

1. Managing Shifting Risks

Signs of Pickup amid Receding Tail Risks

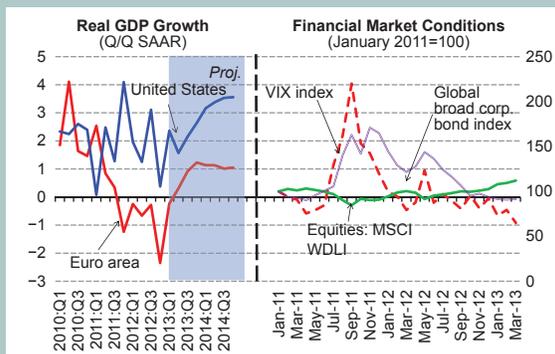
The global economy entered 2013 with receding tail risks as the U.S. fiscal cliff and an escalation of the euro area crisis had been averted. In the United States, activity, balance sheets, house prices, and credit were improving while major emerging economies were also seeing strengthening activity. In the euro area, however, economic prospects remain fragile, with weak activity extending to core countries. Meanwhile, financial conditions are ameliorating across the board, with equity prices rising to multiyear highs, volatilities declining, and credit spreads compressing (Figure 1.1). While downside risks remain significant, risks are now more balanced than they were at the time of the October 2012 Asia and Pacific *Regional Economic Outlook* Update (IMF, 2012d).

With global financial conditions easing markedly since mid-2012 amid further loosening in monetary stances in major advanced economies, risk capital began to return to emerging Asia (Figure 1.2). In particular, net portfolio flows gained strength since the third quarter of 2012, when they turned positive. Mutual funds data at the beginning of 2013 suggest weekly flows were comparable to the strong levels seen before the global financial crisis, although capital inflows moderated more recently. The turnaround has been led by ASEAN economies where, in 2012:Q3, the swing in net portfolio flows amounted to about 3¼ percent of GDP. At the same time, the impact of European bank deleveraging on Asian financial systems continued to be relatively small and measured, with cross-border lending from euro area banks declining at a pace of less than ¼ percent of emerging Asia

Note: The main authors of this chapter are Kevin C. Cheng and Olaf Unteroberdoerster, with contributions from Kum Hwa Oh. Sidra Rehman and Dulani Seneviratne provided research assistance.

Figure 1.1

GDP Growth and Financial Market Conditions

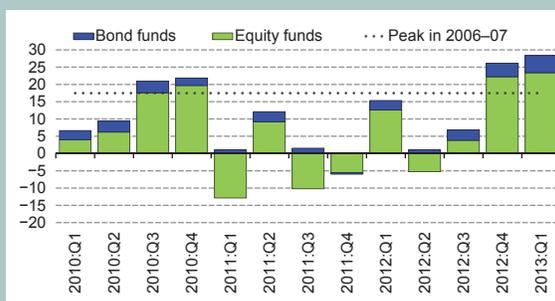


Sources: IMF, *World Economic Outlook*; and Bloomberg L.P.

Figure 1.2

Selected Asia: Equity and Bond Funds— Quarterly Net Flows during 2010–13¹

(In billions of U.S. dollars)



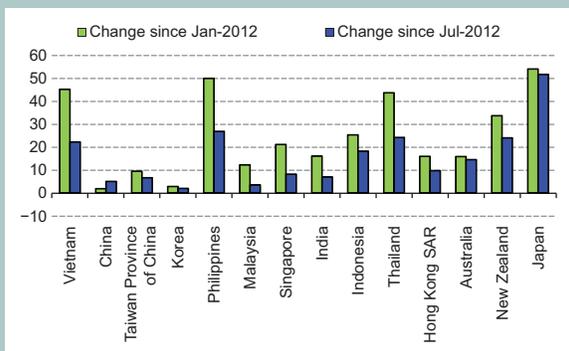
Source: Haver Analytics.

¹ Includes exchange traded fund flows and mutual fund flows for Emerging Asia, Hong Kong SAR, Taiwan Province of China, Korea, and Singapore.

GDP in the third quarter of 2012 and regional banks, notably from Japan, taking up the slack.

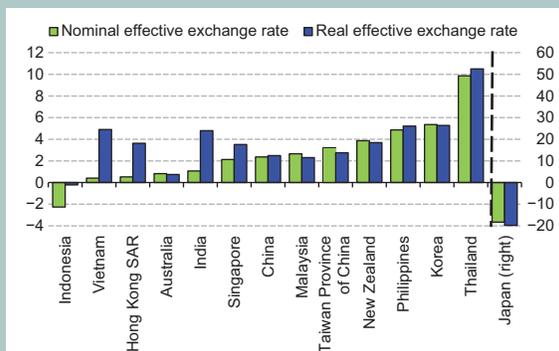
As a result, Asian financial markets have been buoyant, and indicators of financial stress have fallen sharply. Most stock markets have risen by more than 10 percent since early 2012, and gains have exceeded 20 percent in a number of cases (Figure 1.3). Since their peak in mid-2012, spreads on sovereign credit default swaps (CDS) have fallen by some 100 basis points on average and stabilized at their lowest levels since 2010. Bank CDS spreads indicate a

Figure 1.3
Asia: Stock Markets¹
(Percent change of stock index)



Sources: Bloomberg L.P.; and IMF staff calculations.
¹ Latest data as of April 8, 2013.

Figure 1.5
Asia: Effective Exchange Rates¹
(Change since July 2012; in percent; positive change = appreciation)



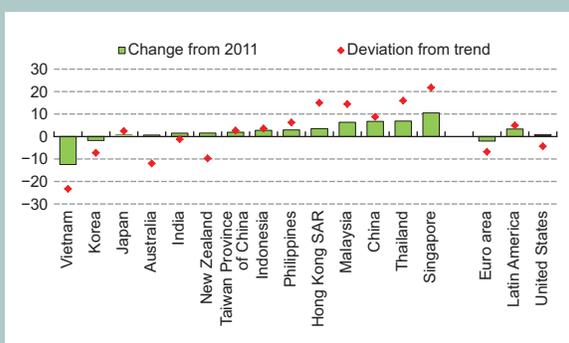
Sources: IMF, *Information Notice System*; and IMF staff calculations.
¹ Data as of March 2013.

similar improvement of risk perceptions for Asian banks. Easy financial conditions have contributed to robust credit growth in the region (Figure 1.4), while corporate bond issuance has accelerated. At the same time, the currencies of most economies have appreciated since mid-2012, both in nominal and real effective terms—in several cases (including Korea and Thailand) by more than 5 percent. Japan and, to a lesser extent, Indonesia are two notable exceptions to this trend, with the yen depreciating by more than 18 percent in real effective terms since July 2012 (Figure 1.5). While the yen depreciation

reflected a confluence of factors including further monetary easing, a widening trade deficit, and reduced safe-haven effects amid improving global risk appetite, foreign investor sentiment against the rupiah weakened amid a deteriorating current account deficit.

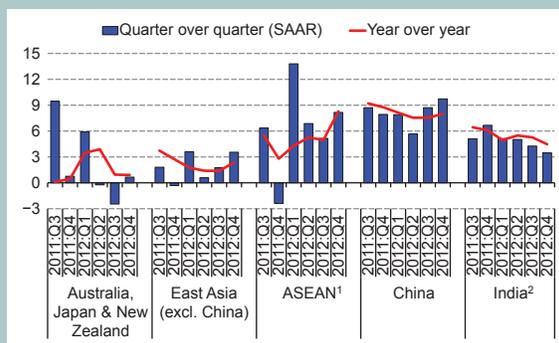
Against the backdrop of easier financial conditions and stabilizing external demand, economic activity gained momentum during 2013:Q1, after a broad-based weakening of exports growth across the region through most of 2012 (Figure 1.6). Led by China, export

Figure 1.4
Asia: Change in Credit to GDP, 2012¹
(In percentage points)



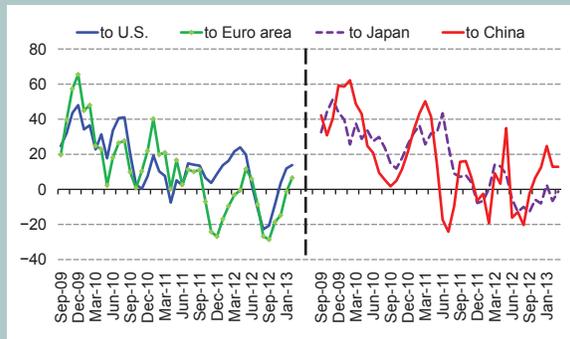
Sources: IMF, International Financial Statistics database, *World Economic Outlook*; and IMF staff calculations.
¹ Trend calculated using H-P filter over the period 2001–11.

Figure 1.6
Asia: Changes in Real GDP at Market Prices
(In percent)



Sources: CEIC Data Company Ltd.; Haver Analytics; and IMF staff calculations.
¹ ASEAN includes Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.
² India's GDP is at factor cost.

Figure 1.7
Selected Asia: Exports to Major Destinations
(Three-month percent change of three-month moving average; SAAR)

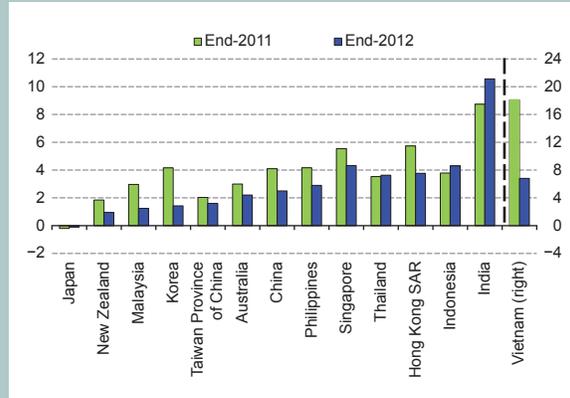


Sources: CEIC Data Company Ltd; Haver Analytics; and IMF staff calculations.

growth has begun to pick up. In part, the rise reflects a combination of supply-chain links and firming demand across Asia and from advanced economies, notably the United States (Figure 1.7). In addition, purchasing managers indexes for manufacturing have improved across the region and reentered expansionary territory in recent months, although they remain below their averages before the global financial crisis. At the same time, notably in China and, to a lesser extent, leading ASEAN economies, private domestic demand has remained robust with relatively favorable financial and labor market conditions supporting stable consumer confidence, buoyant investment, and robust retail sales.

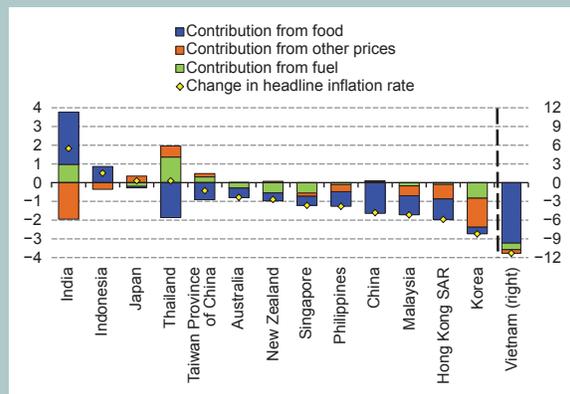
Across much of Asia, headline inflation slowed markedly through 2012, in many cases by some 2 percentage points; the notable exceptions were India, Indonesia, and, to a lesser extent, Thailand (Figure 1.8). Declines were generally driven by moderating food and commodity prices, although in several cases, second-round effects from weaker activity also contributed (Figure 1.9). Core inflation in early 2013 was low and stable, at or below 2 percent in a number of economies, including China, Korea, and Malaysia. At the same time, deflation persisted in Japan, where headline and core inflation fell to a negative 0.1 percent and negative 0.2 percent, respectively, at end-2012.

Figure 1.8
Asia: Headline Inflation
(Year-over-year percent change)



Sources: CEIC Data Company Ltd.; Haver Analytics; and IMF staff calculations.

Figure 1.9
Asia: Contributions to 2012 Change in Headline Inflation Rate
(In percentage points)

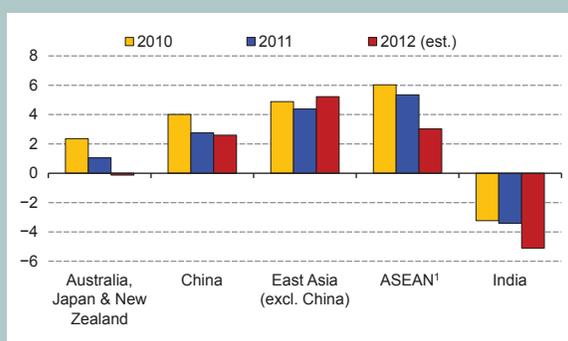


Sources: CEIC Data Company Ltd.; Haver Analytics; and IMF staff calculations.

Consistent with weak external demand and relatively strong domestic conditions, the region's trade and current account balances continued to shrink substantially in 2012. While China has played a prominent role in this decline, balances have also declined substantially in Japan, leading ASEAN economies, and India (Figure 1.10).

Against the broad regional trends, the dynamics and composition of growth have varied significantly across Asia in 2012 and early 2013.

Figure 1.10

Asia: Current Account Balances*(In percent of GDP)*Source: IMF, *World Economic Outlook*.¹ ASEAN includes Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.

- Activity in Japan entered a short-lived recession after the middle of 2012 as consumption was hit by the expiration of eco-friendly car subsidies, and exports decreased in conjunction with weakening external demand. However, signs of a turnaround emerged in early 2013 due to rising business sentiment and gradually improving industrial production. Growth in Australia was around its trend pace in 2012, after peaking at 4 percent in the first half of 2012, although some non-mining sectors remained under pressure from the strong currency, partly driven by the heightened appetite of international investors for Australia's government debt. In New Zealand, a modest recovery from the 2012 earthquake, fuelled by reconstruction spending, was held back by high household debt and sluggish private consumption.
- In East Asia, the Chinese government's effort to achieve a soft landing has been confirmed with a moderate pickup of growth in the fourth quarter of 2012, led in part by more credit-financed infrastructure investment and a recovery of exports. In Korea, exports that led the sharp slowdown in 2012 have stabilized, but consumption remained subdued notwithstanding a cut in policy rates of 50 basis points and the adoption of two modest fiscal packages.
- In South Asia, a drop of private investment over rising policy uncertainty exacerbated supply bottlenecks in India, which contributed

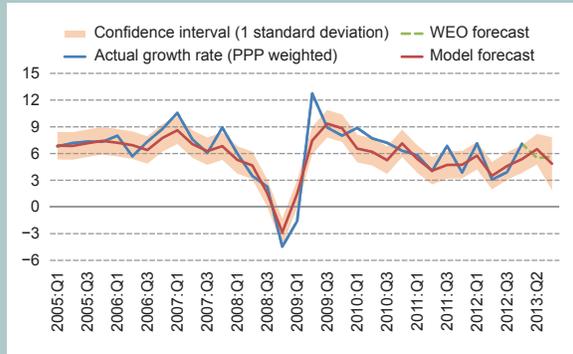
to headline inflation that was high compared with that of most other Asian economies, despite a sharp growth slowdown during 2012. In Sri Lanka, tighter policies in early 2012 to rein in credit and import growth contributed to slowing activity last year.

- Many ASEAN economies, especially Indonesia, Malaysia, the Philippines, and Thailand, bucked regional trends—growth held up on robust domestic demand, in part supported by accommodative monetary and fiscal stances and fueled by rapid credit expansion.
- Exports of Asian low-income economies slackened, although external headwinds were mitigated in some cases: by privileged access to advanced economies (such as the European Union in the case of Cambodia), resilient remittances (Bangladesh and Nepal), and rapid domestic credit growth (Cambodia and the Lao People's Democratic Republic). More recently, export growth has gained momentum for a number of garment manufacturers, while sharply higher exports and imports in Myanmar in the first quarter of 2013 also reflected an improved business environment and the suspension of sanctions. On the other hand, recovery in the Pacific Island economies has continued to be held back by delays in growth-friendly structural reforms and in infrastructure investments to improve connectivity.

Stronger Prospects in the Period Ahead Hinge on Internal Demand Dynamics

A small, gradual pickup in growth is expected to continue throughout 2013, underpinned by continued robust domestic demand and some modest strengthening in external demand (Figure 1.11, reflecting readings from a broad range of high-frequency activity indicators covering industrial Asia, large emerging market economies, and smaller export-dependent economies). Growth for Asia as a whole is forecast to increase to about 5¾ percent in 2013 and 6 percent in 2014 (Table 1.1 and Figure 1.12). The main elements

Figure 1.11
Indicator Model for Asia: Projected vs. Actual Real GDP Growth
(In percent; q/q seasonally adjusted annualized rate)

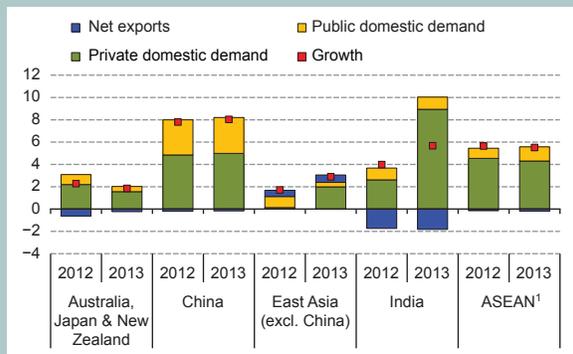


Sources: CEIC Data Company Ltd.; Haver Analytics; IMF, *World Economic Outlook*; and IMF staff calculations.

supporting this resilient domestic demand are labor markets and capital inflows:

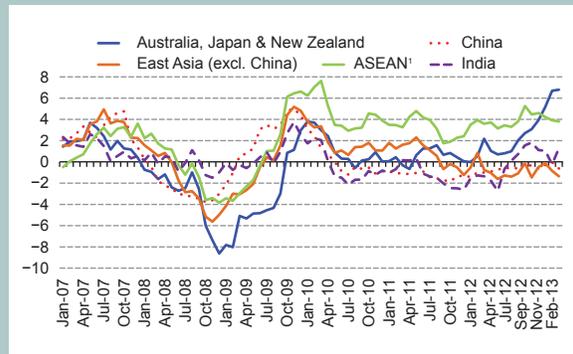
- Labor market conditions are strong, supporting robust consumer confidence and household disposable income. Broadly, unemployment rates have fallen further over the past year and are substantially lower than their precrisis averages, in several cases—including Hong Kong SAR and Singapore—by more than 1 percentage point. At the same time, real wages have continued to climb across the region, including in China, where productivity has been strong and the

Figure 1.12
Selected Asia: Contributions to Projected Growth
(In percentage points; year over year)



Sources: IMF, *World Economic Outlook*; and IMF staff calculations.
¹ ASEAN includes Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.

Figure 1.13
Asia: Financial Conditions Index (FCI)
(Index; increase = loosening of financial conditions)



Source: IMF staff estimates (see Osorio, Pongsaparn, and Unsal, 2011, "A Quantitative Assessment of Financial Conditions in Asia," IMF Working Paper 11/170, for details).

¹ ASEAN includes Indonesia, Malaysia, the Philippines, Singapore, and Thailand.

working-age population as a share of the total population is projected to decline after 2015.

- Capital inflows to emerging Asia are likely to remain buoyant, in light of push factors (easy monetary conditions in Western advanced economies and reduced risk aversion) and pull factors (notably growth and return differentials vis-à-vis advanced economies). Financial conditions have generally eased in early 2013, mainly as a result of the higher stock prices and rapid credit growth (Figure 1.13), thereby providing an impetus to economic activity going forward. In particular, portfolio equity flows are estimated to boost private consumption and investment in Asia mainly by raising asset prices and boosting credit growth. For emerging Asia as a whole, an increase of 1 percent of GDP in such portfolio flows is estimated to translate into a rise of about ½ percentage point in private consumption growth, and a 1½ percentage point increase in investment growth after three to four quarters (Figures 1.14 and 1.15).

Regional economies are also expected to benefit from growing spillovers of internal demand. For some of the more advanced open economies, such as Korea and Taiwan Province of China, direct and indirect exposure to demand from China and Japan is as important as exposure to demand from

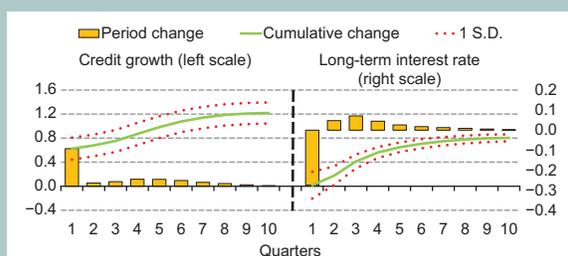
Table 1.1. Asia and Pacific: Real GDP*(Year-over-year percent change)*

	Actual Data and Latest Projections					Difference from October 2012 WEO		
	2010	2011	2012	2013	2014	2012	2013	2014
Australia	2.6	2.4	3.6	3.0	3.3	0.3	0.0	0.1
Japan	4.7	-0.6	2.0	1.6	1.4	-0.2	0.4	0.3
New Zealand	1.8	1.4	2.5	2.7	2.6	0.3	-0.3	-0.1
East Asia	9.9	8.2	6.7	7.1	7.5	-0.1	-0.3	-0.3
China	10.4	9.3	7.8	8.0	8.2	0.0	-0.2	-0.3
Hong Kong SAR	6.8	4.9	1.4	3.0	4.4	-0.4	-0.5	0.1
Korea	6.3	3.6	2.0	2.8	3.9	-0.7	-0.8	-0.1
Taiwan Province of China	10.8	4.1	1.3	3.0	3.9	-0.1	-0.9	-0.6
South Asia	10.9	7.7	4.2	5.7	6.3	-0.8	-0.3	-0.2
Bangladesh	6.4	6.5	6.1	6.0	6.4	0.0	-0.1	-0.4
India	11.2	7.7	4.0	5.7	6.2	-0.9	-0.3	-0.2
Sri Lanka	8.0	8.2	6.4	6.3	6.7	-0.3	-0.5	0.3
ASEAN	7.6	4.6	5.7	5.5	5.5	0.5	0.0	0.0
Brunei Darussalam	2.6	2.2	1.3	1.2	6.0	-1.4	-0.4	1.1
Cambodia	6.1	7.1	6.5	6.7	7.2	0.0	0.0	0.0
Indonesia	6.2	6.5	6.2	6.3	6.4	0.2	0.0	-0.1
Lao People's Democratic Republic	8.1	8.0	8.3	8.0	7.7	0.0	0.0	0.0
Malaysia	7.2	5.1	5.6	5.1	5.2	1.2	0.4	0.2
Myanmar	5.3	5.5	6.3	6.5	6.6	0.1	0.2	0.2
Philippines	7.6	3.9	6.6	6.0	5.5	1.8	1.2	0.5
Singapore	14.8	5.2	1.3	2.0	5.1	-0.8	-0.9	1.5
Thailand	7.8	0.1	6.4	5.9	4.2	0.9	-0.1	-0.3
Vietnam	6.8	5.9	5.0	5.2	5.2	-0.1	-0.6	-1.2
Small States¹	3.7	4.5	3.8	3.6	3.5	-0.1	-0.3	0.0
Pacific Island Countries²	2.5	3.2	2.6	2.2	2.5	-0.3	-0.3	0.2
Emerging Asia³	10.1	8.2	6.7	7.2	7.4	-0.1	-0.2	-0.2
Asia, Total	8.6	6.1	5.3	5.7	6.0	-0.2	-0.2	-0.1

Source: IMF staff projections.

¹ Small states include Bhutan, Fiji, Kiribati, Maldives, Marshall Islands, Micronesia, Palau, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu.² Pacific Island Countries include Fiji, Kiribati, Marshall Islands, Micronesia, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.³ Emerging Asia includes China, India, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam.

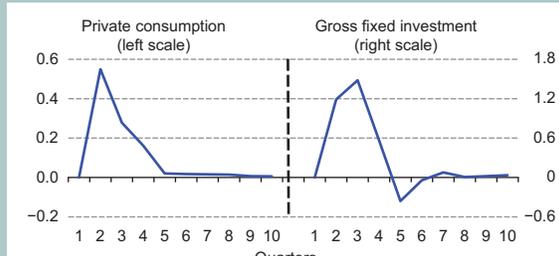
Figure 1.14

Emerging Asia: Response of Credit Growth and Long-Term Interest Rate to Non-FDI Inflows¹*(In percentage points)*

Source: IMF staff estimates.

¹ Includes the Philippines, Malaysia, Thailand, Indonesia, India, Korea, and Taiwan Province of China. Response of quarter-on-quarter annualized growth to 1 percentage point of GDP increase in net inflows of each type.

Figure 1.15

Emerging Asia: Response of Domestic Demand to Portfolio Equity Flows¹*(In percentage points)*

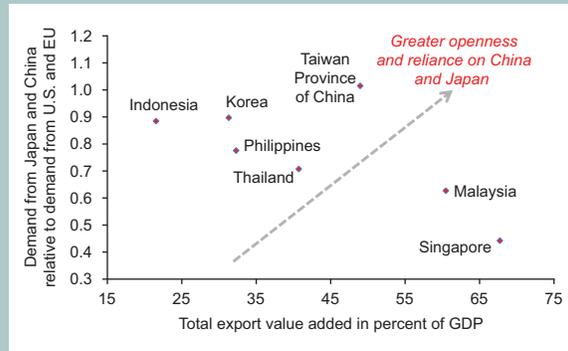
Source: IMF staff estimates.

¹ Includes the Philippines, Malaysia, Thailand, Indonesia, India, Korea, and Taiwan Province of China. Response of quarter-on-quarter annualized growth to 1 percentage point of GDP increase in net inflows.

Figure 1.16

Selected Asia: External Dependence and Role of U.S. and EU Demand versus Japan and China

(Value-added basis; average 2005–10)



Sources: U.N. Comtrade database; and IMF staff calculations.

the United States and Europe (Figure 1.16). They should therefore benefit from the ongoing recovery in China and the stimulus measures in Japan. Recent exchange rate movements are unlikely to materially affect this outlook, as they have been generally moderate, and supply-chain links tend to dampen their impact on external competitiveness (see IMF, 2011b: April 2011 *Regional Economic Outlook: Asia and Pacific*). From a historical perspective, export market shares of Asian economies remained close to trend despite large swings in real effective exchange rates in the aftermath of the global financial crisis.² Moreover, in the case of ASEAN economies, growing integration in final consumer goods trade may also contribute to favorable intraregional demand dynamics (Box 1.1).

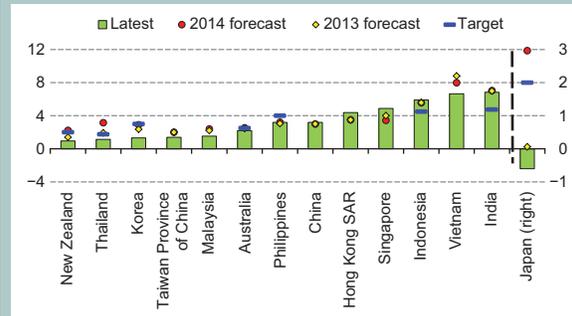
While leading indicators also point to a recovery of Asia's electronics exports, the role of the information technology (IT) sector as Asia's traditional engine of industrial growth is becoming more varied across the region. As highlighted in Box 1.2, the IT sectors in East Asia, led by China and Taiwan Province of China, have had a relatively

² Since mid-2012 the yen depreciated by over 18 percent in real effective terms, while many other regional currencies appreciated by about 3–6 percent. This follows real effective exchange rate movements of more than 20 percent between mid-2008 and 2010 for a number of economies, including Japan (increase) and Korea (decrease).

Figure 1.17

Asia: Headline Consumer Price Inflation¹

(Year over year; in percent)



Sources: CEIC Data Company Ltd.; Haver Analytics; and IMF, *World Economic Outlook*; and IMF staff projections.

¹ Target refers to mid-point of headline inflation target band (Australia, Korea, New Zealand, Indonesia, Japan and Philippines). Core inflation and core inflation target band mid-point (Thailand). For India WPI is used. Japan 2014 projection includes effects of consumption tax increase.

strong recovery, with exports exceeding precrisis trends as early as 2011. In these economies, IT sectors have undergone a longer-term upgrading with a steady rise in the share of high-tech outputs, such as semiconductors, flash drives, and fiber-optical devices. By contrast, in economies where the share of medium-tech output continues to play a dominant role, export growth has been weaker, and often the share of IT in overall exports has shrunk, including in the Philippines, and to a lesser extent Indonesia and Thailand.

Inflation is expected to remain generally within central banks' explicit or implicit comfort zones, with the notable exception of India. Consistent with the moderate pickup in growth and a stable outlook for global food and commodity prices, headline inflation would average 3.3 percent in 2013, only slightly higher than the 2012 average of 3.2 percent and would rise to 3.7 percent in 2014 (Figure 1.17).

In addition to these general trends, important country-specific factors influence this outlook:

- In Japan, a sizable fiscal stimulus—about 1½ percent of GDP over two years—will boost growth by some 0.6 percentage point in 2013, and growth will be further supported by a recovery in external demand and the substantial further monetary easing under the recently announced quantitative and qualitative

Box 1.1

ASEAN-5 Integration as a Source of Resilience¹

Intraregional trade among ASEAN-5 economies currently accounts for more than 20 percent of this region’s total trade with the world, a larger share than trade with China, Japan, the United States, or the European Union. The large rise in the countries’ trade with China over the past decade can largely be attributed to increasing trade in intermediate goods, as ASEAN-5 and China have integrated to form a new supply-chain network.² On the other hand, trade in final consumption goods within ASEAN-5 economies has seen a remarkable uptrend (figure, top), pointing to the growing significance of domestic consumption as a source of short-term growth and resilience for the region.

Besides global demand, intraregional demand is indeed empirically found to be an important driver of ASEAN-5 growth (excluding Indonesia, which has a lower trade-to-GDP ratio and whose major exports, including commodities, are outside ASEAN). A Bayesian vector autoregression analysis highlights the importance of trade shocks (global growth) and financial channels (VIX, a measure of global risk aversion) of global spillovers, over and above shocks to ASEAN-5 trading partners’ growth in determining the region’s growth (figure, middle). The increasing role of intraregional trade in final consumption goods, together with a large domestic market, especially in Indonesia, appears to provide the region with a potential source of resilience against global demand shocks.³

Despite the softening of global growth in 2012, robust domestic demand in many ASEAN economies has continued to lend support to growth momentum. Can domestic demand continue to be resilient in the face of external headwinds? A threshold model is estimated for each country, whereby the spillover from external to domestic demand can potentially intensify once the former deteriorates beyond a certain threshold. In relatively open economies such as Malaysia and Thailand, domestic demand is able to withstand external shocks, provided they are not too large; domestic demand in these countries is almost immune to a one-standard-deviation external shock, but is substantially affected once the shock size is doubled (figure, bottom).⁴ For ASEAN as a bloc, there are also significant threshold effects, but it takes a much larger external shock to materially affect the aggregate domestic demand—even a two-standard-deviations shock does not exceed the estimated threshold (figure, bottom). Domestic demand for ASEAN as a whole is therefore more resilient than the sum of its parts, reflecting a boost to resilience afforded by greater intraregional trade integration and pooling of risks among country members.

Note: The main author of this box is Phurichai Rungcharoenkitkul.

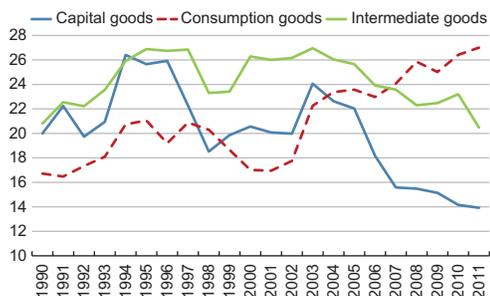
¹ Cubero and others (forthcoming). For purposes here, ASEAN-5 consists of Indonesia, Malaysia, the Philippines, Singapore, and Thailand.
² See Unterroberdoerster and others (2010).

³ The effect of China’s growth shocks on ASEAN’s GDP growth appears to be more mixed. While China serves as conduit in transmitting global shocks through the supply chain, shocks to Chinese investment are found to have adverse spillovers.

⁴ External shocks are innovations of exports equations assumed to follow a simple autoregressive process.

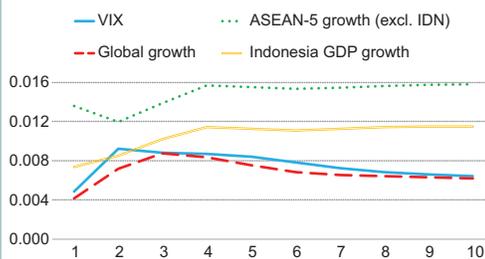
Intraregional Exports by Category

(In percent of total exports in each category)



Sources: U.N. Comtrade database; and IMF staff calculations.

Accumulated Response of ASEAN-5 (excl. Indonesia) GDP Growth to Cholesky One Standard Deviation Innovations¹

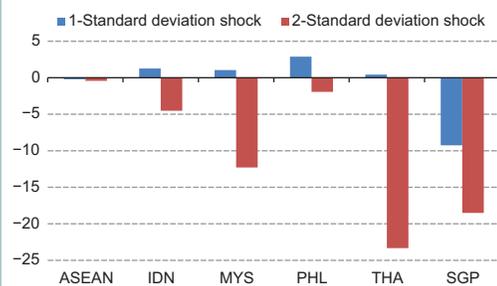


Source: IMF staff estimates.

¹ The chart includes statistically significant variables only. The model is identified using a standard Cholesky decomposition with lag length of the VAR based on standard information criterion. The variables in the model are ordered as follows, starting with the most exogenous shock: VIX, external GDP growth, global oil prices, other exogenous variables, real ASEAN-4 GDP growth (excluding domestic economy), and domestic real GDP growth. The VIX is included in levels while all other variables are in log first differences.

Next-Quarter Impulse Responses of Domestic Demand to Export Shocks

(Percent change; annualized)



Source: IMF staff estimates.

Box 1.2

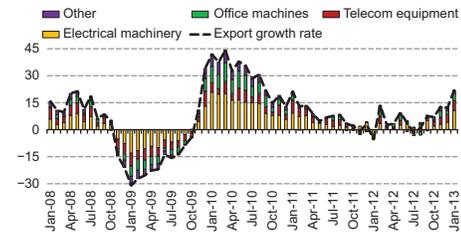
Asia's Electronics Sector: An Engine of Growth for All?

The incipient recovery of Asia's electronics sector has encompassed all segments, including electrical machinery and telecom equipment (figure, top right). Looking at major destinations, exports to China, Japan, and the United States have picked up, while exports to Europe remain depressed. China and other East Asian economies have been the main beneficiaries of the recovery of electronics exports so far, which is also evident in a broader measure of new orders (manufacturing purchasing managers index), while other economies, including Japan and the Philippines, have been lagging (figure, middle right).

The varying strength in the recovery across the region is symptomatic of a longer-term trend whereby the role of electronics as an engine to propel overall growth has been shifting across Asian economies. Indeed, over the past decade, China and closely linked economies in East Asia have become increasingly dependent on electronics exports, while all other economies have diversified away from this sector. For the former, the share of electronics in total exports has increased by some 10–20 percentage points, while for the latter it has fallen by roughly the same order of magnitude (figure, bottom left).

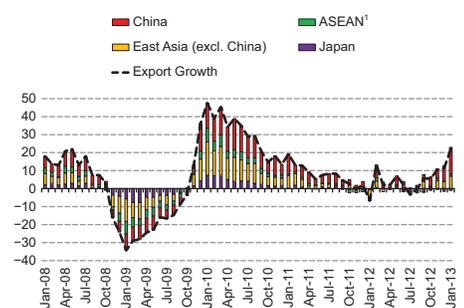
This shift in the relative importance of the information technology sector can be partly mapped against the change in the technology mix of exports. Some Asian economies have been able to climb up the value chain to produce a growing share of electronics that are classified as high-tech (parts and components of computers, tablets, smart phones), which also tend to exhibit high growth. Although different economies' electronics sectors have experienced unique recovery trajectories since the global recession, a common characteristic of the strong recoveries is that they coincided with a general increase in the R&D intensity of exports—notably in China, Hong Kong SAR, Korea, and Thailand (figure, bottom right). These trends can also be observed at the firm level, where East Asian firms have generally experienced faster revenue growth coupled with larger stock price increases.

Selected Asia: Contribution to Electronics Export Growth¹
(Year-over-year; in percent)



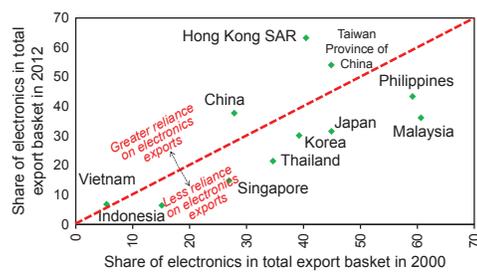
Sources: CEIC Data Company Ltd; Haver Analytics; and IMF staff calculations.
¹ China, Hong Kong SAR, Japan, Korea, Indonesia, Malaysia, the Philippines, and Thailand.

Selected Asia: Contribution to Electronics Export Growth
(Year-over-year; in percent)



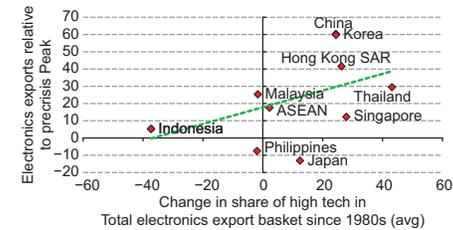
Sources: CEIC Data Company Ltd; Haver Analytics; and IMF staff calculations.
¹ ASEAN includes Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.

Asia: Share of Electronics in Total Exports
(In percent)



Sources: CEIC Data Company Ltd.; Haver Analytics; and IMF staff calculations.

Selected Asia: Export Performance and R&D Intensity of the Electronics Sector
(In percent)



Source: U.N. Comtrade database, SITC Rev. 2.
¹ Based on OECD Technology Intensity Definition.

Note: The main author of this box is Sidra Rehman.

Box 1.3**Effects and Spillover Channels of Successful Reflation in Japan**

Ending deflation is one of the cornerstones of Prime Minister Abe's economic policies. The government is pursuing a three-pronged approach ("Three Arrows of Abenomics") to revive the economy: flexible fiscal policy, a higher inflation target and more aggressive monetary easing, and structural reforms to raise long-term growth.

Immediate action has included the setting of a 2 percent inflation target and fiscal stimulus amounting to about 1½ percent of GDP in effective terms in fiscal year 2013/14. To achieve its inflation objectives, the Bank of Japan recently adopted a new quantitative and qualitative monetary easing (QQE) framework. In a sweeping change, it announced a shift to the *monetary base* as its new operational target in an effort to achieve the inflation target within two years. Under the new regime, the Bank of Japan seeks to double the monetary base to ¥270 trillion (55 percent of GDP) by 2014, implemented through asset purchases of ¥7 trillion per month primarily of government bonds (*the quantity aspect*). In addition, the Bank of Japan widened the scope of purchases to include bonds of *all* maturities with the goal of doubling the average remaining maturity of outstanding bonds from three to seven years. It also increased planned purchases of private assets, mainly exchange-traded funds (ETFs) and real estate investment trusts (REITs) to stimulate activity directly (*the quality aspect*).

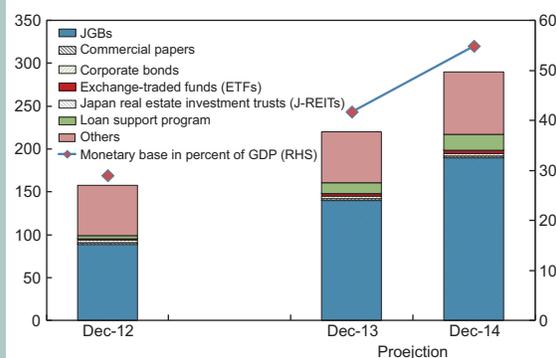
Expectations and the announcement of the new policy direction have had immediate effects, particularly on asset markets. Equity markets have risen with the improved outlook, especially for exporters and banks, and longer-dated government bond yields have declined to record lows. The new monetary policy framework also contributed to the weakening of the exchange rate, although other factors have also played a role: a reversal of safe-haven effects following an improving global outlook, sustained trade deficits and, recently, the widening of the expected interest rate differential with the United States.

The medium-term effects of the new policies on the Japanese economy and hence the resulting spillovers on other economies in the region depend on a number of factors, including the stickiness of inflation expectations and the details of the new fiscal and growth strategy:

- Simulations using the IMF's Global Integrated Monetary and Fiscal Model (GIMF) suggest that the faster inflation expectations rise toward the new target, the greater the growth and fiscal dividends. In GIMF, we simulate a shift in the inflation target, with fiscal policy assumed to adjust throughout the simulation period as needed to meet the new target over the medium term. In a hypothetical case where inflation expectations immediately jump to the new target compared to one where a rise occurs only gradually over the next five years and the sovereign risk premium goes up, real GDP would be higher by 2 percent and the net debt-to-GDP ratio would be lower by 10 percentage points by 2015. In this favorable scenario, debt dynamics would improve due to lower real funding costs and higher growth. However, in light of the large holdings of sovereign debt by Japanese banks, this transition needs to be carefully managed given possible repercussions on financial stability if yields were to spike. In addition, fiscal risks would increase if inflation expectations adjust more gradually. A comprehensive package of reforms including an ambitious medium-term fiscal and growth strategy would increase the likelihood that inflation expectations rise quickly and in a sustainable manner and an increase in the sovereign risk premium is avoided.
- Reflating the economy in a sustainable manner also depends crucially on the details of a new fiscal and growth strategy due this summer. The more ambitious structural reforms are, the more likely inflation expectations will

Bank of Japan: Monetary Base Target and Balance Sheet Projection

(In trillions of yen (LHS); and in percent of GDP (RHS))



Source: Bank of Japan.

Note: The main authors of this box are Dennis Botman and Keiko Honjo.

Box 1.3 (concluded)

rise; the more credible fiscal reforms are, the lower the risks of a sudden rise in bond yields. At present, the authorities' medium-term fiscal goals are based on commitments to the G-20—halving the deficit-to-GDP ratio between FY 2010 and FY 2015, and achieving surplus by FY 2020 of the national and local governments' primary balances. In the short term, fiscal consolidation reduces demand for imports from trading partners, but in the long term, it boosts global saving, thereby reducing interest rates and stimulating activity in trading partners (IMF, 2011c). Growth-enhancing structural reforms are likely to have positive spillovers. For example, Japan's participation in the Trans-Pacific Partnership agreement could yield positive welfare gains for countries in the region and for emerging market economies more generally (IMF, 2011c).

Spillover channels of a successful effort to reflate Japan are likely to operate through the exchange rate as well as higher growth in Japan but are complicated by supply-chain considerations.¹ Prior to Japan's new macroeconomic policies, the medium-term outlook for Japan's economy included a very gradual recovery with mild inflation, trend real currency appreciation, and limited nominal wage growth; it also held the prospect of rising government bond yields, as the investor base would increasingly become nonresident given the rising financing requirement amid population aging. Compared with this baseline, a successful reflation would entail higher growth, a more depreciated currency, and possibly lower interest rates. Spillovers could occur through several channels:

- **Financial spillovers:** Greater monetary easing in Japan, together with a rising current account surplus over the medium term, would imply capital outflows. On past trends, only a modest share of these flows would go to the rest of Asia, where they would put downward pressure on interest rates and upward pressure on the exchange rate. However, a successful exit from deflation and persistent yen depreciation could reduce the home bias of domestic investors and lead to a rebalancing of their portfolios to include a larger share of foreign assets, especially from Asia. Japanese banks and businesses have already been increasingly active overseas, replacing retreating European banks in the region and diversifying their activities in the process, and increasing foreign direct investment (FDI)—a rise of 1 percent of GDP in Japanese FDI boosts growth by 0.5–0.7 percentage point in recipient countries (IMF, 2012c). Outward FDI is a long-term trend and unlikely to change in a fundamental way, as firms aim to locate where the demand is growing and take advantage of cost differentials. The fiscal dividends of a successful reflation could also reduce the medium-term risk of a sharp rise in yields on Japanese government bonds (see Chapter 1), which could adversely affect growth around the world through a tightening in lending conditions from the rise in risk premiums.
- **Trade spillovers:** Stronger growth in Japan would benefit other countries, especially those that supply final goods to Japan. A weaker yen has more complicated and mixed implications. For countries that directly compete with Japan in third markets, this may undermine their competitiveness. However, this effect is mitigated, as yen depreciation also raises production costs in Japan through higher costs of imported intermediate inputs, including energy. Likewise, many countries in the region import intermediate goods from Japan, which become cheaper with yen depreciation, although possibly at the expense of domestic suppliers to exporters. For example, Japan accounts for one-fifth of the world's semiconductor production (constituting more than 50 percent of U.S. and Chinese imports) and for more than one-third of global exports of machinery and wafers (more than 35 percent of U.S. and Chinese imports) (IMF, 2011c). Hence, the spillover effect of yen depreciation is far from uniform and depends on a country's position in the supply chain.

¹ The 2013 IMF Spillover Report (IMF, 2012c) will attempt to quantify these spillovers.

monetary easing framework in pursuit of the 2 percent inflation target (Box 1.3).

- In East Asia, growth is projected to be 8 percent in China resulting from continued

robust domestic demand, both consumption and investment, and some improvement in external demand in the course of 2013. Nevertheless, given significant, albeit

uncertain, slack in the economy, inflation is expected to pick up only modestly by about $\frac{1}{3}$ percentage point and average 3 percent in 2013. In Korea, an improved outlook for exports would support private investment, with growth projected to rebound moderately while inflation, although rising, would remain at the lower bound of the target band.

- In South Asia, notwithstanding a modest growth recovery in India on a more favorable external demand environment, deep-rooted structural challenges are expected to exert a substantial drag on potential growth while keeping inflation at elevated levels by regional standards. In Sri Lanka, growth is expected to remain broadly stable, as continued macroeconomic stabilization should restrain domestic demand, while export growth is projected to remain tepid.
- Growth in ASEAN economies is expected to remain robust, mainly on account of resilient domestic demand. Over and above the supportive factors discussed above, in Malaysia, a large number of projects under the Economic Transformation Plan will propel strong investment; in the Philippines, robust remittance flows are expected to underpin private consumption and investment; and in Indonesia, demand would likely benefit from an external source—a recovery of Chinese demand for commodities.
- A modest pickup of growth, generally less than $\frac{1}{2}$ percentage point, is also expected for Asia's low-income economies, in part because of stable or improving external demand for energy and related commodities (the Lao People's Democratic Republic and Mongolia) and garments (Bangladesh and Cambodia). In Myanmar, moving to a higher potential growth trajectory will depend on ongoing reform momentum to promote private investment, while the return to higher growth in Vietnam assumes further consolidation of recent gains in macroeconomic stability and financial sector restructuring.

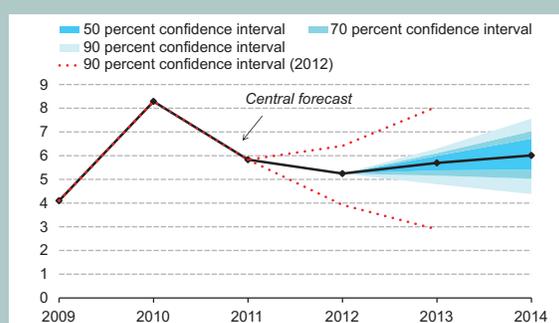
More Balanced, but Shifting Risks

Risks to this forecast have become more balanced since the October 2012 Asia and Pacific *Regional Economic Outlook Update* (Figure 1.18). In particular, global tail risks have receded, as highlighted in the April 2013 *World Economic Outlook*.

Nevertheless, the considerable risks of a stalled or incomplete achievement of euro area policy commitments could derail the global economic recovery. The impact of external risks on Asia remains substantial. In the event of a severe global slowdown, capital flow reversals and falling external demand would exert a powerful drag on Asia's most open economies, including through the second-round impact of lower investment and employment in export-oriented sectors. For example, a reassessment of sovereign risks in advanced economies, possibly linked to setbacks in resolving the euro area crisis and prompting further fiscal tightening and lower growth (see the April 2013 *World Economic Outlook*, Chapter 1), would reduce growth in emerging Asia by about 1 percentage point per year over 2013–14. Given that many developing and low-income economies in the region are dependent on income remitted from abroad, a severe global slowdown could also be transmitted through lower remittances, although there are certain mitigating factors that would dampen the spillover effects (Box 1.4).

While global risks have receded, risks and challenges from within the region come into clearer focus. One

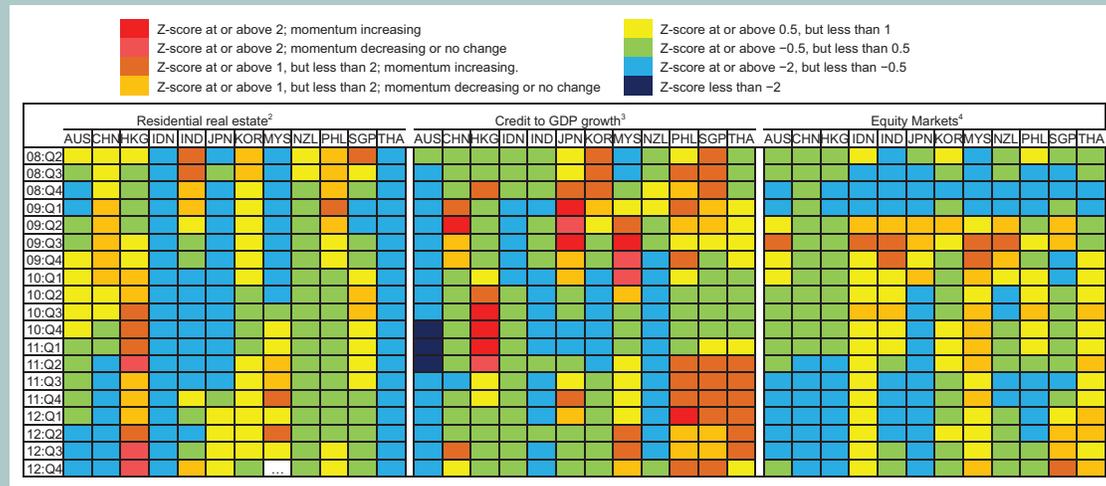
Figure 1.18
Asia: Real GDP Growth
(Central forecast and selected confidence intervals; in percent)



Sources: IMF, *World Economic Outlook*; and IMF staff estimates.

Figure 1.19

Asia Financial Stability Heat Map¹



Source: IMF staff calculations.

¹ Colors represent the extent of the deviation from the long-term median expressed in the number of median-based standard deviations (median-based Z-scores) as well as momentum (whether variables are increasing or decreasing). Medians and standard deviations are for the period starting 2000:Q1, where data are available.

² Estimated using the simple average of ratios of house-price-to-rent and price-to-income.

³ Year-over-year growth of credit-to-GDP ratio.

⁴ Estimated using the simple average of ratios of price-to-earnings and price-to-book value.

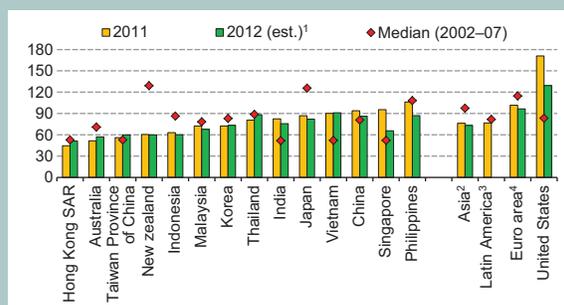
such risk, in particular in emerging Asia, stems from the gradual buildup of financial imbalances related to rapid credit growth and rising asset prices on the back of continued strong capital inflows. Although country circumstances differ and could worsen relatively quickly, financial stability risks do not appear to raise major immediate concerns at this stage:

- *The buildup of financial imbalances has generally not been large.* New financial heat maps suggest that risks of price bubbles are forming in the housing, equity, and credit markets in certain economies. While they generally appear to be moderate at the aggregate level by historical standards, the heat maps do not pick up excessive pressures in specific subsegments of asset markets. Markets have clearly warmed up, notably in several ASEAN economies, although they are not yet overheating (Figure 1.19).
- *The corporate and household sector balance sheets appear generally robust.* For most economies in the region, leverage has picked up recently but has remained moderate by historical standards; the debt-to-equity ratio remains below its median level recorded during 2002–07, reflecting

significant deleveraging in the aftermath of the global financial crisis (Figure 1.20). Compared with other regions, debt-to-equity ratios for corporate sectors in Asian economies are generally below levels observed in the United

Figure 1.20

Asia: Nonfinancial Corporate Debt-to-Equity Ratio (In percent; market-cap weighted mean)



Sources: IMF, *Corporate Vulnerability Utility* (CVU); Thomson Reuters Datastream; Moody's Analytics, Credit Edge; and IMF staff calculations.

¹ New Zealand, India, Australia, and Japan 2012 estimate from CVU. Others 2012 estimate based on Credit Edge.

² Asia 2012 is weighted by market-cap of 2011 from CVU.

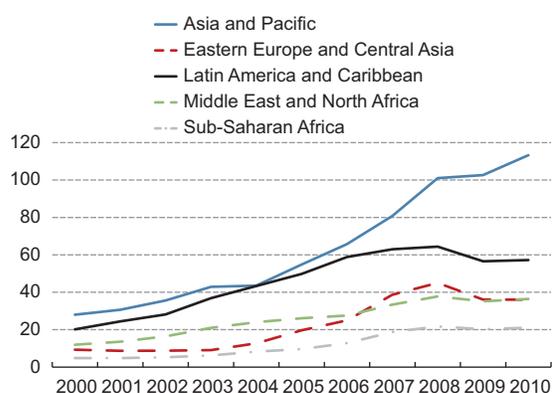
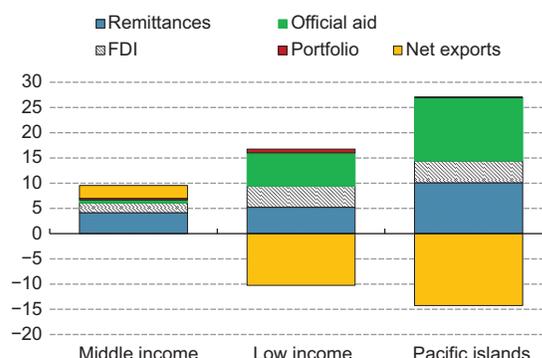
³ Latin America is a market-cap weighted mean of Argentina, Brazil, Chile, Colombia, Peru, and Venezuela.

⁴ Euro Area 2012 estimate excludes Cyprus, Slovenia, and Malta.

Box 1.4

Remittances: Shock Amplifier or Absorber for Emerging and Developing Asia?

Asia is a major recipient of global remittances, and many emerging market and developing economies in the region rely heavily on them. With inflows of about \$110 billion (figure, top left), Asia and the Pacific accounted for about one-fourth of all remittances sent worldwide in 2010.¹ For many economies, remittances rival public aid and dwarf other flows such as net exports or net portfolio and foreign direct investment (FDI) inflows. Overall, remittances received during the past decade equaled 6½ percent of GDP of the countries covered here, on par with net aid and double the amount of net FDI receipts. In relative terms, the Pacific Island countries are most dependent on income remitted from abroad (figure, top right).

Remittances Inflows in Selected Regions*(In billions of U.S. dollars)*Source: World Bank, *World Development Indicators*.**Net Foreign Earnings in Selected Asia and Pacific Countries***(Net flows in percent of GDP, 2000–11)*Source: World Bank, *World Development Indicators*.

Overall, remittances have helped stabilize domestic business cycles, although they also increase exposure to external shocks originating in host countries.

- To assess business cycle stabilization achieved via remittances, the determinants of output growth volatility have been estimated while controlling for other determinants of volatility, such as openness, the level of development, and population. The econometric findings show that, on average, remittances act as an important hedging instrument for developing economies in general and for those in Asia and the Pacific in particular (table).
- Looking at synchronicity between host and recipient countries' business cycles instead of output volatility, we find that remittance flows play an important role in propagating home-country shocks to recipient countries.² The size of this effect is similar to that of the impact of trade (table). By contrast, aid and FDI are not found to be statistically significant determinants of business cycle comovements.
- However, external spillovers from remittances are subject to threshold effects and are stronger the larger the flows between the host and recipient countries (figure, bottom). The positive impact of remittances on the synchronization

Note: The main authors of this box are Christian Ebeke and Sampawende Tapsoba.

¹ Asian and Pacific countries covered in this note comprise six middle-income countries (India, Indonesia, Malaysia, Philippines, Sri Lanka, and Thailand), seven low-income states (Bangladesh, Cambodia, Lao People's Democratic Republic, Maldives, Mongolia, Nepal, and Vietnam), and seven Pacific Island countries (Fiji, Kiribati, Papua New Guinea, Samoa, Solomon Islands, Tonga, and Vanuatu).

² Estimated over a sample of 18 Asian and Pacific countries (India and Vietnam are excluded in the sample mentioned above) over the period 1990–2010. For a given home country X, host country real GDP growth is calculated as the average across the major destinations for outward migration from X, using the migration shares as weights.

Box 1.4 (concluded)

of output growth materializes only once the remittances-to-GDP ratio exceeds 8 percent; it remains flat beyond this threshold. If a home country receives remittances of at least 8 percent of GDP per year (e.g., Bangladesh, Kiribati, Mongolia, Nepal, Philippines, Samoa, Tonga, Vanuatu), a 1 percentage-point increase in the host country's real growth is estimated to increase the home country's real growth by about ½ percentage point that same year.

- A mitigating factor on external spillovers is that Asia has more geographically diversified sources of remittances than other regions, making it less sensitive to shocks originating in a particular host country. Indeed, despite the dominance of the intraregional flows—accounting for more than half of the total—the share of remittances channeled from the Middle East and North Africa and Europe remained fairly sizable and roughly evenly distributed.

What are the implications for emerging market and developing economies in the Asia-Pacific region? When remittance flows are considered, the region is more connected to the global economy and is therefore more vulnerable to external spillovers—in particular from host-country economic shocks—than traditional indicators of connectedness would imply.

- In large recipients—such as many Pacific Island economies, developing economies such as Bangladesh, and even emerging market economies like the Philippines—the design and implementation of near-term policies could be significantly improved by closely monitoring and gaining a better grasp of business cycle features in countries where outward migrants are predominant.
- For central bankers, managing remittance flows could be challenging. Large and sudden inflows may exert contradictory effects on inflation and competitiveness and may weaken monetary policy transmission via excess liquidity. The task is even harder when inflows are not funneled through official channels; the scope for fine-tuning monetary operations is then quite limited. For fiscal authorities, remittances sent by the diaspora could be an alternative and credible source of budget and project financing via diaspora bonds.

Remittances, Output Volatility, and Output Synchronicity

Dependent variable	Volatility (10-year moving window, 1990–2010)		Synchronicity (yearly, host and recipient countries, 1980–2010), standardized coefficients	
	Full sample	Asia and Pacific	Full sample	Asia and Pacific
Remittances-to-GDP	–1.169** (0.546)	–3.260** (1.215)	0.0807* (0.0452)	0.207* (0.110)
Trade openness	0.226* (0.127)	0.235 (0.223)	0.171*** (0.0479)	0.277** (0.127)
FDI-to-GDP	–0.911** (0.361)	–1.084 (1.600)	0.0937*** (0.0264)	0.0444 (0.0484)
Aid-to-GDP	0.295 (0.264)	0.908 (0.754)	–0.152** (0.0610)	–0.0518 (0.0929)
Log (Real GDP pc)	–0.579*** (0.173)	–1.028*** (0.346)		
Log (Pop.)	–1.480*** (0.463)	–2.539** (1.202)		
Observations	1821	279	2392	360
Number of countries	120	18	120	18

Source: IMF staff estimates.

Note: Includes intercept and country and time fixed effects. Robust standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Nonlinear Effect of Remittances on Output Synchronicity

(Asia and Pacific countries)

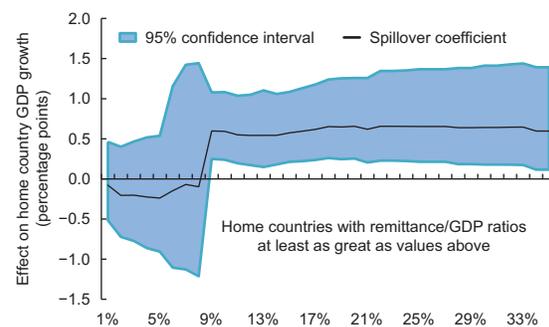
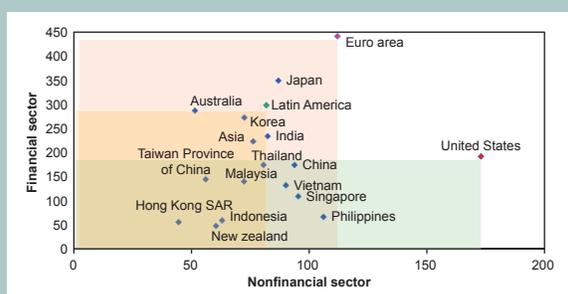


Figure 1.21

Corporate Debt-to-Equity Ratio¹ (Cap-weighted mean; in percent; 2011)

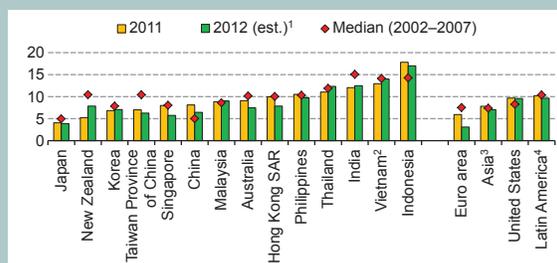


Sources: IMF, *Corporate Vulnerability Utility* (CVU); Thomson Reuters Datastream; and IMF staff calculations.

¹ Latin America is a market-cap-weighted average of Argentina, Brazil, Chile, Colombia, Peru, and Venezuela. Vietnam's data start in 2006. For the Philippines, an outlier is excluded from the calculation of the cap-weighted mean for the financial sector.

Figure 1.22

Selected Asia: Nonfinancial Corporate Sector— Return on Assets (In percent; cap-weighted mean)



Sources: IMF, *Corporate Vulnerability Utility*; Thomson Reuters Datastream; Bloomberg L.P.; and IMF staff calculations.

¹ New Zealand, India, Australia and Japan 2012 data from CVU. Others latest available quarterly data from Bloomberg L.P.

² Vietnam's data starts in 2006.

³ Asia 2012 is weighted by market-cap of 2011 from CVU.

⁴ Latin America is a market-cap weighted average of Argentina, Brazil, Chile, Colombia, Peru, and Venezuela.

States, the euro area, and, to a lesser extent, emerging economies in Latin America (Figure 1.21). Furthermore, for most economies, Asian businesses have stronger liquidity positions than those in other regions, as indicated by higher quick ratios (the liquid assets of a firm net of inventories divided by liquid liabilities). The share of foreign currency debt is generally moderate in the region, despite some rapid growth in the issuance of foreign currency debt in Indonesia in 2011, and to a lesser extent 2012. Finally, profitability ratios for Asia's corporate sector also remain rather solid and stable (Figure 1.22). For the household sector, leverage has picked up, particularly in Malaysia, New Zealand, and Korea, where lending by banks to households at around 60 percent or more of GDP is relatively high for the region, but household debt-to-income ratios remain broadly in line with historical averages.

- *The banking sector has weathered the global financial crisis intact.* Banks in Asia have generally strengthened their capital positions over the past few years, even though Tier 1 capital ratios in most emerging Asia economies remain below capital ratios found in advanced economies and emerging market economies of Latin America (Figure 1.23). Furthermore, the global financial crisis also generally did relatively little damage to

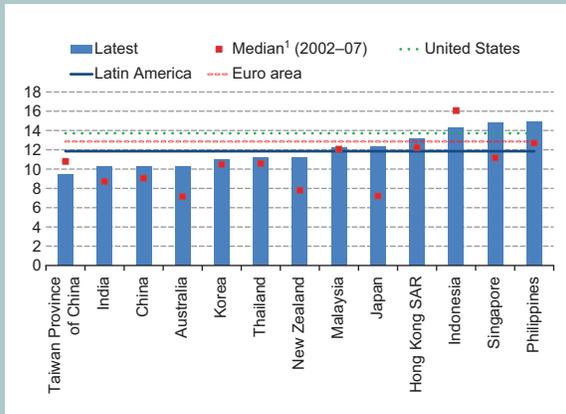
Asian banks' profitability and liquidity, although many Asian banks did not fare as well as their counterparts in Latin America and the United States in these areas (Figures 1.24 and 1.25). Finally, the prevalence of nonperforming loans has declined and is also generally small compared with other regions, although this does not reflect the potential adverse impact of the recent credit expansion on asset quality (Figure 1.26).

That said, financial imbalances can worsen relatively quickly and are often difficult to unwind. While banks in the region have built up buffers—Tier 1 capital in excess of regulatory levels plus loan-loss reserves minus bad loans—which should help contain the impact of potential imbalances, buffers in a number of Asian economies remain somewhat below those found in the United States and emerging market economies in Latin America (Figure 1.27). Moreover, a full assessment of risks is complicated where financial intermediation undergoes rapid change. In China, in particular, the use of more market based financial instruments means that total social financing is growing fast and about half of financial intermediation now takes place outside traditional banking channels in less well supervised parts of the financial system.

A number of other regional risks to growth are more difficult to anticipate. But Asia's highly

Figure 1.23

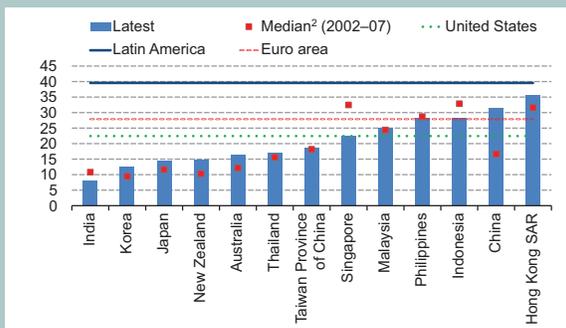
Selected Asia: Tier 1 Capital Ratio
(In percent)



Sources: Bankscope; and IMF staff calculations.
¹ For Korea and Malaysia median (2000-latest).

Figure 1.24

Selected Asia: Liquidity Ratio¹
(In percent)



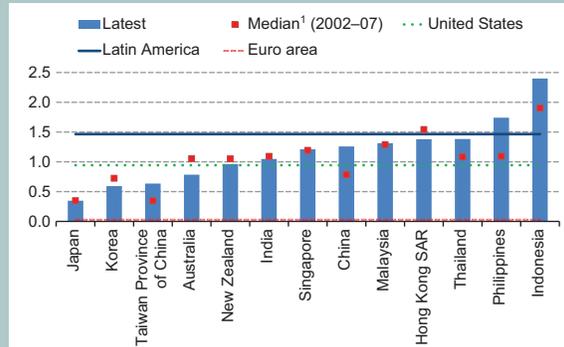
Sources: Bankscope; and IMF staff calculations.
¹ Total liquid assets to total deposits plus borrowing.
² For Korea and Malaysia median (2000-latest).

integrated supply-chain network and growing dependence on regional demand and finance could make those risks disruptive. They include disruptions to trade; and, over the medium term, an unexpected slowdown in China, and in Japan a rise in the sovereign risk premium in the absence of a credible medium-term fiscal and growth strategy.

- *Trade disruptions from, for example, a natural disaster or geopolitical tensions.* Asian economies have formed highly integrated supply-chain networks. Across the region, intermediate goods have been the primary driver of export growth for the past two decades, accounting for

Figure 1.25

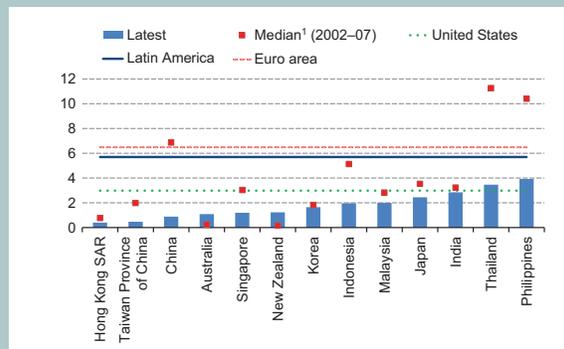
Selected Asia: Return on Assets
(In percent; asset-weighted mean)



Sources: Bankscope; and IMF staff calculations.
¹ For Korea and Malaysia median (2000-latest).

Figure 1.26

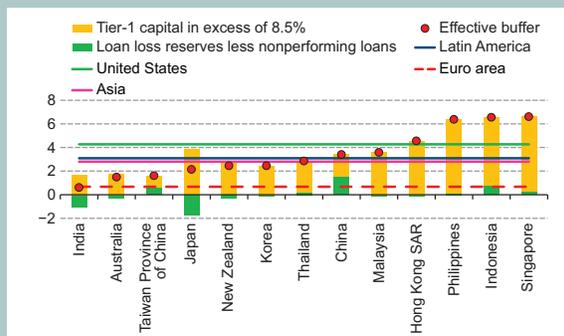
Selected Asia: Nonperforming Loans Ratio
(In percent; asset-weighted mean)



Sources: Bankscope; and IMF staff calculations.
¹ For Korea and Malaysia median (2000-latest).

Figure 1.27

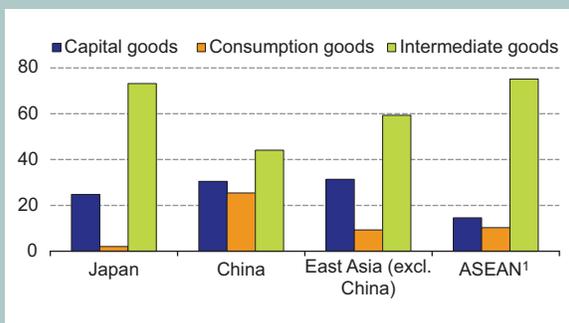
Selected Asia: Commercial Banks' Loss-Absorbing Buffers¹
(In percent of risk-weighted assets; asset-weighted mean)



Sources: Bankscope; and IMF staff calculations.
¹ Loss absorbing buffers are calculated as Tier 1 capital in excess of 8.5 percent plus loan loss reserves less impaired loans as percent of total risk-weighted assets.

Figure 1.28

Selected Asia: Contribution to Export Growth
(In percent of total of total export growth; 1998–2011 average)



Source: U.N. Comtrade database.

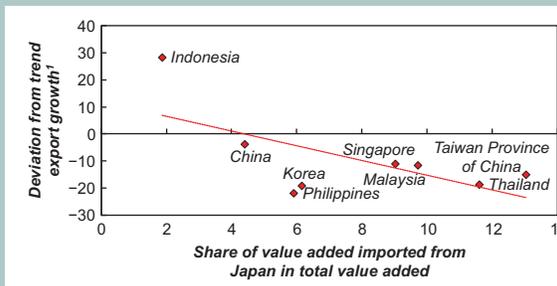
¹ ASEAN includes Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.

about 70 percent of annual export growth, or more than double the combined contribution of final capital and consumer goods (Figure 1.28). As Asian economies increasingly depend on each other to cater to final markets, a break in part of the chain can ripple through the whole network and disrupt exports across Asia. The 2011 earthquake and tsunami that hit Japan illustrates this effect. In the aftermath, industrial production and exports slowed sharply across the region, and more so in those economies that depended heavily on intermediate inputs from Japan (Figure 1.29).

- Chinese slowdown led by sharply lower investment.* While the near-term outlook has improved, China remains vulnerable to a renewed growth slowdown further down the road. This could be triggered by financial stress related to rapid growth in alternative financial products or uneven progress in reforms that would affect confidence, foreign direct investment (FDI), and private investment. In all cases except, notably, Japan, regional central banks would make use of their sizable monetary policy space to cut policy rates, thereby mitigating the impact of an external shock originating in China. Taking into account this policy response, if Chinese investment, the main engine of domestic demand growth so far, were to fall 10 percent below the baseline—an illustrative

Figure 1.29

Selected Asia: Links to Japan and Export Growth in 2011:Q2
(In percent)



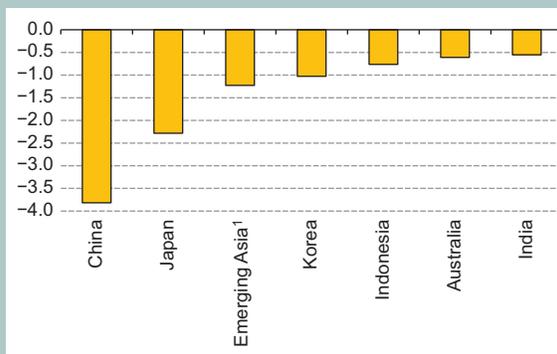
Sources: CEIC Data Company Ltd.; Haver Analytics; and IMF staff calculations.

¹ Quarterly data used to calculate deviation from trend growth (using HP filter over the period 2009:Q1–2012:Q2).

low-probability but high-impact scenario—output across the region would decline by about ½ to 2 percent relative to the baseline forecast at a two-year horizon (Figure 1.30). A more broad-based slowdown across all major emerging economies (including Brazil, India, Russia, and South Africa) would have a somewhat bigger impact (see the April 2013 *World Economic Outlook*, Chapter 1). Economies like Korea and Japan, which have strong capital-export links to China, would

Figure 1.30

China Slowdown Scenario: Impact on Real GDP after Two Years
(Percent deviation from baseline)



Source: IMF staff calculations based on G20MOD.

¹ Emerging Asia includes Hong Kong SAR, Malaysia, the Philippines, Singapore, Taiwan Province of China, Thailand, and Vietnam.

be particularly hard hit, with the impact on Japan compounded by limited monetary space. For commodity exporters, such as Indonesia, Australia, and several Asian low-income economies, the adverse impact on growth and investment would be transmitted through a drop in global commodity prices.

- *A rise in sovereign risk in Japan in the absence of a credible medium-term fiscal and growth strategy.* The Bank of Japan's new qualitative and quantitative monetary easing policy centered on large-scale public debt purchases is not without fiscal risks. As highlighted in the IMF's 2012 spillover report, a sharp rise in yields on Japanese government bonds of about 200 basis points could trigger severe contagion across the world, including emerging Asia, where, given historical correlations, risk premiums could rise by 50 to 150 basis points. In such a scenario, with Japanese output falling by about 2 percent below the baseline, the effect of weaker demand from Japan would therefore be compounded by rising risk premia, pushing growth in emerging Asia some ½ percentage point below the baseline once account is made for accompanying monetary easing (Figure 1.31).

On the other hand, besides a stronger-than-expected recovery in advanced economies, there are upside risks from within the region. In particular, growth could be stronger in Japan and China. The Bank of Japan's more aggressive monetary easing could expedite an exit from deflation and boost consumer and business confidence by more than currently anticipated. In addition, the momentum from renewed credit-financed investment stimulus in China may lead to a stronger-than-projected growth recovery.

A Transition to Rebuilding Policy Space

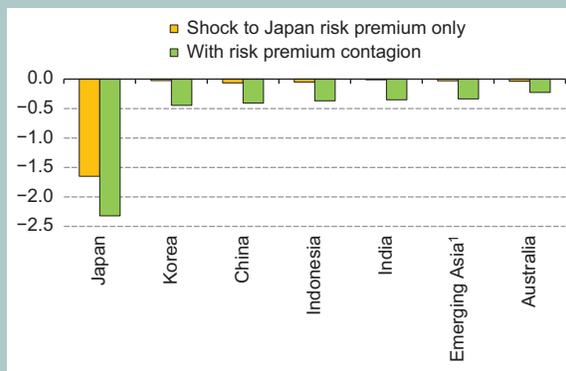
Ensuring Flexible Monetary and Exchange Rate Management

Amid still-subdued prospects for external demand and growth, at least for 2013, central banks in Asia need to guard against the buildup of financial imbalances and potential overheating pressures that could emerge quickly. On the one hand, the global recovery is expected to be slow, and downside risks to Asia from remaining fragilities are significant. Indeed, Asian central banks kept policy rates at low levels or brought them down further in 2012 (Figure 1.32), and many of them

Figure 1.31

Japan Risk Contagion Scenario: Impact on Real GDP after Two Years

(Percent deviation from baseline)



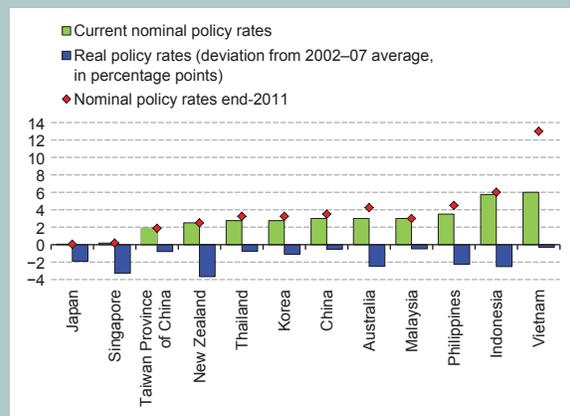
Source: IMF staff calculations based on G20MOD.

¹ Emerging Asia includes Hong Kong SAR, Malaysia, the Philippines, Singapore, Taiwan Province of China, Thailand, and Vietnam.

Figure 1.32

Selected Asia: Policy Rates¹

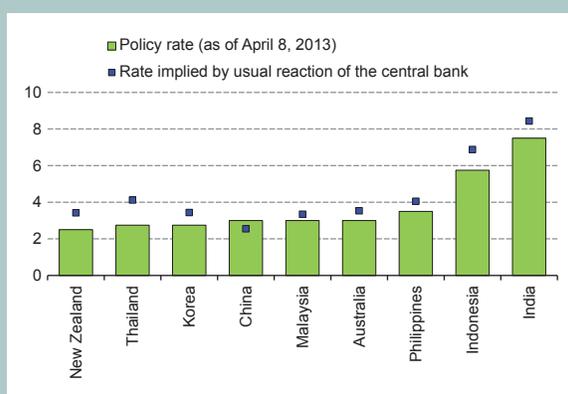
(in percent)



Sources: CEIC Data Company Ltd.; Haver Analytics; and IMF staff calculations.

¹ Latest data as of April 8, 2013.

Figure 1.33

Selected Asia: Monetary Policy Stances

Sources: Thomson Reuters Datastream; Haver Analytics; IMF, *World Economic Outlook*; and IMF staff calculations.

continue to buy some insurance against downside risks by maintaining slightly lower policy rates than their past behavior would suggest (Figure 1.33).³ In a context where inflation remained low and stable, this accommodative stance has served them well.

On the other hand, global tail risks have diminished, and risk appetite has increased, resulting in strong capital inflows and posing challenges to the defense of financial stability. As indicated in the previous section, balance sheets of both businesses and banks have improved, and buffers have been built to address potential risks, but some risks are emerging and could potentially worsen. Indeed, in several Asian economies, credit ratios and output levels currently stand above trend (Figure 1.34). In this context, monetary policymakers should stand ready to respond early and decisively to any prospective risks of overheating.

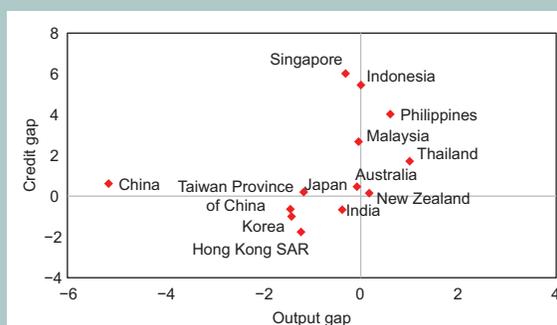
At the same time, the need, scope, and direction for future monetary policy action differ substantially across economies, mainly reflecting different exposures to shifting risks to growth and financial stability.

³ In fact, given ample liquidity, money market rates are substantially lower than official policy rates for some economies, such as the Philippines and Indonesia.

Figure 1.34

Output Gap vs. Credit Gap, Latest¹

(In percent)



Sources: CEIC Data Company Ltd.; IMF, *World Economic Outlook*; and IMF staff calculations.

¹ Credit-to-GDP data as of 2012:Q4. Credit gap is calculated as a percent deviation from the trend credit-to-GDP (approximated using the HP filter over the period 2000–12).

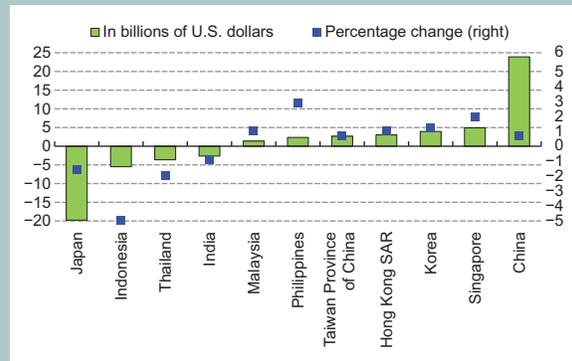
- In Japan, additional aggressive monetary easing to raise inflation to 2 percent in two years under the Bank of Japan's new quantitative and qualitative monetary easing policy would be beneficial and can be part of a broader set of policies, which should be complemented by an ambitious medium-term fiscal consolidation and structural reform to raise growth in a sustainable way.
- In China, past credit-led stimulus has led to a debt overhang. Social financing has remained buoyant, and the share of nonbank financing has increased very significantly. Thus, the challenge will be to continue supporting the economy while unwinding past credit stimulus and curbing the growth of off-balance-sheet and nonbank intermediation. This would warrant accelerated liberalization to provide more market-based incentives for credit-risk management combined with strengthened supervision, including implementing comprehensive bank reforms and adopting bank resolution frameworks. The China Banking Regulatory Commission (CBRC) has announced steps to strengthen the supervision of banks' off-balance sheet activities.
- For countries where inflationary pressures have been elevated, vigilance on inflation

will pay dividends for long-term growth. For example, in India, monetary policy can best support growth by putting inflation on a clear downward trend. Similarly, in Indonesia, with inflation close to the upper bound of the target band, a closed output gap, and a widening current account deficit, there might be a case for higher policy rates over the projection horizon.

Greater exchange rate flexibility would play a useful role in curbing future overheating pressures and speculative capital inflows. Most exchange rate movements since the October 2012 Asia and Pacific *Regional Economic Outlook Update* have been consistent with fundamentals, with real effective exchange rates rising in many emerging Asian economies amid narrowed current account surpluses—although weak external demand and other cyclical factors have played a role underpinning these adjustments. As a result, and subject to a more comprehensive assessment in the IMF's forthcoming External Stability Report, the degree of currency undervaluation among Asian surplus economies appears to have generally diminished. More specifically:

- In Japan, the recent depreciation began from a moderately overvalued level and reflects a number of factors such as the widening trade deficit, lower global risk aversion, and new monetary policy initiatives that are appropriately focused on correcting domestic imbalances.
- In some of emerging Asia's surplus economies, greater exchange rate flexibility would discourage a one-way bet and thus provide more room to cope with speculative capital flows. In some cases, greater exchange rate flexibility would also dampen the pressures of reserve accumulation on monetary aggregates, which has helped fuel rapid credit growth (Figure 1.35). That said, ad hoc interventions throughout the adjustment process may be warranted to avoid disorderly overshooting.

Figure 1.35

Selected Asia: FX Reserve Accumulation*(Change since October 2012)*

Sources: CEIC Data Company Ltd.; Haver Analytics; and IMF staff calculations.

Safeguarding Financial Stability amid Volatile Capital Flows

Macroprudential and capital flow measures will also have a role to play where conventional monetary management proves insufficient to address specific financial stability issues. Many Asian economies have resorted to a broad range of prudential measures in recent years, which have often been focused on stability risks arising from overheating property markets, such as caps on loan-to-value (LTV) ratios for mortgages (Box 1.5). When prudential measures took the form of capital flow measures, they were aimed at safeguarding financial system stability in the face of surging capital inflows, often with a view to affect the composition and duration of flows. While macroprudential and capital flow measures have generally been seen as a useful addition to the authorities' toolkit, their effectiveness has varied across countries, in part according to the degree of economic and financial development, exchange rate regime, vulnerability to certain shocks, and the accompanying macroeconomic policies.

- For example, credit-related measures such as tightening LTV ratios have helped curb the rapid growth of property prices in a number of

Box 1.5

Macroprudential Measures and Capital Flow Measures: The Experience in Asia

Macroprudential policy measures aim to enhance systemic financial stability by constraining the incentives for excessive risk taking. They are usually classified into three types: credit related (e.g., caps on the loan-to-value [LTV] ratio), liquidity related (e.g., reserve requirements), and capital related (e.g., countercyclical or time-varying capital requirements). Capital flow management policies are designed to address risks associated with specific types of capital flows, in particular their potential impact on certain asset markets or their short-term nature. Capital flow management involves two sets of policies: residency-based capital controls and other policies that do not discriminate on the basis of residency but are nonetheless designed to influence flows. Where macroprudential measures influence capital flows, they are considered a subset of capital flow policies.

A Brief Survey of Policies

Asian countries have resorted to a broad range of macroprudential measures, but in recent years most of them have focused on stability risks arising from overheating property markets (table). In particular, LTV caps for mortgage loans and debt-to-income limits have been used (e.g., China, Hong SAR, Singapore), often together with other real estate lending restrictions and real estate taxes. To address broader-based banking system risks, several economies have also imposed capital measures (Australia), tightened provisioning rules (India), and varied reserve requirements (China, India, Sri Lanka). A number of Asian economies have also resorted to capital flow management when they were faced with macroeconomic and financial stability risks in the face of surging capital inflows. Such measures, which have often overlapped with macroprudential measures, have focused on limiting external borrowing by the corporate and banking sectors through restrictions on derivative positions (e.g., Korea) or interest rate caps (e.g., India). Other capital flow management policies have sought to reduce volatility by shifting the composition away from short-term flows, including by setting minimum holding periods for securities (e.g., central bank bills in the case of Indonesia since mid-2010) or discouraging inflows through withholding taxes on foreign holdings of government securities (e.g., Thailand and Korea, where they apply equally to residents). In some instances, measures were also taken to ease certain existing restrictions on outflows (e.g., China, Malaysia).

Selected Asia: Use of Macroprudential and Capital Flow Management Measures, 2010–13

	Total measures ¹	Percent share
Macroprudential measures	47	57
Credit measures		
LTV	13	16
Other	15	18
Capital measures	6	7
Liquidity measures	3	4
Noncredit real estate measures	9	11
Other	1	1
Capital flow measures	35	43
Limits on foreign exchange exposure and borrowing	11	13
Restriction on foreign access	7	9
Taxation on nonresident holdings	2	2
Other inflow measures	3	4
Liberalization of inflows	6	7
Liberalization of outflows	6	7

Sources: IMF (2012); IMF country teams; and country authorities.

¹ Measures are defined as changes to existing regulations or new regulations, and can include multiple measures per country during observation period. Based on a sample including Australia, Bangladesh, China, Hong Kong SAR, India, Indonesia, Japan, Korea, Malaysia, New Zealand, the Philippines, Singapore, Sri Lanka, Taiwan Province of China, Thailand, and Vietnam.

Box 1.5 (concluded)**Lessons from Recent Experience**

According to an IMF survey, most country authorities that have used macroprudential instruments believe that they are effective. In fact, in many instances they are considered a necessary complement to more conventional monetary tools and can offset undesirable side effects. Such is the case in Singapore, where monetary tightening through faster future exchange rate increases may induce domestic interest rates to fall today and stimulate interest-sensitive demand for real estate assets. Another case is China, where stimulus in response to the global financial crisis generated rapid credit growth, prompting the authorities to use macroprudential measures to contain house price increases. In addition, empirical estimates suggest that some macroprudential measures may help dampen business cycle fluctuations (Lim and others, 2011). Similarly, capital flow measures have offered economies a swift way to safeguard financial system stability and enhance resilience to a sudden reversal of flows. After the global financial crisis, surges in capital inflows occurred when economies in the region had begun raising policy rates to more neutral levels; the scope for sterilized exchange rate intervention was limited by already high levels of reserves and costly interest rate differentials. The capital flow measures helped strengthen banks' balance sheets by reducing dependence on foreign wholesale funding, such as in the case of Korea, and in a number of other instances helped slow the inflow into short-term government bond markets. However, there have also been instances where other regulations, such as double-taxation treaties, have limited the impact of withholding tax measures.

The experience of Asian economies with macroprudential policies and capital flow measures has been an important factor shaping the evolving institutional view of the IMF. Whether these measures are appropriate mainly depends on the need and room for macroeconomic policy adjustment, the time required for policies to become effective, and the degree of uncertainty surrounding the source of financial sector risks and their impact on the real economy. As such, these measures should be clearly targeted and communicated and generally be temporary—they can only buy time but cannot substitute for longer-term macroeconomic and financial sector policies.

Note: The main authors of this box are Tao Sun and Olaf Unteroberdoerster.

- cases (China, Hong Kong SAR, Singapore, and Malaysia); but when price pressures resurfaced and domestic credit constraints became less binding, they often had to be complemented by additional measures, such as higher stamp duties or restrictions on ownership of investment properties.
- For China, new supervisory challenges have arisen with the rapid expansion in off-balance-sheet bank and nonbank financing. While this marks a move toward more market-based instruments playing a larger role in financial intermediation, it also amplifies risk taking, given the administrative controls in the financial environment. With intermediation migrating to less-supervised parts of the system, it can also blunt the effectiveness of more conventional bank-based macroprudential measures.
 - In other instances, capital flow measures may have affected the composition and types of risks associated with exposures to large foreign capital inflows (such as efforts in Indonesia to impose minimum holding periods on central bank securities), but they seem to have been less effective in curbing the overall size of flows in the face of attractive yield differentials. As a result, a number of jurisdictions, including China and Thailand, have also chosen to further liberalize outflows.
- Implementation of macroprudential and capital flow measures will thus need to be carefully calibrated with the shifting stances in monetary and exchange rate policies. Specific challenges will vary depending on country circumstances, but credibility and effectiveness of measures will be enhanced if they are well targeted and

communicated and are not perceived as a substitute for necessary adjustment in macroeconomic stances. Ongoing financial sector reforms will also constitute an important parameter for the effectiveness and the appropriate mix of measures, such as China’s steps to liberalize the capital account. The channels for cross-border renminbi flows are gradually opening, with a sizable off-shore market infrastructure being built in Hong Kong SAR. There remains substantial scope for further integrating the on-shore and off-shore renminbi markets (Box 1.6). Furthermore, remaining capital controls can exacerbate a sudden tightening of liquidity conditions and potentially disrupt markets when large shocks cause a sudden shift in capital flows.

The timely phasing in of Basel III requirements provides an opportunity to strengthen the macroprudential toolkit and further the development of Asian financial markets. Asian banks are generally well positioned to comply with the new rules that make banks hold more and higher-quality capital and establish more robust funding structures (Box 1.7). The limited supply of high-quality local bonds could pose a challenge to many Asian financial systems in meeting tighter liquidity-coverage ratios, but the latter may also encourage the development of new instruments

that constitute a reliably safe and liquid pool of assets for banks to hold.

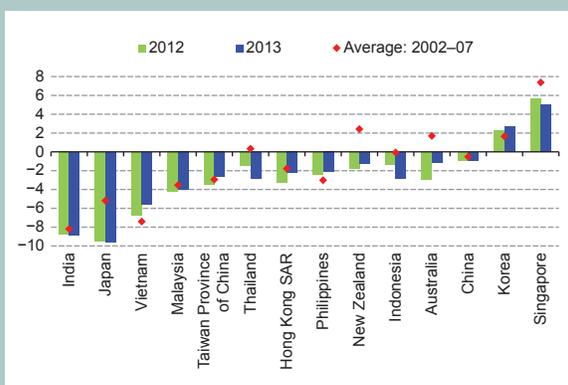
Rebuilding Fiscal Space

Rebuilding fiscal space to better cope with future shocks should remain a priority for many Asian economies. For a number of economies, structural deficits that are higher than before the crisis imply the need for greater consolidation efforts; that is especially so as improvements in structural fiscal balances in 2013 are generally expected to remain small despite a gradual pickup in economic growth, pointing to limited countercyclicality (Figure 1.36). Such a stance would not only be consistent with the projected recovery but in some cases could also help preempt potential overheating pressures from continued strong capital inflows. Moreover, with risks more balanced than six months ago, automatic stabilizers should be a sufficient line of defense if growth were to disappoint somewhat. In fact, those economies in Asia where automatic stabilizers are smaller—in part reflecting the lack of social safety nets and relatively narrow tax bases—such as several Asian low-income economies and Indonesia and India, also tend to have smaller external trade and financial exposures, including to risks from a sharp slowdown of growth in advanced economies (Figure 1.37).

Figure 1.36

Selected Asia: Cyclically Adjusted Fiscal Balance

(In percent of GDP)

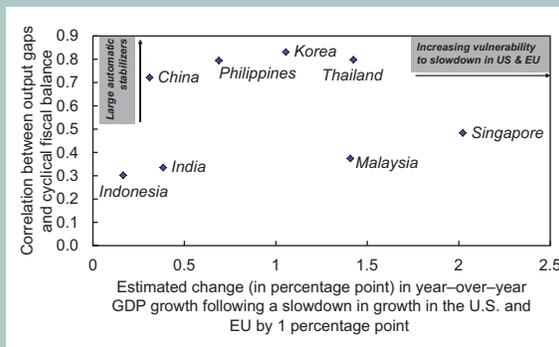


Sources: IMF, *World Economic Outlook*; and IMF staff calculations.

Figure 1.37

Selected Asia: Size of Automatic Stabilizers and Vulnerabilities to a Slowdown in the United States and European Union¹

(In percent)



Source: IMF staff estimates.

¹ Response to a slowdown in U.S. and EU growth are based on regression estimates, and includes effects of discretionary policy measures.

Box 1.6

Chinese Capital Account Liberalization and the Internationalization of the Renminbi

The development of an offshore market is facilitating renminbi internationalization, even as China maintains comprehensive capital controls. The offshore renminbi (quoted as CNH) is not subject to the capital controls that limit foreign use of the onshore renminbi (quoted as CNY). This box presents a novel method for assessing progress in renminbi internationalization by estimating the integration of the onshore and offshore markets. It concludes that there is still substantial scope for currency internationalization through further capital account liberalization to strengthen arbitrage between the CNY and CNH markets.

The CNH was established in Hong Kong SAR in 2003–04 with the creation of a settlement infrastructure and offshore renminbi banking business. Use of the offshore RMB did not take off until 2010, with the launch of a pilot scheme for cross-border trade settlement. International use of the RMB grew rapidly, boosted by additional measures; but in mid-2011 it leveled off, with off-shore RMB deposits peaking at RMB 629 billion (\$98 billion) (figure, top). This slowdown raises the question of whether the CNH has become an effective substitute for the CNY.¹

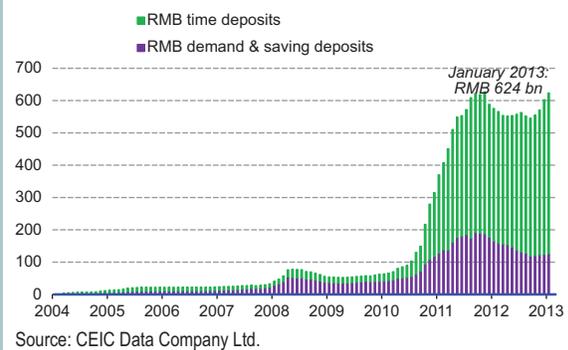
Full integration exists when the CNY-CN H differential (the basis) is small enough to remain within a band consistent with no arbitrage between onshore and offshore markets (figure, bottom). A lack of such integration would imply that CNH is not an effective substitute for CNY; when the basis is “large,” investors and firms could incur significant losses from using CNH in place of CNY owing to volatility in the basis (that is, from “basis risk”). Many would avoid CNH, using only CNY instead, making it hard for the renminbi to develop an international role.

The width of the no-arbitrage band is estimated assuming that, within the band, the basis is a random walk but, outside the band, it follows an autoregressive process. Within the band, the basis is too narrow for arbitrage to be profitable owing to transaction costs. When the basis is outside the band, arbitrage is profitable and moves the basis back to the band. The speed of this convergence back to the band reflects the volume of the arbitraging capital flows between onshore and offshore markets possible under existing capital controls, and it can be estimated.

Note: The main authors of this box are R. Sean Craig and Changchun Hua.

¹ For a full discussion of the tests in this box and policy implications, see Craig and others (forthcoming).

Renminbi Deposits in Hong Kong SAR (In billions of RMB)



CNY and CNH Spot Exchange Rate Differentials (In pips)



¹ Band is estimated with the TAR model on the sample of September 1, 2010–January 31, 2013. About 56 percent of observations are within the band.

Box 1.6 (concluded)

A threshold autoregressive (TAR) model is applied to the daily spot CNY and CNH differential beginning in September 2010. The estimated band width is 253 pips (that is, about one-fourth of a percentage point), with the basis trading within this band only 56 percent of the time (figure, bottom). Statistical tests confirm that the basis follows a random walk within the band and an autoregressive process outside it (table).

The estimation results imply that integration between onshore and offshore markets is still relatively limited. The substantial share of time that the basis trades outside the no-arbitrage band (44 percent), and the large absolute positive and negative values for the basis (which peak at 1,795 and –1,235 pips, respectively), suggest that investors and firms face relatively high basis risk, which discourages them from using CNH in place of CNY. The results also indicate that arbitrage is much slower when CNH is stronger than CNY.

For example, when CNH trades at a premium to CNY (first episode, November 2010–May 2011) arbitrage takes an average of 25 days to close half the gap to the band (the “half life”). By contrast, when the CNH trades at a discount to CNY (second episode, September 2011–October 2012) the half life is only six days. In the first episode, capital outflows from the mainland are needed for arbitrage as this increases the supply of CNH offshore. In the second episode, arbitrage involves capital inflows to the mainland that reduces the supply of offshore CNH. These inflows occur through a “conversion window” that allows (the weaker) CNH to be converted into CNY at parity. But capital controls allow it only for certain types of transactions, such as trade-related payments, which effectively limits the size of arbitraging capital flows. This faster rate of convergence implies that capital controls are less restrictive on capital inflows than on outflows during this period, suggesting that liberalization measures may need to focus more on outflow to lessen the future risk of a large, persistent widening of the basis.

The estimation results show only limited integration of the onshore and offshore markets for the renminbi. Liberalizing the capital account to facilitate faster arbitrage between the two markets would reduce basis risk and encourage greater use of the CNH. The results here also indicate that liberalization to expand the use of arbitrage for capital outflows may be more effective in reducing this basis risk. Recent liberalization measures have focused more on easing constraints on inflows; thus, this asymmetry may have become even more pronounced recently.

TAR Model Estimation: Summary of Results

CNY weaker than CNH (positive basis)	15% of time
Autoregressive coefficient	0.97***
Implied “half life”	25 days
<hr/>	
CNY–CNH basis trades within band	56% of time
<hr/>	
CNY stronger than CNH (negative basis)	29% of time
Autoregressive coefficient	0.88***
Implied “half life”	6 days

Source: IMF staff estimates.

Note: *** indicates significance at the 1% level.

That said, country circumstances will also determine the appropriate pace of fiscal consolidation.

- In Japan, while the recently adopted fiscal stimulus will help support a quick exit from recession, the overarching priority remains a credible strategy for bringing down debt and implementing growth-enhancing reforms. In this regard, confirming consumption tax

increases planned for 2014 and 2015 remains an important starting point. By contrast, in China, a broadly unchanged fiscal stance appears appropriate. There is also ample space to use the budget as a primary means to finance infrastructure in order to improve the transparency of quasi-fiscal activities and targeting of infrastructure spending. This would help mitigate the further build-up of financial stability risks related to local

Box 1.7

How Will the Basel III Capital and Liquidity Requirements Affect Asian Banks?

As of early 2013, most of the larger Asian economies started implementing Basel III or were set to do so shortly. Some have even opted to go beyond the internationally agreed minimum standards by, for example, setting more conservative capital definitions or surcharges for systemic institutions. Asia's lead role reflects the relatively strong starting position of its banks and a track record of prudent regulatory oversight. Nonetheless, the new requirements are likely to affect Asian banks. Some critics even worry that Basel III might pose a serious risk to the region's financial and economic development. This box attempts a tentative assessment of the question.¹

There is little doubt that Asian banks are in a good position to meet the new capital requirements right from the outset. Tier 1 capital ratios generally remained well above Basel II benchmarks in 2012, and indeed in many cases the Basel III standard of 8.5 percent (including capital conservation buffers) that will be gradually phased in by 2019.

Even so, continued fast credit growth could outpace internal capital generation, creating a medium-term need to raise fresh capital. Illustrative staff projections confirm the consensus view among analysts that the capital needs will be concentrated on banks in India and China and should be manageable. Only if banks were shut out of the equity market for an extended period—perhaps because of low valuations that make shareholders reluctant to dilute their holdings—could capital become a serious constraint on new bank lending (figure). Of course, in cases where credit growth exceeds prudent rates, that would be a welcome development.

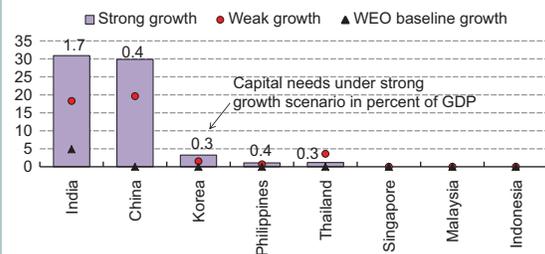
The precise path for future capital needs depends on a number of uncertain variables, including bank profits, payout ratios, and the pace at which nonbank sources of credit will expand. The latter trend, in particular, could provide considerable relief. Recent data show a marked pick-up in corporate bond issuance across Asia that more than offsets a slump in syndicated bank lending. In China, other nontraditional sources of credit, such as trust loans, have also been growing at high double-digit rates. Although these new funding channels pose risks that need to be monitored carefully, they clearly widen the range of financing options for businesses.

Meanwhile, concerns have been raised over the impact on trade finance of the simple 3 percent leverage ratio that is part of the new capital framework. The argument is that the indiscriminate 100 percent “credit conversion factor” for off-balance-sheet exposures will penalize trade credit, potentially creating a critical shortage of funding for Asian industry. However, the Basel Committee on Banking Supervision in 2011 decided to maintain the original leverage ratio rules, which serve as a simple backstop to the more sophisticated, risk-weighted capital requirements.

Should we expect a significant retrenchment of trade finance? Even assuming a very high cost of capital and a strictly binding leverage ratio, the relevant increase in capital charges should not exceed 30–50 basis points at most—a manageable magnitude given historical fluctuations in credit pricing. Anecdotal evidence also suggests

Projected Medium-Term Capital Needs for Asian Banking Systems under Different Growth Scenarios¹

(In billions of U.S. dollars)



Sources: Bankscope; Bloomberg L.P.; and IMF staff calculations.

¹ Projected amounts of capital raising by major banks (comprising at least half of domestic banking system assets) through end-2018 to meet Basel III Tier 1 capital requirement, including conservation buffer. Strong-growth scenario raises capital needs because of higher growth in risk-weighted assets (informed by historical panel data regression). Higher capital needs in weak-growth scenario are driven by lower bank earnings. Projected return on equity based on 10-year historical averages, adjusted by +1 and -2 standard deviations under strong and weak growth scenario, respectively.

Note: The main authors of this box are Julian Chow and André Meier.

¹ See also Financial Stability Board (2012).

Box 1.7 (concluded)

that (less highly leveraged) nonbanks are entering the market for Asian trade finance. This supports the view expressed by some analysts that trade finance will thrive even under Basel III, as it represents a capital-efficient, profitable, and liquidity-friendly line of business. In any event, the leverage ratio will not be enforced until 2018, giving time to evaluate its real impact during the intervening review period.

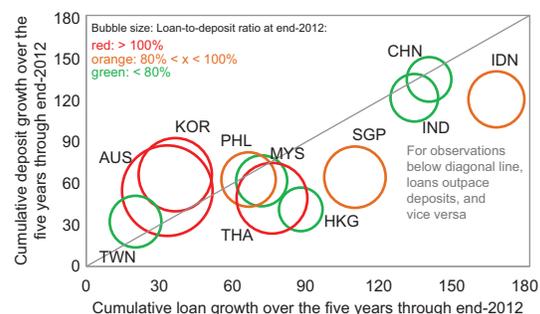
The strongest repercussions for Asian banks might ultimately come not from the Basel III capital rules but from the new liquidity requirements, although these will not be fully phased in until 2018 either. Because they have no precedent in earlier Basel standards, both the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR) are much harder to evaluate than the capital requirements.

The LCR, which was revised in January 2013, prescribes minimum holdings of highly liquid assets to ensure that banks can weather a temporary liquidity squeeze. For some Asian economies, it raises the well-known problem that the supply of eligible domestic assets is too small. Regulators have devised ways around this problem in line with the Basel agreement, notably by creating committed central bank liquidity facilities (e.g. in Australia) or by considering the eligibility of assets denominated in foreign currencies (e.g. in Hong Kong SAR). Still, some observers worry that the need for banks to hold large amounts of liquid assets could further reduce the depth of domestic debt markets. However, many Asian banking systems—ranging from India to Singapore—have a history of liquidity rules. Although those rules were defined differently from the LCR, the buffers built up in the past mean that most banking systems may not face any binding constraint under the new regime. Even Korean banks, whose liquidity buffers were generally seen to be limited, now appear to be in a good position to meet the revised LCR requirement.

The NSFR, whose details remain under review, requires banks to finance illiquid assets from an adequate pool of stable, longer-term funding, thus limiting the extent of maturity transformation. One likely effect is that banks may reduce the supply, or at least raise the price of, certain longer-term credit facilities. More broadly, analysts point out that a slower creation of deposits could constrain overall balance sheet growth as Asia's high saving rates ease and financial diversification induces savers to invest in a broader range of assets. A trend increase in loan-to-deposit ratios has already been apparent in many Asian economies in recent years (figure). Still, loan-to-deposit ratios mostly remain moderate, and in those countries with traditionally high ratios (Australia and Korea) have actually come down of late.

Growth in Loans and Deposits and Resulting Loan-to-Deposit Ratios, 2007–12

(In percent)



Sources: CEIC Data Company Ltd; and IMF staff calculations.

Mitigation is possible even where slower deposit growth emerges as a constraint. Specifically, Asian banks appear well positioned to scale up their use of longer-dated wholesale funding, perhaps beginning with the dollar bond market. Over time, such funding could include not only senior unsecured debt but also covered bonds (recently launched in Korea) and other forms of high-quality securitization. Greater diversification of funding sources would arguably raise the average cost of funding. However, it could also make banks more robust, especially when there is some justified concern that retail deposit bases may become less stable amid intensified competition. Increasing corporate reliance on bond finance would, in turn, underpin the development of Asian capital markets.

In sum, Asian banks generally appear to be prepared for the new Basel standards, which will help preserve the region's hard-earned financial stability. Over time, however, the new requirements are likely to become binding in some cases. While this could pose challenges to the banks, financial systems should prove adaptable enough to avoid an undue curtailment of credit. In this vein, the recent period has already brought clear signs of faster development in regional bond markets, which could progressively lead to more diverse funding structures for corporates and banks. Still, there is no denying the remaining uncertainty over the precise effects of Basel III. It is therefore crucial to use the current transition period for careful study of actual market adjustments.

government budgets and a rapidly growing shadow banking system.

- Among major ASEAN economies, buoyant domestic demand and robust capital inflows in the Philippines warrant ongoing fiscal consolidation; the consolidation critically depends on broadening the tax base by streamlining incentives and strengthening tax administration. In other economies, such as Malaysia and Indonesia, achieving fiscal consolidation or creating more fiscal space will also depend on reforming energy-related subsidies and, more broadly, enhancement to public expenditure management, including for capital projects.
- Low-income economies in the region should intensify their efforts to rebuild their fiscal space to dampen the effect of any adverse shocks on living standards and poverty. In fact, many of them are found to have weaker fiscal balances currently than before the crisis. In the case of Myanmar, there is a need to contain fiscal deficits to set the stage for higher and stable revenues to fund the country's considerable development needs. The government's plans to strengthen revenue administration, simplify tax rates, broaden the tax base, and improve public financial management are welcome (Box 1.8).

Over the medium term, strengthening fiscal institutions and frameworks will also play an important role in achieving sustained and more inclusive growth. As highlighted in Chapter 2, fiscal management across Asia has become more effective over the past decade in cushioning the impact of cyclical fluctuations and even severe shocks, as evidenced during the global financial crisis. Nevertheless, significant fiscal challenges remain for emerging market, developing, and advanced economies alike: make growth more resilient and inclusive, including by broadening tax revenue and reducing widespread costly tax incentives, and streamline subsidies, and introduce better targeted social transfers. In many of Asia's low-income

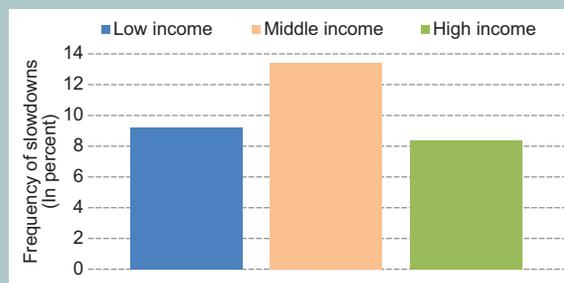
and emerging economies, deploying the fiscal space thus gained for high-impact social and infrastructure spending will also play a critical role in sustaining growth and making it more inclusive. In the more advanced economies, increased fiscal space will be crucial to ensure sustainable social safety nets in the face of aging populations.

Laying Foundations for Sustained and Shared Prosperity

Sustaining growth and making it more inclusive over the medium term remain top priorities. As a region with a high share of rapidly growing middle-income countries, emerging Asia is particularly susceptible to the “middle-income trap,” in which economies risk stagnation once they reach middle-income levels and struggle to advance into the ranks of high-income economies. Indeed, empirical evidence indicates that middle-income economies are significantly more at risk of experiencing a sustained growth slowdown than their lower- and higher-income counterparts (Figure 1.38). Various statistical approaches indicate that trend growth rates have slowed in both China and India, although results are mixed for many ASEAN economies (Box 1.9). A main conclusion of Chapter 3 is that Asian economies could stimulate

Figure 1.38

There Seems to Be a Middle-Income Trap¹



Source: IMF staff calculations. See Aiyar and others (2013) for details.

¹ The figure considers a low-income threshold of \$2,000 and a high-income threshold of \$15,000 in PPP terms, but is robust to a range of alternative thresholds.

Box 1.8**Myanmar—Reintegrating with the World**

Over the last year, Myanmar has continued to make rapid progress on its ambitious set of reforms, which aim to comprehensively modernize the economy and re-integrate it into the global economy. Joining the ASEAN Economic Community (AEC) at its planned launch in 2015 is a key pillar in this strategy, as is the resumption of orderly financial relations with the international community. Early 2013 saw the completion of a number of critical steps along this road.

The government's broad economic goals—the Framework for Economic and Social Reforms (FESR)—were presented to the international community in January 2013. In addition to opening the economy, they include raising growth in a sustainable way, reducing poverty, and achieving greater equity. Donors supported the goals and, through the Nay Pyi Taw Accord, pledged to support them in a coordinated manner. The key challenge for the authorities will lie in managing the economic reform program; and coping with strong aid inflows.

The authorities' key macroeconomic policy priorities are to maintain low and stable inflation within a consistent macroeconomic framework; and build international reserve buffers in light of the ongoing liberalization of imports and the foreign exchange regime. The IMF is assisting the authorities with monitoring the progress toward these objectives through a Staff-Monitored Program (SMP). To build the institutions and instruments needed to ensure macroeconomic stability, the SMP focuses on the following areas: (1) eliminating remaining exchange restrictions and multiple currency practices in line with Myanmar's AEC commitments; (2) modernizing the financial sector, including the Central Bank of Myanmar, to facilitate macroeconomic management and growth; and (3) laying the foundations for improving fiscal revenues in the medium term for sustainable development spending.

The FESR and SMP helped lay the foundations for the normalization of Myanmar's financial relations with the international community. Early 2013 saw the clearance of Myanmar's arrears to the Asian Development Bank and World Bank, and agreement on the concessional rescheduling of its arrears with Paris Club creditors. International sanctions were also further relaxed and the financial sector strengthened its links through the establishment of international transactions.

The coming months will see further progress. The 2013/14 budget will be the first to reflect the priorities of the FESR, a new central bank law is expected to be passed by Parliament and international financial relations will be strengthened through the completion of the Paris Club rescheduling process. With these achievements and provided the reform momentum is maintained, growth over the next five years is projected to rise to around 7 percent.

An SMP is an informal and flexible instrument for dialogue between the IMF and a member country on its economic policies. It is not accompanied by financial support from the IMF. In Myanmar's case, it will involve joint monitoring of progress on the government's reform plans.

Note: The main author of this box is Alexander Pitt.

potential growth and reduce risks of a persistent slowdown through, among other things, regulatory reforms (product-labor markets), infrastructure spending, and further regional trade integration. As for low-income economies such as Pacific Island

countries, steadfast implementation of structural reforms—including to improve the investment climate and infrastructure—would play an equally crucial role in lifting potential growth over the medium term (Box 1.10).

Box 1.9

Is Emerging Asia Shifting to Lower Trend Growth?

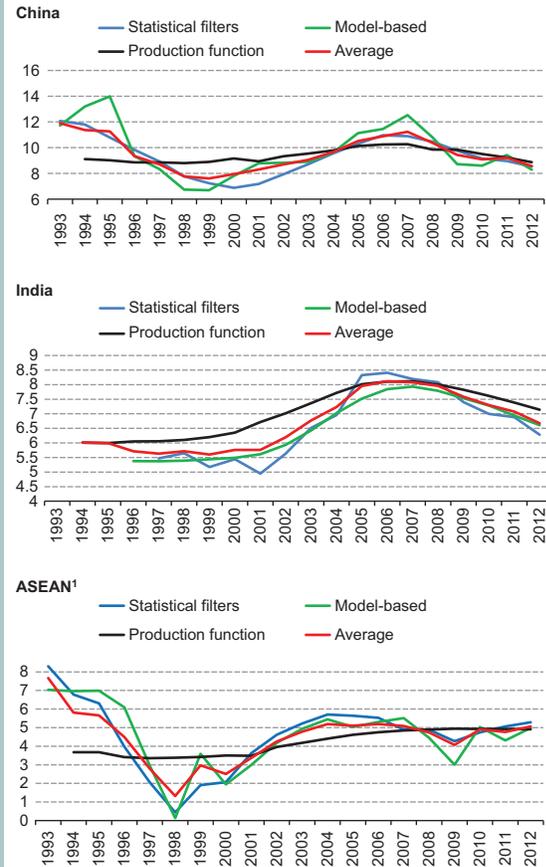
Medium-term growth prospects for China, India, and other emerging Asia economies have recently become a focus of economic debates in the region. Indeed, growth in both China and India has declined since the global financial crisis—in China, from more than 10 percent before the crisis to less than 8 percent; for India, from 8 percent to 6 percent. This begs an important policy question: to what extent do these recent growth patterns reflect permanent rather than just temporary factors? This box attempts to shed light on this question by estimating trend growth rates for these two economies as well as other key emerging Asia economies.

To ensure robustness of the results, three distinct methods—statistical filtering, model-based multivariate filtering, and a production function approach—are used to estimate trend growth for China, India, and five ASEAN countries (Indonesia, Malaysia, the Philippines, Thailand, and Vietnam) during 1993–2012. These various approaches capture different aspects of “trend growth”: the statistical filtering approach is consistent with a purely statistical estimation of tendencies in the economic growth data; the model-based multivariate filter method aims to capture the growth rate that would be consistent with keeping unemployment at its natural rate and inflation at the central bank’s target; and the production function approach derives an estimate of potential growth from the trend contributions to growth of technology and factor inputs (labor, physical capital and, here, human capital as well).

Keeping in mind the limitations of all these estimation techniques—not least their intrinsically backwardlooking nature—results for all three approaches tentatively suggest that trend growth has declined in China and India since the global financial crisis—although each approach can produce markedly different results from the others on an annual basis.

Note: The main authors of this box are Kevin C. Cheng and Longmei Zhang.

Trend Growth by Various Approaches



Source: IMF staff estimates.

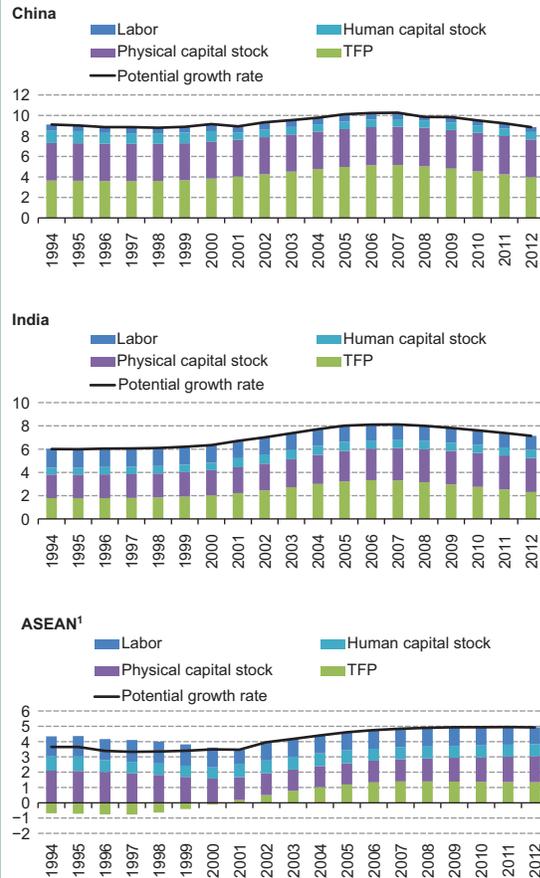
¹ Includes Indonesia, Malaysia, the Philippines, Thailand, and Vietnam.

Box 1.9 (concluded)

China's trend growth appears to have peaked around 2006–07 at about 11 percent and to have slowly declined thereafter to slightly more than 8 percent by 2012. Similarly, the analysis suggests that India's trend growth peaked just before the global financial crisis at about 8 percent and has recently declined to about 6–7 percent. By contrast, trend growth for most ASEAN countries seems to have remained stable or to have increased somewhat, with the notable exception of Vietnam. Even so, trend GDP growth for the five ASEAN countries taken as a whole remains significantly below its pre-Asian crisis level and marginally below its level preceding the global crisis (figure, top), except in the Philippines where it gradually picked up in the last two decades.

Using the production function approach, a growth accounting exercise sheds light on the proximate factors that drive the evolution of trend growth over time (figure, bottom). For China and India, the slowdown appears to have been driven largely by a decline in trend total factor productivity (TFP) growth. While declining capital utilization may have also played a role in the estimates, an alternative growth accounting exercise incorporating capital utilization also yields similar findings for TFP growth. For the five ASEAN economies as a whole, the small recent uptick in estimated trend growth seems to have largely reflected an increased pace of capital accumulation amid projects sponsored and financed by the government. Trend TFP growth appears to be stable or to pick up for most of these economies.

Estimated Trend Growth and Components



Source: IMF staff estimates.

¹ Includes Indonesia, Malaysia, the Philippines, Thailand, and Vietnam.

Box 1.10

Lifting Potential Growth in the Pacific Islands: Structural Impediments and the Role of Policies

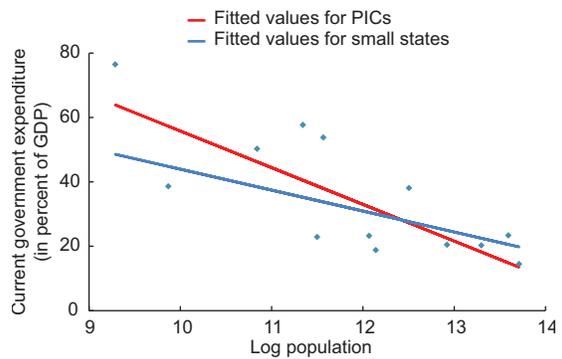
The Pacific Island countries face unique challenges. They are widely dispersed, sparsely populated, and geographically distant from their major markets—unlike small islands in other regions. Their extreme remoteness raises transport costs and keeps these economies relatively isolated. Their small size and geographical dispersion preclude the exploitation of geographical agglomeration effects. Moreover, their small size combined with diseconomies of scale in the provision of public services mean that these countries face high per capita government costs (figure, top).

Pacific Island countries appear to be less open than comparators, and financial depth is generally below that of other small states. Less openness reflects their remoteness, their underdeveloped infrastructure (which hurts tourism), and low competitiveness. Poor connectivity and high transport costs have prevented greater trade integration with the rest of the region.

Access to credit is limited by the largely communal form of land ownership, which constrains the use of land as collateral; and by weak legal frameworks for securing lending. As a result, the spread between lending and deposit rates is very high (bottom, left).

Low access to credit by the private sector is an impediment to inclusive growth. Indeed, there is a negative cross-country correlation between overall inequality and the share of private credit as a percent of GDP for all small states (bottom, right). Access to international markets by Pacific Island countries is also very limited. Except in the cases of Fiji and Papua New Guinea, limited capacity and structural impediments, including in legal and

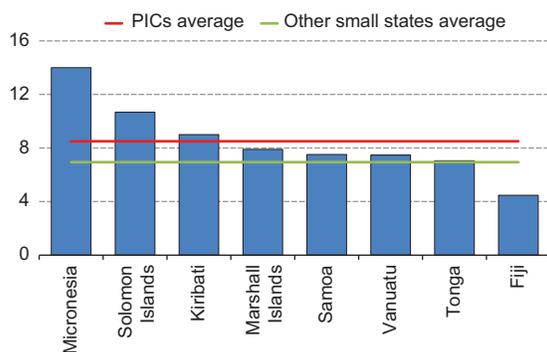
Pacific Island Countries: Cost of Government, 1990–2010



Sources: World Bank, *World Development Indicators*; IMF, *World Economic Outlook*; and IMF staff estimates.

Pacific Island Countries: Interest Rate Spread of Commercial Banks¹

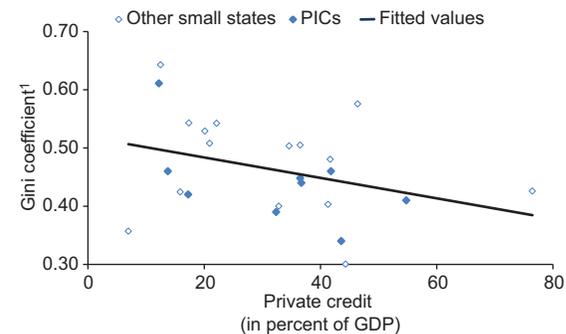
(In percent)



Sources: Country authorities; IMF, *International Financial Statistics*; and IMF staff estimates.

¹ 2011 or latest available.

Small States: Financial Development and Inequality, 1990–2010



Sources: World Bank, *World Development Indicators*; ADB, *Key Indicators*; and IMF staff calculations.

¹ One indicates maximum inequality.

Note: The main authors of this box are Ezequiel Cabezon, Patrizia Tumbarello, and Yiqun Wu. Further details of the analysis provided in this box can be found in IMF (2013b).

Box 1.10 (continued)

administrative frameworks, have blocked these countries from tapping international capital markets and attracting capital inflows.

The Pacific Island countries are heavily exposed to exogenous shocks and vulnerabilities (Sheridan, Tumbarello, and Wu, 2012), including terms of trade, external demand, and financial shocks; natural disasters; and climate change. Indeed, terms of trade, aid, and current account balances are all, on average, more volatile than in other small states. A key vulnerability is these countries' small domestic markets and heavy reliance on imports, which lead them to rely on aid and remittances to finance their structural trade deficits.

Policy tools are also limited. Five out of the 11 Pacific Island countries do not have a central bank (Kiribati, Marshall Islands, Micronesia, Palau, and Tuvalu). The use of dollarization or of fixed/managed exchange rate regimes for the others—with the exception of Papua New Guinea, which has a floating exchange rate—reflects the fixed costs of operating an independent monetary policy as well as weak monetary transmission mechanisms. The latter is largely the result of the structural characteristics of financial markets—for example, shallow money markets, the absence of institutions such as credit bureaus that facilitate bank lending, and small market size (Yang and others, 2011).

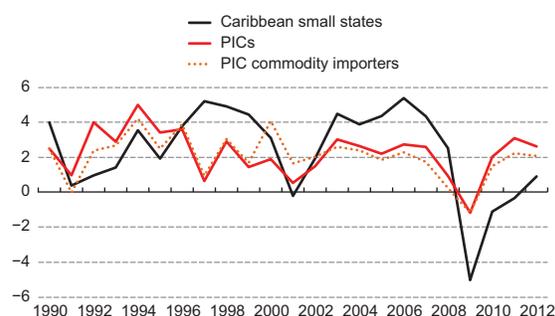
As a result of these factors, real GDP per capita in the Pacific Island countries is among the lowest among the small states, and they seem to be stuck on a low-growth path. Since 1990, their real GDP per capita (in PPP terms) has increased by less than 25 percent, compared with 45 percent in the countries of the Eastern Caribbean Currency Union (ECCU) and more than 30 percent for the small states average. Growth has been weak over the past two decades, averaging just 2 percent—much lower than the Asian low-income countries (6 percent), the ECCU countries (4 percent), and the small state average (4½ percent) (figure, bottom). Indeed, econometric analysis (Tumbarello, Cabezon, and Wu, 2013) suggests that, even after controlling for some standard variables (that is, education, GDP volatility, government consumption, and initial GDP), the Pacific Island countries suffer a disadvantage in per capita GDP growth of about 2 percentage points compared with an average small state over the past 20 years.

Nevertheless, policies still matter and can help build resilience and raise potential growth. The Pacific Island countries should continue rebuilding policy buffers, which were lost in part during the global recession, in a way that reinforces efforts to implement growth-enhancing reforms. In particular:

- Strengthening domestic revenue mobilization would support the rebuilding of policy buffers while helping to create fiscal space to meet critical development spending needs.
- Improving the composition of public spending with regard to education, health, and infrastructure would foster inclusive growth by crowding-in private investment, thereby promoting more broad-based growth, including by attracting foreign direct investment and stimulating more tourism.
- Sound structural policies can enhance long-term resilience to shocks and boost growth potential. In particular, implementing reforms that enhance the business environment can boost investor confidence and private-sector growth. The Pacific Island countries also have enormous untapped marine resources, and further effort is needed to properly exploit and manage them.

Pacific Island Countries: Real GDP Growth, 1990–2012

(In percent)



Sources: IMF, *World Economic Outlook*; and World Bank, *World Development Indicators*.

Box 1.10 *(concluded)*

- Strengthening institutions and improving governance should be a key part of governments' reform agenda and of their development partners' capacity building programs. Bolstering public institutions, in particular through public finance management reforms, would also improve the efficiency of spending. Strengthening public finance by introducing a multiyear budget framework will help in the design of realistic fiscal plans. Fiji, Solomon Islands, and Vanuatu have recently taken commendable steps to strengthen public finance management and promote budget transparency and accountability.
- Regional solutions to common problems should also continue to be pursued to help individual countries mitigate the challenges associated with their small size and high dispersion. Regional approaches can encourage the alignment of regulations and laws, lower transaction costs, and reduce the need for country-specific knowledge on regulatory approaches. Key sectors in this regard include fisheries, information and communication technology, and aviation safety. Progress has been made in the fishery sector, through the Nauru Agreement, to strengthen regional capacity to increase the bargaining power of license-issuing countries. The seasonal employment scheme, introduced by New Zealand in 2006 and more recently by Australia, is a successful case of enhanced integration with neighboring countries that has generated income opportunities and enhanced the skills of Pacific Island workers. Further integration with the Asia and Pacific region, through trade and investment, should help raise potential growth.