of GDP)

earnings from gas, gems, and jade. Privatization of government properties and enterprises also increased demand for kyat.

Beyond curtailing income in kyat for agricultural exports (mainly beans, pulses, rice, logs, and fish), the currency appreciation cuts into exporters' profits, and is likely to reduce shipments. It also lowers the value in kyat of tourism receipts and remittances from workers abroad, denting consumer spending. Forecasts for GDP growth this year and next are lowered slightly from *ADO 2011*.

External current account deficits are now projected to be wider than previously anticipated. Inflation in the first half of 2011 averaged nearly 8%, with no apparent reduction in retail prices from currency appreciation. Forecasts for inflation are raised a touch from *ADO 2011*.

## The Pacific

### Subregional assessment and prospects

Growth remains driven by the subregion's resource-rich economies. The oil-exporting economies of Papua New Guinea and Timor-Leste are still expected to grow this year by 8.5% and 10.0%, respectively, boosted by the higher average international oil price and, in the case of the former, strengthened investment and employment associated with construction of resource projects. These two economies account for over 60% of economic output of the 14 developing member countries in the Pacific. Growth is also projected to accelerate this year in Solomon Islands, to 7.5%, driven by increased logging and resumed gold mining.

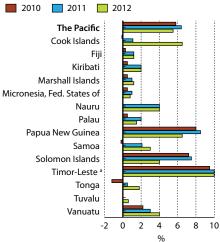
Forecasts for aggregate growth are raised slightly to 6.4% in 2011 and to 5.5% in 2012 (Figure 3.1.13), owing to a modest improvement in the outlook for Fiji. Fiji's upgrade for 2011 outweighs downgrades in growth forecasts for Cook Islands and Vanuatu.

The outlook for continued solid growth in resource-rich economies inflates subregional growth and masks economic stagnation in those with more limited natural resources. These other economies are expected to experience average GDP growth of just 1.5% in 2011, rising to 1.9% in 2012. Growth in relatively well-endowed Fiji remains disappointing, even with an upgrade in its outlook.

Less resource-rich countries rely on tourism, fisheries, overseas workers' remittances, development assistance, and a handful of other revenue generators. Tourism to the main destinations in the Pacific from the primary markets of Australia and New Zealand grew by 7% in the first half of 2011, but this was slower than the 20.2% growth in the prioryear period. Inflows of remittances, hit hard by reduced economic activity in some host countries, are still well below levels seen before the global financial crisis, particularly in Samoa and Tonga.

The Pacific has been relatively unaffected by the uncertainty created by the sovereign debt problem in the eurozone and lingering slowdown in the US. This is attributable to the subregion's stronger economic links to the Australian and New Zealand economies. Australia has enjoyed more robust performance than other developed economies and is buoyed by the continuing growth in the PRC. Further, global

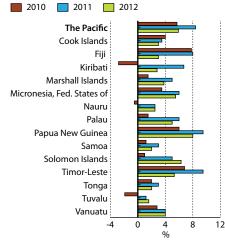




ª non-oil GDP.

Source: Asian Development Outlook database.

### 3.1.14 Inflation, the Pacific



Source: Asian Development Outlook database.

developments tend to affect the Pacific after some delay, due to the subregion's remote location and relatively limited integration with global financial markets.

The subregional inflation forecast for this year is revised up by nearly 2 percentage points to 8.4% (Figure 3.1.14), primarily because of stronger inflation in the expanding resource-rich economies. Higher than expected rises in international prices for food, fuel, and other commodities in 2011 are raising price levels in the subregion more broadly. In 2012, inflation is seen easing to 5.9%, on the assumption of moderating prices for oil and commodities.

Inflation projections for Papua New Guinea are raised to 9.5% in 2011 and to 8.0% in 2012 as increased investment and spending, exacerbated by bottlenecks in transport and construction, put upward pressure on prices. For Fiji and Timor-Leste, the 2011 inflation forecasts are revised up, mainly because food and fuel price increases have been higher than expected. The smaller, more remote, and heavily import-dependent economies are also particularly sensitive to rising international food and fuel prices. Inflation in 2011 is projected to be higher than previously forecast for the Federated States of Micronesia, Palau, and Solomon Islands, but slightly lower in Vanuatu.

Higher global prices of oil and other commodities are also causing at least short-term declines in terms of trade and trade balances for those Pacific economies that have limited exports. However, income from offshore petroleum operations continues to support Timor-Leste's strong external surplus (Figure 3.1.15). Papua New Guinea's current account has turned to a deficit in recent years mainly owing to construction of resources projects that require costly imports of equipment, funded by foreign investment. Elsewhere in the subregion, current account deficits prevail, and will widen in some economies as their food and fuel import bills are inflated by higher international prices.

### **Country highlights**

### Fiji

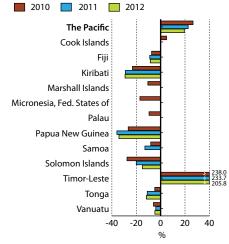
The outlook for growth has improved somewhat owing to better than expected performances in tourism and exports this year. The number of departures to Fiji from Australia and New Zealand, two major sources of tourists, rose by 8.6% (or 186,737 additional arrivals) in the first half of 2011 from record levels in the prior-year period. Export receipts grew by 2.1% in the first half, in part reflecting growth in reexports to other Pacific islands. Although data are scarce, there were indications of a pickup in export-oriented fisheries, mineral water, sugar, and taro.

Weakness in other indicators suggests that growth is uneven. For example, tariff increases for electricity resulted in a 3.0% decline in power generation in June. Commercial bank lending that month fell by 9.0%, and the number of job vacancies advertised in June fell by 5.1% (all yearon-year changes).

The central bank lowered its policy interest rate in February 2011 and again in April, by a total of 1 percentage point to 1.5%, to support the economic recovery.

On these factors, the forecast for GDP growth this year is revised

### 3.1.15 Current account balance, the Pacific



Source: Asian Development Outlook database.

3.1.31 Selected economic indicators, Fiji (%)				
	2011			12
	ADO	Update	ADO	Update
	2011		2011	
GDP growth	0.5	1.2	0.8	1.2
Inflation	4.0	8.0	3.0	3.0
Current acct. bal. (share of GDP)	-2.2	-8.9	-2.1	-8.5
Source: ADB estima	tes.			

up, and a similar modest growth rate is now expected for 2012. Stronger growth than this would depend on boosting investment, particularly from the private sector (private investment is roughly equivalent to 3% of GDP). This would require improvements to the overall business climate. Public investment is constrained by high public debt and by capacity limits in carrying forward public works projects.

Inflation this year is revised up significantly owing to higher global prices for imported food and fuel as well as domestic goods and services. In 2012 it is expected to ease to about 3% (a forecast unchanged from *ADO 2011*), as the effects fade of a January 2011 increase in the value-added tax and global oil and commodities prices level off.

The government raised \$250 million in March 2011 from a 5-year international bond issue (paying interest at 9.0%), to refinance existing debt and support capital investment. The issue increased total debt to the equivalent of 60% of GDP, excluding government contingent liabilities estimated at about one-third of GDP.

The deficit in the current account is now projected to be much wider than it was in *ADO 2011*, and should stay largely unchanged in 2012. Foreign reserves increased to \$886 million at mid-2011 (equal to 4.7 months of import cover), mainly owing to the bond issue.

### Papua New Guinea

Strong global demand for agricultural commodities, oil, and metals are driving growth in this economy, coupled with investment in construction of a \$15 billion liquefied natural gas (LNG) plant and other, smaller resource projects.

Economic growth in the first half of 2011 was supported by increases in business sales, private employment, and government spending.

The forecasts for GDP growth in 2011 and 2012 are maintained—a slight pickup from 2010 and then some deceleration. New mines are scheduled to start production during the forecast period, although the impact on growth will be partly offset by declining production at existing oil and gas facilities and the phasing down of the large Ok Tedi copper and gold mine, scheduled to close in 2014.

Increasing capacity constraints, coupled with rising prices for imported food and commodities, caused inflation to accelerate to 9.0% year on year in the first 3 months of 2011. The quarter-on-quarter increase at 3.1% was the sharpest since 2008. In response to rising inflation, the central bank raised its kina facility interest rate in June 2011, and again in July, by a total of 50 basis points to 7.5%. However, bank liquidity remains high and, despite heavy issuance of central bank securities, short-term money market rates have remained low (generally at 2.5%–3% since mid-2010), with negative real interest rates on government securities and on deposits.

Capacity constraints largely reflect construction of the LNG project, scheduled to start production in 2014, and spillover effects from this major project. For example, employers report shortages of skilled labor, and port and construction companies are operating at close to full capacity. Supply responses are often delayed by bottlenecks and institutional constraints, such as access to land for housing and infrastructure development.

In light of stronger than expected price pressures, the inflation

### 3.1.32 Selected economic indicators, Papua New Guinea (%)

	2011		2012		
	ADO	Update	ADO	Update	
	2011		2011		
GDP growth	8.5	8.5	6.5	6.5	
Inflation	8.0	9.5	7.5	8.0	
Current acct. bal. (share of GDP)	-35.9	-35.9	-34.2	-34.2	
Source: ADB estimates.					

forecast for 2011 is raised a little, and marginally so for 2012. Inflation is expected to decline in 2012 as a result of the forecast softening in both domestic economic growth and in global commodity prices, assisted by the tighter monetary conditions. As for fiscal policy, the government had targeted a balanced budget this year (excluding drawdowns from trust funds), but stronger growth in first-half revenue means it now expects a fiscal surplus, equivalent to about 2% of GDP.

The external current account deficit is projected to widen in 2011 and stay at around that rate next year, primarily due to imports related to resource projects, particularly the LNG project. The deficits will be financed mainly through foreign direct investment. Gross foreign exchange reserves rose to \$3.7 billion at mid-2011, equivalent to about 1 year of import cover.

The appointment of a new government in August 2011, as well as national elections expected in 2012, have engendered some uncertainty about policies through the forecast period.

### Democratic Republic of Timor-Leste

Government spending, funded mainly by income from offshore petroleum production, continues to drive rapid growth in this economy. The government has budgeted to boost its own-funded spending this year by half, to \$1.3 billion.

Slightly more than half of the own-funded expenditure in the first 6 months of 2011, and 93% of capital expenditure, was invested in a new electricity generating plant, transmission network, and distribution systems, scheduled to start operation in late 2011. This project will lower the unit cost of power and greatly expand the coverage of electricity (only around one-fifth of rural households used electricity as their main source of lighting in 2010).

Economic activity generated by high levels of public spending appears to be stimulating private investment. Bank lending to the private sector rose by 8.4% over the first 5 months of 2011, after 5 years of almost no change. GDP—excluding offshore petroleum production and the United Nations (UN) peacekeeping mission—is still expected to show a solid gain in both years.

Inflation has been higher than forecast, largely a result of the rise in global commodity prices, exacerbated by a depreciating US dollar (also the currency of Timor-Leste). Inflation stepped up to 13.5% in May, year on year, in a fourth consecutive month of double-digit increases. Prices of meat and edible oils jumped by about 20% in the 12 months to May 2011 and vegetable prices rose by a third in this period.

The forecast for inflation in 2011 is raised somewhat. Moderating global commodity prices are still expected to bring it down to the earlier forecast in 2012.

Income from petroleum is projected to underpin continued high current account surpluses, exceeding 200% of nonpetroleum, non-UN GDP this year and next.

The nation's Petroleum Fund is projected to rise from \$7.7 billion in 2011 (around 10 times nonpetroleum, non-UN GDP) to \$18.3 billion in 2020 and further to \$22.9 billion in 2030, after taking into account withdrawals to fund government spending and public investment.

### 3.1.33 Selected economic indicators, Timor-Leste (%)

	2011		2012	
	ADO	Update	ADO	Update
	2011		2011	
GDP growth	10.0	10.0	10.0	10.0
Inflation	7.5	9.5	5.3	5.3
Current acct. bal. (share of GDP)	233.7	233.7	205.8	205.8

Source: ADB estimates.

Generation of productive employment remains a key issue. The 2010 census shows unemployment at 9.8% of the workforce, with a jobless rate of 16.7% in urban areas, as people move out of agriculture.

The government adopted a Strategic Development Plan in July 2011, aiming to eradicate extreme poverty by 2030. The plan projects annual average growth in the nonpetroleum economy of 11.3% through 2020, and subsequently through 2030 of 8.3% under a moderate-growth scenario (or 11.2% in a high-growth scenario for 2021–2030). It foresees growth led by the public sector until about 2020, by which time the government hopes that private activity will drive development.

### **Other Pacific economies**

### Samoa

Better performance in tourism and remittances, coupled with reconstruction after a tsunami in September 2009, supported modest economic growth in FY2011 (ended 30 June 2011).

Earnings from tourism rose by 2.9% in FY2011, stemming from a 0.6% increase in arrivals and higher average visitor spending. Remittances increased by 6.4% in the fiscal year. The modest economic recovery was reflected in credit growth of 1.0% in the fiscal fourth quarter from the prior-year period.

Recovery was, however, patchy, reflected in declines in both exports and imports. Total export earnings fell by 18% in FY2011, mainly on weakness in fresh fish, coconuts and coconut oil, taro, and soft drinks. Imports fell by 13% in the fiscal year.

Economic growth is still forecast to edge up in FY2012, based on expectations of further gains in tourism and remittances as well as of some recovery in manufacturing.

Inflation quickened to 2.9% in June 2011, mainly due to higher prices for imported food. In FY2012, inflation is forecast to ease to 2.0%, brought down by an expected increase in domestic food supplies and moderation in oil prices.

A widening in the trade deficit contributed to a 13.1% decline in gross foreign reserves to \$158.4 million, sufficient to cover 6.4 months of imports. Poverty remains the main concern. The proportion of the population living below the poverty line increased to 26.7% in 2008 (the latest available data) from 15.0% in 1997.

### Solomon Islands

Export-oriented resources industries have performed well so far in 2011. Log exports jumped by 49% in volume terms in the first 5 months, reflecting higher log prices and the entry of new logging companies. Exports of cocoa increased by 29% and palm oil production rose by 15% in May, year on year. Production of gold is increasing since the Gold Ridge mine reopened in March 2011.

GDP is still forecast to climb a little in 2011 relative to a revised 7.2% expansion in 2010, when increases were recorded in logging, copra, palm oil, cocoa, and fisheries. A second-quarter 2011 survey of business expectations, which shows a more upbeat outlook than a year earlier, supports the prospects of solid growth.

3.1.34 Selected economic indicators, Samoa (%)				
2011 2012				
	ADO 2011	Update	ADO 2011	Update
GDP growth	2.1	2.1	3.0	3.0
Inflation	3.0	3.0	2.5	2.0
Current acct. bal. (share of GDP)	-12.9	-12.9	-	-
Source: ADB estimates.				

Selected eco n Islands (%)		c ind	icators	,	
	2011		20	)12	
10	~	1	400		

	ADO	Update	ADO	Update
	2011		2011	
GDP growth	7.5	7.5	4.0	4.0
Inflation	4.2	5.0	6.3	6.3
Current acct. bal. (share of GDP)	-15.0	-20.0	-15.0	-15.0
Source: ADB estima	tes.			

In 2012, GDP growth is forecast to moderate as logging output subsides from unsustainably high levels. Gold production will likely continue to rise, albeit more slowly than in 2011.

Inflation accelerated to 7.2% year on year in June 2011, driven by higher prices for imported fuel and increases in power and water utility charges. The forecast for average inflation in 2011 is put up, owing to higher than expected price increases for energy and water in the first half. The central bank raised the exchange rate of the Solomon Islands dollar by 5.0% against the US dollar in June 2011, which will assist in combating price pressures. Inflation is forecast to edge up to just over 6% next year as domestic demand continues to grow.

The government reported a small fiscal surplus for the first quarter of this year, reflecting robust growth in revenue and restrained expenditure. Government debt, both domestic and external, is expected to fall to 20% of GDP in 2011 from 24% in 2010.

Solid gains in exports in the first 3 months of 2011 contributed to a narrowing of the current account deficit, although imports also rose due to increased purchases of fuel, machinery, and transport equipment, particularly for logging and the gold mine. For full-year 2011, the current account deficit is projected to narrow from a revised 27.6% in 2010. Foreign reserves rose to 10 months of import cover in August 2011.

In 2012 the current account deficit is forecast to contract further because of rising gold exports and lower imports of equipment for goldmining and forestry operations.

### Tonga

Recovery was hampered by sluggish business activity and a 12.7% decline in remittances in FY2011 (ended 30 June 2011). GDP is estimated to have increased marginally, driven mainly by development partner-funded construction.

This slight gain was an improvement on the previous 2 years, when GDP contracted because of constrained government spending and weakness in remittances, tourism, and exports. A tsunami hit some areas in September 2009, making matters worse. Credit to the private sector has declined over much of the past 2 years.

Bad weather in early 2011 hurt exports of agricultural products, and total export earnings fell by 19% in the third quarter of FY2011. Imports, in contrast, rose by 15% in that quarter partly on higher global food and fuel prices. Net capital inflows more than offset the current account deficit. Foreign reserves rose to the equivalent of 7.4 months of goods imports by the end of the fiscal year, reflecting receipts of foreign aid, as well as weak domestic demand and tight credit.

GDP growth is still forecast to pick up in FY2012, on the basis of increased funding from development partners for public works and expected better outturns in tourism and remittances.

Inflation is seen decelerating in FY2012, as global prices of food and fuel moderate, supported by appreciation of the Tongan pa'anga against the US dollar in 2011.

The fiscal deficit is projected to narrow to about 3% of GDP in FY2012, from 7.5% in FY2011, largely because of budget support from development partners. To continue improving the fiscal position, the government would

3.1.36 Selected economic indicators, Tonga (%)				
2011 2012				
	ADO	Update	ADO	Update
	2011		2011	
GDP growth	0.5	0.5	1.8	1.8
Inflation	3.0	3.0	2.0	2.0
Current acct. bal. (share of GDP)	-	-11.0	-	-11.7
Source: ADB estimates.				

have to abstain from new borrowing, cut recurrent spending (especially government wages), and improve tax administration and collection.

### Vanuatu

Tourism, a major contributor to this economy, performed poorly early in the year: visitor arrivals fell by 9% in the first 5 months. Weak bookings and the cancellation of Pacific Blue's direct flights between Port Vila and Sydney in May suggest the subdued performance will continue.

As for public works, another source of growth, major road projects scheduled for 2011 may be delayed.

After about a decade of relative political stability, Vanuatu has seen four changes of prime minister since December 2010; national elections are expected in 2012. Given this uncertainty, and the performance of tourism, the GDP growth forecast for 2011 is lowered (still up from 2010, when GDP growth is put at a revised 2.2%). That for 2012 is maintained, but is subject to downside risks.

The inflation outlook for this year is now trimmed in light of lower than expected inflation in the first half, and a similar rate is projected for 2012.

A small fiscal deficit of around 1% of GDP is expected in 2011. Public debt has been stable relative to GDP at around 20% in recent years owing to fiscal consolidation and nearly a decade of solid economic growth.

The external current account deficit is expected to narrow slightly in 2011 (from a revised 5.9% in 2010), owing to higher export prices and increased production of copra, coconut oil, and beef.

### Small island states

The Cook Islands' economy grew by an estimated 1.1% in FY2011 (ended 30 June 2011), picking up from the previous fiscal year but below the forecast in *ADO 2011*. Tourist arrivals from New Zealand, the main source, rose in the first quarter of 2011, although arrivals from Australia, Europe, and the US all fell. Economic growth is expected to accelerate to 6.5% in FY2012, on the back of a program to expand air services and increase tourism promotion. Inflation averaged an estimated 3.5% in FY2011, and is expected to ease to 3.0% in FY2012.

Growth projections for Kiribati, the Republic of the Marshall Islands, the Federated States of Micronesia (FSM), Nauru, and Palau are unchanged from *ADO 2011*. Kiribati is expected to post 2.0% growth in both 2011 and 2012, based on public infrastructure projects funded by development partners.

The economies of the Marshall Islands and the FSM are seen growing by about 1% in FY2011 (ending 30 September 2011) and at similar modest rates in FY2012. An upgrade of the Amata Kabua International Airport runway in Majuro will support growth in the former and infrastructure projects will underpin activity in the latter.

For Nauru, GDP growth is estimated at 4.0% in FY2011 (ended 30 June 2011). Repairs to damaged port facilities have allowed exports of phosphate to resume on a limited scale, but a lack of reliable power has hampered shipments. The economy is projected to expand at about 4% in 2012, too.

The growth outlook for Palau is maintained at 2.0% for FY2011 (ending 30 September 2011) and 1.5% in FY2012. Tourist arrivals from

3.1.37 Selected economic indicators, Vanuatu (%)				
2011 2012				
	ADO	Update	ADO	Update
	2011		2011	
GDP growth	4.2	3.0	4.0	4.0
Inflation	5.0	4.0	4.0	4.0
Current acct. bal. (share of GDP)	-3.8	-4.0	-4.7	-4.7
Source: ADB estimates.				

Japan and Taipei, China showed healthy gains in the first half of the fiscal year. The addition of Delta Airlines as a scheduled carrier from Tokyo to Palau in December 2010 paves the way for further growth in tourism.

Tuvalu's economy is still projected to remain flat in 2011 as the government reduces spending to ensure longer-term fiscal sustainability. The growth forecast for 2012 is revised up slightly to 0.6% as public works financed by development partners are expected to start.

These smaller and more remote economies are particularly vulnerable to swings in global fuel prices. Higher than expected prices of fuel and other commodities have led to upward revisions in inflation forecasts for the FSM and Palau both this year and next, and for Kiribati in 2012.

# **Bangladesh**

Growth in FY2011 was better than projected in *ADO 2011* of April this year, buttressed by a rebound in exports and strong domestic demand. Inflation, though, was higher than projected, but the drop in the current account surplus was less than projected. For FY2012, this *Update* marginally raises the growth forecast but retains the outlook for inflation and the current account balance. A major challenge will be balancing higher growth with credit policies that are consistent with price and balance-of-payments stability. Boosting power generation remains an unrelenting task.

## **Updated assessment**

The economy grew by 6.7% (Figure 3.2.1) in FY2011 (ended June 2011), higher than the projection of 6.3% in the *Asian Development Outlook 2011 (ADO 2011)* released in April this year. A marked recovery in exports and a pickup in domestic consumption supported by a surge in credit underpinned the high growth momentum. These factors offset the modest expansion in workers' remittances, which are usually an important contributor to growth. Investment rose marginally to 24.7% of GDP, from 24.4% the previous year.

Agricultural growth is estimated at 5.0% (higher than 4.1% projected in *ADO 2011*), as all major crops performed better than expected, responding to favorable weather, continued policy support (including access to inputs at subsidized prices), greater access to credit, and better extension services. Services grew by 6.6%, marginally better than a year earlier, as the trade, transport, and telecommunications subsectors continued to perform well.

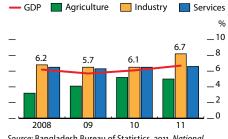
Industry grew briskly by 8.2%—faster than April's projection of 7.5%—largely on the back of a very strong recovery in garment exports. Industries targeting the domestic market, as well as construction and housing activities, also contributed.

Power shortages continued to crimp industrial activity, although additions to capacity appear to have lessened outages. Smaller enterprises, unable to afford backup power plants, are more affected by uncertain power supplies than larger firms.

Inflation, year on year, rose rapidly through most of FY2011, settling at 10.2% in June 2011 (Figure 3.2.2). Average annual inflation was 8.8%, higher than *ADO 2011*'s projected 8.0%. Mounting global food and commodity prices as well as domestic demand pressures were the main reasons for the variance, abetted by a hike in administratively fixed fuel and power tariffs as well as depreciation of the taka from January 2011. Food inflation, 12.5% in June 2011, was the main factor in the rise in overall inflation; nonfood inflation was moderate at 5.7% in June 2011.

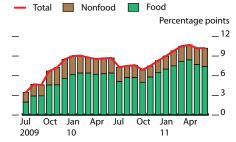
The financing needs of the private and public sectors pushed

### 3.2.1 GDP growth by sector



*Source:* Bangladesh Bureau of Statistics. 2011. *National Accounts Statistics*. May.

### 3.2.2 Contributions to inflation



Sources: Bangladesh Bank. 2011. Monthly Economic Trends. July. http://www.bangladesh-bank.org; ADB estimates.

This chapter was written by Mohammad Zahid Hossain, Shamsur Rahman, Md. Golam Mortaza, and Barun K. Dey of the Bangladesh Resident Mission, Dhaka.

total credit growth to 27.4% in FY2011, creating demand pressures. Money supply (M2) expanded by 21.3%, well above the annual target of Bangladesh Bank (the central bank) of 16.0%. Private credit grew by 25.8% (Figure 3.2.3), against the target of 16.5%, reflecting strong demand by industry for term loans as well as credits to agriculture and small and medium-sized companies. Net credit to government jumped by 34.9% in FY2011 to offset a sharp decline in budget financing from the sale of national savings certificates and a shortfall in external financing.

To rein in credit growth, the central bank raised repo and reverse repo rates four times in FY2011 for a total of 225 basis points for each category. It also raised commercial banks' cash-reserve requirement by 50 basis points in December 2010. Yet these measures had little effect in controlling credit expansion: growth in commercial banks' reserves remained accommodative. Banks' average lending rate climbed only slightly during FY2011 and real average deposit rates stayed negative.

The fiscal stance was expansionary during the year, with the spending-to-GDP ratio rising to 16.5%, from 14.6% in FY2010. Revenue collection was buoyant at 12.1% of GDP, up from 10.9% in FY2010 (Figure 3.2.4). Robust economic activity and better tax administration helped. Higher revenue and a shortfall in planned spending by the annual development program combined to limit the fiscal deficit to 4.4% of GDP, below the budget target of 5.0%.

Higher global oil prices, increased energy use, and the prevailing structure of fuel and electricity subsidies turned the consolidated income position of nonfinancial state-owned enterprises to a net loss of \$974.6 million in FY2011 (about 1% of GDP), from a \$401.4 million net profit a year earlier. Much steeper losses—of \$1.0 billion at the Bangladesh Petroleum Corporation and \$662.7 million at the Bangladesh Power Development Board (Figure 3.2.5)—more than fully accounted for the swing from overall profit to the large loss.

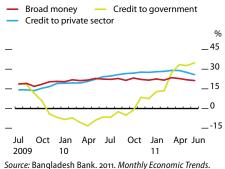
To cut the corporation's losses, the government raised prices of furnace oil (mainly used for power generation) by 14.3% in April 2011 and of all petroleum products (including furnace oil) again by 2.5%–5.0% in May.

It lifted power tariffs for bulk and retail consumers by 11.0% and 5.0%, respectively, in February 2011, again raising the bulk tariff by 6.5% in early August. It also raised the price of compressed natural gas for vehicles by 50% in May 2011. Yet despite these measures, the government will need to bring in further steep price hikes over the rest of FY2012 if it is to keep a lid on energy (fuel and electricity) subsidies.

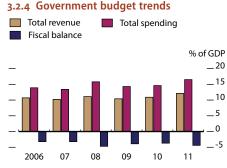
Export growth shot up to 41.7% in FY2011, from only 4.2% the previous year, reflecting a rebound in demand for garment exports (including knitwear at 46.3% and woven products at 40.2%), which account for nearly four-fifths of total exports (Figure 3.2.6). Higher export prices following the rise in costs of cotton, yarn, and accessories, inventory rebuilding among international buyers, and sales to new markets such as South Africa, Turkey, and various Latin American countries contributed to the unprecedented export gain. Other exports also sharply rebounded, benefiting from a rise in demand and the previous year's low base.

Escalating wages in other garment-exporting countries and much

### 3.2.3 Growth of monetary indicators

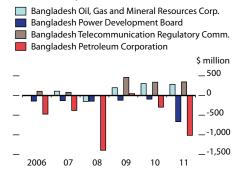


Source: Bangladesh Bank. 2011. Monthly Economic Trends. July. http://www.bangladesh-bank.org



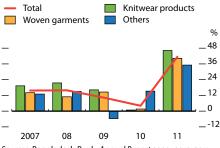
Source: Asian Development Outlook database.

### 3.2.5 Profit and loss at selected stateowned enterprises



Source: Ministry of Finance. Bangladesh Economic Review 2011.





Sources: Bangladesh Bank. Annual Report 2009–2010; 2011. Major Economic Indicators: Monthly Update. July. http:// www.bangladesh-bank.org

relaxed rules of origin under the Generalized System of Preferences by the European Union (from January 2011) are expected to continue boosting the country's garment industry. Increased prices for power and the prospect of further upward adjustment, however, push up production costs.

In step with the rebound in garment exports, which depend heavily on imported raw materials, imports climbed by a similar rate (41.8%, Figure 3.2.7). Foodgrains rose sharply, reflecting higher international prices and larger volumes, as the government sought to build stocks and enhance food security. Imports of intermediate goods and capital equipment also climbed sharply, reflecting the pickup in exports and domestic economic activity. Still, because the base for imports is much larger than that for exports, even with similar growth rates, the trade deficit widened to \$7.3 billion, from the previous year's \$5.2 billion.

Growth in workers' remittances—a major source of foreign earnings had begun to weaken in FY2009. At about \$11.7 billion in FY2011, they were up by only 6%, about one-half the previous year's gain. Still, since February 2011, remittance growth appears to be strengthening, apparently reflecting a reversal of the falling trend in the numbers of workers leaving for jobs abroad.

Given the large expansion in the trade deficit and the slowdown in remittance growth, the current account surplus fell sharply to only \$995.0 million or 0.9% of GDP in FY2011, but still higher than the *ADO 2011* estimate of 0.2% of GDP.

The combined capital and financial account is estimated to show a deficit of \$984.0 million in FY2011, mainly owing to a decline in mediumand long-term loans. With these accounts weakening during the year, gross foreign exchange reserves of the central bank rose marginally over the financial year to \$10.9 billion (Figure 3.2.8).

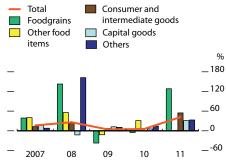
The nominal taka-dollar exchange rate remained stable in the first half of FY2011, but came under pressure in the second as import demand grew rapidly. The taka depreciated by 6.3% against the dollar in FY2011; the nominal effective rate fell by more than 13%, reflecting the dollar's global weakening; and the real effective exchange rate depreciated by 8.1%.

Between 5 December 2010 and end-February 2011, the Dhaka Stock Exchange general index slumped by 41.7%, thereafter making only a slight gain through end-June 2011, 31.4% below the December high and down 0.6% during FY2011 (Figure 3.2.9). The authorities took several ad hoc steps to stabilize the market and are on guard with policies to prevent credit for wasteful, unproductive, and high-risk uses.

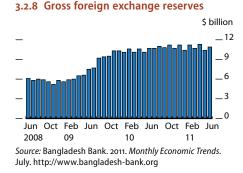
### Prospects

The forecast for FY2012 takes into account the central bank's decision, as reflected in the Monetary Policy Statement of late July, to continue tightening monetary policy to lower inflation and restrain import demand. It also assumes that the government will keep subsidy spending under control by adjusting energy and fertilizer prices, and will achieve the budget's revenue targets. It further assumes that the government will be able to mobilize the projected external financing and address capacity issues in line agencies to accelerate implementation of projects, especially





Sources: Bangladesh Bank. Annual Report 2009–2010; 2011. Major Economic Indicators: Monthly Update. July. http:// www.bangladesh-bank.org





3.2.9 Dhaka Stock Exchange indicators



those linked to expanding power supply (Box 3.2.1). Finally, both the weather and political environment are taken to stay fair.

GDP growth in FY2012 is projected to rise to 7.0% (Figure 3.2.10), above the *ADO 2011* forecast of 6.7%. Strong export growth is seen, though volume growth will be lower than the previous year (as the cyclical rebound will no longer be felt). The expected expansion in domestic demand stems from growth-oriented economic policies, rising income, and a pickup in remittances.

Industrial growth is seen edging up to 8.8% as exports perform well and smaller and agro-based industries, alongside housing and construction, expand. Government efforts to tackle power issues by commissioning new plants and buying power from independent producers is expected to mitigate power shortages and boost industrial production.

Growth in agriculture is likely slow to 4.6% from 5.0% in FY2011, because of the high base in two successive years, but the expansion in the use of higher-quality seeds and better performance in livestock, poultry, and fisheries will support still-high growth. Services are expected to do well with 6.8% growth, in line with industry's acceleration and reflecting a pickup in trade and transport activities and telecommunications services.

Fiscal policy will stay expansionary with total spending set to grow by 25.8%. Supported by a strong revenue effort, the budget deficit is projected at 5.0% of GDP, slightly wider than 4.4% in FY2011 (Figure 3.2.11). The deficit is planned to be financed by domestic borrowing (3.0% of GDP) and external sources (2.0% of GDP). Government policies aim to facilitate rapid growth in FY2012, but close coordination between monetary and fiscal policies will be needed to ensure macroeconomic stability—controlling expansion of credit, both to contain inflation and balance-of-payments pressures, while providing a steady flow of credit to the private sector. In this effort, the authorities will need to keep a close eye on budget finance from the bank system.

The FY2012 budget assumes 24.4% growth in revenue (a 0.9 percentage point rise in the revenue-to-GDP ratio). Higher tax effort—an outcome of the tax authorities' systematic efforts to expand coverage and strengthen

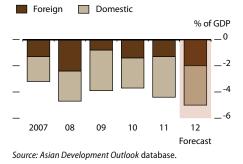
3.2.1 Selected economic indicators (%)					
	2011 2012				
	ADO 2011	Update	ADO 2011	Update	
GDP growth	6.3	6.7	6.7	7.0	
Inflation	8.0	8.8	8.5	8.5	
Current acct. bal. (share of GDP)	0.2	0.9	-0.3	-0.3	
Source: ADB estimates.					

### 3.2.10 GDP growth



Sources: Bangladesh Bureau of Statistics. 2011. National Accounts Statistics. May; Ministry of Finance. Bangladesh Economic Review 2011.

### 3.2.11 Deficit financing



### 3.2.1 FY2012 budget measures: Investment and infrastructure

To shore up public investment, especially in physical infrastructure such as power and energy, transport and communications, and urban and rural infrastructure (consistent with the growth targets of the Sixth Five-Year Plan approved in June 2011), the FY2012 budget continues an expansionary stance, with public spending projected to rise by 25.8% from the previous year.

The budget also has higher allocations for health, education, information technology, and social safety net programs. It allocates \$335 million equivalent of fresh funds for public–private partnerships in infrastructure development, adding to the \$773 million of unused resources allocated in the two previous years. To encourage such partnerships and to attract domestic and foreign investment, the budget earmarks supplementary allocations for technical support and viability-gap funding for projects that may not be commercially profitable but are important for economic development and public services. It also lifts the tax holiday period for physical infrastructure to 10 years from the current 5–7 years.

For addressing power shortages, the government plans to generate an additional 7.8 gigawatts (GW) of electricity by 2013. In the public and private sectors, 29 power plants, with a capacity to produce 2.5 GW, are under construction. The bidding process for setting up another 31 power plants with 4.2 GW capacity is under way. tax administration, including further automation of tax collection—is a crucial element in achieving the GDP growth target.

This *Update* maintains the *ADO 2011* average inflation projection of 8.5% for FY2012, which is lower than 8.8% inflation in FY2011 (Figure 3.2.12) but higher than the Monetary Policy Statement projection of 7.5%. To keep inflation within the rate projected in this *Update*, the central bank will need to bring down annual money and credit growth at least to 18.5% and 20.0%, respectively, as specified in that statement.

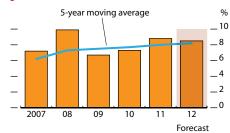
The likely projected slight decline in global food and commodity prices in the baseline assumptions are expected to damp price pressures. The good *boro* harvest (of June 2011) and the government's efforts in ensuring supply of essential commodities and open-market sales at subsidized prices will also hold down prices. The expected adjustments in domestic power and energy prices would, however, exert upward pressure.

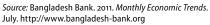
The import bill is expected to rise by 20.0% in FY2012, reflecting the effects of the tighter monetary policy and the expected stability in prices of raw materials, including those related to export industries. The growth of export receipts is projected at 15.0%, close to the historical average.

An uptick in remittances is expected, with more people leaving for work abroad. Several million Bangladeshis working out of country are a reliable source of remittances. The government's engagement with recruiting countries appears to be yielding results. Remittances are expected to grow by 12.0% in FY2012, but, as in recent years, they will be unable to offset the expected trade, services, and income account deficits. The current account is expected to move to a modest deficit of 0.3% of GDP in FY2012, from a 0.9% surplus the previous year (Figure 3.2.13).

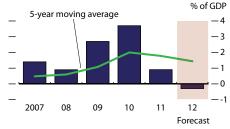
Downside risks abound. The monetary policy stance may be compromised to meet the high growth target, or the attempted tightening may not control inflation or contain import demand. The expected revenue and external financing may not be mobilized as planned. Failure to boost power generation could hold back industrial expansion, and political instability could affect economic activity. Natural disasters remain a perennial risk.

3.2.12 Inflation





### 3.2.13 Current account balance



*Source:* Bangladesh Bank. *Annual Report 2009–2010*. http://www.bangladesh-bank.org

# **People's Republic of China**

Monetary tightening and softening external demand contributed to a moderation in economic growth in the first half of 2011. The forecast for full-year growth is revised down slightly, from that given in April's *Asian Development Outlook 2011*. The easing trend in growth is expected to continue into 2012. Higher than expected food prices have prompted an upward revision in the 2011 inflation forecast. Inflation will come down next year, but remain above the official target. Current account surpluses are now expected to be smaller than previously forecast.

## **Updated assessment**

Economic growth moderated to 9.7% and 9.5% in the first 2 quarters of 2011, year on year (Figure 3.3.1), mainly a result of a tightening in monetary policy and softening external demand.

GDP growth of 9.6% for the first half of this year was driven on the production side by an increase of 11.0% in industry. Subsectors including raw materials and general equipment manufacture recorded strong growth, supported by continuing expansion of fixed asset investment. Other subsectors slowed significantly from 2010, including textiles and auto manufacturing.

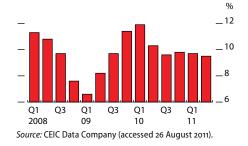
Services grew by 9.2%, largely reflecting increases in private consumption. Agricultural output increased by 3.2%, constrained by drought and, in some southern provinces, floods.

From the demand side, public investment and private consumption were the main contributors. Fixed asset investment remained the main engine of growth, expanding by 25.6% in nominal terms (17.8% in real terms) in the first 6 months, although the pace came off in April–June (Figure 3.3.2). Investment in real estate—covering commercial, industrial, and residential property—surged by 32.9%. The government made it mandatory for developers to build on sites within 2 years of acquiring the land, and it fostered public house-building to increase supply.

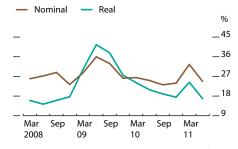
Nevertheless, public investment in infrastructure moderated as the impact of the economic stimulus policies implemented in 2008–2010 waned. Monetary tightening slowed investment in infrastructure-related subsectors, including power generation, rail, and steel. Private investment stepped up in the first half, particularly in manufacturing and real estate.

Government policies to curb rising prices of residential property, including the introduction of property taxes on a pilot basis in Shanghai and Chongqing, had limited impact in the first 6 months. Restrictions imposed on investors from buying second or third houses in major cities prompted some to switch their focus to other cities. Yet negative real interest rates encourage demand for property.

3.3.1 Quarterly GDP growth



3.3.2 Growth in fixed asset investment



Sources: ADB estimates; CEIC Data Company (accessed 26 August 2011).

This chapter was written by Yolanda Fernandez Lommen and Jian Zhuang of the People's Republic of China Resident Mission, ADB, Beijing.

Private consumption was underpinned by solid growth in real incomes in January–June 2011 (by nearly 14% in rural areas, including wages of migrant workers, and by 7.6% in cities). Retail sales increased by 16.8% in nominal terms (10.8% real) in the first half (Figure 3.3.3). That represented a deceleration caused in part by inflation that eroded purchasing capacity, and by the end of subsidies on auto sales from January 2011.

External trade flows in January–June 2011 slowed from high rates seen in the prior-year period (Figure 3.3.4). Weaker than expected demand from Europe and the United States and supply-chain disruptions from the March earthquake in Japan were factors. Still, merchandise exports climbed by 24.0% to \$874.5 billion and imports by 27.6% to \$828.5 billion. The trade surplus for the first half fell by about 18% from a year earlier to \$46.0 billion and the deficit in services trade widened slightly, bringing down the current account surplus to \$98.4 billion.

The economy continued to attract substantial inflows of foreign direct investment—\$60.9 billion in the first 6 months,up from from \$51.4 billion in the same period the previous year. Foreign exchange reserves rose by \$350 billion to \$3.2 trillion at midyear.

Fiscal policy remained supportive of growth in the first half. Government expenditure and revenue rose rapidly, by about 31% in nominal terms. The full-year fiscal deficit is projected at about 2.1% of GDP, similar to 2010. In a move expected to stimulate private consumption, the government reduced personal income taxes from 1 September 2011, raising the monthly income tax threshold from CNY2,000 to CNY3,500 (about \$538). This move reduces the proportion of wage earners who pay income tax to 7.7% from 28%. It also cuts government revenue by about \$24 billion a year, equivalent to 0.5% of 2010 GDP.

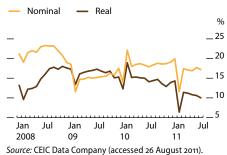
Inflation picked up from 4.9% in January 2011 year on year to 6.5% in July (Figure 3.3.5), the highest rate for 3 years and well above the government's 4.0% target for the year. Rising costs of food, notably pork, made the biggest contribution. Food prices rose by 14.4% year on year in June 2011, accounting for two-thirds of total inflation that month (food has a weighting of about 30% in the consumer price index). Administered fuel prices were raised twice in the first half of the year.

To withdraw monetary stimulus, the authorities lowered the target for M2 money supply growth to 16.0% for 2011, compared with actual increases of 19.7% in 2010 and 27.7% in 2009. In July, M2 growth moderated to 14.7% (Figure 3.3.6). New bank lending of CNY4.2 trillion in January–June was consistent with official targets. A broader measure of credit that includes bank lending plus loans from trust companies and corporate bonds fell by 4.7% in the first half.

Other actions by the People's Bank of China (the central bank) to rein in liquidity and curb inflation included six increases in the reserve requirement for banks during January–June, to 21.5% for large banks, and three hikes in the benchmark lending interest rate in January–July, to 6.56% (Figure 3.3.7). (That lending rate is still, though, barely above inflation and the 1-year deposit rate at 3.5% is negative.)

The authorities allowed the yuan to appreciate by 3.8% in the first

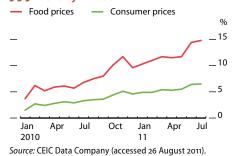
### 3.3.3 Growth in retail sales



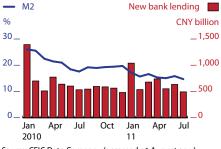
### 3.3.4 Growth in trade indicators



#### 3.3.5 Monthly inflation



# 3.3.6 New bank growth and lending in money supply (M2)



Source: CEIC Data Company (accessed 26 August 2011).

8 months of 2011 against the US dollar. In real effective terms, the yuan appreciated by 1.7% through end-July.

## Prospects

The outlook assumes that fiscal policy will remain broadly expansionary during the forecast period, with higher government spending directed to education, health care, pensions, public housing, and other social security programs. An overall budget deficit equivalent to 2.1% of GDP is projected for 2011 and 2012. Given the strong fiscal position, there is scope to run a somewhat more stimulatory fiscal policy in 2012 if GDP growth prospects dim.

The forecasts also reflect the assumption that the monetary authorities will maintain a tightening bias until inflation recedes significantly (although a sharp contraction in economic growth would likely elicit a more expansionary policy stance).

Fixed asset investment is projected to remain the main driver of growth, rising in nominal terms by 25% in 2011 and 22% in 2012. Although public investment in infrastructure has decelerated since the end of the stimulus package in 2010, investment in upgrading the manufacturing subsector is expected to pick up, in line with the Twelfth Five-Year Plan (2011–2015), adopted in March 2011.

Investment in housing will remain robust. The National Development and Reform Commission has given its approval for financial institutions and enterprises to issue bonds to finance public housing, an important step in ensuring funding for this purpose at a time when local governments are constrained from further borrowing by growing debt burdens. The authorities aim to start building or renovating 10 million housing units for lower-income groups this year.

Nominal private consumption is expected to grow by 12.6% in 2011 and 12.2% in 2012, supported by real growth in wages and robust employment generation. About 5 million new jobs were created in urban areas in the first half of 2011. Growth in real wages in rural areas will likely exceed that in urban areas again in 2012, expanding the market for consumer durables.

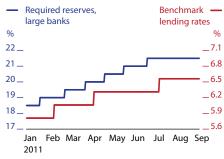
A projected easing of inflation in the second half of 2011 and in 2012 will bolster consumer confidence and purchasing power. Private consumption also benefits from the lower (or zero) income taxes from September and increasing government outlays on social spending.

External demand, on the other hand, is weaker than was forecast in April, mainly a result of stunted growth in the industrial economies. Merchandise exports in the second half of 2011 will decelerate from the first half pace, before picking up in 2012 on expectations of improved economic growth in major industrial economies and in world trade. Real net exports will likely make only a small contribution to GDP growth in 2011.

Moderating growth in both fixed investment and exports, and a declining manufacturing purchasing managers' index (Figure 3.3.8), suggest that manufacturing will slow in the coming months, cooling industrial activity.

Against this background, GDP growth is expected to edge down to

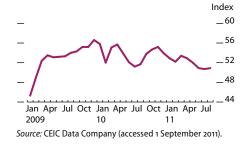
### 3.3.7 Monetary indicators



Source: CEIC Data Company (accessed 1 September 2011).

3.3.1 Selected economic indicators (%)					
	2011 2012				
	ADO 2011	Update	ADO 2011	Update	
GDP growth	9.6	9.3	9.2	9.1	
Inflation	4.6	5.3	4.2	4.2	
Current acct. bal. (share of GDP)	4.6	4.1	4.2	3.8	
Source: ADB estimates.					

## 3.3.8 Manufacturing Purchasing Managers' Index



9.0% in the second half of 2011. The *Update* therefore shaves the full-year forecast to 9.3%. The growth forecast for 2012 is lowered slightly to 9.1% (Figure 3.3.9).

The surplus in merchandise trade this year will be smaller than was forecast in April, and the deficit in services trade will widen, reflecting a surge in outbound travel. The current account surplus will therefore decline more steeply than earlier forecast, to 4.1% of GDP in 2011 and 3.8% in 2012 (Figure 3.3.10).

Food price inflation is expected to ease over the rest of 2011 owing to a good autumn harvest, an upturn in pork supplies, and a base effect caused by rising inflation late last year. For 2011 as a whole, inflation is forecast to average 5.3%, revised up owing to the higher than expected food prices in the first half.

Inflation in 2012 is still forecast at 4.2% (Figure 3.3.11), reflecting the projected moderation in global prices of oil and commodities. Continued gradual appreciation of the yuan should also help to restrain inflation. Bad weather or other potential interruptions to food supplies would put the inflation forecast at risk.

Downside risks to the growth outlook relate mainly to uncertainty over external demand, in particular from the European Union, the country's largest trading partner. Domestically, the rapid increase in local government debt stemming from the 2008–2010 stimulus program poses a risk of a decline in bank credit quality. The State Audit Office estimates local government debt at CNY10.7 trillion, equivalent to 27% of 2010 GDP. More than half this debt, used to fund infrastructure projects of a long-term nature, is scheduled to mature within the next 3 years.

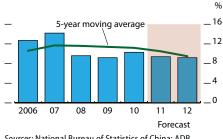
To strengthen the banking system, the China Banking Regulatory Commission has raised the minimum capital adequacy ratio to 11.5% for what it considers systemically significant banks, effective January 2012, and to 10.5% for other banks. It classifies about 1% of all bank loans as nonperforming, but the ratio could increase by several percentage points in the medium term, given that one-third of local government debt is estimated to be at risk.

Rapid economic expansion over three decades has led to imbalances that include a heavy reliance on investment in industry and infrastructure, relatively low levels of private consumption, an underdeveloped services sector, environmental damage, and widening income gaps. The Twelfth Five-Year Plan addresses many of these issues, but failure to continue reforming and rebalancing risks the sustainability of economic growth in the longer term. The immediate challenge is to implement the required policy adjustments at a time of political transition to a new generation of leaders in 2012–2013.

Although it is too early to judge progress on the plan, several changes made this year should help to stimulate private consumption. They include the reductions in personal income tax, increases in minimum salaries in many provinces, and improvements in pension coverage.

Policies that achieve rebalancing will help to address another risk in the longer term—the rapid aging of the population (Box 3.3.1).

### 3.3.9 GDP growth



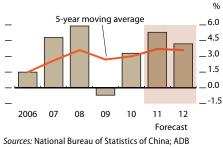
Sources: National Bureau of Statistics of China; ADB estimates.

### 3.3.10 Current account balance



*Sources*: National Bureau of Statistics of China; ADB estimates.

### 3.3.11 Inflation



sources: National Bureau of Statistics of China; AD estimates.

### 3.3.1 Aging before affluence

The population of the People's Republic of China (PRC) has been aging since 2000.<sup>1</sup> Aging is happening at a relatively low level of per capita income, which poses enormous challenges for policy makers.

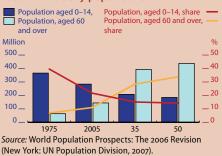
Average life expectancy has more than doubled from 35 years in 1949 to 74 in 2009, and in major cities such as Beijing and Shanghai it is above 80. The fertility rate, underpinned by the one-child policy, has declined sharply, to below 1 in large cities.

These trends prompted a rapid demographic transition that has supported development and economic growth. Between 1975 and 2005, the total dependency ratio (the ratio of children and elderly to the working-age population) fell by almost half, the largest drop ever recorded in any country. The working-age population nearly doubled from 407 million in 1978 to 786 million in 2004, adding about 2 percentage points a year to GDP growth.

However, the transition turned the PRC into an aging society by 2000. The demographic dividend is expected to start to decline in 2015, when the working-age population will peak, and labor shortages will become more common.

A higher old-age dependency ratio means higher health care and pension costs. In 1975 there were six children for every person aged 60 and above, by 2035 there will be one to two (Box figure). By 2020, aging will add 10 million new elders each year, while the working-age population will decline by 7 million adults a year. According to United Nations estimates, by 2050, out of a total population of about 1.4 billion, there will be 440 million people aged at least 60, 108 million of whom will be at least 80. This means that 31.4% of the population will be above 60 against a world average of 21.9%.

Youth and elderly populations



Aging is particularly challenging in the PRC because of the real income level at which it is occurring. At \$4,000, it is much lower than it was in the Republic of Korea (\$16,200), the United States (\$15,500), and Japan (\$14,900) when they had the same percentage of elderly. A weak social safety net, with most elderly depending on family support, exacerbates the situation, which is complicated by cultural issues.

A strong preference for male children has unbalanced the gender ratio. A natural gender distribution shows 102–103 male births for every 100 female births, but in the PRC male births stand at 124. This average masks huge imbalances in some provinces, including Henan and Jiangxi that have about 140 males for every 100 females. At present, the PRC has 33 million more males than females, and although in other countries immigration has helped to narrow the gender gap, this excess is large.

Such imbalances can translate into social unrest and affect economic performance. For instance, consumption in provinces with wide gender gaps is below the national average owing to their higher propensity to save in families with young males, where parents need to provide the son with housing and gifts to attract a potential bride.

Looking ahead, aging-induced labor shortfalls will increase labor costs, damaging competitiveness in labor-intensive, lowvalue-added manufacturing. It is thus important to rebalance growth and identify new sources of productivity, ensuring that growth is inclusive, to avoid social pressures. The strain from fast-widening income disparities under the current development approach could escalate to unsustainable levels in an aging society.

Rigidity in the labor market makes the problem worse because, in the absence of actions to increase mobility and upgrade skills, labor shortages will emerge regardless of large surpluses in rural areas. Mobility restrictions—the household registration system (*hukou*) and the non-portability of benefits—discourage transfers from labor-surplus to labor-deficit provinces.

The restricted geographic mobility is exacerbated by skill shortages and mismatches that hamper transfers across the three productive sectors. This impedes the PRC's ascent up the valueadded chain, which is crucial to sustaining growth.

Aging also affects the savings pattern. The elderly tend to save less and make different investment and consumption decisions than younger people. Foreign direct investment inflows could compensate for lost savings, but their uncertainty makes this approach risky. Hence it will be necessary to improve the effectiveness of allocating savings to investments, which requires developing capital markets and widening access to financial products and services. A well-functioning finance sector will underpin pension reform, a key challenge directly associated with aging.

Finally, old-age support, particular pensions, needs to be developed further: only 15% of the working-age population has any sort of social security net, with most beneficiaries in urban areas. After several rounds of reform, a two-tier pension system was adopted in urban areas in 1997, offering a basic pay-asyou-go pension from the government topped up by mandatory, fully funded individual accounts.

But the system is far from optimal. First, expanding the pay-as-you-go system to universal coverage demands vast increases in the budget allocations from the current 3% of GDP. Second, the national pension fund appears to be substantially underfunded. Third, the low rate of return of personal accounts casts doubt on their ability to generate the expected replacement rates (the proportion of a worker's preretirement income that is paid out by a pension program at retirement).

1. Aging here follows the United Nations definition, when 10% of the total population is 60 years or older, and 7% of the population is 65 or older. The figures for the PRC were 13.6% and 9.3% in 2007.

### Source

Yolanda Fernandez Lommen. ADB Brief No. 6, October 2010. The Socioeconomic Implications of Population Aging in the People's Republic of China. Asian Development Bank, Manila.

# India

Despite robust overall growth for the year through March 2011 economic momentum slowed, reflecting weakening industrial activity and investment. Buoyant exports kept the current account deficit moderate, though high and persistent inflation remained worrying. For the current fiscal year and relative to the forecasts made in *Asian Development Outlook 2011* in April, this *Update* lowers GDP growth, raises inflation, and narrows the current account deficit. Well-managed economic policies should be able to maintain the country's high growth trajectory in the current and next fiscal year.

## **Updated assessment**

Various macroeconomic headwinds on the economy have intensified since the *Asian Development Outlook 2011 (ADO 2011)* was released in April. Although growth strengthened from 8.0% a year earlier to 8.5% in FY2010 (ending March 2011), it decelerated sequentially during the year. Driven by high global commodity prices and domestic structural factors such as shifting dietary patterns, rising income levels, and weaknesses in the agricultural supply chain, inflation hovered around double digits, despite firm monetary tightening.

In the world economy, heightened concerns over the ability of the eurozone to deal with its sovereign debt and over the slowdown in the United States are likely to pull down export growth rates from their recent high levels.

In this fraught environment, the government will want to continue its careful calibration of monetary, fiscal, and external policies to sustain high growth and bring inflation down.

GDP growth of 7.8% in the fourth quarter of FY2010 and 7.7% in the first quarter of FY2011 signaled a slowdown from that in the previous 4 quarters (Figure 3.4.1). The falloff in overall growth contrasted with a strong expansion in agricultural output which, at 6.6% in FY2010, was bolstered by a return of normal monsoons (after inadequate rainfall in FY2009) and an increase in the net sown area that helped to lift foodgrain production to an all-time high of 242 million tonnes.

Industrial growth sputtered in FY2010 (7.9%) because of lackluster performance of manufacturing and mining. It began to decelerate in the first quarter of FY2010 and continued throughout the year, slipping to 6.1% in the last quarter and to 5.1% in the first quarter of FY2011.

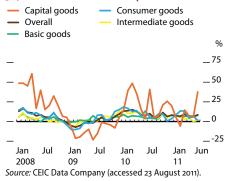
A new index of industrial production, however, with a revised base year and weights as well as a wider set of goods, paints a somewhat stronger picture (Figure 3.4.2). According to this index, industrial growth averaged about 8% in both the first and second half of FY2010. Yet even this measure shows industrial activity weakening to average 6.8% in the first quarter of FY2011, compared with 9.7% a year earlier.

## 3.4.1 Quarterly contributions to growth (supply)



Source: Ministry of Statistics and Programme Implementation. http://www.mospi.nic.in (accessed 31 August 2011).

### 3.4.2 Growth in industrial production



This chapter was written by Abhijit Sen Gupta of the India Resident Mission, ADB, New Delhi.

The revised GDP data show that mining stagnated, growth in manufacturing fell to 7.2% from 10.6% a year earlier, and construction slumped to 1.2% from 7.7%. Thus industry remained the main drag on GDP growth in the first quarter of FY2011.

Moderation of services growth, to 9.4% in FY2010 from 10.1% in FY2009, came mainly from a deceleration in government services as the impact of FY2009's fiscal stimulus measures softened. Other subsectors such as trade, hotels, and communications, as well as banking and finance, remained buoyant.

On the demand side, private consumption and net exports were the main drivers, accounting for nearly three-quarters of growth in FY2010. Expansion of the former remained healthy on rising incomes in both rural and urban areas. The main cause of faltering growth during the year was a slowdown in fixed investment expenditure (Figure 3.4.3). It grew by 11.5% during first half, and slowed sharply to average only 3.7% in the second, but recovered modestly to expand by 7.9% in the first quarter of FY2011. Exports stayed strong, but growth in consumption slowed to only 5.7% in the first quarter of FY2011.

Pinpointing the exact causes of this weakness in investment is difficult but the following appeared to play a role: structural and policyrelated bottlenecks, including for environmental approvals for some large projects and other procedural delays, land acquisition issues, and rising interest rates. Aware of the issues, the authorities have introduced some policy initiatives to improve the investment climate.

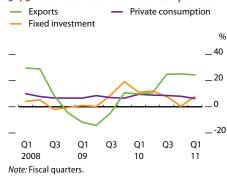
Inflation was the leading economic policy concern in FY2010 as persistently high monthly rates averaged 9.6% (Figure 3.4.4). Despite a good monsoon, food inflation—though much below its peak—has stayed near 10%, pointing to deficiencies in systems of production, procurement, and distribution.

The high cost of food production also reflected rising rural wages and higher prices for fodder, diesel, electricity, and fertilizer. The government has raised minimum support prices of agricultural commodities to compensate for these higher costs, but this in turn raises food inflation. In a longer perspective, the rising incomes of recent years and a concomitant shift in diet from coarse grains to fruits, vegetables, milk, and protein-rich commodities have added to food price pressures, in the absence of a strong supply-side response.

Firming global prices have also contributed. With cereals, the spillover has been minimal as these prices are driven by domestic supply conditions and government policies, but for most intermediate and capital goods, global price increases have been transmitted to Indian prices, adding to cost pressure on manufactured products. The pass-through of higher crude oil prices, however, has been limited by administered price intervention, but even then, June 2011 saw domestic retail prices raised for diesel (9%), kerosene (20.4%), and liquefied petroleum gas cylinders (14.5%) to mitigate the surging cost of subsidies. Since petrol (gasoline) prices are no longer controlled, marketing companies have been free to pass on cost increases.

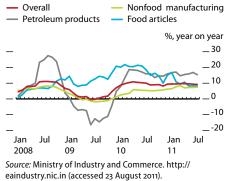
Inflation for nonfood manufactured products trended upward to average over 7% in 2011, well above the 4% historical average. This pattern has concerned the Reserve Bank of India (RBI), the central





*Source*: Ministry of Statistics and Programme Implementation. http://www.mospi.nic.in (accessed 31 August 2011).





bank, as it suggested not only pass-through of high commodity prices but a rise in generalized inflation pressures (including wages), which has become entrenched on the supply side, raising expectations of inflation.

To counter inflation, the RBI tightened monetary policy, raising the repo rate 11 times for a cumulative 325 basis points to 8% from March 2010 to August 2011 (Figure 3.4.5). It also made the repo rate the only independently varying policy rate—with the reverse repo rate pegged at 100 basis points below the repo rate—in an effort to improve monetary transmission. Partly for this reason, the RBI instituted additional policy review meetings to inform the public more of its aims and actions. Rising interest rates, decelerating industrial output, weak retail and car sales, as well as access to cheaper borrowing abroad have moderated the growth in bank credit in recent months (Figure 3.4.6).

Overall inflation stayed high at 9.2% in July, and nonfood manufacturing inflation was 7.5%. Inflation pressures are, however, likely to fade in the second half of the fiscal year as commodity prices are expected to stabilize and as the lagged impact of higher lending rates on demand comes into play. Still, further monetary tightening is likely necessary if the RBI is to achieve its goal of taking inflation down to 7% by end-FY2011.

Strong growth in merchandise exports and an increase in the invisibles surplus helped to narrow the current account deficit to 2.6% of GDP in FY2010 from 2.8% the year before (Figure 3.4.7). Driven by engineering goods, petroleum products, and gems and jewelry, merchandise exports leaped by 37.4% to reach \$250 billion in FY2010; merchandise imports rose by 26.7% to \$381 billion.

The strong performance of exports continued into FY2011, as they climbed by 53.8% during April–July. Imports were up by 37.8% in this period. These high rates are not expected to be sustained in the rest of FY2011: the low base effect will fade and weaker demand from Europe and the US will likely be felt.

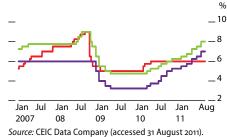
The capital account improved from \$51.8 billion in FY2009 to \$57.3 billion in FY2010, but was characterized by weak foreign direct investment (FDI), volatile portfolio flows, and increased reliance on private borrowing (Figure 3.4.8). The slowdown in FDI may have reflected international factors such as sovereign debt crises and the weak US recovery, but domestic issues including difficulties in land acquisition, environmental clearances, and the slow pace of liberalizing certain sectors such as retail and insurance appeared more important.

The first quarter of FY2011 witnessed a welcome pickup in FDI with inflows more than doubling from the same period in FY2010. Portfolio investment, however, was much lower, apparently reflecting the souring sovereign debt and fiscal prospects for the US and Europe, and increased risk aversion.

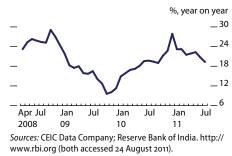
Foreign exchange reserves grew by \$25.8 billion in FY2010 to \$305 billion (Figure 3.4.9). About one-half of this gain came from an overall balance-of-payments surplus and the rest from valuation changes. Reserves climbed by \$14.3 billion to \$319 billion in the first 4 months of FY2011.

Measured by the nominal effective exchange rate, the rupee has remained broadly stable since July 2010. It appreciated against the US

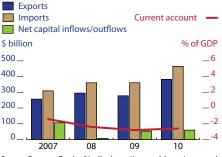




3.4.6 Credit growth to the private sector

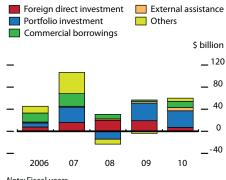


### 3.4.7 Balance-of-payments indicators



*Source:* Reserve Bank of India. http://www.rbi.org (accessed 15 August 2011).

### 3.4.8 Decomposition of capital flows



Note: Fiscal years.

*Source:* Reserve Bank of India. http://www.rbi.org (accessed 6 September 2011).

dollar but weakened against the euro, pound, and yen. Despite such stability, high inflation led to an appreciation in the real effective exchange rate of 3.5% from August 2010 to July 2011.

Stock market prices have slipped from their November 2010 high, but the market, though volatile, has stayed resilient (Figure 3.4.10). Slower sales and higher costs appear to have eroded corporate margins in April–June.

In FY2010 much better than expected revenue from the one-time sale of telephone spectrum helped to reduce the central government deficit to 4.7% of GDP (revised from 5.1% of GDP given in *ADO 2011*). The deficit is targeted to fall further to 4.6% in FY2011, on expenditure restraint and stronger revenue (Figure 3.4.11).

Yet government finances for the first quarter of FY2011 show both revenue and expenditure targets under pressure, and the deficit was wider than the previous year's. Revenue growth was hit by the cut in duties on crude oil and petroleum products, and by the shift of most planned disinvestment offerings to the second half of the year.

On the expenditure front, the budget had envisaged a decline in the subsidy bill that will be difficult to achieve given higher food, fuel, and fertilizer import prices. In a bid to meet the deficit target the government has announced some austerity measures. It is also mulling widening the service tax net.

### Prospects

April's *ADO 2011* forecasts for FY2011 and FY2012 were based on various assumptions, including continued recovery in industrial economies, oil prices averaging around \$104 in 2011 and \$112 in 2012, steady growth in world trade, normal monsoons, continued monetary tightening, and adherence to fiscal consolidation. The main differences in assumptions now are relatively slower growth in industrial economies in 2011 (with growth picking up in 2012), lower than expected growth in world trade, and higher oil prices in 2011 (with slight moderation in 2012).

Although private consumption is likely to remain buoyant on the back of rising income, government consumption growth is expected to remain subdued given the emphasis on fiscal consolidation. Higher interest rates will undermine demand in some of the interest-sensitive sectors such as automobiles and housing. Slower than previously forecast growth in industrial economies will also affect exports.

Recovery in investment is critical for the economy to return to a high-growth path, yet the sharp slowdown in the pace of announced investment in the last 3 quarters of FY2010 points to subdued investment at least in the first half of FY2011 (Figure 3.4.12). There are some signs of policy momentum to deal with longstanding issues that have weakened the investment environment. These include resolving certain environmental approvals, clearing a number of coal areas for mining by the private sector, and moving forward on consideration of allowing FDI in multi-brand retail. Also, a number of bills are likely to be introduced or approved in Parliament over the year, including on critical issues such as land acquisition and food security. These

#### 3.4.9 International reserves

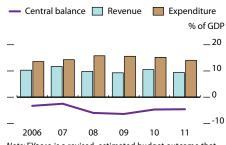






Source: Bloomberg (accessed 2 September 2011).

### 3.4.11 Fiscal indicators



Note: FY2010 is a revised, estimated budget outcome that includes proceeds from telecoms spectrum auctions. Source: Ministry of Finance. http://indiabudget.nic.in (accessed 10 August 2011).

3.4.1 Selected economic indicators (%)					
	20	11	2012		
	ADO	Update	ADO	Update	
	2011		2011		
GDP growth	8.2	7.9	8.8	8.3	
Inflation	7.8	8.5	6.5	6.0	
Current acct. bal. (share of GDP)	-3.5	-2.8	-3.3	-3.0	
Source: ADB estimates.					

initiatives would help to bolster investment activity and growth, though any lift they provide will likely be marginal through FY2012.

Sectorally, it might be difficult for agriculture to repeat the high growth of FY2010, which was buoyed by a low base. A normal monsoon could help agriculture achieve growth of around 3%–4%. However, a slightly lower than average monsoon during July and August 2011 and less than average rains forecast for September 2011 pose a risk. Nevertheless, better reservoir positions and conservation initiatives on rain water harvesting should mitigate the impact of a weak monsoon.

Rising interest rates, a slump in investment activity, and escalating input costs are likely to crimp industrial growth in the first half of FY2011. The weakness in manufacturing is also reflected in some surveys.

The RBI's Industrial Outlook Survey indicates moderating expectations of business conditions in manufacturing for the first half of FY2011 (Figure 3.4.13). The crucial Business Expectation Index registered a decline of 3.5% for the first half of FY2011. Expectations related to a number of variables including profit margins, employment, production, and capacity utilization are less positive than the previous quarter.

The HSBC Purchasing Managers' Index for manufacturing, which while denoting an expansion in manufacturing activity, dropped to a 29-month low in August 2011 (Figure 3.4.14). The somber mood is also reflected in a survey conducted by the Federation of Indian Chambers of Commerce and Industry, according to which business confidence has dropped to its lowest level since FY2008.

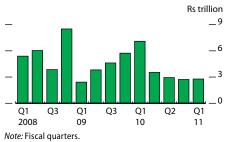
Services, in contrast, are expected to grow more robustly. Its Purchasing Managers' Index has been more resilient than for manufacturing, reflecting acceleration in new orders. A deeper and longer period of low growth in industrial economies than assumed for this *Update* would, however, crimp the large foreign exchange earnings of the Indian business services industry.

Although the rising cost of capital is expected to damp private consumption and investment, increased signs of policy momentum and higher minimum support prices—by bolstering rural demand—are likely to provide a boost. Government consumption is also expected to remain muted due to adherence to the fiscal consolidation roadmap. Slower than previously forecast growth in the industrial economies will also adversely impact exports.

The *Update* revises GDP growth to 7.9% in FY2011, somewhat lower than 8.2% projected in *ADO 2011*. Growth in FY2012 is also revised downward, from 8.8% to 8.3% due to a longer monetary tightening cycle and higher policy rate hikes, than expected earlier. However, improved prospects of growth in industrial economies assumed in this *Update*, easing of commodity prices, higher growth of world trade, and easing of some of the existing structural bottlenecks should result in growth being higher in FY2012 than FY2011.

Inflation is expected to remain elevated in the first half of FY2011 for a variety of reasons. These include hikes in fuel prices, which will affect inflation directly, as well as through a rise in transport costs of various articles, upward revision of minimum support prices, and evidence of

3.4.12 Announcement of new projects



*Source:* Centre for Monitoring Indian Economy. 2011. *Monthly Review of the Indian Economy*. July.

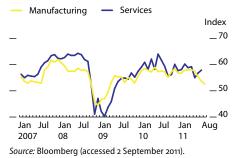
### 3.4.13 Industrial Outlook Survey



Notes: Fiscal quarters. The survey records firms' expectations about different variables in the next quarter and shows the percentage difference between positive and negative responses.

*Source:* Reserve Bank of India. http://www.rbi.org (accessed 23 August 2011).

## 3.4.14 HSBC India purchasing managers' indexes



a wage-price spiral. Given the RBI's commitment to battle persistent, high inflation, there will likely be further monetary tightening in the remaining months of FY2011 until there is credible evidence of inflation trending to the RBI's target range.

Inflation should show a downward trend from the latter part of FY2011 and through FY2012 because of the likely stabilization of international commodity prices, measures taken by the government to mitigate agriculture supply-side bottlenecks, and the lagged impact of monetary tightening on aggregate demand. In line with this outlook, the *Update* raises projected inflation to 8.5% in FY2011 (from 7.8% in *ADO 2011*), which is then expected to decline to 6.0% in FY2012 (Figure 3.4.15).

The strong growth witnessed in the second half of FY2010 and the first quarter of FY2011 is unlikely to persist during the rest of FY2011 given the slowdown in industrial economies. However, diversification of products and markets are likely to ensure exports continue to grow at a relatively healthy rate. Though considerably lower than the previous year, export growth is seen remaining robust, at 20.5% in FY2011 and 20% in FY2012. Imports will maintain higher growth of 23% in FY2011 due to elevated commodity prices, before easing to 19.7% in FY2012 as they cool off. With invisibles expected to grow at a healthy clip, the current account deficit as a share of GDP is expected to marginally deteriorate to 2.8% of GDP in FY2011 and further to 3.0% in FY2012 (Figure 3.4.16).

Capital inflows are likely to cover deficits of this size given the attractive interest rate differentials with industrial countries and investor interest in India's strong growth prospects. FDI inflows will be enhanced by several large proposals in the oil and gas, metal, and telecoms sectors under discussion; by simplification and fast-tracking of the approval process; and by relaxation of the rules and a possible increase in the foreign ownership ceiling in some key sectors.

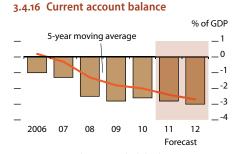
Moreover, attractive global interest rates are likely to induce Indian companies to borrow from abroad. An unexpected surge in short-term flows could create pressures for the rupee to appreciate, which would adversely affect the competitiveness of exports.

Downside risks to the growth forecasts should be flagged. Recovery of investment is critical for maintaining high growth and a delay in revival of capital formation beyond the second half of FY2011 would stunt growth. An elongated domestic interest-rate tightening cycle would damp consumption and investment. A poor monsoon would slow growth. Finally, a major shock in the external environment would upset the forecasts.

### 3.4.15 Annual inflation



Source: Asian Development Outlook database.



Source: Asian Development Outlook database.

# Indonesia

Forecasts for economic growth are edged up from April's *Asian Development Outlook 2011* reflecting a strong performance in the first half of 2011 and a positive outlook through this year and next. Increases in fixed investment, private consumption, and net exports boosted the first-half result. Rises in food prices have moderated during this year, allowing inflation to abate. Forecasts for inflation are trimmed for both 2011 and 2012. Managing the impact of potentially volatile capital inflows is likely to remain a challenge.

## Updated assessment

Growth picked up to 6.5% in the first half of 2011 owing to stronger investment, private consumption, and robust exports (Figure 3.5.1). Rates of growth were similar in both the first and second quarters.

Fixed investment increased by 8.3% to support much-needed capacity expansion of the economy. Private consumption, underpinned by growing employment, easing inflation, and improving consumer confidence, rose by 4.5% and contributed 2.6 percentage points of the GDP growth. Net exports expanded, despite a surge in imports, and government spending made a small contribution to overall growth.

In terms of sectors, services contributed more than half the total growth. Strong gains were recorded in retail and wholesale trading and transport and communications. Manufacturing output, driven by textiles, iron and steel, as well as transport equipment, expanded by 5.6%, the best performance in 5 years. March's earthquake in Japan caused some brief supply shortages for the automotive industry, however.

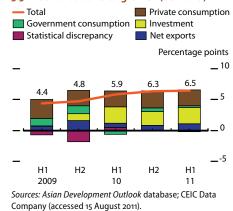
Mining output (including crude oil) grew by just 2.5%, largely owing to a decline of about 3% in oil production. Better weather than in 2010 enabled agriculture to lift production by 3.7% in the first half of 2011.

Merchandise exports continued to power ahead, by 34.1% in nominal terms to \$97.3 billion in the first half, bolstered by higher global prices for commodities (Figure 3.5.2). Notable gains were made in shipments of manufactures, agricultural commodities, and oil. Imports also increased by about 34%, to \$78.9 billion, reflecting strong demand for capital and intermediate goods, particularly from manufacturing industry. The surplus in goods trade rose in January–June, but the current account surplus declined to \$2.3 billion (0.6% of GDP) on deficits in the services and income accounts.

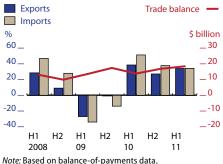
The economy continued receiving large inflows of both portfolio investment and net foreign direct investment (FDI). During the first 7 months of this year, foreign holdings of government bonds and Bank Indonesia (central bank) certificates surged by 30.5% to \$36.4 billion (Figure 3.5.3) and net foreign purchases of equities nearly doubled to

# This chapter was written by Edimon Ginting and Priasto Aji of the Indonesia Resident Mission, ADB, Jakarta.

### 3.5.1 Contributions to growth (demand)



### 3.5.2 Merchandise trade growth



Sources: Asian Development Outlook database; CEIC Data Company (accessed 22 August 2011).

\$2.7 billion. FDI inflows of \$10 billion were at the highest rate in 10 years, helping to balance risks associated with short-term capital flows.

Consequently, the overall balance-of-payments surplus rose by nearly two-thirds in the first half to \$19.5 billion. International reserves of \$122.7 billion at end-July 2011 were equivalent to 7 months of imports of goods and external debt service of the government (Figure 3.5.4).

As projected in April's Asian Development Outlook 2011, inflation has eased, from 7.0% year on year in January 2011 to 4.8% in August (Figure 3.5.5), within Bank Indonesia's target range of 4%-6%. Food price inflation slowed from 16.2% to 5.8% over the same period, reflecting a good harvest as well as government measures to suspend import duties on some food items and to expand a rice-distribution program for the poor. However, core inflation edged up to 5.1% in August, suggesting that strong domestic demand is pushing against capacity constraints.

With inflation slowly subsiding, the central bank kept its policy interest rate steady at 6.75% after it raised the rate by 25 basis points in February 2011. The rupiah appreciated by about 5% against the US dollar between end-2010 and August 2011, helping to limit imported inflation. The central bank used macroprudential measures to manage the impact of potentially volatile short-term capital inflows.

In domestic financial markets, the capital inflows pushed up stock prices, until a global market slide in August, and pushed down yields on government rupiah bonds.

Credit to private sector businesses and consumers expanded by about 23% year on year in June (Figure 3.5.6). The pickup in lending was attributable in part to a decision by the central bank to link banks' statutory reserve requirements to their loan-to-deposit ratios from March 2011. Lending rates have been steady at about 13% owing to high levels of liquidity and stiffer competition in the financial system.

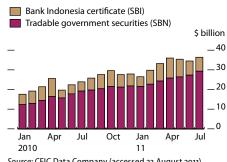
As for fiscal policy, Parliament approved revisions to the 2011 budget in July to widen the deficit target to 2.1% of GDP (from an original target of 1.8% and 2010's actual deficit of 0.7%), a move that accommodates the rising cost of subsidies for fuel and electricity. (Global oil prices have been higher than originally projected in the budget.)

Spending on subsidies for electricity and fuel is projected to cost the budget \$22.4 billion this year, about 15% of total government expenditure. Despite efforts to expedite government capital spending, only 16.8% of the budgeted capital outlay was disbursed in the first half of the year. Revenue collection in the period was better than expected, about 12% higher than revenue outturn in the first half of the previous year, driven by the rise in commodity prices and import duties.

Central government debt is projected to decline to 25.7% of GDP at end-2011, maintaining the downward trend over the past 7 years (Figure 3.5.7). Both Standard & Poor's and Fitch ratings agencies raised Indonesia's sovereign foreign currency debt rating to BB plus in the first half of 2011, one notch below investment grade. Moody's upgraded its rating to Ba1 with a stable outlook.

Robust economic growth generated 3.9 million jobs in the 12 months through February 2011, mostly in the public service, wholesale and retail trading, hotels and restaurants, and construction. This was more than sufficient to accommodate 3.4 million new entrants to the labor market.

### 3.5.3 Foreign ownership of government securities



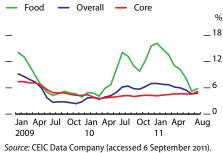
Source: CEIC Data Company (accessed 23 August 2011).

### 3.5.4 Gross international reserves and exchange rate

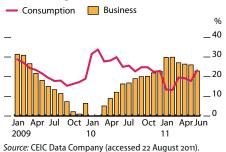


Source: CEIC Data Company (accessed 24 August 2011).

### 3.5.5 Inflation



### 3.5.6 Credit growth



According to the twice-yearly unemployment survey, the rate fell to 6.8% in February from 7.4% a year earlier. Poverty incidence declined to 12.5% of the population in March 2011 (the date of the latest annual survey) from 13.3% a year earlier.

Nevertheless, employment creation, particularly for workers aged between 15 and 24, remains a challenge. About 18% of the young people who had joined the workforce by August 2010 were unemployed, or six times as high as the rest of the workforce.

The share of the population of working age is projected to rise and the dependency ratio to decline through 2025. To take advantage of this demographic dividend, productive jobs need to be generated faster. Necessary policies include fostering entry-level jobs for young people, improving access to high-quality education and training, providing better services to match job seekers and employers.

### Prospects

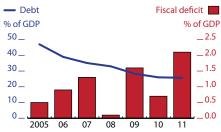
In May this year, the government published a Master Plan for the Acceleration and Expansion of Economic Development 2011–2025, which recognizes that higher and sustainable economic expansion requires the country to diversify sources of growth, accelerate infrastructure development, close the development gap between eastern and western regions, improve the quality of human resources, manage rapid urbanization, and cope with climate change. Projections discussed below for 2011 and 2012 assume that the government will start implementing key policies in this plan.

Even though budget spending, particularly on capital items, is projected to accelerate in the second half of this year from low levels in the first 6 months, it will fall short of target. Coupled with buoyant revenue collection, the budget deficit is thus expected to be lower than the target of 2.1% of GDP. For 2012, the government has proposed a deficit of 1.5% of GDP. If approved by Parliament, the 2012 budget would support goals of the master plan to increase capital spending, expand social programs, and accelerate poverty reduction. The budget proposes to reduce the allocation for subsidies and improve their targeting. Overall, fiscal policy is likely to remain accommodative to economic growth.

Private consumption is expected to remain robust in the forecast period, underpinned by rising employment and consumer confidence, and easing inflation. A Bank Indonesia consumer survey in July showed consumer confidence at the highest level in 18 months (Figure 3.5.8). Both the business and consumer tendency indexes from surveys in early August showed optimism about the near-term outlook.

The outlook for private investment is also favorable, supported by global demand for Indonesia's agricultural, energy, and mineral commodities, solid domestic economic growth (averaging 5.6% since 2004), and the country's expanding middle class (increasing by about 7 million people a year). A central bank survey in the second quarter of medium and large businesses showed that 40% of respondents expected business prospects to improve in the second half of 2011 (from the first) and 58% expected them to stay the same. The pickup in credit to the private sector and stable lending rates this year suggest that credit conditions will buttress growth.

3.5.7 Fiscal deficit and debt

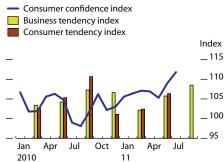


Sources: Indonesia Debt Management Office. http://dmo. or.id; Republic of Indonesia Ministry of Finance. http:// www.fiskal.depkeu.go.id (both accessed 22 August 2011).

3.5.1 Selected economic indicators (%)				
	2011 2012			
	ADO 2011	Update	ADO 2011	Update
GDP growth	6.4	6.6	6.7	6.8
Inflation	6.3	5.6	5.8	5.4
Current acct. bal. (share of GDP)	0.5	0.4	0.1	0.1

Source: ADB estimates.

# 3.5.8 Business and consumer confidence indexes



*Note:* A tendency reading higher than 100 means that business people or consumers think that the conditions in the quarter will be better than the previous quarter. For the Consumer Confidence Index, a reading above 100 means that consumers are optimistic.

Source: CEIC Data Company (accessed 22 August 2011).

Private investment will benefit from accelerating government capital spending during the current half year and projects rolled out under the master plan in 2012. In August 2011, the government announced tax breaks for investments of at least \$117 million in priority industries.

Efforts to simplify investment procedures are making some progress. Land acquisition, which businesses often cite as a steep hurdle for investing in infrastructure, is to be addressed in a new law scheduled to be passed by the end of this year.

From the production side, signs point to continued growth in manufacturing (Figure 3.5.9). Machinery investment by foreign companies increased by 23.3% in the first 6 months. Services will get continued support from domestic demand growth, and agriculture looks likely to recover further (at least through 2011) given the better weather this year.

Taking these factors into consideration, the forecasts for GDP growth are raised slightly from April to 6.6% this year, and to 6.8% for 2012 based on the improving outlook for investment next year (Figure 3.5.10).

The external position will remain healthy. Merchandise exports are projected to rise by about 30% this year and should benefit next year from the expected stronger growth in world trade. The goods trade surplus is forecast to narrow modestly, reflecting the strength of domestic demand, while the deficit in the income account will widen because of greater profit repatriation. The current account surplus is seen declining to around 0.4% of GDP in 2011 and to 0.1% in 2012.The overall balanceof-payments surplus is forecast to remain buoyant, supported by capital inflows including FDI.

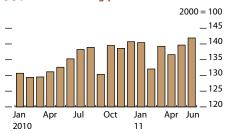
Assuming better weather continues, food prices are expected to ease further in the second half of 2011. The *Update* trims the full-year average inflation forecast to 5.6% (Figure 3.5.11).

In 2012, the expected moderation in global food and oil prices will help to damp price pressures. Higher investment should improve the supply-side response to increasing demand. (Bank Indonesia's inflation target range for 2012 is 3.5%–5.5%, down a half percentage point from 2011's.) These factors will be offset a little by the inflationary impact of higher domestic economic growth and by government proposals to reduce the electricity subsidy next year.

The forecast for average inflation next year is edged down to 5.4%. The main risk to this forecast is bad weather that damages agriculture, given that food (both processed and raw) accounts for 36% of the consumer price index. Bank Indonesia might decide to leave its policy interest rate steady through the rest of this year if inflation stays within its 4%–6% target band, particularly if the rupiah is firm. It is likely to continue to use bank reserve requirement ratios and macroprudential policies to manage domestic liquidity and capital inflows. Bank Indonesia may need to step up interest rates next year if core inflation remains under upward pressure from stronger domestic demand.

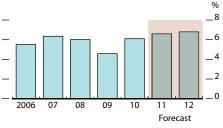
The government has prepared plans to manage the impact of any sudden reversal of foreign capital. It would use funds from the budget, state-owned enterprises, and international reserves to stabilize the domestic bond market. In addition, the central bank has strengthened its tools for conducting open-market operations by allowing Treasury bills for managing foreign currency liquidity.

3.5.9 Manufacturing production index



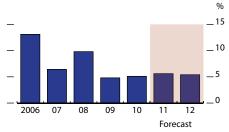
Source: CEIC Data Company (accessed 22 August 2011).





Source: Asian Development Outlook database.

### 3.5.11 Inflation



*Note:* For 2006–2007, base year is 2002; for 2008 onward, base year is 2005.

Source: Asian Development Outlook database.

# Malaysia

Despite robust private consumption in the first half of 2011, a weaker external environment left growth lower than expected. Therefore, although investment and public spending are projected to quicken in the second half, the forecast for full-year GDP growth is trimmed from that projected in *Asian Development Outlook 2011* in April this year. The GDP performance is seen improving in 2012 relative to 2011. Inflation this year will be higher than foreseen in April, but will likely ease next year.

### **Updated assessment**

A weaker external environment contributed to lower than expected economic growth in the first half of 2011. It slowed from 4.9% year on year in January–March to 4.0% in April–June (Figure 3.6.1), for a first-half outcome of 4.4%.

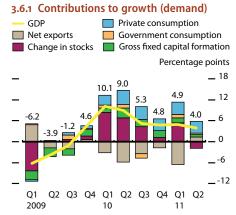
Private consumption made the biggest contribution from the demand side. It rose by 6.6% in the first 6 months from the prior-year period, reflecting firm labor market conditions and generally positive consumer sentiment, as well as favorable prices for most agricultural commodities (which support farm incomes). Government consumption rose at a similar pace to private consumption in the first 6 months.

Fixed investment growth decelerated to 4.7%, mainly owing to a decline in public investment. Private investment was sustained by expansion in some areas of manufacturing and by an increase in exploration and development of oil and natural gas.

By sector, services (accounting for about three-fifths of GDP) expanded by 6.4% in the first half and contributed nearly all the overall rise (Figure 3.6.2). This sector gained from robust growth in wholesale and retail trading, reflecting the strength in private consumption, coupled with growth in financial services (owing to higher loans and deposits) and business services (on higher levels of stock-market trading and computer services).

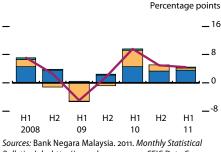
Industrial output inched up by a mere 1.7%. Growth in the manufacturing subsector (about 28% of GDP) slowed to 3.8%, undermined by the weakness in external demand, including that for electrical and electronic products, and production disruptions to electronics and automobile production from the March earthquake in Japan.

Delays in infrastructure projects contributed to weak growth of 2.1% in construction. Crude oil production fell by about 21%, in part reflecting temporary shutdowns for maintenance, so that overall mining production contracted by 6.6%, even though natural gas output continued to expand. Reduced oil output also dented production of refined petroleum products.



Sources: Bank Negara Malaysia. 2011. Monthly Statistical Bulletin. July. http://www.bnm.gov.my; CEIC Data Company (accessed 26 August 2011).

### 3.6.2 Contributions to growth (supply)



- GDP 🔲 Agriculture 📃 Industry 📃 Services

*Bulletin.* July. http://www.bnm.gov.my; CEIC Data Company (accessed 26 August 2011).

This chapter was written by Jin Cyhn and Gary Krishnan of the Southeast Asia Department, ADB, Manila.

After shrinking in January–March, agriculture rebounded in April– June, mainly owing to the impact of better weather on crude palm oil and natural rubber. Agricultural production increased by 3.4% in the first half.

Employment rose by 2.9% in the 12 months to June 2011 and the unemployment rate declined from 3.6% to 3.2% over the period.

Consumer prices trended up, too, propelled mainly by higher costs for food and transportation. Inflation quickened from 2.2% in December 2010 year on year to 3.5% in June 2011, then eased marginally in July (Figure 3.6.3). For the first 7 months the consumer price index rose by 3.1%, with prices of food and beverages up by 4.6%. Increases in administered prices of fuel pushed up costs of transportation. Electricity tariffs were raised in June.

The producer price index increased by 10.2% in the second quarter, accelerating from 7.4% in the first, on account of sharp price rises in domestic production materials.

Merchandise exports in nominal US dollars rose by 16.6% to \$111.5 billion in the first half of 2011 (Figure 3.6.4). High global prices and solid demand for energy and commodities underpinned this growth. However, shipments of electrical and electronic products (about 34% of total exports) fell by 6.5%. Exports to the United States fell by 7.7% in the first 6 months and shipments to the European Union rose a slight 3.9%. By contrast, exports to developing markets rose strongly—to India, for example, by nearly 34% and to the People's Republic of China by 6.0%.

On the same basis, merchandise imports rose faster than exports, by 18.9%, to \$87.0 billion. (In real terms, imports of goods and services rose at twice the pace of exports.) Buoyant imports of consumption goods reflected robust private consumption and higher food prices.

These moves lifted the goods trade surplus by 9.3% year on year to \$24.5 billion. After accounting for widening deficits in services and transfers, as well as a narrower income deficit, the current account surplus rose by nearly 23% to \$16.2 billion in the first half.

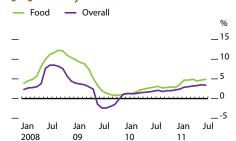
Net portfolio investment inflows more than doubled to \$18.8 billion in the first 6 months from the prior-year period (Figure 3.6.5), channeled mainly into domestic debt securities. This surge, coupled with lower net outflows of other investment, took the financial account into a large surplus from a prior-year deficit. Net foreign direct investment inflows almost doubled to about \$7 billion, while net foreign direct investment outflows by residents also increased sharply, to about \$6 billion.

The overall balance of payments in the first half recorded a large surplus of \$25.7 billion, and international reserves totaled \$135.4 billion at end-July, sufficient to finance 9.6 months of retained imports.

Federal government revenue showed a quicker ascent than spending in the first 6 months of 2011. Receipts, boosted by higher average prices for domestic oil production, rose by 26.4%; and operating expenditure rose by 14.9% (including the cost of subsidies). Development expenditure fell by 24.0%. Consequently, the budget deficit compressed to the equivalent of 1.1% of GDP from 4.7% a year earlier. Federal government debt rose slightly as a ratio to GDP, to 52.7%.

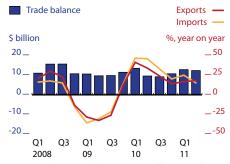
Growth in broad money supply (M3) accelerated through June to 12.4% year on year (Figure 3.6.6), reflecting higher credit to the private sector and surging portfolio inflows, before the pace of growth eased in July.

### 3.6.3 Monthly inflation



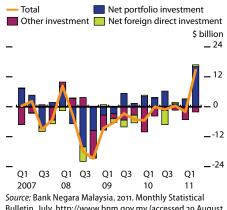
Sources: Bank Negara Malaysia. 2011. Monthly Statistical Bulletin. July. http://www.bnm.gov.my; CEIC Data Company (accessed 29 August 2011).

### 3.6.4 Trade indicators



Source: Bank Negara Malaysia. 2011. Monthly Statistical Bulletin. July. http://www.bnm.gov.my (accessed 29 August 2011).

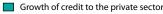
#### 3.6.5 Financial account components

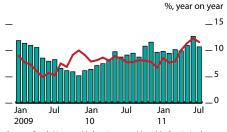


Bulletin. July. http://www.bnm.gov.my (accessed 29 August 2011).

### 3.6.6 Monetary indicators







Source: Bank Negara Malaysia. 2011. Monthly Statistical Bulletin. July. http://www.bnm.gov.my (accessed 29 August 2011).

With liquidity building in the banking system, Bank Negara Malaysia, the central bank, raised the reserve requirement for commercial banks in three steps from 1.0% to 4.0% during April–July 2011 to drain excess liquidity. It also took macro-prudential measures to curb risky personal lending and credit for speculation in housing.

The central bank raised its policy interest rate in May by 25 basis points to 3.0% (Figure 3.6.7), continuing to unwind monetary stimulus injected in 2009 when the economy was in recession. Although the policy rate is still below inflation, the monetary authorities in July kept it at 3.0%, in view of global uncertainties that raised risks to Malaysia's growth.

The ringgit appreciated by 3.5% against the US dollar in the first 8 months of the year (Figure 3.6.8), supported by capital inflows and the strong external accounts. Yields on 10-year government bonds declined from 4.1% in January 2011 to 3.6% at end-August.

### Prospects

Malaysia is well integrated into the global economy (trade in goods and services is above 100% of GDP). Thus downward revisions in this *Update's* baseline assumptions for growth in major industrial economies and in world trade this year have dimmed Malaysia's outlook this year. Increasing uncertainties about the global recovery cloud prospects for 2012.

The outlook assumes that the government will accelerate public sector projects in the forecast period. Its overarching economic goal is to restructure the economy and so break free of the middle-income trap and reach high-income country status by 2020. The aim is to more than double gross national income per capita by 2020, to \$15,000.

To this end, the government has started to carry out its Economic Transformation Programme to improve the investment climate and develop higher-value-added industries. This program is supported by investment from the government's Tenth Malaysia Plan 2011–2015.

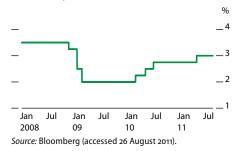
Investment projects starting this year include an \$11.5 billion mass rapid transit rail system for Kuala Lumpur and redevelopment of a military airbase at Sungai Besi near the capital that has residential, commercial, and retail projects. Construction of these and other major government-backed projects is expected to pick up in 2012, stimulating investment from the private side as well.

Private investment is also expected to be stimulated by high capacity utilization rates in some manufacturing industries and by global demand for Malaysia's oil and natural gas as well as its agricultural commodities.

In June 2011, the federal government approved a \$4.3 billion supplementary budget for extra spending this year. Its fiscal deficit is now projected to widen in 2011 from last year's 5.6% of GDP. The budget for 2012, scheduled to be outlined in October 2011, may also be expansionary. The Ministry of Finance said in its second quarter update of the economy that it expects public expenditure to accelerate in the second half of this year.

The impact on supply chains of the earthquake in Japan is fading. Further, reconstruction in Japan will spur demand for raw materials from

3.6.7 Policy rate



#### 3.6.8 Nominal exchange rate



Bulletin. July. http://www.bnm.gov.my; CEIC Data Company (accessed 29 August 2011).

3.6.1 Selected economic indicators (%)							
	20	11	2012				
	ADO Update ADO Upo 2011 2011						
GDP growth	5.3	4.8	5.3	5.1			
Inflation	3.0	3.4	3.0	3.0			
Current acct. bal. (share of GDP)	10.0	10.0	9.0	9.0			
Source: ADB estimates.							

Malaysia (and other countries). The forward-looking Business Conditions Index, compiled from a survey of manufacturers, rose in the second quarter of this year, implying increasing domestic investments in the second half.

Private consumption will be sustained during the forecast period by expected favorable labor market and credit conditions, as well as good prices for agricultural commodities. The Consumer Sentiments Index remained positive in the second quarter, but showed a slight decline reflecting concerns about inflation and global uncertainties.

The government's leading index of economic activity grew by an average of 1.9% in the first 6 months of 2011 and the pace of increase quickened in June from May (Figure 3.6.9), suggesting moderate growth in the near term.

On the balance of these factors, GDP growth is expected to quicken in July–December from the first 6 months, though the full-year growth forecast is trimmed to 4.8%, owing to the weaker than forecast first-half outcome and the downward revision in growth in industrial countries. The pace is seen picking up to 5.1% in 2012 (Figure 3.6.10), provided that growth in these economies and in world trade meets expectations.

The forecast for inflation this year is raised from *Asian Development Outlook 2011* to 3.4%. In 2012, inflation is seen subsiding to average about 3.0% (Figure 3.6.11), as global food and oil prices level off. Inflation could be influenced by mooted proposals coming into effect to phase out price controls and subsidies and to introduce a broad-based goods and services tax.

Although the authorities are expected to be cautious about raising the policy interest rate further in view of the global uncertainties and potentially volatile capital inflows, they may tighten monetary policy if they see signs of persistent inflation. The central bank stated in July that it would consider "further normalization of monetary conditions" if the momentum of economic growth is sustained. The ringgit is expected to remain firm against the US dollar owing to the strong capital inflows and external position.

In light of the moderate growth in exports and sustained private consumption and investment, which will draw in imports, the current account surplus is still projected at about 10% of GDP this year and next.

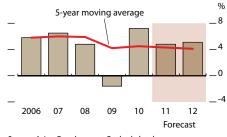
The main downside risk to the forecasts comes from weakness in the recovery of major industrial economies, which has become more apparent since April. Domestically, delays in the government's Economic Transformation Programme and associated efforts to ramp up investment would dent growth prospects.

3.6.9 Leading index



Source: CEIC Data Company (accessed 2 September 2011).

### 3.6.10 Annual GDP growth



Source: Asian Development Outlook database.

### 3.6.11 Annual inflation



Source: Asian Development Outlook database.

# Pakistan

The economy was under pressure in FY2011 from the aftermath of extensive flood damage, energy shortages, security issues, and a burgeoning fiscal deficit—as well as persistently high inflation, despite monetary policy tightening. Still, the current account moved to a small surplus on strong exports and remittances. Growth is expected to pick up modestly in FY2012, largely on agriculture. However, to get the economy back on a high growth track Pakistan must overcome its long-standing macroeconomic and structural imbalances.

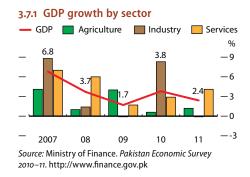
### Updated assessment

For the fourth year running, Pakistan was trapped in low growth in FY2011 (ending 30 June 2011). Severe floods in July–August 2010, higher oil prices, power shortages, and security pressures held GDP growth to an estimated 2.4% (Figure 3.7.1), slightly lower than the 2.5% projected in the *Asian Development Outlook 2011* of April. Sector performance was uneven. Agriculture showed growth of only 1.2%, despite a pickup after the floods. Solid growth in livestock and minor crops as well as good wheat and sugarcane crops was offset by a fall in cotton and rice harvests.

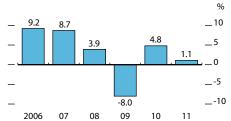
Increasingly severe and unpredictable power outages undermined industry, which virtually stagnated (down 0.1%). This outcome was due to a large fall (about one-fifth) in electricity output, in part caused by a sharp drop in natural gas production and flood damage. Power supply problems in turn hit production in areas such as cement, metal industries, electronics, and textiles, as well as exporters' ability to deliver on schedule. Agro-based industries were less affected, bolstered by the good wheat and sugarcane harvests. Growth in large-scale manufacturing came in at 1.1% (Figure 3.7.2). Finally, construction eked out a mere 0.8% expansion as public spending shifted from projects to flood relief, and reconstruction work started only after a delay.

Services (up 4.1%) accounted for most of the growth. The expansion was led by public administration and defense (13.2%) as well as social services (7.8%), which were partly supported by external financing for flood relief. Growth slowed sharply in transport, storage, and communications services, partly on weakness in key public enterprises, including Pakistan Railways and Pakistan International Airlines. Their performance—as with so many public enterprises—remained impaired by lack of fiscal discipline and governance issues.

From the demand side, public and private consumption provided the only impetus to growth in FY2011 (Figure 3.7.3). Investment declined for the third straight year, taking the investment-to-GDP ratio to only 13.4% in FY2011, from 22.5% in FY2007. The poor showing stems from several factors, including the downdraft in the economy, weakness in the investment climate, and security issues.







Sources: State Bank of Pakistan. Economic Data. http:// www.sbp.org.pk (accessed 31 August 2011); Federal Bureau of Statistics. Statistical Yearbook 2011. http://www.statpak. gov.pk

This chapter was written by Dawn Elizabeth Rehm of the Central and West Asia Department, ADB, Manila; and Farzana Noshab of the Pakistan Resident Mission, ADB, Islamabad.

Inflation surged after the summer 2010 floods, due largely to food supply shortages and higher transport costs. Food price inflation eased somewhat during the second half of the fiscal year, falling from a peak of 21.2% (year on year) in September to 15.7% by June, averaging 18% for FY2011. Overall inflation averaged 13.9%, up from 11.7% in the previous year (Figure 3.7.4). Inflation pressures are widespread, with more than half the items in the consumer basket posting double-digit increases during the year. Core inflation also stayed in double digits all year, underscoring the broad-based inflation pressures entrenched in the economy.

The State Bank of Pakistan (the central bank) kept interest rates high in FY2011. In July 2010, it raised the discount rate by 50 basis points to 13%. As inflation picked up and the fiscal position weakened, it increased the rate in September and November 2010. It then maintained that 14% rate in its next three successive policy announcements (January, March, and May 2011), as the current account strengthened and government borrowing from the central bank fell off. In response to an expectation of easing inflation, the central bank reduced the rate to 13.5% in July 2011.

The provisional fiscal deficit for FY2011 is estimated at 6.2% of GDP, about the same as in FY2010. It surpassed the 4% of GDP budget target for FY2011 announced in June 2010 before the floods. Higher costs for subsidies and security, unforeseen flood-relief spending, and additional borrowing to ease liquidity shortages in the power sector contributed to pushing out the deficit. Current outlays were about PRs300 billion over budget, equivalent to 1.6% of GDP.

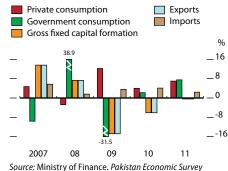
Estimated spending on defense (2.5% GDP), interest payments (4.0%), subsidies (2.2%), and pensions (0.5%) exceeded federal tax and nontax revenues by 0.6% of GDP. Adding government operating costs (1.1% of GDP), there is a gap between Federal Board of Revenue receipts and current spending of about 1.7% of GDP.

Development spending was cut to provide resources for flood relief and to contain the deficit. The public sector development program was set to increase by nearly 30% to PRs663 billion at the time of the FY2011 budget, with a federal allocation of about two-fifths of the total and the balance for provincial budgets. Spending, however, fell well short of target as resources were released for federal and provincial relief operations. Estimated total development spending came to only PRs462 billion, or 2.6% of GDP (Figure 3.7.5).

The 16.7% estimated increase in federal tax revenue fell short of the 20% target, as a variety of revenue measures—including revocation of sectorwide exemptions in the sales tax scheme—proved politically difficult to enact (Figure 3.7.6). In response to slower than projected receipts, a surge in current spending, and a fall in foreign inflows, various short-term measures were put through for March–June 2011 (including a 15% income tax surcharge, an increase in special excise rates, and removal of the sales tax exemption for domestic and imported agricultural inputs such as tractors and fertilizers). They were expected to raise PRs56 billion (about 0.3% of GDP). But despite them, tax revenue is estimated to have fallen relative to GDP, from 9.0% in FY2010 to 8.6% in FY2011.

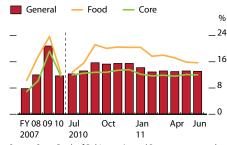
Broad money growth accelerated to 15.9% from 12.5% in FY2010, largely owing to increased government borrowing. This item—all from commercial banks—jumped by 46% in FY2011 to PRs579.5 billion. Credit

#### 3.7.3 Growth of GDP components



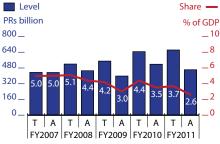
2010–11. http://www.finance.gov.pk

### 3.7.4 Inflation



*Source*: State Bank of Pakistan. *Annual Report 2010–11* and *Economic Data*. http://www.sbp.org.pk (accessed 25 August 2011).

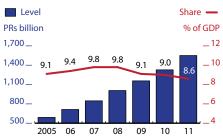
### 3.7.5 Public sector development program



A = Actual; T = Target.

Source: Ministry of Finance, Pakistan Economic Survey 2010–11 and Federal Budget 2011–12. http://www.finance. gov.pk

## 3.7.6 Tax collection by the Federal Board of Revenue



Source: State Bank of Pakistan. Economic Data. http://www. sbp.org.pk (accessed 31 August 2011). to the private sector inched up by about 4%, constrained by the economic slowdown. With investment activity in the doldrums, the credit growth largely reflected the additional working capital requirements of higher prices for key inputs and trade finance (in light of increased exports).

Buoyed by higher commodity prices (especially for cotton and textiles), a surge in workers' remittances to \$11.2 billion, flood-related assistance, and inflows from the US Coalition Support Fund, the current account posted an unexpected, small surplus of \$436 million (Figure 3.7.7).

Merchandise exports recorded a rise of 29%, half due to textiles, and the other half to food (surplus wheat stocks were exported) and a strong gain in other manufactured exports (Figure 3.7.8).

Imports, reversing the decline of the previous 2 years, climbed by 14.5%. With their estimated volume up by only about 1%, nearly all the import increase reflected high prices for petroleum products, food, and intermediate goods, including large postflood requirements of raw cotton. Imports of machinery fell by about 5% as higher imports of telecommunications and textile machinery were outweighed by a decline in imports of power generation, office, and electrical equipment (reflecting weak investment activity).

The financial account surplus fell to only \$1.9 billion in FY2011—from \$5.1 billion in the previous year and \$9.9 billion in FY2007—largely due to a large drop in official borrowing. Modest inflows of portfolio investment partly offset the slight reduction of direct investment inflows (on lower telecommunications and oil and gas exploration), which slowed to \$1.6 billion.

Foreign exchange reserves strengthened to \$18.2 billion and, with positive developments in the external account, helped stabilize the exchange rate vis-à-vis the US dollar: the Pakistan rupee depreciated by only 2.0% in FY2011, after a 6.3% drop the year before.

Domestic public debt rose by 29.2% to PRs6.0 trillion (33.3% of GDP) by end-FY2011, while external public debt rose to \$56.3 billion (PRs4.8 trillion), or 26.6% of GDP (Figure 3.7.9). The average maturity for domestic public debt has fallen to 18 months and, with interest rates above 12%, interest costs were equivalent to about 35% of federal tax revenue in FY2011. The shortening maturity for domestic debt raises both rollover and interest rate risk. Most external debt is, though, contracted at a modest average interest rate and relatively long tenors.

### **Prospects**

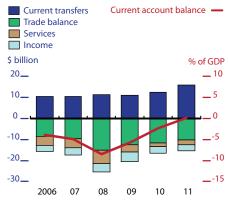
The economy is forecast to strengthen slightly in FY2012 from FY2011, to 3.7%, buttressed by agriculture's expected recovery (albeit depending on weather conditions) and continued expansion of services. Growth in large-scale manufacturing is likely to be muted, given that power supplies are unlikely to improve much. Repairs to the transportation network should provide some relief from high transport costs.

Pakistan must average 7% annual growth to absorb the 3% increase in its labor force each year. Its population is young, with more than 65% under the age of 30. Yet recent experience— with average economic growth of less than 3% in FY2008–FY2010—has been too little to take advantage of these favorable demographics. The National Economic

3.7.1 Selected economic indicators (%)								
	20	11	20	12				
	ADO 2011	ADO 2011	Update					
GDP growth	2.5	2.4	3.7	3.7				
Inflation	16.0	13.9	13.0	13.0				
Current acct. bal. (share of GDP)	-1.7	0.2	-2.3	-1.3				

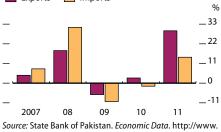
Source: ADB estimates.

# 3.7.7 Components of the current account balance



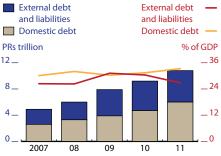
Source: State Bank of Pakistan. Economic Data. http://www. sbp.org.pk (accessed 31 August 2011).

### 3.7.8 Growth in merchandise trade Exports Imports



Source: State Bank of Pakistan. Economic Data. http://www. sbp.org.pk (accessed 31 August 2011).

### 3.7.9 Public external and domestic debt



Source: State Bank of Pakistan. Economic Data. http://www.sbp.org.pk (accessed 31 August 2011).

Council recently endorsed a Framework for Economic Growth to guide efforts to improve future growth and employment prospects (Box 3.7.1).

Slow growth in agriculture in recent years reflects the general decline of the sector since the rapid growth of the 1980s, when it expanded by more than 5% a year on average. Water shortages and low investment in irrigation infrastructure over the years have led to a general decline in agriculture productivity. Agriculture needs structural reforms to bring about higher productivity, transformation, and diversification, but with the sector accounting for 44% of total employment, such reforms would reduce labor requirements, and so other sectors would have to create jobs to absorb agriculture's released workers.

Inflation is expected to stay high, easing back only slightly to an average of 13.0% in FY2012 because of the planned upward adjustments in domestic electricity prices, the restoration of automatic pass-through of fuel price increases to consumers, and strong inflation expectations built into the economy.

Realizing the budget for FY2012—with a lower deficit of 4.0% of GDP—largely depends on containing subsidies (Figure 3.7.10) and boosting revenues. The budget is expected to gain from steps to cut power and other subsidies by 57% relative to FY2011. While efficiency gains in the power sector have somewhat reduced the need for tariff differential subsidies, ending subsidies depends on the pace of power sector reforms. Revenue receipts are projected to increase by 23% from FY2011, relying primarily on efforts to curtail tax evasion. The FY2012 budget ended sales tax exemptions for 500 items, but reduced the sales tax by 1% to 16%.

Net external financing (excluding grants) for FY2011 is expected to be limited to only PRs8 billion, as repayments due on short-term loans amount to more than \$1 billion. Given forecast external financing and grants of PRs127 billion, the rest of the targeted deficit (PRs716 billion) would need to be financed from domestic borrowing. Since the government has agreed to limit borrowing from the central bank in FY2012, commercial banks and nonbank institutions will need to provide financing of about 3.3% of GDP, as in FY2011.

The budget for FY2012 projects the public sector development program to expand to PRs730 billion, an increase of 58% over the FY2011 provisional figure. Achieving this ambitious target, in view of limited external resource availability, will depend on fully mobilizing budget resources and pushing through measures to contain current expenditure.

The current account is seen weakening in FY2012 because of slower export growth of 8% (mainly reflecting less favorable export prices) and import growth of 14% (mirroring still-high commodity prices and some economic strengthening). Workers' remittances are set to stay strong, providing a buffer for the larger trade deficit and limiting pressures on foreign exchange reserves as external debt service payments climb sharply. The current account deficit is projected at 1.3% of GDP, lower than the *Asian Development Outlook 2011* projection of 2.3%.

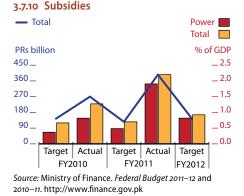
# 3.7.1 Framework for Economic Growth

The National Economic Council endorsed a framework for economic growth in May 2011 to exploit the economy's expanding labor force.

The framework takes a holistic approach promoting competitive markets, higher productivity, better governance and public service delivery, innovation, and entrepreneurship. It aims to restore Pakistan's annual GDP expansion to 7%—the estimated rate needed to absorb new labor force entrants—by streamlining the public sector and fostering private sector–led growth.

For the latter, it prioritizes addressing growth-inhibiting rigidities in the legal and regulatory framework (including zoning laws, land ownership issues); improving governance and cultivating appropriate incentives; and shifting the government's role to one of regulation and strengthening the business environment.

The framework acknowledges the importance of raising the competitiveness of cities (as hubs for commerce) and building better physical connectivity—with a greater role for the private sector—as important change drivers.



# **Philippines**

Growth for the first half of this year was hampered by weaknesses in exports and government spending, though private consumption and private investment remained strong. A better overall performance is projected for July–December, but the GDP growth forecast for the full year is trimmed from April's *Asian Development Outlook 2011*. Growth is still seen picking up in 2012. Inflation has quickened, in line with expectations, and will likely ease next year. Forecasts for current account surpluses are revised down.

### Updated assessment

GDP growth slowed to 3.4% in the second quarter of 2011, putting the outcome for the first 6 months at 4.0%, below expectations. Consumer spending and private investment drove the moderate expansion in January–June, when net exports and lower government spending acted as drags.

Private consumption grew by 5.4% in the first 6 months and contributed half the overall GDP growth (Figure 3.8.1). Consumer spending was underpinned by a stronger labor market—employment grew by 4.0% in the 12 months to April 2011, mostly in services and agriculture.

Remittances from overseas Filipino workers—a large part spent on consumer goods and services—saw weaker growth because of political strife and economic slowdown in some host countries. The inflows rose by 6.3% to \$9.6 billion in the first half, an increase of just 1% in nominal peso terms.

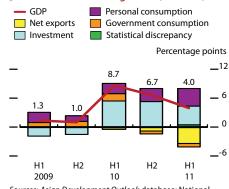
Fixed capital investment rose by 3.2%, subdued by weakness in public construction. However outlays for equipment, mainly by the private sector, rose by a strong 11.2%. Private construction continued to expand at double-digit rates, as it did in 2010. Investment overall contributed about half the overall GDP growth in the first half.

The ratio of fixed investment to GDP—20.4% in the first half of 2011—approached its best level in a decade. (A rebasing and revision of the national accounts in May 2011 raised the investment-to-GDP ratio for recent years. They also lifted GDP growth for 2010, a year of economic recovery, to 7.6%, from 7.3%.)

Weakness in government spending reflected in part a high base set in 2010, when public expenditure rose, before national elections and after typhoons. A government campaign against corruption also had an impact on outlays, because public officials grew more cautious about making spending decisions. Government construction, for example, plunged by nearly half in the first 6 months, and overall public spending fell by 6.0%.

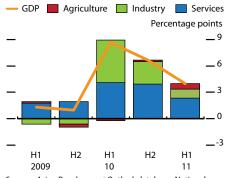
Services, the biggest sector, grew by 4.2% and contributed more than half the overall GDP increase from the production side (Figure 3.8.2). Its expansion was driven by real estate, business process





Sources: Asian Development Outlook database; National Statistical Coordination Board. http://www.nscb.gov.ph (accessed 31 August 2011).

### 3.8.2 Contributions to growth (supply)



Sources: Asian Development Outlook database; National Statistical Coordination Board. http://www.nscb.gov.ph (accessed 31 August 2011).

This chapter was written by Norio Usui and Teresa Mendoza of the Southeast Asia Department, ADB, Manila.

outsourcing, financial services, and transport and communications. Manufacturing output rose by 6.8%, with solid gains in industries such as food processing, chemicals, and communications equipment. Private construction picked up strongly by 20.5% and mining by 9.2%. Agriculture, which had contracted in the prior-year period owing to dry weather, rebounded by 5.6% in January–June.

Merchandise exports recorded weak growth of 4.3% in the first half, climbing to \$24.8 billion according to customs data (Figure 3.8.3). The major export category—electronic products including semiconductors (about half the total)—fell by 12.1%, partly a result of supply chain disruptions caused by the March earthquake in Japan as well as weakness in global demand for semiconductors. This decline was outweighed by higher exports of agricultural commodities, mineral products, and garments.

Steeper prices and volumes of oil and raw material imports contributed to a 15.6% increase in merchandise imports to \$30.5 billion. The cost of inputs for electronic products rose, even though their exports fell. Rice imports fell by nearly 83% owing to a better domestic harvest. Given that import growth outpaced exports by a wide margin, the trade deficit more than doubled from a year earlier, to \$5.7 billion.

Trade in services generated a surplus of \$1.0 billion in the first 3 months of 2011, nearly 30% higher than in the same period of the previous year. Business process outsourcing accounted for much of the increase. The rise in remittances also helped to sustain a current account surplus, amounting to \$933 million (1.8% of GDP) in the first quarter of 2011 (the latest available data). Gross international reserves rose by nearly 14.0% to \$71.0 billion in the 7 months to end-July 2011, equivalent to 10.6 months of imports of goods, services, and income.

Net portfolio investment inflows remained relatively high, totaling \$2.7 billion in the first 7 months of 2011. These inflows underpinned solid demand for peso-denominated government securities and helped to push the stock market to record levels in August.

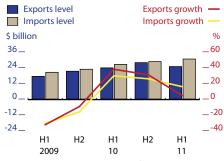
Robust external accounts and the capital inflows supported an appreciation of about 3% in the peso against the US dollar in the 8 months through end-August 2011.

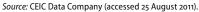
Higher food and oil prices fueled inflation (Figure 3.8.4), which averaged 4.8% in the first 8 months of 2011 on a new 2006-based consumer price index. Bad weather disrupted supplies of fruit, vegetables, and fish but a good rice harvest helped to damp food price inflation from April. An appreciating peso countered some of the pressure from imported inflation.

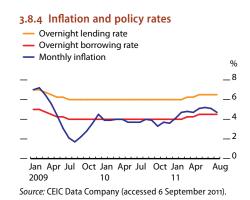
To lean against rising inflation and inflation expectations, Bangko Sentral ng Pilipinas, the central bank, bumped up its policy interest rates twice in the first 6 months by a cumulative 50 basis points to 4.5% for the overnight borrowing rate and 6.5% for the overnight lending rate. These were its first increases since it cut the rates by 200 basis points during the global recession.

The central bank also raised bank reserve requirements in two steps in the first 8 months (to 21.0%) and used its special deposit accounts (deposits placed with the central bank by banks and certain other financial institutions) to manage domestic liquidity. But broad money

### 3.8.3 Merchandise trade



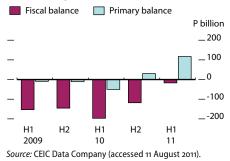




3.8.1 Selected economic indicators (%)							
	2011 2012						
	ADO 2011	Update					
GDP growth	5.0	4.7	5.3	5.1			
Inflation	4.9	4.9	4.3	4.3			
Current acct. bal. (share of GDP)	4.1	2.5	3.9	2.1			

Source: ADB estimates.

#### 3.8.5 Fiscal performance



(M<sub>3</sub>) growth still accelerated through the first half, to 11.4% in June year on year, and the pace of bank lending picked up to 18.8% in June.

Government spending fell short of target by nearly 17% in the first half. Tax revenue also missed its target, although collections increased somewhat owing to better tax administration. The fiscal deficit narrowed to P17.2 billion, well below both the budgeted figure and the prior-year deficit of P196.7 billion. Excluding interest payments, the primary budget balance was in surplus compared with a deficit a year earlier (Figure 3.8.5). Interest payments on the large public debt, which require about a fifth of budget spending, fell by 8.3%.

### **Prospects**

The Philippine Development Plan 2011–2016, approved by the government in March 2011, focuses on investment and employment; outlays on infrastructure supported by public–private partnerships; a drive against corruption; and better access to social services. The plan's goals include average GDP growth of 7%–8%, generation of 1 million new jobs each year, and a reduction in poverty incidence to 16.6% by 2015 (from 26.5% in 2009).

The *Update*'s forecasts assume that the government follows through on this plan and on reforms of the past year (Box 3.8.1). They also assume that some of the planned public-private infrastructure projects, which include expressways and airports, get under way in the forecast period.

Government spending is expected to pick up in the second half of 2011 from the low pace in the first, giving some lift to the economy. Nevertheless, the full-year budget deficit is likely to be narrower than the target of 3.2% of GDP. For 2012, the government proposes to sharply raise spending on social programs and infrastructure, but also to rein in the fiscal deficit to 2.6% of GDP (the medium-term deficit target is 2.0% of GDP in 2013).

Private investment is expected to remain robust, based on positive business sentiment, high manufacturing capacity utilization (above 80%), and solid domestic demand. Signs pointing to robust investment in the months ahead include a 21% increase in investment commitments in the first half of 2011 and near 21% rise in bank lending to businesses. Upgrades in the Philippines' sovereign credit ratings support the investment environment. Moody's raised the country's foreign and local currency long-term bond ratings from Ba3 to Ba2 (two notches below investment grade) in June 2011 and Fitch raised the long-term foreign currency rating from BB to BB plus (one notch below investment grade). The ratings agencies cited progress on fiscal consolidation, macroeconomic stability, and a strong external position.

Despite these improvements, net foreign direct investment stayed low in the first 5 months of 2011 (less than \$1 billion). The country also garners low scores on global rankings of the investment environment. Launch of public-private partnership projects has been delayed, with those slated for bidding in the first half of this year still being evaluated. Consumer spending will be sustained by growth in employment and incomes and by easing inflation in 2012. As for remittances, increased

# 3.8.1 Key policy and administration changes in the past year

National budget. Earlier submission of the budget has enabled Congress to review and approve the annual fiscal program before year-end. The introduction of zero-based budgeting requires spending projects to be justified from a zero base (not incrementally). Key information on spending must be published on government websites to improve transparency.

Social programs. The government has expanded a conditional cash transfer program for poor families in return for their children's regular school attendance and medical checkups and introduced mandatory, free immunization for children up to 5 years of age. Government-paid health insurance has been provided to more poor families and electricity subsidies for the poor extended to 2021.

Government owned and controlled companies. Their performance and viability will be reviewed regularly to determine if any should be abolished, merged, or privatized. A new law prescribes limits on compensation of their executives and directors.

Public-private partnerships. The government is drawing up new regulations to encourage private investment in infrastructure, and has set up a center to assist government agencies to form such partnerships.

Business regulations. Permit and license systems have been streamlined and a new registry system will be established to enable businesses to be set up more easily.

*Competition policy.* The Department of Justice has been directed to enforce competition policies and investigate cases of monopolies, cartels, and restraints to trade. More foreign airlines will be allowed to fly to airports outside Manila. deployment of Filipino workers to Asian countries and Canada is helping to offset some declines in the Middle East and North Africa.

A central bank survey of businesses in the third quarter showed positive sentiment (Figure 3.8.6), which suggests a hiring upturn. Further, the disruptions to manufacturing and trade from the Japanese earthquake will continue to fade in the second half.

Domestic demand will drive economic growth in the forecast period, with net exports acting as a drag. GDP is now forecast to rise by 4.7% this year (Figure 3.8.7), lowered a touch from *Asian Development Outlook 2011* because of the weaker than expected first-half outcome and the deteriorating outlook for major industrial economies.

Next year, the economy is seen growing by 5.1%, gathering momentum from the expected pickup in domestic investment and the projected improvement in external demand.

Inflation is projected to stay around 5% for the rest of 2011 and average 4.9% for the whole year. Electricity prices might rise further because power companies have petitioned the government for increases in tariffs. In 2012, inflation is projected to ease to 4.3% (Figure 3.8.8), assuming that global oil and food prices soften as expected.

While 2011 year-average inflation is close to the high end of the central bank's target of 3%–5%, the monetary authorities will likely be cautious about raising policy rates given the uncertain global economic outlook and weaker than expected domestic economic growth. They would probably consider raising bank-reserve requirements and taking other steps to manage liquidity if capital inflows continued to build.

Forecasts for current account surpluses are revised down to 2.5% of GDP in 2011 and 2.1% in 2012. Projected growth in exports in 2011 has been trimmed and that for imports raised, partly because of higher costs of oil. Receipts from business process outsourcing are expected to register solid growth this year. Despite a likely export recovery in 2012, imports will remain strong in line with the pickup in domestic demand.

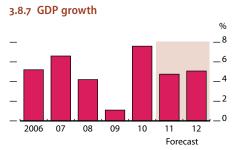
The expansion of investment seen in 2010 and 2011 is a positive indicator for employment generation. Although in the 12 months through April 2011 the unemployment rate fell to 7.2% from 8.0%, youth unemployment remained high at 16.6% and the underemployment rate rose to 19.4% from 17.8%. The ranks of unpaid family workers also grew, constituting about 12% of the workforce, mostly in agriculture. Manufacturing jobs account for only 8% of total employment, down from 9.3% in 2004–2007 (Figure 3.8.9). Sustainable increases in employment will depend on further increases in investment, underpinned by policy reforms.

The uncertainty about the international economic outlook raises risks for the forecasts. Weaker than expected economic growth in industrial countries would hurt prospects for investment, remittances, and exports. Investor sentiment would be undermined if no progress is seen on the government's reform efforts, including public-private partnerships.

#### 3.8.6 Confidence indexes

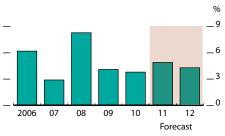


Source: Bangko Sentral ng Pilipinas. http://www.bsp.gov.ph (accessed 2 September 2011).



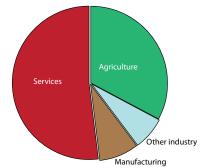
Source: Asian Development Outlook database.

#### 3.8.8 Inflation



Source: Asian Development Outlook database.

# 3.8.9 Sectoral composition of employment, 2011



*Source:* Bureau of Labor and Employment Statistics. http://www.bles.dole.gov.ph (accessed 12 August 2011).

# Thailand

The economy is projected to improve in the second half of 2011—after growing modestly in the first—but by too little to prevent a downward revision to the full-year forecast. Growth is seen picking up in 2012, supported by expansion in private consumption and investment coupled with spending and income policies from the new government. Inflation is now seen higher than was forecast in *Asian Development Outlook 2011*, both for this year and next. The current account is expected to remain in surplus through the forecast period.

### **Updated assessment**

Economic growth of 2.9% in the first half of 2011 was lower than expected, suppressed by supply chain disruptions caused by the March earthquake in Japan, cautious consumer spending, and a fall in public investment. Growth slowed from 3.2% year on year in January–March to 2.6% in April–June (Figure 3.9.1).

Private consumption grew by a modest 3.0% in the first 6 months from the prior-year period. Consumption was supported by a firm labor market, higher farm incomes (stemming from a recovery in output and favorable prices for most agricultural commodities), and growth in credit. Employment rose by 1.0% in the first half and the unemployment rate fell to just 0.7% (Figure 3.9.2). Minimum wages were raised in January 2011 and public service salaries in April.

However, an uptrend in both inflation and interest rates subdued consumer confidence in the first half. To counter inflation, the government extended concessions for low-income earners, including free electricity, water, and public transportation, through end-2011. It also provided additional subsidies on fuel and cooking gas.

Fixed capital investment increased by 6.6% in January–June, mainly owing to strength in the private sector component. Private investment in machinery and equipment rose by nearly 12%. Private construction picked up by 5.7%. Public investment, by contrast, fell by 5.9% in the first half. One reason for the decline was that decisions were postponed in May and June, after the government scheduled national elections for July and dissolved Parliament.

On the supply side, services expanded by 5.0% and contributed most of the overall GDP growth in the first half (Figure 3.9.3). Output of the hotels and restaurants subsector climbed strongly by 13.4%, reflecting a recovery from weakness in April–May 2010 when violent demonstrations in Bangkok curtailed consumer spending and inbound tourism. Tourist arrivals jumped by 28.1% in the first 6 months of this year from the same period of the previous year (Figure 3.9.4), with steep gains in the number of tourists from the People's Republic of China, the Republic of Korea, and India.



*Source:* National Economic and Social Development Board. http://www.nesdb.go.th (accessed 26 August 2011).

### 3.9.2 Unemployment rate



*Source:* Bank of Thailand. http://www.bot.or.th (accessed 2 September 2011).

This chapter was written by Luxmon Attapich of the Thailand Resident Mission, ADB, Bangkok.

Industry as a whole made only a small contribution to growth. Manufacturing output nudged up by 1.7% in January–March, then declined by 0.3% in April–June, hit by a shortage of components from Japan due to the disaster there, particularly for automobiles and hard-disk drives for computers. Production of autos plunged by 19.9% in the second quarter because of disruption to supplies caused by the disaster in Japan.

Agricultural production, recovering from drought and pest infestations that cut output in the first half of 2010, rose by 7.2%. Favorable prices for palm oil, rice, natural rubber, and sugarcane also spurred production. But output from fisheries fell by 2.8%, hurt by flooding in southern areas of the country, which damaged shrimp farms.

The value of exports of agricultural commodities surged by nearly half in January–June from the prior-year period, led by rice and natural rubber. Total merchandise exports rose by 23.1% (Figure 3.9.5) to \$57.3 billion. This strong showing was helped by the greater diversification of export markets over recent years: although most major industrial markets (about 30% of total exports) weakened, many Asian markets remained buoyant. Exports to Japan rose in part because of its greater demand for food after the disaster.

Merchandise imports climbed by 26.8% to \$55.7 billion. Higher global prices of oil contributed to an increase of 25.5% in imports of raw materials and intermediate goods. Imports of machinery moved up by 28.1%, in line with the gain in private investment. The surplus in goods trade fell by nearly 25% to \$5.0 billion in the first half, but earnings from services, particularly tourism, helped to lift the current account surplus by 19.1% to \$8.6 billion.

The capital and financial account recorded a net outflow of \$1.7 billion in the first half. Portfolio investment, mainly in Thai debt securities, recorded a surplus of \$2.4 billion, well below the second half of 2010 but up slightly from the first half of 2010. Net inflows of foreign direct investment fell to \$1.4 billion in the first 6 months of 2011 from \$3.5 billion a year earlier. International reserves of \$189 billion in late August comfortably covered 9 months of imports of goods and services.

Rising prices for food and fuel drove inflation from 3.0% in January 2011 to 4.3% in August (Figure 3.9.6). The higher food prices reflected disruptions to production from floods in the south, rising prices of livestock feed, and global trends. Core inflation (excluding food and fuel) rose to 2.9% in August.

In response to price pressures and rising inflation expectations, the Bank of Thailand raised its policy interest rate six times in the first 8 months of 2011, to 3.5% (still below inflation, Figure 3.9.7). The volume of commercial bank credit increased by 18% in the first half of 2011, with increases in both business and personal loans.

Stronger revenue collections suggest that the fiscal deficit will be narrower than the 4.0% of GDP target set for FY2011 (ending 30 September 2011). Revenue for the first 10 months of the fiscal year was 13.7% above target, while about 80% of the budgeted spending for this period was disbursed. Of B350 billion (\$10.2 billion) budgeted for the Thai Khem Kaeng (Strong Thailand) infrastructure program, 83% was disbursed in the 10-month period.



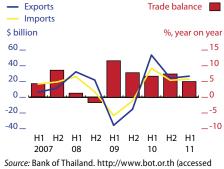
*Source:* National Economic and Social Development Board. http://www.nesdb.go.th (accessed 26 August 2011).

### 3.9.4 Tourist arrivals



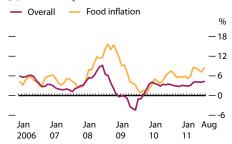
*Source:* National Economic and Social Development Board. http://www.nesdb.go.th (accessed 2 September 2011).

### 3.9.5 Trade indicators



2 September 2011).

#### 3.9.6 Monthly inflation



Sources: CEIC Data Company; Bureau of Trade and Economic Indices. http://www.price.moc.go.th (both accessed 2 September 2011).

### **Prospects**

National elections in July went smoothly and a new government with a solid majority took office the following month. At this early stage it appears that fiscal policy could become more expansionary, reflecting several pronouncements.

The government has pledged a range of spending programs, a sharp increase in minimum wages, and cuts in corporate taxes. It plans to guarantee a minimum price for unmilled rice of up to B20,000 a ton from mid-October 2011, about 50% above the market price in Thailand when the policy was announced in June. During election canvassing, the party that later formed the government outlined plans to increase allocations for village development funds and to provide debt relief for farmers. Government officials have since commented on a need to invest in high-speed railways, while also maintaining investment on mass transit rail lines and expanding Bangkok airport.

The government has said that it wants to raise the minimum income of wage earners to B300 (\$10) a day and the minimum monthly income for university graduates to B15,000—both substantial increases. The government suspended collection of levies on diesel and gasoline in August to bring down their retail prices. These levies provide funding for the government's oil fund, which is used to subsidize other fuels for consumers, including liquefied petroleum gas. The fund plans to borrow so that it can maintain these subsidies. For companies, it proposes to lower the corporate income tax rate from 30% to 20% by 2013.

In September, the new administration was reviewing the FY2012 budget prepared by the previous administration, and appeared likely to make adjustments, at least on the spending side. The original budget targeted a deficit equivalent to about 3% of GDP in FY2012.

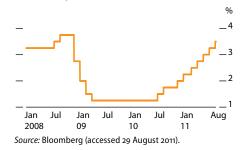
July's elections and the change in government have delayed the budget process, which will likely hold up disbursements in the fiscal year starting 1 October. Nevertheless, the government may maintain or even lift the pace of spending by tapping fiscal reserves until Parliament approves the budget, probably in January 2012.

As for monetary policy, the Bank of Thailand said in September that the economy was growing at around its potential capacity, so that additional demand would likely result in higher prices. It has also expressed concern that public anticipation of government spending could raise inflation expectations. The outlook assumes that the monetary authorities will maintain a firming stance while the policy rate is negative.

On balance, economic growth is seen picking up in the second half of 2011 and gather strength in 2012. A firm labor market, high prices for farm products (to be bolstered by the guarantee for rice prices), and favorable credit conditions are expected to sustain growth in private consumption through the outlook period. Consumer confidence is buoyant, too: the index rose to its highest level in 6 years after the elections (Figure 3.9.8). For next year, the planned increases in minimum incomes will add support for consumer spending.

The impact of the supply-chain disruptions caused by the Japanese earthquake on Thai automotive and electronics industries started to abate in May. Business sentiment is positive, despite concerns over rising production costs.





3.9.1 Selected economic indicators (%)								
	2011 2012							
	ADO Update ADO Update 2011							
GDP growth	4.5	4.0	4.8	4.5				
Inflation	3.5	3.8	3.0	3.2				
Current acct. bal. (share of GDP)	2.0	3.0	1.0	1.0				
Source: ADB estimates.								

# 3.9.8 Consumer confidence and business sentiment



*Note:* A reading of less than 100 for consumer confidence and less than 50 for business sentiments denotes a deterioration.

Sources: Center for Economic and Business Forecasting; Bank of Thailand. http://www.bot.or.th (both accessed 2 September 2011). Private investment will be stimulated by high capacity utilization rates (Figure 3.9.9), the favorable outlook for tourism and agricultural commodities, and credit growth. The Board of Investment reported strong interest from investors during the first 7 months of 2011. Moreover, a new law on public–private partnerships should have a favorable impact when it comes into effect. The law, awaiting approval from Parliament, is less restrictive than the one it replaces and has a shorter approval process.

The projected better GDP performance in the second half of 2011 should lift full-year growth to about 4.0% (Figure 3.9.10). That is a downward revision from *Asian Development Outlook 2011*, stemming from the weaker than expected first-half outcome and the lowering of the *Update* growth assumption for the major industrial economies.

Growth is still projected to quicken in 2012, on the assumption that the new government carries out the proposed spending programs and minimum-wage increases and that growth picks up in the United States (US) and Japan. However, the growth forecast is trimmed to 4.5%, given the *Update*'s downgrading of international prospects for 2012.

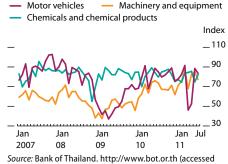
The forecast for inflation in 2011 is raised to 3.8% (Figure 3.9.11) owing to the higher than anticipated outcome so far this year. Next year, inflation is seen easing to about 3.2%. Domestic demand is expected to strengthen, but there will be less upward pressure from global fuel and food prices. Higher domestic interest rates and a firm exchange rate will assist in curbing inflation.

Export volumes and prices have held up reasonably well this year and are projected to grow by about 17% in US dollar terms. Earnings from services, notably tourism, have been stronger than expected. The forecast for the current account surplus as a ratio to GDP is raised to 3%, but left at 1% for 2012 (Figure 3.9.12).

External risks to the outlook center on feeble growth and sovereign debt problems in the US and the eurozone. Weaker than assumed global growth would hurt growth in exports, manufacturing, and investment. Domestically, there is risk that inflation could stay high. A steep increase in minimum incomes, at a time the labor market is already tight, could push up production costs and flow through to retail prices.

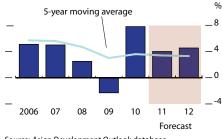
The weather, a major determinant of food production and prices, has become more variable in recent years. Finally, reallocation of budget expenditures to fund government programs targeted at consumers could divert funds away from much needed public investment on infrastructure.

#### 3.9.9 Selected capacity utilization rates



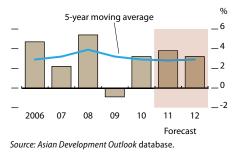
2 September 2011).

### 3.9.10 GDP growth



Source: Asian Development Outlook database.

### 3.9.11 Inflation



#### 3.9.12 Current account balance





# Viet Nam

Fiscal and monetary tightening to stabilize the economy damped GDP growth in the first half of 2011, but inflation still accelerated to over 20% by midyear. GDP growth forecasts for 2011 and 2012 are lowered slightly from April's *Asian Development Outlook 2011*. Upward pressure on prices is expected to ease, although inflation will be higher than previously forecast. Further progress on stabilization depends on maintaining the policy tightening until inflation is subdued.

### **Updated assessment**

Faced with double-digit inflation, dwindling foreign reserves, and a weakening currency, the government committed in February 2011 to a package of fiscal and monetary tightening measures—Resolution 11—to curb inflation and stabilize the external position. The policy tightening damped GDP growth to 5.4% and 5.7% year on year in the first 2 quarters (Figure 3.10.1), putting the first-half outcome at 5.6%.

Cuts in public investment and curbs on credit for real estate brought about a sharp slowdown in construction in the first 6 months of 2011 to just 4.3%, less than half the rate in same period of the previous year. Industry, excluding mining, increased output by 7.0%. The supply of some manufactured components from Japan was disrupted by the impact of the March earthquake, but the effect on industry was temporary.

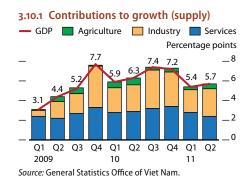
Wholesale and retail trading grew by 6.1% in the first half. However, high inflation weighed on retail sales in recent months (Figure 3.10.2). Tourism was buoyant—visitor arrivals rose by 18.4% in the first half.

Flooding in central regions and drought in the north early this year subdued agricultural output, which rose by 2.1% in the first 6 months.

Despite the slowing in growth, inflation accelerated to 23.0% year on year in August (Figure 3.10.3). It was driven by a steep jump in food prices and spurred by the impact of rapid credit growth in 2010, as well as the lagged effect of exchange rate devaluations. Food prices in August were up by nearly 34% from earlier-year levels, largely because of weather damage to agriculture and disruptions to pork supplies. Hikes in the administered prices of electricity and fuel added to consumers' costs. Month on month, inflation subsided slightly in August, to 0.9%, as pork prices declined and overall demand pressures eased.

The government shielded vulnerable groups from higher costs of electricity and fuel, but high food price inflation likely caused increases in poverty in some areas.

Stabilization of the dong exchange rate was achieved by a combination of tighter monetary policy, a large one-step devaluation of the currency in February 2011 (the fourth devaluation in 14 months), caps on US dollar deposit interest rates, and other administrative measures to limit the use



### 3.10.2 Retail sales



Note: The real value of retail sales reflects adjustments using consumer price inflation. January 2008 is the base. Source: ADB estimates based on data from General Statistics Office of Viet Nam and CEIC Data Company (accessed 17 August 2011).

This chapter was written by Dominic Mellor, Chu Hong Minh, and Nguyen Luu Thuc Phuong of the Viet Nam Resident Mission, ADB, Ha Noi.

of gold and foreign currency. Subsequently, the dong traded within its official exchange rate band until it came under some downward pressure in mid-August (Figure 3.10.4).

Policy tightening by the State Bank of Viet Nam (SBV, the central bank) involved curbs on credit and money supply, and interest rate hikes. Credit growth slowed to an estimated 23.6% year on year by mid-August 2011 and to 8.2% on a year-to-date basis, suggesting that the government can meet its credit growth target of 20% in 2011 (down from 32.4% in 2010).

Most commercial banks met a 30 June 2011 official deadline to limit credit outstanding to "nonproductive" activities such as real estate and marketable securities to 22% of total lending. Banks must now further reduce this proportion to 16% by year-end. Credit to "non-productive" activities is estimated to have declined by 17.0% during January-August.

M2 money supply growth slowed to an estimated 22.4% year on year by mid-August and to 7.8% on a year-to-date basis, which appears on track to meet the 15% target for the full year. (M2 rose by 33.3% last year).

The SBV increased its refinancing rate from 9.0% to 14.0% and its discount rate from 7.0% to 13.0% from February to May 2011, then kept them steady through end-August. These facilities are available to banks for terms of 1–12 months. It reduced its repo rate—the cost of borrowing by commercial banks from the SBV on short-term open-market operations—from 15.0% to 14.0% in July, but stated this was a response to improved interbank liquidity rather than an easing of monetary policy.

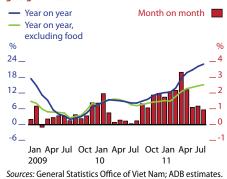
For bank customers, the average rate for borrowing in dong rose to an estimated 21%-22% at end-August (Figure 3.10.5). Deposit rates were 18%-19%, above the 14% cap imposed by SBV. Even at these higher levels, the rates are below inflation (they are above an estimate of core inflation, which excludes food and energy).

Fiscal tightening was achieved through reductions in spending and increases in revenue. Ministries and line agencies were told to withhold 10% of nonessential current expenditure (excluding salaries and wages) for 2011. The government also cut about D80 trillion (equivalent to 3.5% of GDP) from the 2011 budget for public investment by state-owned enterprises and other public entities. Higher prices for domestically produced crude oil made a weighty contribution to revenue. The government stated in August that it was on target to reduce the budget deficit to below 5.0% of GDP this year, based on its definition of the deficit, from 5.6% in 2010. (Including off-budget spending, on-lending and other adjustments, the deficit in 2010 was 7.9% of GDP—Figure 3.10.6.)

In the external accounts, merchandise exports rose by an estimated 33% to about \$43 billion on a balance-of-payments basis in the first half of 2011. Customs data showed strong gains in shipments of agricultural commodities (up by 15.3% in value), clothing and footwear (25%), electronic goods (15%), and seafood (26%). Merchandise imports rose by about 28% to \$45 billion on a balance-of-payments basis, inflated by high prices of global commodities. The trade deficit on a balance-of-payments basis narrowed by 25% to about \$2 billion in the 6 months. After higher earnings from tourism and remittances, the current account deficit narrowed by about half from the prior-year period, to an estimated \$1 billion.

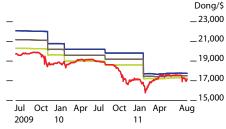
A firmer local currency enabled the SBV to partly replenish its foreign





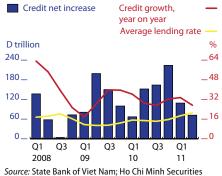
#### 3.10.4 Exchange rates

- Black market exchange rate
- Lower bound of the trading band
- Upper bound of the trading band
- Reference rate of the State Bank of Viet Nam



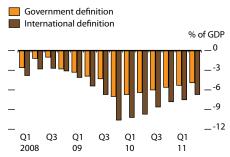
Sources: State Bank of Viet Nam; ADB observations.

### 3.10.5 Credit growth and lending rate



Source: State Bank of Viet Nam; Ho Chi Minh Securities Corporation.

#### 3.10.6 Fiscal balance



*Note:* Government definition includes revenues carried over less forwarded expenditures and public debt amortization. International definition includes off-budget expenditures and net lending. Both definitions are based on the rolling sum of fiscal balance and GDP figures.

Sources: Ministry of Finance; ADB estimates.

exchange reserves to an estimated \$15.2 billion at end-June 2011—but still low, at about 2.1 months of import cover (Figure 3.10.7).

Preliminary estimates indicate that foreign direct investment declined slightly to \$5.3 billion in the first 6 months. Portfolio investment was estimated at \$1 billion. The VN Index of stock prices fell by 12.4% in the first 8 months of 2011.

### **Prospects**

The forecasts assume that the government will maintain fiscal and monetary tightening until inflation is brought down, confidence in the dong is solidified, and foreign reserves are further rebuilt. The adoption of Resolution 11 indicated that the authorities were prepared to put macroeconomic stability before rapid growth, at least in the near term. A downward revision in June of the government's 2011 GDP growth target to 6.0% (the Socioeconomic Development Strategy 2011–2020 targets average growth of 7%–8%) appeared to reinforce this stance.

For the second half of 2011, GDP growth is expected to be modestly ahead of that in the first. The government has decided to bring forward increases in minimum wages to 1 October 2011, which will support growth in private consumption. These increases, to apply to both domestic and foreign businesses, range from 29% in major urban areas to 52% in less developed areas.

Moreover, government budget execution usually picks up toward the end of the year. Although public agency budgets are being squeezed by rapidly rising prices, they might draw down contingency funds usually earmarked for natural disasters.

Still, the forecast for full-year GDP growth is lowered slightly from *Asian Development Outlook 2011* to 5.8% (Figure 3.10.8), owing to the damping impact of higher than expected inflation and the weaker than expected performance of major industrial economies.

Next year, economic growth is expected to quicken to 6.5%, as inflation subsides somewhat and a generally more stable domestic macroeconomic environment bolsters investor and consumer confidence. Even so, growth is set to remain below the average 8% of 2003–2007.

The government plans a modest pullback in next year's fiscal deficit to 4.5% of GDP. It may ease monetary policy if core inflation trends down.

Inflation is projected to ease gradually. Food production will pick up as agriculture recovers from the impact of bad weather and as pork supplies improve (responding to high prices). The impacts of the policy tightening—a stabilizing dong, slowing credit growth, and moderating consumer spending and investment—will all help rein in inflation.

On the basis of these factors, inflation is forecast to average 18.7% in 2011, revised up from April primarily because of higher than previously forecast food prices. In 2012, inflation is seen moderating to about 11.0% (Figure 3.10.9) as a result of the policy tightening and the envisaged easing of global prices for oil and food.

Narrowing trade and current accounts deficits in the first half of 2011 have prompted a slightly revised forecast for the full-year current account gap to 3.7% of GDP. Imports will rise in 2012 as domestic demand strengthens. Modest growth in exports is projected for next year, based on the *Update*'s

3.10.7 Gross official reserves

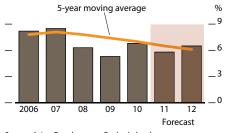


Note: Data exclude government foreign exchange deposits at the State Bank of Viet Nam and the foreign exchange counterpart of swap operations. Sources: State Bank of Viet Nam; ADB estimates.

3.10.1 Selected economic indicators (%)									
	2011 2012								
	ADO 2011	Update	ADO 2011	Update					
GDP growth	6.1	5.8	6.7	6.5					
Inflation	13.3	18.7	6.8	11.0					
Current acct. bal. (share of GDP)	-3.8	-3.7	-3.6	-3.7					
Courses ADR actima									

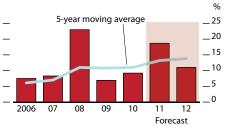
Source: ADB estimates.

### 3.10.8 GDP growth



Source: Asian Development Outlook database.

### 3.10.9 Inflation



Source: Asian Development Outlook database.

assumption of slightly faster expansion of world trade. The current account deficit in 2012 is projected to be similar to this year's as a ratio to GDP.

A more stable domestic macroeconomic environment in 2012 should stimulate foreign investment and encourage residents to bring into the banking system some of the large volume of foreign currency and gold that they hold abroad or outside the system (reflected in very large errors and omissions in the balance of payments of about \$9.0 billion in 2009 and \$3.7 billion in 2010—Figure 3.10.10). These responses would in turn bolster the overall balance of payments.

The outlook would be at risk if the baseline assumption of some pickup in major industrial economies fails to materialize in 2012. In that case, exports, investment, and remittances would be weaker than projected. Domestic risks center on premature easing of macroeconomic policies, or a perception of looser policy. Restoring investor confidence is likely to require consistent, sustained policy actions. Too-early easing could undermine macroeconomic stabilization efforts, erode business and consumer confidence in the dong, and renew downward pressure on foreign reserves.

Indeed, concerns along these lines were raised in May and June, when largely unsterilized purchases of foreign exchange by the SBV saw liquidity ease. Overnight interbank interest rates fell by about 7 percentage points to around 11% (Figure 3.10.11) in the 4 months to end-August (the central bank lowered its repo rate in July). The interbank rate remains volatile because of unstable liquidity conditions. Further, the SBV indicated in August it wanted banks to lower lending rates. The SBV must carefully balance efforts to support banks and corporations against the need to protect the real savings of depositors.

Mixed signals on the fiscal side also have the potential to unsettle business. Although the Ministry of Finance cut public spending and its fiscal deficit target earlier in 2011 it simultaneously increased some social spending, and later proposed tax breaks for businesses. Investors are likely to have more confidence in economic management if policies and policy making are given greater clarity, consistency, and transparency.

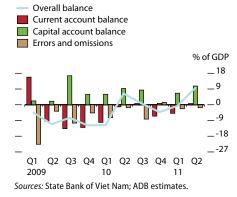
Deteriorating bank credit quality remains a risk. Macroeconomic tightening, after a period of rapid credit growth, generally puts stresses on borrowers and banks. A 23% increase in US dollar borrowing in the first 6 months of this year heightened that risk. The dong could come under downward pressure as these mostly short-term loans mature.

Reflecting these concerns, sovereign spreads and credit default swaps drifted up to 400 basis points in August, the highest since May 2009.

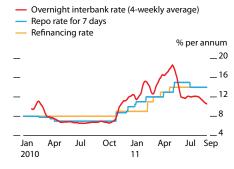
The SBV raised the required reserve ratio for banks' US dollar deposits by 4 percentage points to 8% on deposits of less than 12 months (6% on longer-term deposits) between May and August in moves aimed at damping US dollar lending. However, on 30 August it suspended limits on the loan-to-deposit ratio to reduce interest rates and support financial institutions struggling to meet credit targets.

Restoring macroeconomic stability is the immediate priority, but addressing root causes of high inflation requires greater effort on structural reforms. These reforms include reducing bottlenecks in production and transportation (including agriculture), safeguarding the finance sector, increasing the efficiency of public investment, and imposing market discipline on large state-owned enterprises.

### 3.10.10 Balance of payments



#### 3.10.11 Interest rates



Source: State Bank of Viet Nam.

# STATISTICAL APPENDIX

# Statistical notes and tables

The statistical appendix presents selected economic indicators for 44 developing member economies of the Asian Development Bank (ADB) and for Brunei Darussalam, an unclassified regional member, in three tables: gross domestic product (GDP) growth, inflation, and current account balance as a percentage of GDP. The economies are grouped into five subregions: Central Asia, East Asia, South Asia, Southeast Asia, and the Pacific. The tables contain historical data for 2008 to 2010 and forecasts for 2011 and 2012.

The data were standardized to the degree possible in order to allow comparability over time and across economies, but differences in statistical methodology, definitions, coverage, and practices make full comparability impossible. The national income accounts section is based on the United Nations System of National Accounts, while the balanceof-payments data are based on International Monetary Fund (IMF) accounting standards. Historical data were obtained from official sources, statistical publications, and databases, and documents of ADB, IMF, and the World Bank. Projections for 2011 and 2012 are generally staff estimates made on the basis of available quarterly or monthly data, although some projections are from governments.

Most countries report on a calendar-year basis, while South Asian countries (except for Maldives and Sri Lanka) report all variables on a fiscal year basis. Regional and subregional averages are provided for the three tables.

The averages are computed using weights derived from levels of gross national income (GNI) in current United States dollars following the World Bank Atlas method. The GNI data for 2008–2009 were obtained from the World Bank's World Development Indicators Online. Weights for 2009 were carried over through 2012. The GNI data for Cook Islands and Tuvalu were estimated using the Atlas conversion method. Myanmar and Nauru have no GNI data, and data for these two countries are excluded from the computation of all subregional averages and totals. The following paragraphs discuss the three tables in greater detail.

*Table A1: Growth rate of GDP (% per year).* The table shows annual growth rates of GDP valued at constant market prices, factor costs, or

basic prices. GDP at market prices is the aggregation of the value added of all resident producers at producers' prices including taxes less subsidies on imports plus all nondeductible value-added or similar taxes. Constant factor cost measures differ from market price measures in that they exclude taxes on production and include subsidies. Basic price valuation is the factor cost plus some taxes on production, such as property and payroll taxes, and less some subsidies, such as labor-related subsidies but not product-related subsidies. Most countries use constant market price valuation. Fiji Islands, India, Pakistan, and Sri Lanka use constant factor costs, while Maldives and Nepal use basic prices. The series for Timor-Leste has been changed and is now based on non-oil GDP only.

Table A2: Inflation (% per year). Data on inflation rates represent period averages. Except for India, which reports the wholesale price index, inflation rates presented are based on consumer price indexes. The consumer price indexes of the following countries are for a given city or group of consumers only: Afghanistan is for Kabul, Cambodia is for Phnom Penh, Marshall Islands is for Majuro, Solomon Islands is for Honiara, Timor-Leste is for Dili region, and Nepal is for urban consumers. The series for the Philippines has been revised due to a change in base year.

*Table A3: Current account balance (% of GDP).* The values of the current account balance, which is the sum of the balance of trade for merchandise, net trade in services and factor income, and net transfers, are divided by GDP at current prices in United States dollars. In the case of Cambodia, and Lao People's Democratic Republic, official transfers are excluded from the current account balance. Federated States of Micronesia, Marshall Islands, Nauru, Republic of Palau, and Tonga report balance-of-payments data on a fiscal year basis.

### Table A1 Growth rate of GDP (% per year)

Subregion/Economy	2008	2009	2010	2011		201	2
				ADO 2011	Update	ADO 2011	Update
Central Asia	6.1	3.2	6.6	6.7	6.1	6.9	6.6
Armenia	6.9	-14.1	2.1	4.0	4.0	4.5	4.5
Azerbaijan	10.8	9.3	5.0	5.8	3.0	5.8	4.5
Georgia	2.3	-3.8	6.4	5.5	5.5	5.0	5.0
Kazakhstan	3.3	1.2	7.0	6.5	6.5	6.8	6.8
Kyrgyz Republic	8.4	2.9	-1.4	5.0	5.5	5.0	5.5
Tajikistan	7.9	3.4	6.5	6.8	6.8	7.0	7.0
Turkmenistan	10.5	6.1	9.4	9.0	9.0	10.0	10.0
Uzbekistan	9.0	8.1	8.5	8.5	8.5	8.4	8.4
East Asia	7.3	6.8	9.6	8.4	8.1	8.1	8.0
China, People's Rep. of	9.6	9.2	10.3	9.6	9.3	9.2	9.1
Hong Kong, China	2.3	-2.7	7.0	5.0	5.5	4.7	4.7
Korea, Rep. of	2.3	0.3	6.2	4.6	4.3	4.6	4.3
Mongolia	8.9	-1.3	6.1	10.0	12.0	8.0	10.0
Taipei,China	0.7	-1.9	10.9	4.8	4.8	5.0	4.7
South Asia	6.5	7.1	7.9	7.5	7.2	8.1	7.7
Afghanistan	3.6	20.9	8.2	8.0	7.1	8.5	7.2
Bangladesh	6.2	5.7	6.1	6.3	6.7	6.7	7.0
Bhutan	10.8	5.7	8.7	7.5	8.0	8.0	8.0
India	6.9	8.0	8.5	8.2	7.9	8.8	8.3
Maldives	12.0	-6.5	9.9	5.0	7.0	5.0	5.0
Nepal	5.8	3.8	4.0	3.8	3.5	4.0	4.0
Pakistan	3.7	1.7	3.8	2.5	2.4	3.7	3.7
Sri Lanka	6.0	3.5	8.0	8.0	8.0	8.0	8.0
Southeast Asia	4.3	1.3	7.9	5.5	5.4	5.7	5.6
Brunei Darussalam	-1.9	-1.8	2.0	1.7	1.7	1.8	1.8
Cambodia	6.7	0.1	6.3	6.5	6.8	6.8	6.5
Indonesia	6.0	4.6	6.1	6.4	6.6	6.7	6.8
Lao People's Dem. Rep.	7.2	7.3	7.5	7.7	8.1	7.8	7.6
Malaysia	4.8	-1.6	7.2	5.3	4.8	5.3	5.1
Myanmar	3.6	5.1	5.3	5.5	5.3	5.5	5.4
Philippines	4.2	1.1	7.6	5.0	4.7	5.3	5.1
Singapore	1.5	-0.8	14.5	5.5	5.5	4.8	4.8
Thailand	2.5	-2.3	7.8	4.5	4.0	4.8	4.5
Viet Nam	6.3	5.3	6.8	6.1	5.8	6.7	6.5
The Pacific	5.3	4.5	5.7	6.3	6.4	5.4	5.5
Cook Islands	-1.2	-3.5	-0.1	2.0	1.1	2.5	6.5
Fiji	0.2	-1.3	0.3	0.5	1.2	0.8	1.2
Kiribati	-1.1	-0.7	0.5	2.0	2.0	2.0	2.0
Marshall Islands	-1.6	-2.1	0.5	1.0	1.0	1.2	1.2
Micronesia, Fed. States of	-2.3	0.5	0.5	1.0	1.0	0.8	0.8
Nauru	1.0	0.0	0.0	4.0	4.0	4.0	4.0
Palau	-4.9	-2.1	0.5	2.0	2.0	1.5	1.5
Papua New Guinea	6.6	5.5	8.0	8.5	8.5	6.5	6.5
Samoa	-3.2	-1.7	-0.2	2.1	2.1	3.0	3.0
Solomon Islands	7.3	-1.2	7.2	7.5	7.5	4.0	4.0
Timor-Leste	12.2	12.7	9.5	10.0	10.0	10.0	10.0
Tonga	2.0	-0.4	-1.2	0.5	0.5	1.8	1.8
Tuvalu	7.0	-1.7	0.0	0.0	0.0	0.5	0.6
Vanuatu	6.2	3.5	2.2	4.2	3.0	4.0	4.0
Average	6.7	6.0	9.0	7.8	7.5	7.7	7.5

- = data not available.

### Table A2 Inflation (% per year)

Subregion/Economy	2008	2009	2010	2011		20	12
				ADO 2011	Update	ADO 2011	Update
Central Asia	16.5	5.9	7.2	8.2	8.6	6.6	8.2
Armenia	9.0	3.4	8.2	7.5	7.5	5.5	5.5
Azerbaijan	20.8	1.5	5.7	7.5	7.5	7.0	7.0
Georgia	10.0	1.7	7.1	9.5	9.5	6.0	6.0
Kazakhstan	17.3	7.3	7.1	8.5	8.5	6.0	9.0
Kyrgyz Republic	24.5	6.9	8.0	13.0	17.0	8.0	8.0
Tajikistan	20.4	6.5	6.5	10.5	12.5	9.5	9.5
Turkmenistan	14.5	-2.7	4.4	5.0	6.5	6.0	6.5
Uzbekistan	12.7	14.1	10.6	8.8	10.0	8.5	9.5
East Asia	5.5	-0.1	3.1	4.3	4.9	3.9	3.8
China, People's Rep. of	5.9	-0.7	3.3	4.6	5.3	4.2	4.2
Hong Kong, China	4.3	0.6	2.3	4.5	5.2	3.3	3.3
Korea, Rep. of	4.7	2.8	2.9	3.5	4.4	3.0	3.0
Mongolia	28.0	7.6	10.1	17.0	13.0	14.0	11.0
Taipei,China	3.5	-0.9	1.0	2.8	1.6	2.9	1.5
South Asia	9.0	5.6	9.5	8.7	9.1	7.3	6.9
Afghanistan	26.8	-12.2	7.7	9.8	8.9	9.1	7.8
Bangladesh	9.9	6.7	7.3	8.0	8.8	8.5	8.5
Bhutan	6.4	7.1	4.7	8.0	9.0	7.5	8.5
India	8.1	3.8	9.6	7.8	8.5	6.5	6.0
Maldives	12.3	4.0	4.7	8.0	15.0	7.0	6.0
Nepal	7.7	12.6	9.6	10.0	9.6	8.0	9.0
Pakistan	12.0	20.8	11.7	16.0	13.9	13.0	13.0
Sri Lanka	22.6	3.4	5.9	8.0	8.0	7.5	7.5
Southeast Asia	8.5	2.6	4.0	5.1	5.4	4.2	4.4
Brunei Darussalam	2.1	1.1	1.5	1.5	1.5	1.5	1.5
Cambodia	25.0	-0.7	4.0	5.5	5.5	5.5	5.5
Indonesia	9.8	4.8	5.1	6.3	5.6	5.8	5.4
Lao People's Dem. Rep.	7.6	0.0	6.0	6.5	8.5	6.0	6.0
Malaysia	5.4	0.6	1.7	3.0	3.4	3.0	3.0
Myanmar	22.5	8.2	7.3	8.0	8.3	8.0	8.2
Philippines	8.3	4.1	3.8	4.9	4.9	4.3	4.3
Singapore	6.6	0.6	2.8	3.2	4.3	2.0	2.4
Thailand	5.4	-0.9	3.2	3.5	3.8	3.0	3.2
Viet Nam	23.0	6.9	9.2	13.3	18.7	6.8	11.0
The Pacific	9.8	4.9	5.7	6.5	8.3	5.6	5.9
Cook Islands	7.8	6.6	4.0	4.0	3.5	3.5	3.0
Fiji	7.8	3.7	7.8	4.0	8.0	3.0	3.0
Kiribati	11.0	8.8	-2.8	6.7	6.7	2.3	7.1
Marshall Islands	14.7	1.5	1.5	5.0	5.0	3.8	3.8
Micronesia, Fed. States of	6.8	7.7	3.5	4.0	6.0	3.0	5.5
Nauru	4.5	2.2	-0.5	2.5	2.5	2.5	2.5
Palau	11.3	4.6	1.5	4.0	6.0	2.5	5.0
Papua New Guinea	10.8	6.9	6.0	8.0	9.5	7.5	8.0
Samoa	11.5	6.6	1.2	3.0	3.0	2.5	2.0
Solomon Islands	17.3	4.2	1.0	4.2	5.0	6.3	6.3
Timor-Leste	9.0	0.7	6.8	7.5	9.5	5.3	5.3
Tonga	9.8	5.0	2.0	3.0	3.0	2.0	2.0
Tuvalu	10.4	-0.1	-1.9	1.5	1.2	2.0	1.6
Vanuatu	4.8	4.3	2.8	5.0	4.0	4.0	4.0
Average	6.8	1.4	4.4	5.3	5.8	4.6	4.6

- = data not available.

### Table A3 Current account balance (% of GDP)

Subregion/Economy	2008	2009	2010	2011		20	12
				ADO 2011	Update	ADO 2011	Update
Central Asia	9.1	1.3	7.4	7.8	7.5	7.1	7.6
Armenia	-11.8	-15.8	-14.7	-13.0	-13.5	-12.3	-12.7
Azerbaijan	33.7	22.9	31.9	27.8	25.5	25.0	25.0
Georgia	-22.8	-11.2	-9.6	-12.6	-10.9	-11.4	-10.0
Kazakhstan	4.7	-3.8	2.9	3.5	4.5	3.5	5.0
Kyrgyz Republic	-13.7	-2.3	-4.1	-9.0	-9.0	-9.0	-9.0
Tajikistan	-7.6	-5.9	2.2	-4.3	-3.7	-6.4	-7.0
Turkmenistan	18.7	-16.1	-11.4	3.4	-2.0	7.0	3.4
Uzbekistan	16.7	11.0	15.6	16.3	16.3	12.6	12.6
East Asia	7.7	6.1	5.1	4.4	4.1	4.1	3.8
China, People's Rep. of	9.4	6.0	5.2	4.6	4.1	4.2	3.8
Hong Kong, China	13.7	8.6	6.2	7.2	7.2	7.5	7.5
Korea, Rep. of	0.3	3.9	2.8	1.8	1.8	1.7	1.7
Mongolia	-12.3	-7.5	-15.3	-15.0	-20.0	-14.0	-14.0
Taipei,China	6.9	11.4	9.3	6.9	7.4	7.0	7.2
South Asia	-3.1	-2.7	-2.2	-3.1	-2.3	-3.1	-2.7
Afghanistan	-1.6	-2.6	2.2	1.4	-1.4	-0.8	-3.8
Bangladesh	0.9	2.7	3.7	0.2	0.9	-0.3	-0.3
Bhutan	-2.1	-1.6	-13.5	-20.0	-20.0	-20.0	-20.0
India	-2.5	-2.8	-2.6	-3.5	-2.8	-3.3	-3.0
Maldives	-36.2	-24.0	-24.2	-35.0	-40.0	-35.0	-35.0
Nepal	2.9	4.2	-2.8	-0.5	-0.9	-0.5	0.5
Pakistan	-8.5	-5.7	-2.2	-1.7	0.2	-2.3	-1.3
Sri Lanka	-9.5	-0.5	-2.9	-4.0	-4.0	-4.0	-4.0
Southeast Asia	4.5	7.6	6.2	5.0	5.0	4.6	4.3
Brunei Darussalam	48.3	37.2	42.6	50.0	50.0	50.0	50.0
Cambodia	-13.4	-11.6	-12.3	-10.7	-11.6	-10.2	-11.0
Indonesia	0.0	2.0	0.8	0.5	0.4	0.1	0.1
Lao People's Dem. Rep.	-21.0	-12.4	-9.0	-9.0	-9.4	-10.0	-11.0
Malaysia	17.5	16.5	11.5	10.0	10.0	9.0	9.0
Myanmar	-2.2	-1.3	-2.2	-4.1	-4.3	-4.7	-4.8
Philippines	2.1	5.6	4.2	4.1	2.5	3.9	2.1
Singapore	14.6	19.0	22.2	18.8	18.8	19.2	19.2
Thailand	0.5	8.3	4.7	2.0	3.0	1.0	1.0
Viet Nam	-11.8	-6.2	-4.0	-3.8	-3.7	-3.6	-3.7
The Pacific	74.0	36.5	26.6	24.9	22.6	21.5	19.4
Cook Islands	4.7	6.3	4.9	-	-	-	-
Fiji	-18.0	-8.2	-7.4	-2.2	-8.9	-2.1	-8.5
Kiribati	-34.7	-29.8	-23.1	-21.3	-28.9	-22.7	-29.2
Marshall Islands	-1.3	-15.4	-10.5	-	-	-	-
Micronesia, Fed. States of	-15.0	-18.6	-17.0	-	-	-	-
Nauru Palau	- -17.9	- -13.7	- -9.5	-	-	-	-
Papua New Guinea	9.9	-7.3	-26.6	-35.9	-35.9	-34.2	-34.2
Samoa	-6.4	-2.8	-20.0	-12.9	-12.9	57.2	-
Solomon Islands	-19.6	-20.0	-27.6	-15.0	-20.0	-15.0	-15.0
Timor-Leste	455.0	244.4	238.0	233.7	233.7	205.8	205.8
Tonga	-8.8	-7.7	-4.8		-11.0	205.0	-11.7
Tuvalu	-	-			-		-
Vanuatu	-11.1	-8.2	-5.9	-3.8	-4.0	-4.7	-4.7
Average	5.5	4.7	4.1	3.3	3.2	3.0	2.8
Average	5.5	<del>'</del> +./	4.1	5.5	5.2	5.0	2.0

- = data not available.

### Asian Development Outlook 2011 Update Preparing for Demographic Transition

The annual Asian Development Outlook, generally launched in April, presents an analysis of developing Asia's recent economic performance plus its prospects for the next two years. This Update shows whether these forecasts were met, explaining divergence between forecasts and the actual outturn, and firms the forecasts for the next 18 months or so.

The Update expects developing Asia to sustain its robust growth over the next 2 years, despite the tepid outlook for the United States, the eurozone, and Japan. The region will be buttressed by healthy domestic demand and buoyant intraregional trade. Managing inflation has to be a key focus for policy makers, to allow for inclusive growth.

Such growth includes the elderly, who are all too often left behind as Asia's traditional family networks weaken. As the elderly will form an ever-larger share of the region's population over the next few decades, states will have to ensure their economic security—and meet the wider economic implications for society.

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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: 1.8 billion people who live on less than \$2 a day, with 903 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.

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