1. Preparing for Choppy Seas

Recent Developments and Near-Term Outlook

The Asia-Pacific region continues to be the world leader in growth, and recent data point to a pickup in momentum. Growth is projected to reach 5.5 percent in 2017 and 5.4 percent in 2018. Accommodative policies will underpin domestic demand, offsetting tighter global financial conditions. Despite volatile capital flows, Asian financial markets have been resilient, reflecting strong fundamentals. However, the near-term outlook is clouded with significant uncertainty, and risks, on balance, remain slanted to the downside. On the upside, growth momentum remains strong, particularly in advanced economies and in Asia. Additional policy stimulus, especially U.S. fiscal policy, could provide further support. On the downside, the continued tightening of global financial conditions and economic uncertainty could trigger volatility in capital flows. A possible shift toward protectionism in major trading partners also represents a substantial risk to the region. Asia is particularly vulnerable to a decline in global trade because the region has a high trade openness ratio, with significant participation in global supply chains. A bumpier-than-expected transition in China would also have large spillovers. Medium-term growth faces secular headwinds, including population aging and slow productivity catchup. Adapting to aging could be especially challenging for Asia, as populations living at relatively low per capita income levels in many parts of the region are rapidly becoming old. In other words, parts of Asia risk "growing old before becoming rich." Another challenge for the region is how to raise productivity growth-productivity convergence with the United States and other advanced economies has stalled-when external factors, including further trade integration, might not be as supportive as they were in the past. On policies, monetary policy should generally remain accommodative, though policy rates should be

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Global Developments: Stronger Near-Term Momentum amid Rising Uncertainty

The global economy is gaining momentum. The pace of economic activity has strengthened in advanced economies, including the United States, as well as in some emerging market and developing economies. Market sentiment has been favorable. Asset price changes generally reflect both a more optimistic market environment, with stronger risk appetite, and shifting expectations regarding policy setting in major economies. In particular, markets expect a shift toward looser fiscal and tighter monetary policy in the United States. At the same time uncertainty remains high, both on the specifics of U.S. fiscal policy and on other aspects of the new administration's policy agenda, including trade and regulation.

World economic growth is forecast to accelerate from 3.1 percent in 2016 to 3.5 percent in 2017 and 3.6 percent in 2018—a slight upward revision for 2017 compared with the October 2016 *World Economic Outlook* (WEO) forecast. Underlying the forecast is also a shift in expectations about the strength of economic activity across country groups. In line with the stronger-than-expected pickup in growth in advanced economies and weaker-than-expected activity in some emerging market economies along with the assumed fiscal stimulus in the United States, the forecast envisages a faster rebound in activity in advanced economies and marginally weaker growth in emerging market and developing economies. Headline inflation has increased in advanced economies, but core inflation remains subdued and heterogeneous (consistent with the diversity in output gaps). In emerging market economies, the revival in headline inflation is more nascent. Core inflation is generally muted and broadly stable in most emerging market economies. For 2017 and 2018, with the uptick in commodity prices, a broad-based increase in headline inflation rates is projected in advanced, emerging market, and developing economies (see the April 2017 *World Economic Outlook*).

While global financial conditions have started to tighten, they remain accommodative on balance with favorable market sentiment. Expectations of looser fiscal policy and tighter monetary policy in the United States have contributed to a stronger dollar and higher U.S. Treasury interest rates, pushing up yields elsewhere. Yet market sentiment has generally been strong, with notable gains in equity markets in both advanced and emerging market economies, as well as higher risk appetite and relatively low financial market volatility.

With buoyant market sentiment, there is now more tangible upside potential for the near term, particularly owing to policy stimulus in some larger economies. Nonetheless, in light of broad policy uncertainty, risks remain slanted to the downside, including a possible sharp increase in risk aversion. The uncertainty over the likely effects of U.S. policy actions implies a wide range of upside and downside risks to the current baseline forecast for the United States as well as for the global economy. Risks of adverse feedback loops between weak demand and balance sheet problems in parts of Europe persist. A disruption of global trade, capital, and labor flows resulting from an inward shift in policies in some advanced economies would disrupt the operation of global value chains, deter investment, reduce productivity, and lower global growth. A tightening of economic and financial conditions in emerging market economies, given continued balance sheet

Figure 1.1. Asia: Cumulative Portfolio Flows (Billions of U.S. dollars)



Sources: Bloomberg L.P.; Haver Analytics; and IMF staff calculations. Note: Equities coverage: India, Indonesia, Korea, Philippines, Sri Lanka, Taiwan Province of China, Thailand, Vietnam; bonds coverage: India, Indonesia, Korea, Thailand.

weaknesses in some economies and building vulnerabilities in China's financial system, would have large spillovers given their increased weight in the world economy. Noneconomic factors, including geopolitical tensions, domestic political discord, and terrorism and security concerns, have been on the rise in recent years, burdening the outlook for various regions.

Regional Financial Developments: Resilience amid Volatile Capital Flows

Asian financial markets have been resilient, reflecting global and regional factors. Net portfolio inflows rebounded after initial uncertainty about China's transition in early 2016 and stayed positive for most of the year. The region experienced net capital outflows for a short period following the Brexit referendum and in the last two months of 2016 following the change in market expectations after the U.S. elections. Capital flows stabilized by the end of the year, with cumulative portfolio inflows (bonds and equities combined) to major Asian emerging market economies (excluding China) reaching \$51

Figure 1.2. Asia: Equity Prices and Price-to-Earnings Ratios

(Change in stock market index; percent)



Sources: Bloomberg L.P.; and IMF staff calculations. Note: PE = price to earnings.

billion in 2016, well above the \$42 billion in 2015, but below the peak of \$72 billion prior to the U.S. elections (Figure 1.1). In China, capital outflows have accelerated since September 2016, with total outflows reaching an estimated \$320 billion in 2016, driven by residents' asset purchases abroad. The pressure subsided in early 2017, amounting to \$26 billion during January–February 2017, with the tightening of capital controls and resumed portfolio inflows. More broadly, portfolio inflows to Asia returned, reflecting the region's strong fundamentals, including favorable growth differentials.

Generally mirroring global markets, Asian stock markets overall rose significantly in the year prior to mid-March (Figure 1.2), and sovereign bond yields have increased since mid-2016 following the rise in yields in advanced economies (Figure 1.3). The increase in yields accelerated following the U.S. elections—one exception is India, where yields declined owing to the currency exchange initiative (Box 1.1). Sovereign credit default swap (CDS) spreads have also increased in some emerging market economies, but are now in general below their levels on the eve of the

Figure 1.3. Asia: Ten-Year Sovereign Bond Yields (Basis points)



Sources: Bloomberg L.P.; and Haver Analytics.

Figure 1.4. Sovereign Credit Default Swap Spreads (Levels in basis points; five year)

Levels III basis politis, five year)



Source: Bloomberg L.P.

"taper tantrum" episode in May 2013. Demand for frontier and developing Asia's debt remains strong (for example, Mongolia's recent bond issue was heavily over-subscribed). In some economies (for example, Australia, Japan, and Korea), CDS spreads are at or close to the lowest levels reached during the past four years (Figure 1.4).

Exchange rates have generally depreciated over the past year and a half, reflecting a stronger

Figure 1.5. Selected Asia: Exchange Rates

(Percent change since June 2015)



Sources: CEIC Data Company Ltd; Haver Analytics; and IMF staff calculations. Note: A positive value represents appreciation of the national currency.

U.S. dollar. In particular, after the U.S. elections, exchange rates depreciated across most of the region, especially against the dollar, by an average of 2 percent (Figure 1.5). The yen depreciated against the dollar by 8 percent, owing to expectations about divergent monetary policies among major advanced economies. The renminbi weakened somewhat against the U.S. dollar, but by less than most emerging market currencies, and was broadly stable in effective terms, in part due to increased foreign exchange intervention and capital controls, which limited its further depreciation. While foreign exchange reserves were broadly stable for most countries, China's foreign exchange reserve losses picked up (Figure 1.6). China's reserves fell below \$3 trillion temporarily in January 2017 for the first time since 2011, with an overall decline of about \$1 trillion from their peak of nearly \$4 trillion in mid-2014.

While financial conditions in the region are still accommodative, they have begun to tighten in some countries.¹ Domestic financial conditions

Figure 1.6. Selected Asia: Foreign Exchange Reserve Accumulation

(Billion of U.S. dollars)



Sources: CEIC Data Company Ltd.; Haver Analytics; and IMF staff calculations. Note: China on right scale.

in the region are sensitive to global factors, such as global risk aversion and U.S. interest rates (Box 1.2). Even though credit growth (adjusted for inflation) in 2016 remained robust in the region, it was well below the average of the previous decade in most economies, with the exception of Hong Kong SAR, New Zealand, and the Philippines (Figure 1.7). In China, credit growth continues at twice the pace of nominal GDP, as the stock of total social financing (adjusted for local government bond swaps) grew at a strong 16 percent in 2016. While foreign bank lending to Asia has risen (Figure 1.8), corporate debt issuance (including syndicated loans) is in general lower (Figure 1.9).

Private debt levels remain high across most of the region, owing to rapid credit growth and significant corporate bond issuance over the past decade. While corporate debt has been rising across the region, most notably in emerging Asia, the buildup of leverage accelerated following the global financial crisis. As a result, corporate debt levels in Asia are higher than in other regions, particularly in China and India (see the October 2015 *Global Financial Stability Report*

¹Financial condition indices estimated for the largest 14 economies suggest that overall conditions have started to tighten across most of the region.





Sources: CEIC Data Company Ltd.; Haver Analytics; and IMF staff calculations. Note: Private sector credit is based on the IMF's depository corporations survey.

> and the October 2016 Regional Economic Outlook Update: Asia and Pacific). Household debt has also increased considerably. For instance, between 2007 and 2015, the household-debt-to-GDP ratio increased by more than 20 percentage points in China, Malaysia, and Thailand (Box 1.3). Consequently, household debt is high in several economies in the region, including Australia, Korea, and New Zealand.

> There is some evidence that excessive credit growth is decelerating in many major economies in the region. Although the credit-to-GDP gap or credit gap—a measure of excess credit—is declining in such economies as Hong Kong SAR, Indonesia, Malaysia, Singapore, and Thailand, it remains substantial in several economies, while still increasing in others (China).² While part of the credit gap reflects desirable financial deepening, excessive credit growth can lead to an unintended buildup of systemic risks, and a large credit gap has been found to provide an

²Credit gaps were computed by the Bank for International Settlements (BIS) using the one-sided Hodrick-Prescott filter, with quarterly data and a relatively high smoothing parameter (lambda equal to 400,000 instead of 1,600). It is well documented that the results are sensitive to the choice of the filter and the smoothing parameter. Therefore, the results should be interpreted with caution.

Figure 1.8. Consolidated Foreign Claims

(Immediate risk basis; year-over-year change; percent)



Sources: Bank for International Settlements, International Banking Statistics database: and IMF staff calculations.

Note: Data labels in the figure use International Organization for Standardization (ISO) country codes.

¹Newly industrialized economies (NIEs) comprise Hong Kong SAR, Korea, Singapore, and Taiwan Province of China.



(Percent of GDP)



Sources: Dealogic; and IMF, World Economic Outlook database. Note: Includes both bond issuance and syndicated loan issuance. Data compiled on residency basis.

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Figure 1.10. Asia: Financial Stability Heat Map



Z-score at or above 1, but less than 2; momentum increasing

Z-score at or above 1, but less than 2; momentum decreasing or no change

Z-score at or above 0.5, but less than 1 Z-score at or above -0.5, but less than 0.5 Z-score at or above -2, but less than -0.5Z-score less than -2



Sources: Bloomberg L.P.; CEIC Data Company Ltd.; Haver Analytics; IMF, Global Housing Watch data; and IMF staff calculations.

Note: Colors represent the extent of the deviation from long-term median expressed in number of median-based standard deviations (median-based Z-scores). Medians and standard deviations are for the period starting 2000:Q1, where data are available.

¹Estimated using house price-to-rent and price-to-income ratios. ²Year-over-year growth of credit-to-GDP ratio.

³Estimated using price-to-earnings and price-to-book ratios.

early warning signal of increasing vulnerabilities for advanced and emerging market economies (Drehmann and others 2010; Drehmann, Borio, and Tsatsaronis 2011; and Drehmann and Tsatsaronis 2014).

The financial stability heat map points to risks associated with house prices and equity market overvaluation in some economies in the region (Figure 1.10). Notably, house prices in Australia, China, Hong Kong SAR, Malaysia, New Zealand, and Thailand are above their long-term averages. In the case of equity markets, benchmark equity indices are above their long-term averages in several economies, including Australia, India, Indonesia, and the Philippines.

While banking sector capitalization has improved in general over the past few years and liquidity has been stable, asset quality and profitability have deteriorated in a number of Asian economies. Tier 1 capital ratios increased in most economies (Figure 1.11, panel 1)—particularly in Hong Kong SAR, Indonesia, and Thailand—while they declined in the Philippines. Bank liquidity, measured by loan-to-deposit ratios, was stable in major economies (Figure 1.11, panel 2). While nonperforming loan ratios remain relatively low across most economies, they have increased

Figure 1.11. Selected Banking Indicators



Note: For Japan, data as of 2013:Q3 and 2016:Q1; for China, data as of 2013:A1 and 2016:Q3; for Hong Kong SAR, India, the Philippines, Thailand, Singapore, and Australia, data as of 2016:Q3; for Malaysia and Indonesia, data as of 2016:Q4.



3. Nonperforming Loans to Total Gross Loans

Note: For Japan, data as of 2013:Q3 and 2016:Q1; for China, data as of 2013:A1 and 2016:Q3; for Hong Kong SAR, India, the Philippines, Thailand, Singapore, and Australia, data as of 2016:Q3; for Malaysia and Indonesia, data as of 2016:Q4.

Source: IMF, Financial Soundness Indicators database.



Note: For India, data as of June 2016; for Vietnam, data as of October 2016, for Japan, data as of November 2016; for Australia, Hong Kong SAR and the Philippines, data as of December 2016; for Korea, Malaysia, and Thailand, data as of January 2017; for Indonesia and Singapore, data as of February 2017.



Note: For Japan, data as of 2013:Q3 and 2016:Q1; for China, data as of 2013:A1 and 2016:Q3; for Hong Kong SAR, India, the Philippines, Thailand, Singapore, and Australia, data as of 2016:Q3; for Malaysia and Indonesia, data as of 2016:Q4.





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

Note: SAAR = seasonally adjusted annualized rate.

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

recently in several countries and are relatively high in India (Figure 1.11, panel 3). In addition, banks' profitability has in general declined (Figure 1.11, panel 4).

Regional Activity: Recovery since mid-2016 with Positive Momentum

Growth in the region decelerated overall in 2016 despite broad-based improvement in economic activity in the second half of the year (Figure 1.12):

- Asia's growth declined to 5.3 percent in 2016 from 5.6 percent in 2015 (Table 1.1). In some countries, idiosyncratic factors were key drivers of growth performance. For example, in India activity slowed as a result of cash shortages following the currency exchange initiative.
- Net exports continued to be a drag on growth for the region as a whole, subtracting 0.1 of a percentage point. However, Asia's export growth momentum (in values) to major economies recovered in the second half of 2016, particularly to China and Japan, and, to

Figure 1.13. Selected Asia: Exports to Major Destinations (Year-over-year change; percent)



Sources: CEIC Data Co. Ltd.; Haver Analytics; and IMF staff calculations. Note: Selected Asia comprises China, Hong Kong SAR, Japan, Korea, Malaysia, Taiwan Province of China, Thailand, the Philippines, Singapore, and Vietnam. Indonesia is excluded due to data lags.

some extent, the United States (Figure 1.13). Exports to the euro area also recovered, but are still declining year over year. While export volumes increased less than the nominal values (partly reflecting higher commodity prices), they have started to show some improvement. Several factors are likely driving the export recovery, including strong growth in China and the recovery in advanced economies. Also, there is some evidence that inventory destocking, particularly in electronics, may have ended, as Asian exports now more closely follow demand in advanced economies (Figure 1.14).³

Domestic demand remained strong, supported by robust private consumption owing to continued growth in household income. Retail sales have been relatively solid in general (Figure 1.15). However, highfrequency indicators suggest that retail sales declined sharply in India due to the currency exchange initiative. In Hong Kong SAR, retail sales remain depressed owing to a downturn in tourism arrivals from mainland China.

³During the inventory destocking phase, demand was met by a reduction in stocks.

Figure 1.14. Emerging Asia: Exports and Demand in the West (Year-over-year change; percent)

Advanced economies' industrial production Emerging Asia export volume weighted by export value, 3 mma (right scale) 15 -- 45 10 -- 30 - 15 5 0 -5 - -15 -10 - -30 -15 -- -45 -20 L 1 -60 Feb. Alanovica Sep. Junovica S

Sources: Haver Analytics; and IMF staff calculations.

Note: Emerging Asia comprises China, Indonesia, Malaysia, the Philippines, and Thailand.; 3 mma = 3-month moving average.

Figure 1.16. Global Commodity Prices

(Index, 2012 January 1 = 100)





The recovery in commodity prices has modestly pushed up headline inflation in many Asian economies, while core inflation generally remains stable at low levels. While commodity prices Figure 1.15. Selected Asia: Retail Sales Volumes (Year-over-year change; percent)



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

Figure 1.17. Selected Asia: Headline Inflation

(Year-over-year change; percent)



Sources: Haver Analytics; and IMF staff calculations. Note: For India, inflation expectation and 2016 projection are on a fiscal-year basis. ¹Based on Consensus Economics Forecasts.

have rebounded, commodity price levels are still comparatively low—barely reaching their mid-2015 levels (Figure 1.16). In China, producer price inflation turned significantly positive and

Figure 1.18. Selected Asia: Core Inflation

(Year-over-year change; percent)



Sources: CEIC Data Company Ltd; and Haver Analytics. Note: Vietnam data as of August 2016.

> consumer price inflation picked up. Headline inflation in Japan fell during most of 2016, while core inflation remained negative but edged up closer to zero. Among the largest economies in the region, headline inflation exceeded 3 percent in 2016 only in a few economies (Figure 1.17). Inflation expectations (from *Consensus Forecasts*) remain weak in most economies and have declined recently, but a few economies saw a slight uptick (for example, China and the Philippines). Similarly, core inflation has been low across most of Asia, but has increased in several countries, including China, the Philippines, New Zealand, Singapore, and Vietnam (Figure 1.18).

Current account balances decreased slightly in major Asian economies in 2016. Overall, Asia's current account surplus declined to an estimated 2.5 percent of GDP for the year, down from 2.7 percent in 2015. However, this overall picture masks considerable heterogeneity across the region (Figure 1.19):

 Industrial Asia: Current account balances increased by 1.2 percentage points in 2016 to 2.4 percent of GDP. In Japan, the current account rose to 3.9 percent of GDP due to a stronger goods trade balance. In Australia

Figure 1.19. Asia: Current Account Balances (Percent of GDP)



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

and *New Zealand*, current account deficits narrowed, reflecting higher prices of commodity exports.

East Asia and the Association of Southeast Asian Nations (ASEAN): These economies saw reduced current account surpluses in aggregate in 2016. In China, the current account surplus narrowed to 1.8 percent of GDP from 2.7 percent in 2015, driven by a lower trade surplus and an increase in the services deficit. In Korea, the current account surplus narrowed to 7 percent, owing to lower exports due to temporary disruptions in automobile and smartphone production, and the bankruptcy of a major shipping company. Malaysia's current account balance declined to 2 percent of GDP mainly on weaker oil and gas trade balances. In the *Philippines*, the current account surplus fell to 0.2 percent of GDP due to strong growth in imports, particularly capital goods. By contrast, in Thailand, the current account surplus increased to 11.4 percent of GDP due to buoyant tourism and weak imports, as domestic demand slowed.

GDP growth trends in specific countries continue to show considerable heterogeneity:

- In China, growth gradually slowed amid continued rebalancing. Growth was
 6.7 percent in 2016, slightly higher than projected in the October 2016 World Economic Outlook,⁴ reflecting the rebounding housing market, robust consumption growth, and continued policy support, while net exports continued to be a drag on growth.
- Japan's growth in 2013–15 was revised upward due to a comprehensive revision of the national accounts, and growth in 2016 was 1 percent. Strong net exports played the most significant role in 2016, while private investment and consumption contributed modestly, supported by fiscal policy.
- India's currency exchange initiative and its associated cash shortages weighed on activity in the last couple of months of 2016 (see Box 1.1). Growth for FY2016–17 is now expected to decelerate to 6.8 percent, 0.8 of a percentage point lower than the projection in the October 2016 World Economic Outlook.⁵ The post-November 8, 2016, cash shortages and payment disruptions caused by the currency exchange initiative have strained consumption and business activity, especially in the informal sector.
- In Korea, growth was 2.8 percent in 2016, mainly driven by stronger construction investment, while private consumption was weaker than expected, reflecting political uncertainties.
- In Hong Kong SAR, growth slowed to 1.9 percent in 2016 due to an anemic global trade environment and a sharp downturn in tourism arrivals from mainland China, but the economy showed signs of recovery in

the second half on the back of strong public investment.

- Australia's growth was 2.5 percent in 2016, mainly reflecting the drag from mining investment and slightly weaker growth in consumption. New Zealand's growth accelerated to 4 percent, driven mainly by construction activity following the 2011 Canterbury earthquake, though more recently the expansion has been broad based across most sectors.
- Growth in the ASEAN economies increased in 2016, but economic cycles within the region continue to diverge. In Indonesia, growth accelerated to 5 percent, supported by robust private consumption. The Malaysian economy saw a moderate expansion, with growth at 4.2 percent—the slowest rate since the global financial crisis-driven mainly by private domestic demand, while net exports contributed negatively. Thailand's economy continued to recover at a moderate pace, with growth reaching 3.2 percent, primarily driven by exports of services (notably tourism) and public investment. In the Philippines, growth increased to 6.8 percent, mainly driven by the strength of domestic demand-investment growth was particularly strong, reflecting higher public infrastructure spending and private construction-while net exports were a drag on growth. Singapore's growth was 2 percent, consistent with the significant slowdown in recent years that reflects structural and cyclical factors-population aging, tighter limits on immigration, the turning of the financial cycle, and external headwinds. In Vietnam, growth slowed to 6.2 percent, reflecting the impact of a severe drought on agriculture and a sharp contraction in oil production.
- Growth in the frontier economies and small states, on average, slowed in 2016, though there have been considerable variations. Among countries where activity moderated, growth in Lao P.D.R. declined to 6.9 percent owing to a slowdown in major trading

⁴The October 2016 *Regional Economic Outlook Update: Asia and Pacific* uses the same data references as the *World Economic Outlook.*

⁵Data for India are on a fiscal year basis, with FY2016–17 (referred to as 2016 in Tables 1.1–1.4) being the year ending in March 2017.

Figure 1.20. Selected Asia: Contributions to Projected Growth (Year-over-year change; percent)



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

partners, lower metals prices, and poor weather for agriculture. Growth in Mongolia slowed sharply as uncertainties sapped private sector confidence. In Nepal, growth decelerated sharply to 0.6 percent due to the 2015 earthquakes and the disruption to trade and economic activity resulting from border blockades. Sri Lanka's growth decelerated to 4.3 percent due to a contraction in agriculture driven by floods in May and drought since September.

• By contrast, activity generally accelerated in several other countries. Growth reached 6.9 percent in Bangladesh, largely driven by private consumption. Bhutan's growth recovered to 6.2 percent, driven by a pickup in services, mining, and hydropowerrelated construction. Growth in Maldives recovered to 3.9 percent following reduced policy uncertainty and political tension. In Cambodia, economic activity remained strong at 7 percent, driven by garment exports, real estate, and construction. Growth in *Pacific island countries* was dampened overall as a result of lower commodity prices. *Papua New Guinea's* growth decelerated owing to low commodity prices and a major drought, while growth in *Fiji* was disrupted by Cyclone Winston. Countries with significant tourism sectors (*Fiji* and *Vanuatu*) benefited from the strength of the U.S. dollar against the Australian and New Zealand dollars, as well as the rapid growth of Chinese tourism, although this was less noticeable in *Palau* due to the base effect (strong tourist growth in 2015).

Near-Term Regional Outlook: Steady Growth

Asia's growth outlook remains strong, with expectations of benign but rising inflation:

- GDP growth is forecast to reach 5.5 percent in 2017 and 5.4 percent in 2018 (Figure 1.20 and Table 1.1). Growth in 2017 was revised up by 0.1 of a percentage point compared to the forecast in the October 2016 *World Economic Outlook.* Accommodative policies will underpin domestic demand, offsetting tighter global financial conditions.
- The aggregate outlook for the region, however, masks significant revisions in a number of countries. For example, projected growth in China and Japan for 2017 was revised upward owing to continued policy support and strong data toward the end of 2016, with part of the upward revision in Japan due to the comprehensive revision of the national accounts in 2016. Growth was revised downward in India due to the currency exchange initiative and in Korea owing to political uncertainty. Asia's projected growth, excluding India and Korea, was revised upward in 2017 by 0.3 of a percentage point compared to the projection in the October 2016 World Economic Outlook. Over the near term, moderating growth in China is

expected to be partially offset by a rebound in India.

- Asian trade is expected to recover, with net exports projected to be less of a drag on growth for most economies in the region owing to the improved global growth outlook and higher commodity prices.
- Domestic demand remains resilient, with robust labor markets, healthy disposable income growth, and continued policy support. In addition, in most economies, real incomes are being boosted by continued low inflation.

High-frequency data and leading indicators point to a pickup in growth momentum, though the durability of the upturn remains uncertain. Recent momentum is particularly strong in the largest economies in the region, partly reflecting policy stimulus in China and Japan. This could create knock-on effects on other economies. More broadly across the region, forward-looking indicators such as purchasing manager indices suggest continued strength in activity into early 2017. The IMF's Asia and Pacific Department's indicator model for growth in Asia (which draws on a number of high-frequency indicators for several economies in the region) also points to strong growth momentum (Figure 1.21), with projections slightly higher than World Economic Outlook projections. Finally, while credit gaps have started to decline in several major economies in the region, credit growth is expected to remain mildly supportive of domestic demand in the near term.

Country-specific factors will continue to play an important role in shaping dynamics in the region (Tables 1.1, 1.2, and 1.3):

• In *China*, the near-term growth outlook has been revised up due to continued policy support (especially the rebound in the real estate market), and inflationary pressure is picking up. However, continued rapid credit growth exacerbates already-high vulnerabilities. GDP growth is projected to remain robust but continue to slow gradually

Figure 1.21. Indicator Model for Asia: Projected versus Actual Real GDP Growth

(Percent; quarter-over-quarter annualized rate)



Source: IMF staff calculations. Note: PPP = purchasing power parity.

to 6.6 percent in 2017 and 6.2 percent in 2018. The moderation assumes a cooling housing market as a result of recent tightening measures, consumption moderating with weaker wage growth, and a stable augmented fiscal deficit (that is, including contingent liabilities from estimated off-budget local government borrowing).

In Japan, growth momentum is set to continue into 2017, but weaken thereafter as the effects of fiscal stimulus fade. Growth is projected at 1.2 percent, with the contribution from net exports expected to narrow as imports recover from exceptionally weak levels in 2016, while exports are boosted by foreign demand. The fiscal stimulus, combined with the postponement of the hike in the valueadded tax (from April 2017 to October 2019), generated a slightly expansionary 2016-17 fiscal stance, supporting 2017 growth through higher consumption and private investment. The assumed dissipation of the impact stemming from the fiscal stimulus in 2018 is expected to reduce growth despite anticipated

private investment related to the 2020 Tokyo Olympics.

- In India, growth is projected to rebound to 7.2 percent in FY2017–18 and further to 7.7 percent in FY2018–19. The temporary disruptions (primarily to private consumption) caused by cash shortages accompanying the currency exchange initiative (see Box 1.1) are expected to gradually dissipate in 2017 as cash shortages ease. Such disruptions would also be offset by tailwinds from a favorable monsoon season and continued progress in resolving supply-side bottlenecks. The investment recovery is expected to remain modest and uneven across sectors as deleveraging takes place and industrial capacity utilization picks up. Headwinds from weaknesses in India's bank and corporate balance sheets will also weigh on near-term credit growth. Confidence and policy credibility gains, including from continued fiscal consolidation and antiinflationary monetary policy, continue to underpin macroeconomic stability.
- In *Korea*, growth is expected to remain subdued at 2.7 percent in 2017 and increase to 2.8 percent in 2018. Lower consumption will weigh on growth, reflecting heightened uncertainty amid political turmoil.
- *Australia's* growth is expected to reach 3.1 percent in 2017 and 3 percent in 2018, with increasing contributions from domestic demand as the adjustment to the bust in commodity prices and rapid decline in mining investment advances further. Export growth is expected to slow, as the initial boost from new mining capacity should moderate. In *New Zealand*, growth is expected at 3.1 percent in 2017 and 2.9 percent in 2018, supported by a strong pipeline of construction activity and sustained strength in migration inflows, as well as improved prices of key dairy exports.
- In *Hong Kong SAR*, growth is expected to recover gradually to 2.4 percent in 2017 and to 2.5 percent in 2018 on account of soft external conditions—with the U.S. rate

cycle turning up, tepid global trade growth, and mainland China rebalancing—and the financial cycle turning. The pace of tightening of monetary conditions is now expected to be somewhat faster in line with changes in expectations of U.S. monetary policy tightening.

- The outlook in *ASEAN* economies varies, reflecting the heterogeneity of those economies:
- o In *Indonesia*, growth is projected to accelerate slightly to 5.1 percent in 2017 and further to 5.3 percent in 2018. Private investment is expected to gradually recover in response to the recent rise in commodity prices.
- Growth in *Malaysia* is projected to improve to
 4.5 percent in 2017 and further to 4.7 percent in 2018. Domestic demand remains the main driver of growth, while a small drag from net exports will remain in 2017 and disappear in 2018. Improvements in the labor market and the 2017 fiscal measures will support private consumption, while higher inflation, high household debt, and macroprudential policy settings could hold consumption back.
- In *Thailand*, growth is projected at 3 percent in 2017, increasing to 3.3 percent in 2018.
 Public investment is expected to increase, crowding in private investment and imports, while exports are projected to strengthen along with external demand. However, overall net exports are expected to be a bigger drag on growth.
- o In the *Philippines*, growth is projected at 6.8 percent in 2017 and at 6.9 percent in 2018, led by strong private domestic demand and a modest recovery in exports.
- o *Singapore*'s growth is projected at 2.2 percent in 2017 and 2.6 percent in 2018 on the back of recovering private domestic demand.
- In *Vietnam*, growth is projected at 6.5 percent in 2017 and 6.3 percent in 2018 owing to healthy domestic demand, a rebound in agricultural production, and strong

manufacturing growth supported by foreign direct investment (FDI).

Frontier economies and small states are expected to rebound in 2017 and 2018 owing to better global trade growth and a recovery in commodity prices. In Sri Lanka, GDP growth is projected to recover to 4.5 percent in 2017 and to 4.8 percent in 2018 as growth in manufacturing, construction, and services is expected to offset the drought-stricken agriculture sector. Under the IMF's Extended Fund Facility (EFF), 2016 fiscal performance has been solid, but the net international reserves fell short of the target. In Mongolia, growth is expected to remain subdued in 2017 on account of large fiscal consolidation, but the strengthening of policies under the EFF, along with some major expected mining developments, should boost growth substantially in 2018. Growth in Pacific island countries is projected to rebound in 2017 and 2018 owing to the recovery in commodity prices for gas and oil exporters, including Papua New Guinea. Fiji is expected to have a strong recovery from last year's cyclone. Tourism and fishery activities are expected to continue to support growth in the region.

The inflation outlook remains benign but with upside risks. Headline inflation is projected to rise to 2.9 percent in 2017 and 2018 (Table 1.4). Despite the recovery in commodity prices and the increase in producer price inflation, consumer price inflation is expected to remain low across most of the region given generally well-anchored inflation expectations and relatively low passthrough. Estimated output gaps for some regional economies also suggest that there is sufficient slack across the region, which will put downward pressure on inflation (Figure 1.22). Inflation in other countries-where output gaps are nearly closed and credit gaps remain significantly largemay face upside risks. In frontier economies with the highest inflation rates in the region, such as

35 -Hong Kong SAR 30 -China 25 -Singapore Credit gap (deviation from trend) 20 -15 -Indonesia Thailand 10 -Japan 5 -Malaysia Korea 0 Australia -5 -India -10 -New Zealand -15 -–20 ^L -2 -1.5 -1 -0.5 0 0.5 Output gap (in percent of potential)

Sources: Bank for International Settlements; CEIC Data Company Ltd.; IMF, World Economic Outlook database; and IMF staff calculations. Note: The output gap is based on IMF country team estimates for 2016. The credit gap is based on BIS estimates as of September 2016.

Myanmar and Nepal, inflation is expected to remain within single digits.

Current account surpluses are expected to narrow gradually for the region as whole (Table 1.3). The current account is expected to decline to 2.1 percent of GDP in 2017 and further to 2 percent of GDP in 2018. This mainly reflects the recovery in commodity prices and the pickup in import growth as domestic demand remains strong. However, there is considerable heterogeneity across the region. China's current account surplus is expected to decline further, driven by the lower trade surplus and an increase in the services deficit. In India, the current account deficit is expected to widen as domestic demand strengthens further and commodity prices gradually rebound. However, Japan's current account is projected to rise due to a stronger goods trade balance.

Monetary and fiscal policies are broadly accommodative across most of the region. Policy interest rates are generally low in nominal and real terms. For example, with the exception of India, real rates are below 1 percent in all major regional economies and are negative in a number

Figure 1.22. Asia: Output Gap versus Credit Gap





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

Note: The real policy rate is based on one-year ahead inflation forecast from Consensus Economics. For Japan, the uncollateralized overnight rate is used. For India, the three-month Treasury bill rate is used as the proxy for the policy rate. To improve monetary transmission effectiveness, the Bank Indonesia Board of Governors changed its policy rate from the BI rate to the seven-day reverse repo rate effective August 19, 2016.

> of them (Figure 1.23). In several economies, nominal policy rates are broadly in line with or slightly below the levels implied by augmented Taylor rules (which include exchange rates and foreign interest rates) (Figure 1.24). Fiscal stimulus, measured by changes in the cyclically adjusted fiscal balances, is expected to increase in 2017 in several economies in the region, including China, the Philippines, Singapore, and Thailand (Figure 1.25). In other major economies, the fiscal stance, while still accommodative, is expected to be slightly less supportive of growth, including in India and Vietnam. In 2018, fiscal stimulus is projected to increase in Indonesia, the Philippines, and Thailand. In other economies, such as Japan and China, fiscal policy is projected to be less supportive of growth as the effects of fiscal stimulus fade.

Risks to the Outlook: On Balance to the Downside

While there are some upside risks to near-term growth, the outlook, on balance, is clouded by significant downside risks, including a possible shift toward pro-





Sources: Haver Analytics; and IMF staff estimates. Note: As of February 2017, with monthly data. ¹Estimated as $i_t = \alpha + \gamma_1 E_t[\pi_{t+1} - \pi^*] + \gamma_2 E_t OutputGap_{t+1} + \delta_1 REER_t + \delta_2 US_3Myield_t + \epsilon_t$.

Figure 1.25. Selected Asia: Cyclically Adjusted Fiscal Balance

(Percent of GDP)



Sources: IMF, World Economic Outlook database, and IMF staff calculations.

tectionism in major trading partners. In the near term, growth could be supported by economic stimulus in some large economies, particularly the United States. Continued tightening in global financial conditions could, nonetheless, trigger further capital flow volatility, with repercussions to the region especially in light of balance sheet weaknesses in a number of economies. More inward-looking policies in major global economies would significantly impact Asia given that the region has benefited substantially from cross-border economic integration. A bumpier-than-expected transition in China would have large spillovers. Geopolitical tensions and idiosyncratic political problems could burden the outlook for various countries. Medium-term growth faces secular headwinds, including population aging and limited productivity convergence.

Upside Risks: Strong Momentum and Larger Policy Stimulus

Stronger global activity resulting from larger policy stimulus than currently projected, especially in the United States, is an upside risk for the region. Recent gains in business and consumer confidence in advanced economies, as reflected in survey outcomes as well as equity prices, could underpin stronger momentum in consumption and investment in the short term. If followed by supply-friendly structural reforms, the momentum could become entrenched and sustain a pickup in activity for a longer period. Another source of short-term upside risk stems from the possibility that policy easing exceeds expectations in the United States. A stronger U.S. fiscal stimulus than currently anticipated would further boost Asian exports and increase growth in the region, unless positive spillovers are tempered by significantly tighter financial conditions or protectionist trade policies.

Tighter Global Financial Conditions

Expansionary U.S. fiscal policy could lead to higher U.S. inflationary pressures and may require a tighter-than-expected monetary stance, including a steeper path for future increases in the federal funds rate and further decompression of the term premium (Figure 1.26). An even steeper path for interest rates would be necessary to contain inflation if the fiscal stimulus does not lead to a

Figure 1.26. United States: Interest Rates



Note: FOMC = Federal Open Market Committee.

significant increase in supply potential (see the April 2017 *World Economic Outlook*). Expectations of these policy changes have already resulted in a significant repricing of assets, as noted earlier.

Stronger demand in the United States would benefit Asian exporters-and indirectly other countries in the region through potential knockon effects-provided financial markets remain orderly and U.S. fiscal sustainability remains safeguarded. However, the size of these gains could hinge on the sequencing of U.S. policy implementation (see Box 1.4). For example, the benefits would be offset if the United States were to introduce new trade protection measures. At the same time, a substantial tightening of financial conditions, resulting from a significantly stronger U.S. dollar and higher interest rates, could have large negative spillovers for Asia. The impact would be greater in emerging and developing economies with external vulnerability, especially

the economies with high dollar-denominated corporate and sovereign debt. Capital outflows, higher financing costs, and concerns over fiscal sustainability could push a number of countries into an unwarranted tight policy mix, amplifying the macroeconomic consequences and risks to financial stability. A sudden upward shift in domestic yield curves would be a large shock to indebted firms and households, which could derail domestic-demand-based growth financed by low borrowing costs. In addition, corporate bonds, which have been an important source of financing for Asian firms, are largely held by domestic banks, so corporate stress could have implications for financial stability by weakening banks' balance sheets if downside risks materialize.

On average, Asian emerging market economies appear relatively better positioned to deal with external shocks than do emerging market economies in other regions (Figure 1.27). Asian emerging markets have relatively stronger external buffers, as measured by the level of foreign exchange reserves in terms of the IMF's Assessment of Reserve Adequacy metric, and lower external financing needs, both of which point to their relatively greater resilience to capital outflows compared to emerging markets in other regions. From a balance sheet perspective, Asian nonfinancial corporations and governments, on average, are less exposed to sudden exchange rate fluctuations, as indicated by lower foreigncurrency-denominated debt shares. The banking system's capital adequacy ratio is lower than in other regions but only by a small margin. The comparison of regional averages, however, should be taken with caution in light of large intra-region heterogeneity for some of these indicators. For example, the external financing requirement in Malaysia is relatively high; and the foreign share of nonfinancial corporate debt in Indonesia is relatively high (Figure 1.28). In addition, as shown in the April 2017 Global Financial Stability Report, in a scenario with rising global risk premia or rising economic nationalism, corporate vulnerabilities in China and India would significantly worsen.

Figure 1.27. Selected Vulnerability Indicators



Sources: IMF, Vulnerability Exercise database; and IMF staff calculations. Note: The diagram is designed to show decreasing vulnerability from the center to the periphery (see note 1). The indicator values are based on IMF staff estimates of 2015 for the nonfinancial corporate interest coverage and 2016 for all the other indicators. The indicators are defined as follows: Foreign exchange reserve coverage is the official foreign exchange reserves in percent of the IMF Assessing Reserve Adequacy metric; the external financing requirement is the short-term debt plus the long-term amortization paid plus the current account balance in percent of GDP; Foreign exchange share of nonfinancial corporate/public debt is the share of foreign-exchange-denominated debt in total nonfinancial corporations general government debt; the bank capital adequacy ratio is the banking system capital in percent of total risk-weighted assets; and nonfinancial corporate interest coverage is the ratio of total nonfinancial corporation earnings before interest and taxes (EBIT) to interest payments due. The minimum and the maximum axis values for each indicator are 0, and the cross-country distribution average plus one standard deviation in 2016 (2015 for nonfinancial corporate interest coverage), respectively.

¹Inverted axis with the maximum axis value at the center and the minimum at the periphery.

Risk of Deglobalization

Deglobalization poses a substantial downside risk to the region. Recent political developments in many advanced economies—notably the United States and parts of Europe—highlight the disenchantment of a large portion of the population with cross-border integration. A disruption of global trade, capital, and labor flows resulting from an inward shift in policies, including toward protectionism, would deter investment, reduce productivity, and lower global growth.

Asian economies are particularly vulnerable to trade shocks because they generally have high trade openness ratios, with significant participation in global value chains. Given the reliance of many Asian economies on exports, more protective trade policies would generate a significant negative impact on the region. Increased tension and uncertainty in the global trade climate could negatively affect the exports especially of

Figure 1.28. Selected Asia: Vulnerability Indicators



3. Foreign Currency Share of Government Debt

(Percent of total general government debt)

50 -



5. Capital Adequacy Ratio

(Banking system capital in percent of total risk-weighted assets)



Sources: IMF Vulnerability Exercise Database; and IMF staff estimates.



4. Foreign Currency Share of Nonfinancial Corporate Debt (Percent of total nonfinancial corporate debt) 60 -



6. Interest Coverage Ratio

(Corporate earnings before interest and taxes in percent of interest payments due)









3. Exports and Value added to European Union, 2014 (Percent of national GDP)







2. Value-added Contributions to U.S. Exports, 2014







6. Value-added Contributions to China's Exports, 2014 (Percent of national GDP)



Sources: IMF, *Direction of Trade Statistics*; World Input-Output Table; and IMF staff calculations. Note: Data labels in the figure use International Organization for Standardization (ISO) country codes.



Figure 1.30. Emerging Asia: Remittance Inflows and Migrant Stock





Sources: World Bank Bilateral Remittances Matrix, 2015; World Bank Bilateral Migration Matrix, 2013; and IMF staff estimates. Note: The recipient Asian countries consist of China, India, Indonesia, Malaysia,

the Philippines, Sri Lanka, Thailand, and Vietnam; the Gulf Cooperation Council countries consist of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates.

Note: The source Asian countries consist of China, India, Indonesia, Malaysia, the Philippines, Sri Lanka, Thailand, and Vietnam; the Gulf Cooperation Council countries consist of Bahrain, Kuwiat, Oman, Qatar, Saudi Arabia, United Arab Emirates.

economies running large trade surpluses vis-àvis the United States (for example, China, Japan, Korea, and Taiwan Province of China). Over the long run, a slowdown in global trade and FDI due to a U.S. pullback from cross border economic integration could hinder technology transfers through these linkages and thus undermine productivity growth and Asia's growth model (see Chapter 3). A disruption of global trade would have severe repercussions for economies deeply linked to trade supply chains (Figure 1.29).

A disruption of labor flows could also reduce remittance inflows to emerging Asian countries. According to estimates by the World Bank (2016), the remittances from countries of the Gulf Cooperation Council, the euro area, the United Kingdom, and the United States collectively accounted for about three-quarters of total remittance inflows to Asian emerging markets in 2015 (Figure 1.30). Those remittances were particularly significant in Nepal (almost 25 percent of GDP), followed by the Philippines, Sri Lanka, Bangladesh, and Vietnam (4.5 to 7 percent of GDP). The pattern of migration could also change. As of end-2013, emerging

Asia's emigrants to these economies accounted for about 57 percent of their total population of migrants abroad. More restrictive immigration policies in these traditional countries could reduce the migration out of Asia and diversify destinations to other economies, including within Asia.

China's Slowdown and Its Spillovers

China's growth is slowing as it transitions to a more consumption-based economy. However, despite its slowing growth, China continues to drive global growth, accounting for about one-third of it. Sustained progress on reforms and the reining in of vulnerabilities will reduce downside risks, thereby boosting confidence and lifting investment in trading partners.

While China's transition is expected to be positive overall for the global economy over the medium term, the growth slowdown will continue to generate large spillovers that vary by country and region, and some of those spillovers may be negative in the near term. However, the

counterfactual to China's ongoing transition and slowdown will not be everlasting investmentand import-intensive, double-digit growth, but rather much slower growth and possibly a sharp and disruptive slowdown that would have much more significant negative spillovers. IMF staff analysis finds that spillovers from rebalancing in China are negative for most countries in the short term, as reform and rebalancing are projected to pull China's GDP growth below the noreform scenario (IMF 2016). However, spillovers turn positive over the medium term as reform and successful rebalancing from investment to consumption puts the economy on a stronger and more sustainable footing and brings about growth dividends for both China and the world.

Spillovers from China's rebalancing and overall growth slowdown would be felt mainly through trade and commodity price channels. Consumption expenditure in China has much lower import intensity than investment or exports (see Chapter 2 of the April 2016 Regional Economic Outlook: Asia and Pacific). For example, the import intensity of investment is about 25 percent, compared to 15 percent for consumption. Hence, rebalancing away from investment and exports toward consumption will reduce China's imports and, therefore, is likely to have negative spillover effects (including through global value chains) on exporters of investment and intermediate goods such as Korea, Malaysia, and Taiwan Province of China. However, this rebalancing is likely to be in favor of exporters of consumption goods and services (including through Chinese tourism).

China is a major importer across a range of commodities, especially metals, where it accounts for about 40 percent of global demand. However, China accounts for only about 10 percent for crude oil demand. Hence, China's investment slowdown would have a significant impact on the demand for and prices of commodities closely related to investment activities. IMF staff analysis in Chapter 3 of the April 2016 *Regional Economic Outlook: Asia and Pacific* suggests that China's rebalancing accounted for between one-fifth and one-half of the declines in broad commodity price indices between mid-2011 and mid-2015, with marked difference across commodities.

With increasing vulnerabilities in China's economy arising from continued credit-driven growth and high leverage in the financial system, spillovers through financial markets become an increasingly important channel, especially in downside scenarios. IMF staff analysis in Chapter 2 of the April 2016 *Regional Economic Outlook: Asia and Pacific* shows that financial spillovers from China have increased significantly since the global financial crisis, in particular in equity and foreign exchange markets, magnified by direct trade exposures.

Geopolitical Uncertainties, Climate Change, and Other Risks

Asia faces risks stemming from an escalation of geopolitical tensions within and outside the region and in its main trading partners. As in the recent past, an escalation of geopolitical tensions could hurt tourism, FDI, and trade, disrupting major sources of growth. Climate change and natural disasters, along with the withdrawal by global banks of correspondent banking relationships (referred to as de-risking; see IMF 2016), also remain an important risk to the small states and Pacific island countries (Figure 1.31). Environmental shocks (cyclones, droughts, and El Niño effects) have been larger and more frequent in recent years (Cashin and others 2017). For example, in each of the past three years, at least one country in the region has been hit by a severe cyclone (Tonga in 2014, Myanmar and Vanuatu in 2015, and Fiji in 2016). These cyclones, as well as the 2015 earthquake in Nepal, show that natural disasters can severely disrupt economic activity in those economies.

Policy Recommendations

Growth in Asia is gaining momentum, but the environment looking forward is more uncertain, more complicated, and less supportive over the medium term. Policies should remain flexible and focused on



Pacific island countries African small states Nonsmall states

Sources: United Nations University Institute for Environment and Human Security; and Alliance Development Works, 2016 World Risk Report. Note: Index combines exposure to natural hazards, coping, and adaptive capacities; Samoa is not included in the database. PICs = Pacific island countries.

> addressing vulnerabilities and rebuilding buffers where needed, reducing domestic and external imbalances while safeguarding against external shocks, and preserving the gains from trade integration through balanced growth, trade initiatives, and inclusive policies. To sustain long-term growth, structural reforms are needed to deal with challenges from demographic transition and to boost productivity.

Reinforcing Growth Momentum: Appropriate Demand Support and Structural Reforms

Monetary policy should generally remain accommodative, given that inflation is below target and there is slack in most economies in the region. If growth slides further, some central banks in the region could have room to lower interest rates as long as external stability is not compromised (for example, Malaysia and Thailand). While the level of policy rates is generally appropriate given the output gap and inflation trends, interest rate cuts can also be considered if inflation expectations drop, fiscal space is limited, or

reform measures have a contractionary effect on activity. Maintaining an accommodative monetary policy stance would help keep broader financial conditions supportive by offsetting the effects of higher U.S. interest rates and/or lower liquidity on domestic financial conditions. However, some central banks should stand ready to raise policy rates if inflationary pressures gather pace (for example, India, Indonesia, and Vietnam). Some other countries also need to weigh the benefits of prolonged monetary accommodation against the risks for inflation, asset prices, and domestic financial conditions more broadly, together with the scope for enhancing macroprudential settings (for example, China). Moreover, in some cases, large capital outflows and rapid exchange rate depreciations may warrant a tightening of policies to address balance of payments pressures.

Fiscal support should be considered in particular to support and complement structural reform efforts. Fiscal action should carefully consider the intersection of fiscal space and the need to support demand and external rebalancing in a consistent fashion (for example, Korea and Thailand), and with due consideration of the effects of other ongoing or planned policy adjustments. At the same time, delivering on medium-term fiscal consolidation plans remains critical in some countries, especially where debt levels are high and/or fiscal credibility needs to be enhanced (for example EFF aims at restoring debt sustainability in Mongolia and improving debt trajectory in Sri Lanka). Fiscal consolidation should be undertaken together with adjustments to the composition of spending to allow for further infrastructure and social spending in a number of economies (though in China, for example, the emphasis should be on reducing public investment in favor or consumption). Moreover, real growth in public spending has been high across most of the region, suggesting that there is room for a gradual adjustment over time, including in relatively rigid public spending components such as wages.

Policymakers in the region should move steadfastly to implement growth-enhancing reforms. They need to capitalize on the solid growth momentum and use existing policy space judiciously and effectively to boost growth. Structural reforms are critical to buttress Asia's efforts to deliver rapid, sustained, and inclusive growth. Structural reforms are needed to help rebalance demand and supply, reduce external imbalances, mitigate domestic and external vulnerabilities, increase economic efficiency and potential growth, reduce poverty and inequality, and foster more inclusive growth. Complementary policies may be needed to mitigate the distributional effects of structural reforms (see Box 1.5 for the case of Myanmar) and ensure that the benefits are shared more broadly. In a number of economies, reforms could also help address climate change and improve the environment, particularly in large countries that rely heavily on fossil fuels.

Preserving Financial Stability: Addressing Vulnerabilities While Safeguarding against External Volatility

Exchange rates should generally remain the first line of defense against a sudden tightening in global financial conditions, a shift toward protectionism in major trading partners or a bumpier-than-expected transition in China, which could lead to the need for external adjustment. Financial volatility following the Brexit referendum and the U.S. elections as well as increasing global uncertainty underscore the need for flexible exchange rates to mitigate external shocks. Recent episodes of financial volatility have shown that even large reserve buffers can be insufficient to arrest such volatility. While exchange rate flexibility should remain the main shock absorber, where justified, judicious foreign exchange intervention can be deployed to prevent or mitigate disorderly market conditions or where rapid exchange rate movements threaten financial or corporate stability, provided there are sufficient reserve buffers. Foreign exchange intervention could also be considered if rapid exchange rate

movements are the result of illiquid or one-sided markets. However, foreign exchange intervention should not be used to resist currency movements that reflect changing fundamentals (including changes in the global trade environment) or as a substitute for macroeconomic policy adjustments. Effective communication of policy goals can also play a role in bolstering confidence and lowering market volatility.

Preserving financial stability also requires a robust macroprudential framework. Policymakers should continue to rely on macroprudential policies to mitigate systemic risks associated with high corporate and household leverage and rising interest rates. With increasing debt in corporate and household sectors, efforts should be stepped up to better identify the pockets of leverage and fragility stemming from the concentration of debt. For example, a number of economies in the region have leaned heavily on macroprudential tools to contain risks associated with rising house prices and household leverage. Macroprudential tools could be used to increase resilience to shocks, including shocks associated with the reversal of capital flows. Countries with a significant net foreign currency position or foreign currency maturity gaps should monitor these developments closely. Capital flow management measures could also be considered should capital flow volatility lead to increases in systemic risk and dislocations in domestic financial markets. However, as in the case of macroprudential policies, capital flow measures should not be used as a substitute for necessary macroeconomic policy adjustments.

Challenges from Demographic Transition and the Need to Boost Productivity

Adapting to demographic transition in Asia could be especially challenging owing to rapid aging at relatively low per capita income levels. In this light, policies aimed at protecting the vulnerable elderly population and prolonging strong growth take on particular urgency. Specific structural reforms can also help tackle these challenges, in particular in the areas of labor markets, pension systems, and retirement systems. Macroeconomic policies should adapt early on before aging sets in, for example ensuring debt sustainability (see Chapter 2).

These policies could be further supplemented by productivity-enhancing reforms, as the other major policy challenge for the region is how to raise productivity growth in the event that external factors, including further trade integration, are not as supportive as they were before the global financial crisis. Strengthening regional trade integration could provide some support. Other priorities vary across the different types of economies in Asia. In advanced economies, the focus should be on strengthening the effectiveness of research and development spending and measures to raise productivity in the services sectors. In emerging and developing economies in the region, priority should be given to capitalizing on recent achievements, including maintaining FDI inflows, by increasing absorptive capacity and domestic investment. Increasing education and human capital is also very important (see Chapter 3).

Box 1.1. India's Currency Withdrawal and Exchange and Its Economic Impact

On November 8, 2016, the Government of India withdrew the legal tender status of all existing 500 and 1,000 rupee banknotes, effective the next day, in a bid to nullify "black money" hoarded in cash, address tax evasion, tackle counterfeiting, and curb financing of terrorism. The initiative affected notes with a total value of about 15 trillion rupees, which accounted for about 86 percent of all cash in circulation. At the time of the withdrawal, the introduction of a new series of 500 and 2,000 rupee banknotes was announced. However, the supply of new banknotes in the months following the initiative was insufficient, even as the authorities took multiple steps to ease the currency transition. While there was no limit on the amount of bank deposits for the phased-out bills, the scarcity of new banknotes prompted the government to suspend cash exchanges and impose tight caps on cash withdrawals by individuals as well as by corporations. As disruptions to payments arose, several temporary exemptions were granted to ease the cash crunch. These exemptions aimed at easing transactions in some public offices and for the farming sector, as well as making payments for public utility services and purchasing key primary products.







The key factor behind the short-term economic disruptions was the primarily cash-based nature of the Indian economy and its limited electronic payments infrastructure. At end-2015, currency in circulation in India stood at about 12 percent of GDP, one of the highest levels among countries covered by the Bank for International Settlements' Committee on Payments and Market Infrastructure. Cash accounted for about threequarters of the narrow money base, as a large number of households (particularly in rural areas of India) rely on cash for everyday transactions. Numbers of bank branches and ATMs per capita are relatively low in India; few payment cards with a cash function exist (Figure 1.1.1); and the average number of transactions per Indian made with payments instruments in 2015 totaled 11 transactions (Figure 1.1.2).

The severity of the cash crunch, in conjunction with a slow pace of remonetization, led to a slowdown in economic activity. India's Purchasing Manager's Index for services, which also covers retail and wholesale trade, collapsed from 55 in October 2016 to 43 in November, 2016 (Figure 1.1.3). The growth of credit to the nonfood private sector decelerated from 9 percent at end-October 2016 to a 10-year low of just 4 percent by end-December,

2016. The consumer goods component of the index of industrial production declined by about 7 percent in December 2016, with production of consumer durables falling by 10 percent. Domestic sales of motor vehicles declined by 20 percent in December 2016 compared to December 2015, with the largest drop taking place in India's mass-consumer-oriented segment of three-wheel and two-wheel passenger vehicles. Although the slowdown in industrial activity has been relatively muted, with overall industrial production falling by less than ½ of 1 percent from the previous year, investment activity appears to have been severely affected. As per the data compiled by the Centre for Monitoring of Indian Economy, the number of new investment

Prepared by Volodymyr Tulin.

Box 1.1 (continued)

projects announced during the October–December 2016 quarter was the lowest in over a decade, and their combined value was only about one-half of the average recorded during the previous two years. While the remonetization proceeded slowly over the first few months, about 75 percent of the predemonetization level of currency in circulation was restored by late March.

IMF staff analysis suggests that, compared to the October 2016 IMF *World Economic Outlook* forecasts, cash shortages are likely to slow FY2016/17 growth by about 4/5 of 1 percentage point and FY2017/18 growth by about 1/2 of 1 percentage point. A decline in currency supply can be calibrated as a temporary tightening of monetary conditions, using previous money demand studies for India.¹ The currency shortage associated with the currency exchange, assumed by the staff to gradually unwind through early 2017, corresponds to a substantial tightening of monetary conditions in the initial weeks of the initiative, which will ease as currency is replaced. Consequently, based on the IMF's India Quarterly Projection Model, GDP growth is expected to slow in the second half of FY2016/17, before gradually rebounding in the course of FY2017/18 (Figure 1.1.4).^{2,3} An analysis of sectoral accounts that takes reliance on cash into account leads to similar estimates of growth for fiscal years 2016/17 and 2017/18. It is likely, however, that national accounts statistics, at least in the near term, may understate the economic impact of the cash crunch. Specifically, the impact on the informal economy and cash-based sectors, which are relatively large and have been affected the most by the cash crunch, is likely to be understated because these sectors are either not covered in the official statistics or are proxied by the formal sector activity indicators. Nonetheless, the economic repercussions



Source: Bank for International Settlements. *China data are for 2014.



¹See Kumar (2014).
²See Anand and Tulin (2016).
³See IMF (2017a,b).

Box 1.1 (continued)



injections to public sector banks.

from the currency withdrawal remain a key domestic risk in India, in part as the near-term adverse economic impact of accompanying cash shortages remains difficult to gauge.

Notwithstanding the near-term economic disruptions, the currency withdrawal and exchange initiative may help secure some long-term gains, particularly if complemented by reforms to strengthen India's formal economy and the financial system. The scope for medium-term gains could span several dimensions:

• *Fiscal gains.* Bank deposits of large amounts (above US\$4,000) were expected to attract high scrutiny from the Indian tax authorities and the information obtained as a result of income verification could lead to a durable impact on the tax revenue base. With only about 1 percent of the Indian population paying personal income taxes, the scope for broadening the tax base is clearly large. In principle, unreturned cash could also produce a one-off revenue gain for the Reserve Bank of India that can enable an increased dividend transfer to the Government of India. Any such windfall revenue would need to be clearly established, should be only realized once, and should be absorbed prudently and preferably in a non-recurring manner, for example through greater capital

- Banking sector liquidity. The increase in banking system liquidity as a result of the currency exchange initiative has been massive, and it can reduce banks' funding costs and thereby lead to a decline in bank lending rates. With a surge in bank deposits and waning demand for credit, the weighted average lending rate of banks on new loans declined by 56 basis points during November 2016 to January 2017.⁴ That said, even though the financial system is expected to weather the currency-exchange-induced temporary growth slowdown, the authorities should remain vigilant to risks—in view of the potential further buildup of nonperforming loans, including among private banks and elevated corporate sector vulnerabilities—and ensure prudent support to the affected economic sectors.
- Digitalization and de-cashing. The demonetization initiative can be seen as a follow-up to Indian authorities' strong policy push toward greater financial inclusion. Over the past few years, 250 million previously unbanked Indians have been provided with a bank account, and more efficient customer identification is now in place, including with the rollout of a unique identification number (Aadhaar) and the adoption of know-your-customer technologies. More recently, an important technological milestone was the rollout of the Unified Payment Interface, which is an instant virtual fund that transfers service between two bank accounts using a mobile platform that was accompanied by the roll out of e-payment and point-of-sale technologies. While the push for greater digitalization of the economy and the financial system is logical, large gaps in consumer access to digital technologies remain. For example, about 350 million Indians do not yet have cell phones, and only 250 million people own smartphones.

⁴See RBI (2017).

Box 1.2. Global Financial Spillovers to the Association of Southeast Asian Nations (ASEAN) Economies

Markets in Indonesia, Malaysia, the Philippines, Singapore, and Thailand (known as the ASEAN-5) have undergone significant corrections since the U.S. election, although they have generally performed better than other emerging markets since the 2013 taper tantrum (Figure 1.2.1). Following the change in expectations after the U.S. election regarding that country's fiscal stance and monetary policy normalization, the ASEAN-5 experienced capital outflows, with exchange rates depreciating vis-à-vis the U.S. dollar and 10-year sovereign bond yields rising in most countries (Figure 1.2.2).

Domestic financial conditions in the ASEAN-5 economies are sensitive to global factors. Following the approach of Miranda-Agrippino and Rey (2015), we estimate a principal component model to identify the underlying global factors that can explain the variability of a comprehensive set of domestic financial indicators. We find that, in the ASEAN-5 economies, there are two key macro-financial transmission channels of global financial shocks: one related to global risk aversion that largely impacts portfolio capital flows and asset prices and another linked to U.S. interest rates that mainly affects bond yields and credit conditions.

The tightening of global financial conditions and capital flow volatility would significantly impact ASEAN-5 economic growth. While global risk aversion measured by the Chicago Board Options Exchange Volatility Index has been low since the U.S. election, the strengthening of the U.S dollar has been associated with





Sources: Bloomberg L.P.; and IMF staff calculations. Note: ASEAN-5 refers to Indonesia, Malaysia, the Philippines, Singapore, and Thailand. Data labels in the figure use International Organization for Standardization (ISO) country codes.

This box was prepared by Shanaka J. Peiris with excellent research assistance by Mia Agcaoili. The empirical results are based on the ASEAN-5 Cluster Report: Evolution of Monetary Policy Frameworks.

Box 1.2 (continued)

Figure 1.2.3. Determinants of Sovereign Bond Yields in the ASEAN-5 before and after U.S. Unconventional Monetary Policies (Percent)



Source: IMF staff analysis.

Note: UMP refers to the Federal Reserve's quantitave easing (that is, the period of unconventional monetary policy which started in November 2008 and ended in October 2014. portfolio capital outflows more recently. Based on a preliminary Bayesian vector autoregression, capital outflows and weaker asset prices historically have been the largest exogenous driver of business cycle fluctuations in the ASEAN-5. While exchange rate depreciation may help cushion the tightening of domestic financial conditions, the rise in domestic bond yields that historically have been closely linked to U.S. rates could potentially lower property prices (and dampen construction) and soften domestic demand, an important driver of ASEAN-5 growth (Figure 1.2.3). Moreover, the balance sheet impact of exchange rate depreciation may outweigh the net export benefit in some countries that have high corporate leverage and foreign exchange exposures.

Box 1.3. Rising Household Debt in Asia

Household debt has risen sharply in several countries in Asia. Strengthening buffers, tightening macroprudential measures where needed, and addressing income inequality can help contain rising household indebtedness and its associated risks.

Household debt has risen rapidly in a wide range of countries since the global financial crisis and continues to increase rapidly. While the level of household debt is quite heterogeneous across Asian economies—ranging from 10 percent of GDP in India to 124 percent of GDP in Australia in 2015—such debt has been growing rapidly in most countries of the region. Between 2007 and 2015, the household-debt-to-GDP ratio increased by more than 20 percentage points of GDP in Thailand, Malaysia, and China (Figure 1.3.1). The rise was also sizable in Australia, Korea, and Hong Kong SAR, at more than 15 percentage points of GDP. As a result, total household debt currently stands above 60 percent of GDP in most Asian economies, with the exception of China, India, and Indonesia.

High and rapidly rising levels of household debt can pose risks to financial and economic stability. The recent



Sources: Bank for International Settlements; and IMF staff estimates.

This box was prepared by Tidiane Kinda.

increase in household indebtedness has been associated with rising house prices in many countries (Figure 1.3.2), including in Asia, where housing remains a key household asset (IMF 2011, 2014). While high household saving rates and strong capital positions of banks in many Asian countries provide significant buffers to mitigate risks, a decline in house prices could lower the value of



Sources: Bank for International Settlements; and IMF staff estimates.

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Box 1.3 (continued)



Sources: Bank for International Settlements; IMF, *World Economic Outlook*; and IMF staff estimates.

collateral, weaken household and bank balance sheets, and tighten credit availability. Falling house prices could also weigh on consumption and domestic demand through a wealth effect. The rapid increases in household debt observed since 2007 seem indeed to have been associated with lower future income growth in many countries (Figure 1.3.3). Recent cross-country studies also suggest that a rise in household debt predicts lower future output growth over the medium run, in contrast to standard open-economy macroeconomic models in which an increase in debt is driven by news of better future income prospects (Mian and others 2016).

Drivers of Household Debt

Recent cross-country empirical studies identified rising real income and falling interest rates as important determinants of rising household debt (Bordo and Meissner 2012; Mendoza and Terrones 2008). We build on existing studies and use the following single equation framework to assess the drivers of changes in household debt for an unbalanced panel of 19 countries (including six Asian countries) over 1973–2015:

$$\Delta D_{it} = \alpha \Delta D_{it-1} + \beta X_{it-1} + \gamma I_{it-2} + \nu_i + \eta_t + \varepsilon_{it}$$

in which ΔD_{ii} denotes the change in household debt in percent of GDP for country *i* and year *t*; v_i represents country fixed effects (to control for country-specific factors, including the time-invariant component of the institutional environment); η_i captures time fixed effects (to control for global factors); ε_{ii} is an error term; and X_{ii-1} is a vector of explanatory variables. The equation includes changes in the short-term interest rate and real per capita GDP growth and its level, as well as the change in the top 1 percent income share—a measure of inequality. For robustness checks, we control for additional variables such as trade openness, the use of macroprudential measures, investment, and the current account balance. All explanatory variables are lagged by one year to deal with simultaneity issues. We also include a two-year lag of the inequality variable (I_{ii-2}) to capture its potentially long-lasting impact on household debt.

The empirical results illustrate that rising income and cheaper credit have been associated with increases in household debt, confirming previous findings in the literature (Table 1.3.1). The results also suggest that rising income inequality has been associated with an increase in household indebtedness. Asia does not seem to differ from other regions with regard to these key drivers. In addition to tackling income inequality, policies should further strengthen resilience to risks associated with rising household indebtedness, including by enhancing buffers and tightening prudential macro policies where needed.

Box 1.3 (continued)

Table 1.3.1. Drivers of Household Debt

	Dependent Variable: ΔHousehold Debt (percent of GDP)						
Explanatory Variables	(1)	(2)	(3)	(4)	(5)	(6)	
Dependent Variable, t-1	0.518***	0.565***	0.558***	0.556***	0.562***	0.574***	
	(0.0465)	(0.0435)	(0.0438)	(0.0716)	(0.0439)	(0.0459)	
∆ Short-Term Interest Rate, t-1	-0.141**	-0.118**	-0.118**	0.0604	-0.119**	-0.124**	
	(0.0619)	(0.0584)	(0.0584)	(0.174)	(0.0586)	(0.0597)	
Per Capita GDP, t-1	0.0306*	0.0383**	0.0298*	0.0955***	0.0382**	0.0383**	
	(0.0173)	(0.0158)	(0.0169)	(0.0314)	(0.0158)	(0.0159)	
Per Capita GDP Growth, t-1	0.255***	0.257***	0.271***	0.374***	0.240***	0.264***	
	(0.0535)	(0.0522)	(0.0531)	(0.112)	(0.0614)	(0.0543)	
Δ Top 1% Income Share, <i>t</i> -1	-0.165						
	(0.145)						
Δ Top 1% Income Share, <i>t</i> -2	0.390***	0.421***	0.412***	0.527***	0.426***	0.422***	
	(0.143)	(0.131)	(0.131)	(0.169)	(0.132)	(0.132)	
Trade Openness, t-1			-0.0144				
			(0.0103)				
Macroprudential Measures, t-1				-0.427			
				(0.417)			
Δ (investment/GDP), <i>t</i> -1					0.0351		
					(0.0681)		
Δ (current account/GDP), <i>t</i> -1						0.0243	
						(0.0455)	
Observations	416	438	438	180	438	430	
R-Squared	0.518	0.547	0.550	0.587	0.548	0.550	
Number of Countries	19	19	19	19	19	19	
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	

Source: IMF staff analysis.

Note: Standard errors are in parentheses. All results are based on fixed-effects estimations. Country and time fixed effects as well as a constant term are included but not reported.

*p < .10; **p < .05; ***p < .01.

Box 1.4. Potential Policy Changes in the United States and Implications for Asia

Although the new U.S. administration has yet to announce policy specifics in many areas, the direction of U.S. policies could change significantly from the policies under the previous administration.

Macroeconomic Policy Mix

Over the short term, projections in the April 2017 *World Economic Outlook* assume a shift toward more expansionary fiscal policy and tighter monetary stance in the United States than projected in the October 2016 *World Economic Outlook*. The fiscal expansion could come mainly from the anticipated changes in U.S. federal government tax policies, including lower individual and corporate income tax rates. U.S. monetary policy would tighten in response to higher demand and inflation prospects, leading to a normalization of the U.S. term premium and an appreciation of the U.S. dollar.

Stronger demand in the United States would benefit Asian exporters—and indirectly other countries in the region through potential knock-on effects—provided financial markets remain orderly. This assumption may not hold, for example, if the U.S. fiscal expansion is not sufficiently productive. Under this scenario, the U.S. term premium would normalize faster and lead to more upward pressure on the U.S. dollar. As a result, the spillovers to Asia could become negative as opposed to being positive in a productive fiscal expansion scenario (see the April 2017 *World Economic Outlook* for illustrative scenarios on U.S. fiscal expansion).

Corporate Income Tax Reform

Based on available information, corporate income tax reform in the United States would focus on reducing rates and simplifying the system, including by lowering the highest tax rate; instituting a one-time tax rate reduction for repatriation of U.S. corporate profits overseas; and eliminating various tax credits and deductions. Furthermore, there are proposals to transform the current corporate income tax system to a destination-based cash flow tax (DBCFT) system. This would involve immediate expensing of capital investment and eliminating the deduction of net interest payments (the "cash flow" part); and the deduction of earnings from exports and the elimination of the deduction of imported inputs (the "destination-based" border tax adjustment part).¹

The transition to a DBCFT would have major implications for Asian economies. Over the short term, the U.S. dollar would appreciate in real effective terms with the introduction of a border tax adjustment. To the extent that the real effective exchange rate appreciation is driven by the nominal exchange rate appreciation rather than an increase in U.S. domestic prices,² Asian economies with flexible exchange rates would face higher consumer price inflation owing to an increase in import prices and a higher external debt burden. Economies either pegged to the U.S. dollar or dollarized would see increased downward pressures on their foreign exchange rate depreciation.³ Over a longer term, the incentive for U.S. companies to shift production or income to lower-tax-rate jurisdictions outside the United States would also weaken as foreign direct investment inflows into Asia slow. The one-time tax rate cut on repatriated U.S. corporate profits abroad could trigger capital outflows from the deposit countries, tighten offshore dollar funding conditions, and accelerate U.S. dollar appreciation.

This box was prepared by Minsuk Kim.

¹See Box 1.1 in the April 2017 Fiscal Monitor for more details on the destination-based cash flow tax system.

²Among other things, the mix would hinge on how the U.S. Federal Reserve reacts to the expected increase in domestic prices due to the introduction of the border adjustment.

³More generally, whether the DBCFT fully complies with existing World Trade Organization rules remains unclear at this point.

Box 1.4 (continued)

International Trade Policies

The focus of U.S. trade policies is expected to pivot toward greater protection of domestic players and ensuring a level playing field, including through more active use of existing trade remedy and enforcement tools. The new administration also appears to favor bilateral trade negotiations over multilateral ones, as highlighted by the withdrawal from the Trans-Pacific Partnership. Increased tension and uncertainty in the global trade climate could negatively affect Asia's exports to the United States (for example, China, Japan, Korea, and Taiwan Province of China). Over the long run, a slowdown in global trade and foreign direct investment due to a U.S. pullback from cross-border economic integration could also hinder technology transfers through these linkages (see Chapter 3).

Box 1.5. Myanmar: Macroeconomic and Distributional Implications of Financial Reforms

This box analyzes the potential impact on income inequality of Myanmar's financial sector reform, a priority for the government.¹ A financial sector development strategy has been developed with the assistance of the IMF and the World Bank, and a financial inclusion road map has been launched. A key question for policymakers is how the reform will affect income distribution and poverty, as well as the country's overall economic growth. Against this backdrop, a recent IMF study attempts to shed some light on this issue by using a dynamic stochastic general equilibrium model tailored to capturing important features of the Myanmar economy (IMF 2017d).

Despite recent progress, Myanmar's financial sector is in the early stages of development, and major distortions inherited from the prereform era remain. The Central Bank of Myanmar continues to finance a significant portion of the fiscal deficit, generating inflation and exchange rate depreciation pressures while placing a disproportional burden on the poor. Administrative controls on interest rates—a floor on deposit rates and a ceiling on lending rates—have led to financial suppression in the face of relatively high inflation. Meanwhile, access to basic financial services is very low, with over 75 percent of adults not having a bank account and the majority of the population relying on unregulated lenders, often at very high costs. While agriculture accounts for 30 percent of GDP and employs more than half of the population, it receives only a small fraction of total outstanding bank loans. Similarly, small and medium-sized enterprises are underserved by the formal financial system.

Four policy experiments were conducted for the analysis of Myanmar's financial sector reform:

- Financial reform/liberalization: The government reduces central bank financing and pursues gradual liberalization of interest rates
- 2. Financial inclusion: Policy changes in the "financial reform/liberalization" scenario plus easier rural access to private credit
- 3. Higher infrastructure investment: Policy changes in the "financial inclusion" scenario plus the channeling of the reform-generated higher tax revenues toward economy-wide infrastructure investment
- 4. Higher infrastructure investment in agriculture: Policy changes in the "financial inclusion" scenario plus the channeling of the reform-generated higher tax revenues toward rural infrastructure investment

The analysis indicates that financial liberalization that is, reducing central bank financing of the fiscal deficit and allowing higher real interest rates—would increase savings, private credit, and ultimately economic growth (Figure 1.5.1). A higher real interest rate as a result of lower inflation and a higher nominal interest rate on savings motivate households to save more, which in turn leads to a reduction in the real interest rate on private credit. As



(Deviation from trend, percentage points)



This box was prepared by Yiqun Wu, Sandra Valentina Lizarazo Ruiz, and Marina Mendes Tavares. ¹See IMF (2017c) for an analysis of Myanmar's financial sector reform strategy and priorities.

Box 1.5 (continued)

a result, investment increases and the industrial sector expands. The expansion in the industrial sector boosts labor demand and urban wages, inducing migration from rural areas. A larger and wealthier urban population increases the demand for consumption goods, and overall economic activity increases.

However, the analysis also shows that while financial liberalization would boost growth and reduce poverty, it may also increase some dimensions of inequality such as intra-rural and intra-urban income inequality (Figures 1.5.2 and 1.5.3). This distributional impact reflects the tendency for financial liberalization to disproportionally benefit those who already have financial access. Such an outcome may occur even when there is a general increase in credit access for the neediest sectors. For instance, the rural households that benefit most from increased credit access are usually those that are better-off, typically with larger land holdings, high productivity, and better managerial skills.

An adverse impact on intra-sectoral inequality could also arise from other well-intentioned policies such as those aimed at improving infrastructure. A key insight from this modeling exercise on Myanmar's financial sector reform is that, while such reforms can boost growth and reduce poverty, without changes to the existing institutional setup and appropriate targeting they can also worsen certain aspects of income distribution. Additional analysis shows that an increase in infrastructure investment using the revenue generated from financial liberalization—even if targeted toward rural areas—can lead to increased inequality within the rural sector despite the likely improvement in income distribution between rural and urban areas.

This case study highlights the importance of complementary policies in pursuing economic liberalization. Where equality is an important policy objective, reforms such as financial liberalization need to be supported by policy measures that target disadvantaged groups. This may require fiscal measures or sound financial policies that directly help such groups.







Table 1.1. Asia: Real GDP

(Year-over-year percent change)

	Actual Data and Latest Projections					Differer World	Difference from October 2016 World Economic Outlook		
	2014	2015	2016	2017	2018	2016	2017	2018	
Asia	5.6	5.6	5.3	5.5	5.4	-0.1	0.1	0.0	
Emerging Asia ¹	6.8	6.8	6.4	6.4	6.4	-0.1	0.1	0.1	
Industrial Asia	0.8	1.5	1.3	1.6	1.1	0.3	0.6	0.1	
Australia	2.8	2.4	2.5	3.1	3.0	-0.4	0.5	0.1	
Japan	0.3	1.2	1.0	1.2	0.6	0.5	0.7	0.1	
New Zealand	2.8	3.1	4.0	3.1	2.9	1.2	0.4	0.3	
East Asia	6.7	6.2	6.1	6.0	5.7	0.1	0.3	0.1	
China	7.3	6.9	6.7	6.6	6.2	0.1	0.4	0.1	
Hong Kong SAR	2.8	2.4	1.9	2.4	2.5	0.5	0.5	-0.3	
Korea	3.3	2.8	2.8	2.7	2.8	0.1	-0.4	-0.2	
Taiwan Province of China	4.0	0.7	1.4	1.7	1.9	0.4	0.1	-0.1	
South Asia	7.0	7.7	6.7	7.1	7.5	-0.7	-0.4	0.0	
Bangladesh	6.3	6.8	6.9	6.9	7.0	0.0	0.0	0.0	
India ²	7.2	7.9	6.8	7.2	7.7	-0.8	-0.4	0.0	
Sri Lanka	4.9	4.8	4.3	4.5	4.8	-0.7	-0.5	-0.2	
Nepal	6.0	2.7	0.6	5.5	4.5	0.0	1.5	0.8	
ASEAN	4.7	4.7	4.8	4.9	5.1	0.0	-0.1	-0.1	
Brunei Darussalam -	-2.5	-0.4	-3.2	-1.3	0.7	-3.5	-5.2	-1.1	
Cambodia	7.1	7.0	7.0	6.9	6.8	0.0	0.0	0.0	
Indonesia	5.0	4.9	5.0	5.1	5.3	0.1	-0.2	-0.2	
Lao P.D.R.	8.0	7.5	6.9	6.8	6.7	-0.5	-0.5	-0.6	
Malavsia	6.0	5.0	4.2	4.5	4.7	-0.1	-0.1	0.0	
Myanmar	8.0	7.3	6.3	7.5	7.6	-1.8	-0.2	-01	
Philippines	6.2	5.9	6.8	6.8	6.9	0.4	0.1	0.1	
Singanore	3.6	19	2.0	22	2.6	0.3	0.0	_0.1	
Thailand	0.9	2.9	3.2	3.0	3.3	0.0	-0.3	0.1	
Vietnam	6.0	6.7	6.2	6.5	6.3	0.0	0.3	0.1	
Pacific island countries and other	32	36	34	34	3.8	0.1	0.0	0.1	
small states ³	0.2	0.0	0.4	0.4	0.0	0.4	0.1	0.1	
Bhutan	4.0	6.1	6.2	5.9	11.2	0.2	-05	-01	
Fiii	5.6	3.6	2.0	37	3.7	_0.5	-0.2	_0.1	
Kiribati	24	3.5	2.0	2.8	2.0	0.5	0.2	0.2	
Maldives	6.0	2.8	3.9	2.0 4 1	2.0	0.1	0.0	0.0	
Marshall Islands	0.6	14	1.8	1.8	1.6	0.0	0.0	0.0	
Micronesia -	-24	3.7	2.0	2.0	1.5	0.9	1.3	0.7	
Palau	۲.4 ۵.4	9.3	0.1	5.0	5.0	0.0	0.0	0.0	
Panua New Guinea	74	6.6	25	3.0	3.2	0.1	0.0	0.0	
Samoa	12	1.6	6.6	21	0.2	3.5	0.0	_11	
Solomon Islands	2.0	1.8	3.2	3.0	3.0	0.0	-0.3	0.0	
Timor-I este	5.0	1.0	5.0	4.0	6.0	0.2	_1.5	0.0	
Tonga	20	3.6	3.5	3.0	3.6	0.0	1.0	0.0	
Tuvalu	2.3	2.6	4.0	23	23	0.0	0.0	0.5	
Vanuatu	2.3	-0.8	4.0	4 5	4.0	0.0	0.0	0.0	
Mongolia	7.9	2.4	1.0	-0.2	1.8	0.9	-12	-16	

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

¹Emerging Asia includes China, India, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam. India's data are reported on a fiscal year basis. ²India's data are reported on a fiscal year basis. Its fiscal year starts from April 1 and ends on March 31.

Table 1.2. Asia: General Government Balances

(Percent of fiscal year GDP)

	Actual Data and Latest Projections					Difference from October 2016 World Economic Outlook		
	2014	2015	2016	2017	2018	2016	2017	2018
Asia	-2.3	-2.9	-3.4	-3.4	-3.0	-0.1	0.1	0.0
Emerging Asia ¹	-2.6	-3.7	-4.1	-4.1	-4.0	-0.4	- 0.2	- 0.2
Industrial Asia	-4.8	-3.3	-3.8	-3.5	- 2.8	0.8	1.0	1.0
Australia	-2.9	-2.7	-2.7	-2.2	-1.3	0.2	0.3	0.4
Japan	-5.4	-3.5	-4.2	-4.0	-3.3	1.0	1.2	1.2
New Zealand	-0.3	0.6	0.6	0.6	1.5	1.0	0.9	1.4
East Asia	-0.8	-2.4	-3.2	-3.2	-2.9	-0.6	-0.4	-0.4
China	-0.9	-2.8	-3.7	-3.7	-3.4	-0.7	-0.4	-0.4
Hong Kong SAR	3.2	0.6	4.8	1.6	1.4	3.3	0.0	0.5
Korea	0.4	0.3	0.3	0.7	1.1	-0.5	-0.4	-0.5
Taiwan Province of China	-2.7	-1.8	-1.6	-1.3	-1.1	0.0	0.0	0.0
South Asia	-6.8	-6.8	-6.3	-6.2	-6.0	0.2	0.2	-0.1
Bangladesh	-3.1	-3.9	-3.4	-4.7	-4.2	0.9	0.0	0.0
India ²	-7.2	-7.1	-6.6	-6.4	-6.3	0.1	0.2	-0.1
Sri Lanka	-6.2	-7.0	-5.7	-5.2	-4.6	-0.2	-0.5	-0.7
Nepal	1.5	0.7	1.4	-1.1	-1.2	-0.2	0.7	0.3
ASEAN	-1.4	-1.8	-2.0	-2.3	-2.4	0.2	-0.1	-0.1
Brunei Darussalam	3.6	-14.5	-21.9	-10.9	-9.2	4.3	2.7	0.1
Cambodia	-1.3	-1.6	-2.9	-3.2	-3.6	-0.3	-0.3	-0.3
Indonesia	-2.1	-2.5	-2.5	-2.4	-2.5	0.0	0.2	0.4
Lao P.D.R.	-4.5	-2.7	-5.9	-5.3	-5.2	-2.9	-1.4	-1.1
Malaysia	-2.7	-2.9	-3.0	-3.0	-2.7	0.3	-0.1	0.0
Myanmar	-0.9	-4.4	-4.6	-4.5	-4.5	0.0	0.1	0.1
Philippines	0.9	0.6	-0.4	-1.0	-1.2	0.0	0.5	0.5
Singapore	5.5	3.7	3.3	1.7	1.5	0.9	-0.7	-1.0
Thailand	-0.8	0.1	0.5	-1.6	-1.8	0.8	-1.2	-1.4
Vietnam	-6.3	-6.2	-6.6	-5.7	-5.7	-0.1	0.3	-0.1
Pacific island countries and other	5.7	4.2	-3.5	-2.8	-4.5	1.6	3.2	0.8
small states ³								
Bhutan	2.9	-0.2	-2.1	-4.4	-6.1	-1.4	-1.9	-5.6
Fiji	-4.3	-3.4	-5.7	-5.1	-3.6	0.0	-0.1	-0.1
Kiribati	23.4	43.7	-11.6	-3.3	-12.2	1.3	9.7	0.8
Maldives	-9.0	-9.5	-8.4	-10.1	-10.4	5.3	8.3	8.7
Marshall Islands	3.2	2.8	2.2	1.6	0.5	-0.1	-0.1	-0.2
Micronesia	11.2	10.5	9.7	8.9	8.3	6.7	6.6	6.1
Palau	3.5	5.1	-2.1	-0.9	1.3	0.0	0.0	0.1
Papua New Guinea	-6.5	-5.1	-4.4	-2.7	-2.4	0.6	2.4	2.5
Samoa	-5.3	-3.9	-0.4	-1.9	-1.7	3.0	0.2	1.8
Solomon Islands	1.7	-0.3	-1.4	-2.5	-2.0	0.0	-1.9	-3.6
Timor-Leste	22.2	3.9	-14.3	2.0	-16.5	3.3	20.1	1.7
Tonga	-0.4	0.0	0.4	-1.3	-1.1	1.6	-1.3	-1.5
Tuvalu	36.3	7.2	-2.7	-4.2	-5.3	0.0	0.0	0.0
Vanuatu	0.8	7.2	-8.5	-14.6	-12.5	2.2	2.6	0.7
Mongolia	-11.3	-8.5	-17.0	-10.5	-8.2	2.5	1.6	1.9

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

¹Emerging Asia includes China, India, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam. India's data are reported on a fiscal year basis. ²India's data are reported on a fiscal year basis. Its fiscal year starts from April 1 and ends on March 31.

Table 1.3. Asia: Current Account Balance

(Percent of GDP)

	Actual Data and Latest Projections					Difference from October 2016 World Economic Outlook		
	2014	2015	2016	2017	2018	2016	2017	2018
Asia	1.9	2.7	2.5	2.1	2.0	0.0	0.2	0.4
Emerging Asia ¹	1.6	2.0	1.4	0.9	0.8	-0.3	-0.1	0.1
Industrial Asia	-0.2	1.2	2.4	2.5	2.5	0.3	0.8	0.9
Australia	-2.9	-4.7	-2.6	-2.8	-2.9	0.9	1.2	1.2
Japan	0.8	3.1	3.9	4.2	4.3	0.1	0.8	0.9
New Zealand	-3.2	-3.4	-2.7	-2.5	-3.1	0.3	1.0	0.7
East Asia	3.0	3.7	2.9	2.4	2.3	-0.5	-0.2	0.0
China	2.2	2.7	1.8	1.3	1.2	-0.6	-0.4	-0.1
Hong Kong SAR	1.4	3.3	5.1	3.0	3.1	2.3	0.0	0.0
Korea	6.0	7.7	7.0	6.2	6.1	-0.2	0.3	0.5
Taiwan Province of China	12.0	14.5	14.2	14.8	15.0	-0.8	0.4	0.9
South Asia	-1.1	- 0.8	-0.8	-1.4	-1.5	0.5	0.5	0.6
Bangladesh	1.3	1.9	0.9	-0.5	-1.0	0.9	0.3	0.1
India ²	-1.3	-1.1	-0.9	-1.5	-1.5	0.5	0.5	0.6
Sri Lanka	-2.5	-2.5	-2.3	-2.8	-2.3	-0.8	0.0	0.8
Nepal	4.5	5.0	6.3	-0.3	-1.3	2.4	0.5	1.9
ASEAN	3.3	3.3	3.7	3.2	2.5	0.8	0.8	0.6
Brunei Darussalam	30.7	16.0	9.5	8.3	4.3	5.2	12.4	4.5
Cambodia	-12.1	-10.6	-8.7	-8.5	-8.5	1.5	0.9	0.4
Indonesia	-3.1	-2.0	-1.8	-1.9	-2.0	0.5	0.4	0.4
Lao P.D.R.	-20.7	-16.8	-17.0	-18.8	-19.2	0.9	-1.2	-3.8
Malaysia	4.4	3.0	2.0	1.8	1.8	0.8	0.3	0.3
Myanmar	-3.3	-5.2	-6.5	-6.6	-6.7	1.8	1.5	0.5
Philippines	3.8	2.5	0.2	-0.1	-0.3	-1.6	-1.5	-1.4
Singapore	19.7	18.1	19.0	20.1	19.2	-0.3	0.8	0.8
Vietnam	3.7 5 1	8.1	11.4	9.7	7.8	1.8	2.0	1.9
	0.1	0.5	4.7	4.1	5.4	4.5	4.0	J.J
Pacific Island countries and other	-0.1	2.8	-3.2	-4.1	-5.4	4.3	5.0	3.1
Bhutan	26.4	20.2	20.1	20.4	16.6	1 /	21	11
Fiii	-20.4	-20.3	-29.1	-29.4	-10.0	-1.4 1.2	1 3	0.6
Kiribati	24.0	43.2	-3.0	-5.7	-0.2	12.2	-3.2	- 8 1
Maldives	-3.8	-10.2	-17.9	-16.7	-14.8	-6.1	-2.6	2.0
Marshall Islands	0.0	17.9	13.6	10.7	9.4	21.2	20.2	18.8
Micronesia	1.2	8.6	8.2	6.7	5.6	8.3	7.4	6.9
Palau	-14.6	-3.4	-6.3	-7.8	-8.8	-1.0	-0.7	-0.5
Papua New Guinea	3.0	19.6	15.3	15.9	14.2	7.8	9.8	9.3
Samoa	-8.1	-3.0	-6.1	-6.1	-5.9	-2.8	-3.1	-3.1
Solomon Islands	-4.3	-2.7	-1.7	-4.0	-5.2	2.8	3.7	1.8
Timor-Leste	26.2	8.3	-4.7	13.0	-9.6	5.2	24.6	2.8
Tonga	-9.3	-7.2	-2.1	-7.8	-11.5	5.4	3.7	1.1
Tuvalu	19.3	7.6	-4.4	-5.4	-3.9	-0.5	0.2	1.6
Vanuatu	-0.3	-9.2	-12.1	-14.9	-12.6	4.6	6.2	6.4
Mongolia	-11.5	-4.0	-4.1	-4.4	-9.5	7.0	14.7	12.9

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

¹Emerging Asia includes China, India, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam. India's data are reported on a fiscal year basis. ²India's data are reported on a fiscal year basis. Its fiscal year starts from April 1 and ends on March 31.

Table 1.4. Asia: Consumer Prices

(Year-over-year percent change)

	Actual Data and Latest Projections					Difference from October 2016 World Economic Outlook		
	2014	2015	2016	2017	2018	2016	2017	2018
Asia	3.2	2.3	2.3	2.9	2.9	-0.2	0.0	-0.1
Emerging Asia ¹	3.4	2.6	2.8	3.2	3.2	- 0.2	0.0	-0.1
Industrial Asia	2.7	0.9	0.2	1.2	1.0	0.0	0.4	0.0
Australia	2.5	1.5	1.3	2.0	2.4	0.0	-0.1	0.0
Japan	2.8	0.8	-0.1	1.0	0.6	0.0	0.5	0.0
New Zealand	1.2	0.3	0.6	1.5	2.0	0.0	0.0	0.0
East Asia	1.9	1.3	1.9	2.3	2.2	-0.1	0.1	-0.1
China	2.0	1.4	2.0	2.4	2.3	-0.1	0.1	-0.1
Hong Kong SAR	4.4	3.0	2.6	2.6	2.7	0.1	0.0	0.0
Korea	1.3	0.7	1.0	1.8	1.9	0.0	0.0	-0.1
Taiwan Province of China	1.2	-0.3	1.4	1.4	1.3	0.3	0.3	0.0
South Asia	5.9	4.9	5.0	4.9	5.1	- 0.6	-0.4	- 0.2
Bangladesh	7.0	6.2	6.4	6.4	5.8	-0.4	-0.5	-0.8
India ²	5.9	4.9	4.9	4.8	5.1	-0.6	-0.4	-0.2
Sri Lanka	3.3	0.9	3.7	5.8	5.0	-0.4	0.5	-0.1
Nepal	9.0	7.2	9.9	6.7	7.6	-0.1	-3.2	-0.4
ASEAN	4.4	3.3	2.4	3.6	3.7	-0.2	0.1	0.0
Brunei Darussalam	-0.2	-0.4	-0.7	-0.1	0.0	-0.5	-0.1	-0.1
Cambodia	3.9	1.2	3.0	3.2	3.1	-0.1	0.5	0.0
Indonesia	6.4	6.4	3.5	4.5	4.5	-0.1	0.4	0.1
Lao P.D.R.	4.1	1.3	2.0	2.3	2.7	5.3	0.0	0.0
Malaysia	3.1	2.1	2.1	2.7	2.9	0.0	-0.3	0.0
Myanmar	5.1	10.0	7.0	6.9	6.7	-2.8	-2.1	-1.0
Philippines	4.2	1.4	1.8	3.6	3.3	-0.2	0.2	-0.2
Singapore	1.0	-0.5	-0.5	1.1	1.8	-0.2	-0.1	0.0
Thailand	1.9	-0.9	0.2	1.4	1.5	-0.1	-0.3	-0.3
Vietnam	4.1	0.6	2.7	4.9	5.0	0.6	1.2	1.1
Pacific island countries and other	2.4	1.5	1.8	2.9	3.0	-0.4	0.2	-0.1
small states ³								
Bhutan	9.9	6.3	4.2	4.1	4.6	-0.2	-0.5	-0.5
Fiji	0.5	1.4	3.9	4.0	3.5	0.6	1.2	0.7
Kiribati	2.1	0.6	1.9	2.2	2.5	0.4	0.2	0.0
Maldives	2.5	1.4	0.9	2.5	1.9	-1.3	-0.1	-1.6
Marshall Islands	1.1	-2.2	0.9	1.1	1.8	0.3	0.0	0.0
Micronesia	0.7	-0.2	1.3	2.6	2.4	-0.7	1.2	0.5
Palau	4.1	0.9	-1.0	2.0	2.0	-3.0	0.0	0.0
Papua New Guinea	5.2	6.0	6.9	7.5	6.5	0.0	0.0	0.0
Samoa	-1.2	1.9	0.1	1.8	1.9	-0.2	0.8	0.0
Solomon Islands	5.2	-0.6	0.4	2.5	2.6	-1.9	-1.5	0.0
Timor-Leste	0.7	0.6	-1.3	1.0	2.7	-0.7	-0.3	-1.1
Tonga	1.2	-0.3	1.4	3.7	3.4	1.3	2.2	0.7
Tuvalu	1.1	3.2	3.5	2.9	2.8	0.0	0.0	0.0
Vanuatu	0.8	2.5	2.2	2.6	2.8	0.0	0.0	0.0
Mongolia	12.9	5.9	0.5	4.0	5.1	-1.9	-2.7	-0.2

Sources: IMF, World Economic Outlook database; and IMF staff estimates and projections. ¹Emerging Asia includes China, India, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam. India's data are reported on a fiscal year basis. ²India's data are reported on a fiscal year basis. Its fiscal year starts from April 1 and ends on March 31.

References

- Anand, R., and V. Tulin. 2016. "Food Inflation in India: What Role for Monetary Policy?" In *Taming Indian Inflation*, edited by R. Anand and P. Cashin. Washington, DC: International Monetary Fund.
- Bordo, M. D., and C. M. Meissner. 2012. "Does Inequality Lead to a Financial Crisis?" *Journal of International Money and Finance*, 31 (8): 2147–2161.
- Cashin, P., M. Raissi, and K. Mohaddes. 2017. "Fair Weather or Foul? The Macroeconomic Effects of El Niño." *Journal of International Economics* 106: 37–54.
- Drehmann, Mathias, Claudio Borio, Leonardo Gambacorta, Gabriel Jiménez, and Carlos Trucharte. 2010. "Countercyclical Capital Buffers: Exploring Options," BIS Working Paper 317 (Basel: Bank for International Settlements).
- Drehmann, Mathias, Claudio Borio, and Kostas Tsatsaronis. 2011. "Anchoring Countercyclical Capital Buffers: The Role of Credit Aggregates," BIS Working Paper 355 (Basel: Bank for International Settlements).
- Drehmann, Mathias, and Kostas Tsatsaronis. 2014. "The Creditto-GDP Gap and Countercyclical Capital Buffers: Questions and Answers," *BIS Quarterly Review* (March).
- Hufbauer, G., and Z. Lu. 2017. "Border Tax Adjustments: Assessing Risks and Rewards." PIIE Policy Brief 17-3. Peterson Institute for International Economics, Washington, DC.
- International Monetary Fund (IMF). 2011. Regional Economic Outlook: Asia and the Pacific, Washington, DC, April.
 - 2014. Regional Economic Outlook: Asia and the Pacific. Washington, DC, April.
- ——. 2016. "China 2016 Article IV Staff Report." IMF Country Report 16/270. Available at https://www.imf.org/ external/pubs/ft/scr/2016/cr16270.pdf.

- 2017a. "India Staff Report for the 2017 Article IV Consultation." IMF Country Report 17/4, Washington, DC.
- 2017b. "India: Selected Issues." IMF Country Report 17/6, Washington, DC.
- 2017c. "Myanmar's Financial Sector: Strategy and Priorities for Reform." In Selected Issues Paper for the IMF 2016 Article IV Consultation with Myanmar. IMF Country Report 17/31. International Monetary Fund, Washington, DC.
- —. 2017d. "Macroeconomic and Distributional Implications of Financial Reforms." In Selected Issues Paper for the IMF 2016 Article IV Consultation with Myanmar. IMF Country Report 17/31. International Monetary Fund, Washington, DC.
- Kumar, S. 2014. "The Varying Interest Elasticity and the Cost of Inflation in India." *Applied Economics Letters* 21 (7).
- Mendoza, E. G., and M. Terrones. 2008. "An Anatomy of Credit Booms: Evidence from the Macroaggregates and Microdata". NBER Working Paper 14049. National Bureau of Economic Research, Cambridge, MA.
- Mian A., A. Sufi, and E. Verner. 2016. "Household Debt and Business Cycles World Wide." *Quarterly Journal of Economics*, forthcoming.
- Miranda-Agrippino, S., and H. Rey. 2015. "World Asset Markets and the Global Financial Cycle." NBER Working Paper 21722. National Bureau of Economic Research, Cambridge, MA.
- Reserve Bank of India (RBI). 2017. "Macroeconomic Impact of Demonitisation—A Preliminary Assessment." Mumbai.
- World Bank. 2016. Migration and Remittances Factbook 2016, 3rd ed. World Bank, Washington, DC.