Regional Economic Outlook UPDATE
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Asia: Maintaining Robust Growth amid Heightened Uncertainty

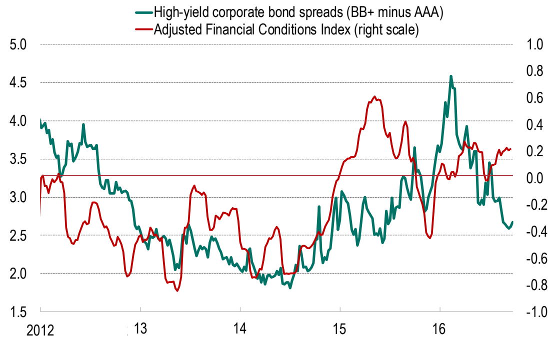
Following robust growth in the first half of 2016, the near-term outlook for Asia remains strong. Accommodative policies and a recent easing of financial conditions will underpin domestic demand, offsetting weak export growth. GDP growth is forecast to be broadly stable at 5.4 percent in 2016 and 5.3 percent in 2017. Asia continues to face downside risks amid headwinds that can significantly impact medium-term growth prospects. Financial dislocations associated with capital flow volatility, as well as sluggish global growth, are the main global risks. The impact of the "new mediocre" in advanced economies on global trade and growth could have far-reaching implications for Asia's economic outlook. A bumpier-than-expected transition in China toward a more consumption- and service-sector-oriented economy could also cast a long shadow. More broadly, the strong growth masks a number of fault lines and vulnerabilities, and bolstering growth prospects is a priority. Given low inflation and fiscal space in most economies, policymakers should judiciously use fiscal and monetary policies to support growth and accelerate structural reforms. This multipronged strategy would also rely on macroprudential policies to safeguard financial stability and exchange rate flexibility to facilitate external adjustment. In combination, this comprehensive and consistent policy mix would contribute to more balanced growth, helping solidify Asia's position as the global growth leader.

The global setting: uneven growth with broadly favorable financial conditions

Despite a deceleration early this year, global growth is set to pick up in the second half of 2016 and into 2017. The global economy is expected to expand by a modest 3.1 percent in 2016, a slight downward revision since the *April 2016 World Economic Outlook* (WEO) largely due to a weak first half in the United States. Growth is set to rise in 2017 to 3.4 percent, supported by accommodative policies in advanced economies and a normalization of conditions in stressed emerging economies. Developments in the global economy in the first half of 2016 have been uneven: while the momentum in the United States has been weak (despite strong consumption and labor markets), emerging market and developing economies have seen a pickup in activity. So far, high-frequency data in the euro area point to minimal impact from Brexit, the June 2016 U.K. referendum result in favor of leaving the

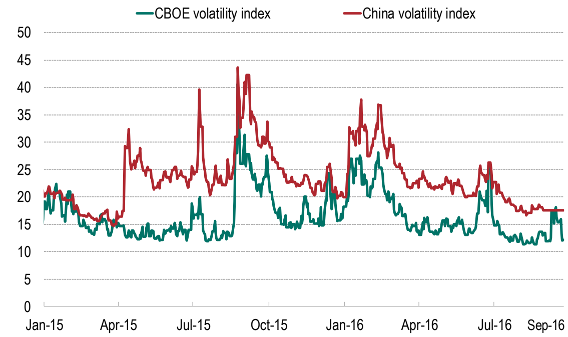
Note: Prepared by Roberto Guimarães under the guidance of Ranil Salgado. Shi Piao and Qianqian Zhang provided invaluable research assistance. Socorro Santayana and Kathie Jamasali assisted with the production.

Figure 1. United States: Financial Conditions



Sources: Haver Analytics; and U.S. Federal Reserve Bank of Chicago.
Note: An increase represents a tightening of financial conditions.

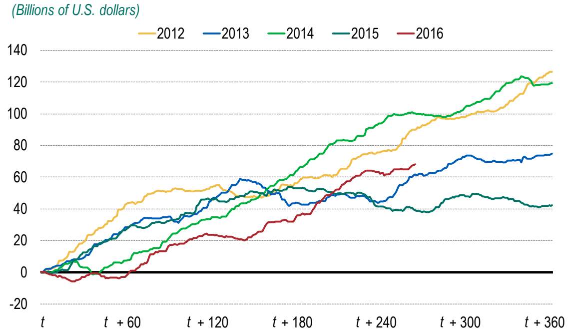
Figure 2. Market Volatility



Source: Bloomberg L.P.
Note: CBOE = Chicago Board Options Exchange.

Figure 3. Asia: Cumulative Portfolio Flows

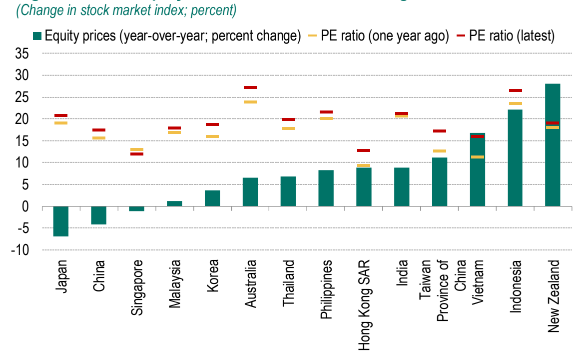
(Billions of U.S. dollars)



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

Figure 4. Asia: Equity Prices and Price-to-Earnings Ratios

(Change in stock market index; percent)



Sources: Bloomberg L.P.; and IMF staff calculations. Data are as of September 21, 2016.
Note: PE = price-to-earning.

European Union, and activity in the United Kingdom was resilient ahead of the referendum.

Global financial conditions remain accommodative, and financial volatility has been low so far. Financial conditions in the United States have eased somewhat this year following a sharp tightening in late 2015 (**Figure 1**).[1] High-yield corporate bond spreads have dropped considerably, and financial volatility remains close to recent lows (**Figure 2**). Stock markets are flirting with all-time highs in some major advanced economies, and long-term rates have continued to decline in the United States, with the term premium dropping by nearly 100 basis points so far this year. Portfolio flows into Asia have picked up significantly after the Brexit referendum, and most regional equity markets have followed in tandem (**Figures 3 and 4**). Credit growth in the region has remained robust (rapid in some cases such as China), and sovereign bond yields have declined across the board (**Figures 5 and 6**). With the exception of the Japanese yen, most regional currencies have been generally stable in real effective terms so far this year (**Figure 7**). China's foreign exchange reserve losses have stabilized in recent months, while some other emerging Asian economies saw modest reserve accumulation (**Figure 8**).

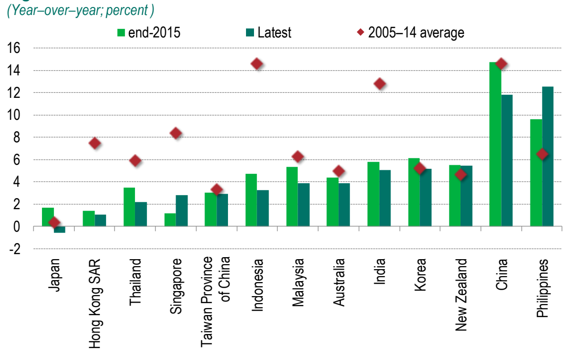
[1] The Federal Reserve Bank of Chicago's National Financial Conditions Index provides a comprehensive update on U.S. financial conditions in money markets, debt and equity markets, and banking systems. The series and background information are available at https://www.chicagofed.org/publications/nfci/index.

The regional setting: continued strong growth supported by policies

While activity in the region slowed in the first few months of the year, it recovered in the second quarter (Figure 9). The pickup in momentum during the first half of 2016 was driven by domestic demand, including stronger growth in government consumption and investment across most regional subgroups (**Figure 10**). Strong labor markets and broadly favorable financial conditions as well as idiosyncratic factors also boosted private consumption.[2] Export growth has remained weak (**Figure 11**), but in sequential terms the incremental effect of the export slowdown on overall growth has waned.[3]

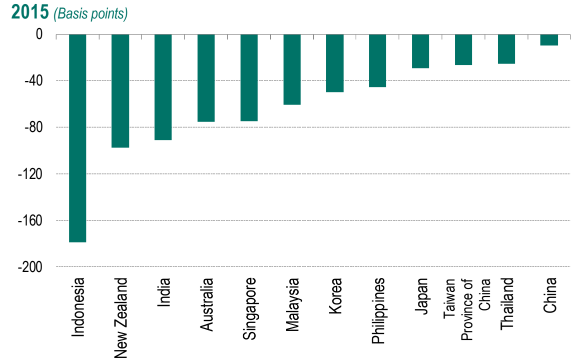
- In China, targeted stimulus measures (including a renewed push for infrastructure investment) underpinned domestic demand (**Figure 12**). Private investment has moderated, driven by weakening corporate profitability. Consumption growth remains particularly strong, consistent with the ongoing rebalancing toward a consumer- and services-sector-oriented economy. GDP growth was 6.7 percent in the second quarter, reflecting fiscal support and rapid credit expansion. Industrial activity was broadly stable, and services sector growth was robust despite the moderation in financial services.

Figure 5. Selected Asia: Real Private Sector Credit Growth
(Year–over–year; percent)



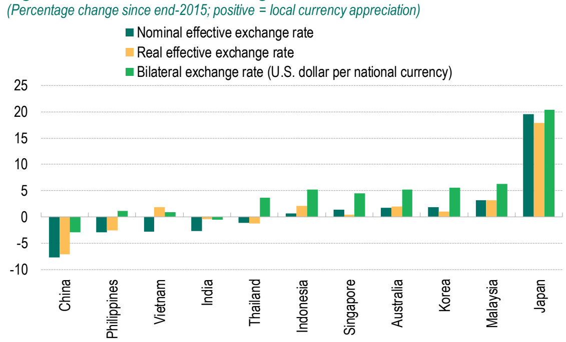
Sources: CEIC Data Company Ltd.; Haver Analytics; and IMF staff calculations.
Note: Private sector credit is based on the depository corporations survey; Data are as of July 2016.

Figure 6. Asia: 10-year Sovereign Bond Yields—Change Since End-2015 *(Basis points)*



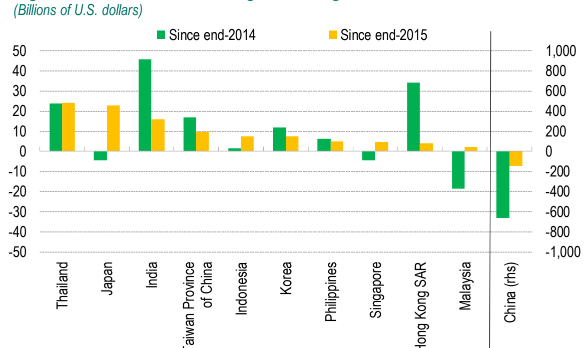
Sources: Bloomberg L.P.; and IMF staff calculations.

Figure 7. Selected Asia: Exchange Rates
(Percentage change since end-2015; positive = local currency appreciation)



Sources: CEIC Data Company Ltd; Haver Analytics; and IMF staff calculations.
Note: Data are as of August 2016.

Figure 8. Selected Asia: Foreign Exchange Reserve Accumulation
(Billions of U.S. dollars)

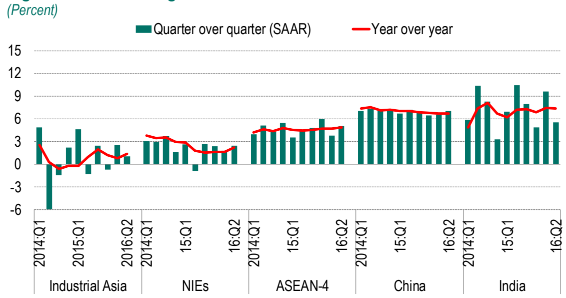


Sources: CEIC Data Company Ltd.; Haver Analytics; and IMF staff calculations.
Note: rhs = right-hand side.

[2] As shown in Box 1, financial conditions across most economies in the region are close to neutral (proxied by the average of the 2000–15 period).

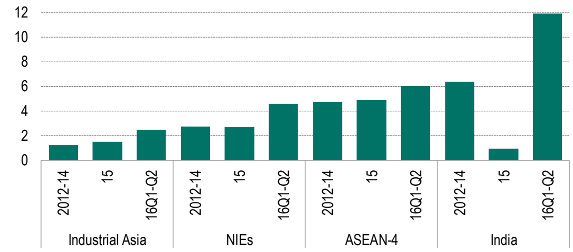
[3] Figure 11 shows nominal export growth. In real terms, the qualitative picture is broadly similar.

Figure 9. Asia: Changes in Real GDP at Market Prices
(Percent)



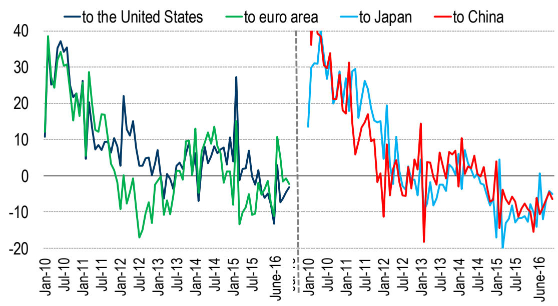
Sources: CEIC Data Company Ltd.; Haver Analytics; and IMF staff calculations.
Note: SAAR = seasonally adjusted annualized rate.
Industrial Asia includes: Australia, Japan, and New Zealand;
NIEs include: Hong Kong SAR, Korea, Singapore, and Taiwan Province of China;
ASEAN-4 includes: Indonesia, Malaysia, the Philippines, and Singapore.

Figure 10. Asia: Real Government Consumption Expenditure
(Year-over-year percent change)



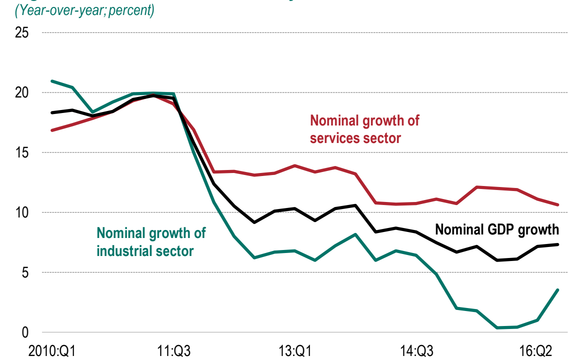
Sources: CEIC Data Company Ltd.; Haver Analytics; and IMF staff calculations.
Note: SAAR = seasonally adjusted annualized rate.
Industrial Asia includes: Australia, Japan, and New Zealand;
NIEs include: Hong Kong SAR, Korea, Singapore, and Taiwan Province of China;
ASEAN-4 includes: Indonesia, Malaysia, the Philippines, and Singapore.

Figure 11. Selected Asia: Exports to Major Destinations
(Year-over-year percent change)



Sources: CEIC Data Co. Ltd.; Haver Analytics; and IMF staff calculations.
Note: Selected Asia includes China, Hong Kong SAR, India, Japan, Korea, Malaysia, the Philippines, Taiwan Province of China, Thailand, and Singapore; Data are as of July 2016.

Figure 12. China: Economic Activity Indicators
(Year-over-year; percent)



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

- In Japan, after a strong first quarter, partly reflecting a contribution from leap-year effects, growth decelerated in the second quarter. Consumption remained weak, while private nonresidential investment and exports declined, partly because of temporary effects of the Kumamoto earthquakes. Public investment and residential investment provided some offset. Financial conditions tightened in the second quarter and beginning of the third quarter, as the yen appreciated.

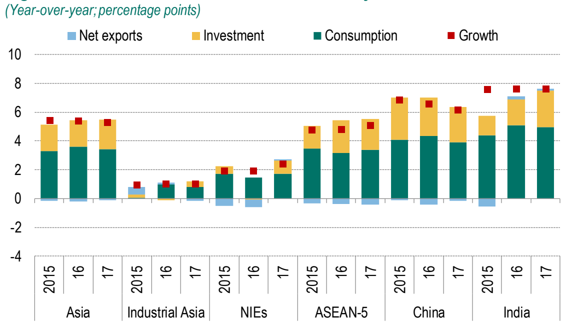
- India's growth has continued to benefit from the large improvement in the terms of trade, positive policy actions, including implementation of key structural reforms, gradual reduction of supply-side constraints, and a rebound in confidence. Consumption growth has remained strong and activity in core industrial sectors has picked up. Government consumption is set to continue to support growth in 2016.

- In Korea, GDP growth accelerated to 3.2 percent (quarter-over-quarter, seasonally adjusted annual rate) in the second quarter on the back of targeted tax cuts on purchases of automobiles, which led to a rebound in private consumption. Fixed investment firmed reflecting construction investment growth.

- Growth in the Association of Southeast Asian Nations (ASEAN)-5[4] accelerated in the second quarter, partly reflecting a weak outturn in first quarter and other idiosyncratic domestic factors. Consumption and investment (private and public) have remained robust so far into 2016, partly offsetting weak export growth.

Asia's near-term outlook is projected to remain solid, helped by a stronger global economy and broadly accommodative policies and financial conditions. GDP growth is forecast to reach 5.4 percent in 2016 and 5.3 percent in 2017 **(Table 1 and Figure 13)**. The gradual global recovery should support Asia's export growth in the near term, while strong credit and household income growth and relatively low interest rates underpin domestic demand. Policies are also generally accommodative (see below) and are expected to help support the near-term growth momentum.

Figure 13. Selected Asia: Contributions to Projected Growth
(Year-over-year; percentage points)



Sources: IMF, World Economic Outlook database; and IMF staff calculations.
Note: ASEAN-5 includes Indonesia, Malaysia, the Philippines, Singapore, and Thailand.
Data discrepancies are not included.

- In China, GDP growth is projected to remain relatively strong in the near term, helped by the fiscal stimulus on infrastructure spending. Overall, growth is projected to be 6.6 percent in 2016 and 6.2 percent in 2017 (0.1 percentage point higher for 2016 relative to the April 2016 WEO), reflecting fiscal stimulus and credit support. Both consumption and investment growth have been revised upward, while the contribution of net exports has been revised downward, as import growth is expected to accelerate amid stronger domestic demand. Medium-term growth has been revised down to 5.8 percent from 6.2 percent, reflecting rising vulnerabilities and slower progress on reining in credit growth and on state-owned-enterprise reform.

- In Japan, GDP growth for 2016 and 2017 is forecast at 0.5 and 0.6 percent, respectively. Growth in 2016 will be supported by the supplementary budget and private consumption, while increased uncertainty, weak global growth, and the yen appreciation are expected to pose a drag. Growth in 2017 was revised up by 0.6 percentage point relative to April, reflecting the postponement of the consumption tax hike and the recently announced fiscal stimulus package of about 1.5 percent of GDP (with an estimated impact of close to 1 percentage point on activity).[5] The projected withdrawal of

[4] ASEAN-5 countries are Indonesia, Malaysia, the Philippines, Singapore, and Thailand.
[5] The forecast does not reflect the adjustment to the Bank of Japan's monetary policy framework announced on September 21, 2016, which includes a zero interest rate target on 10-year government bonds (JGBs) and a commitment to temporarily overshoot the inflation target.

Table 1. Asia: Real GDP

(Year-over-year percent change)

	Actual Data and Latest Projections					Difference from April 2016 WEO		
	2013	2014	2015	2016	2017	2015	2016	2017
Asia	**5.8**	**5.6**	**5.4**	**5.4**	**5.3**	**0.1**	**0.1**	**0.1**
Emerging Asia[1]	**7.0**	**6.8**	**6.7**	**6.5**	**6.3**	**0.1**	**0.1**	**0.0**
Industrial Asia	**1.5**	**0.5**	**1.0**	**1.0**	**1.0**	**0.0**	**0.1**	**0.4**
Australia	2.0	2.7	2.4	2.9	2.7	0.0	0.4	-0.3
Japan	1.4	0.0	0.5	0.5	0.6	0.1	0.0	0.6
New Zealand	1.7	3.0	3.0	2.8	2.7	-0.4	0.8	0.2
East Asia	**7.0**	**6.7**	**6.2**	**5.9**	**5.7**	**0.0**	**0.1**	**0.0**
China	7.8	7.3	6.9	6.6	6.2	0.0	0.1	0.0
Hong Kong SAR	3.1	2.7	2.4	1.4	1.9	0.1	-0.7	-0.6
Korea	2.9	3.3	2.6	2.7	3.0	0.0	0.1	0.2
Taiwan Province of China	2.2	3.9	0.6	1.0	1.7	-0.1	-0.5	-0.5
South Asia	**6.5**	**7.1**	**7.4**	**7.5**	**7.5**	**0.2**	**0.2**	**0.1**
Bangladesh	6.0	6.3	6.8	6.9	6.9	0.4	0.4	0.0
India[2]	6.6	7.2	7.6	7.6	7.6	0.2	0.2	0.1
Sri Lanka	3.4	4.9	4.8	5.0	5.0	-0.4	0.0	0.0
Nepal	4.1	6.0	2.7	0.6	4.0	-0.6	0.0	-0.4
ASEAN	**5.2**	**4.7**	**4.7**	**4.8**	**5.1**	**0.0**	**0.0**	**0.0**
Brunei Darussalam	-2.1	-2.3	-0.6	0.4	3.9	-0.3	2.4	0.9
Cambodia	7.4	7.1	7.0	7.0	6.9	0.1	0.0	0.0
Indonesia	5.6	5.0	4.8	4.9	5.3	0.0	0.0	0.0
Lao P.D.R.	8.0	7.5	7.6	7.5	7.3	0.5	0.1	-0.1
Malaysia	4.7	6.0	5.0	4.3	4.6	0.0	-0.1	-0.2
Myanmar	8.4	8.7	7.0	8.1	7.7	0.0	-0.6	0.0
Philippines	7.1	6.2	5.9	6.4	6.7	0.1	0.4	0.5
Singapore	4.7	3.3	2.0	1.7	2.2	0.0	-0.1	0.1
Thailand	2.7	0.8	2.8	3.2	3.3	0.0	0.2	0.1
Vietnam	5.4	6.0	6.7	6.1	6.2	0.0	-0.2	0.0
Pacific island countries and other small states[3]	**1.7**	**3.1**	**3.3**	**3.0**	**3.3**	**-0.4**	**-0.3**	**-0.1**
Bhutan	3.6	3.8	5.2	6.0	6.4	-2.5	-2.4	-2.2
Fiji	4.7	5.3	4.3	2.5	3.9	0.0	0.0	0.0
Kiribati	5.8	2.4	3.5	3.1	2.5	-0.7	0.4	0.0
Maldives	4.7	6.5	1.5	3.0	4.1	-0.4	-0.5	0.2
Marshall Islands	-1.1	0.4	1.4	1.7	1.8	-0.2	0.0	0.0
Micronesia	-3.6	-3.4	-0.2	1.1	0.7	0.0	0.0	0.0
Palau	-2.4	4.2	9.4	0.0	5.0	0.0	-2.0	0.0
Papua New Guinea	4.7	7.4	6.6	2.5	3.0	-2.4	-0.6	-1.4
Samoa	-1.9	1.2	1.6	3.0	1.5	0.0	1.8	1.6
Solomon Islands	3.0	2.0	3.3	3.0	3.3	0.0	0.0	0.0
Timor-Leste	2.9	5.9	4.3	5.0	5.5	0.0	0.0	0.0
Tonga	-0.6	2.9	3.4	2.7	2.4	0.8	-0.1	-0.1
Tuvalu	1.3	2.2	2.6	4.0	2.3	0.0	0.0	0.4
Vanuatu	2.0	2.3	-0.8	4.0	4.5	0.0	-0.5	0.5
Mongolia	11.6	7.9	2.4	0.0	1.0	0.1	-0.4	-1.6

Sources: IMF, *World Economic Outlook (WEO)* database; and IMF staff projections.

Note: ASEAN = Association of Southeast Asian Nations.

[1] Emerging Asia includes China, India, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam. India's data are reported on a fiscal year basis.

[2] For India, data and forecasts are presented on a fiscal year basis.

[3] Simple average of Pacific island countries and other small states which include Bhutan, Fiji, Kiribati, Maldives, the Marshall Islands, Micronesia, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu.

fiscal stimulus will pose a drag on growth beyond 2017–18, but it will be somewhat offset by higher private investment (in part owing to the 2020 Olympics in Tokyo). Japan's medium-term growth potential remains weak, reflecting to a large extent its shrinking labor force.

- India's GDP growth is projected at 7.6 percent in both FY2016/17 (ending in March 2017) and FY2017/18—up 0.1 percentage point relative to the April 2016 WEO. The ongoing growth recovery remains braced by private consumption. Monsoon rainfall coming in at normal levels bodes well for agriculture and, along with a decennial rise in government employee salaries, will underpin the ongoing recovery in domestic demand. Further progress on reforms will boost sentiment, and the incipient recovery of private investment is expected to help broaden the sources of growth amid gradual fiscal consolidation and broadly neutral monetary policy. Medium-term growth has also been revised upward reflecting continued progress on structural reforms (constitutional amendment enabling implementation of the national goods and services tax, adoption of inflation targets, and removal of foreign direct investment (FDI) ceilings).

- Growth in Korea, Australia, and New Zealand is set to continue at a relatively firm pace. In Korea, GDP growth is forecast at 2.7 percent for 2016, helped by favorable terms of trade and accommodative monetary policy. For 2017, growth has been revised upward and is projected at 3.0 percent, as the fiscal stimulus package provides a boost to domestic demand. In Australia, GDP growth is expected to average 2.8 percent in 2016–17, as the effects of accommodative policy and a weaker exchange rate offset the ongoing unwinding of the investment cycle. New Zealand is expected to benefit from a weaker exchange rate and accommodative financial conditions, with growth averaging 2.7 percent during the same period.

- ASEAN-5 GDP growth is expected to remain stable in 2016, before rising modestly in 2017. Generally, public and private domestic demand are expected to improve modestly as public investment plans are implemented and financial conditions remain accommodative. Growth in Indonesia is set to improve in 2016 and 2017, rising 4.9 and 5.3 percent, respectively, while in Malaysia, the pickup in growth is only projected in 2017. In both cases, the drag from net exports is also expected to wane as commodity prices have recovered somewhat. Growth in the Philippines is expected to rise, reaching 6.7 percent in 2017, driven by the continued strong momentum in domestic demand—and more recently fiscal stimulus. In Singapore, growth is projected to rise modestly in 2017 to 2.2 percent as private investment is expected to recover further. In Thailand, public investment, a gradual pickup in private consumption, and tourism are expected to remain growth drivers.

- After a deceleration in growth in 2016 in most frontier and developing economies in the region as well as in small states and Pacific island countries, activity is expected to rebound in 2017 helped by a stronger global outlook. While these economies have been less affected by volatility in global financial markets, many have been impacted by weaker global trade growth, lower commodity prices, natural disasters, and spillovers from slower growth in China, with remittances and tourism-related inflows providing some offset. In the case of Sri Lanka, for instance, the economic momentum remains positive, with GDP growth projected to remain robust at 5.0 percent in 2016–17. The Extended Fund Facility approved in June 2016 focuses on strengthening public finances to create space for Sri Lanka's social and development program.

The inflation outlook remains relatively benign. Headline inflation is projected to rise only modestly to 2.5 percent in 2016 and 2.9 percent in 2017 (from 2.3 percent in 2015) as the drag from low commodity prices wanes. Despite a partial recovery in commodity prices, inflation is expected to remain generally low across most of the region given generally well-anchored inflation expectations and low pass-through as well as excess capacity in manufacturing in several economies (**Table 2**).

Current account balances are generally expected to narrow. This reflects mainly the waning effect of lower commodity prices and the pickup in import growth as domestic demand remains strong. There is, however, considerable heterogeneity across the region. In addition to large differences in the levels of the current account balances, trends are also diverging within the region. The current account balances of large emerging markets are expected to decline (China, India), while the current account surpluses of advanced Asia (including Japan and Taiwan Province of China) and Thailand are expected to rise (as a percentage of GDP) in 2016, before declining in 2017 (**Table 3**).

Downside near-term risks and medium-term headwinds remain significant

Downside near-term risks include the following:

- A disorderly reaction to possible U.S. interest rate hikes and broader uncertainty about divergence of monetary policies in advanced economies could lead to capital flow reversals and spikes in asset price volatility. This is particularly important as regional financial conditions are increasingly determined by global factors such as U.S. interest rates and risk aversion (**Box 1**). In addition, domestic vulnerabilities or slow progress on reforms could trigger a switch in investor sentiment, also leading to a sudden tightening of domestic financial conditions. 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

Table 2. Asia: Consumer Prices
(Year-over-year percent change)

	Actual Data and Latest Projections					Difference from April 2016 WEO		
	2013	2014	2015	2016	2017	2015	2016	2017
Asia	**3.8**	**3.2**	**2.3**	**2.5**	**2.9**	**0.0**	**0.1**	**0.0**
Emerging Asia[1]	**4.6**	**3.4**	**2.6**	**3.0**	**3.2**	**0.0**	**0.1**	**0.1**
Industrial Asia	**0.7**	**2.7**	**0.9**	**0.1**	**0.8**	**0.0**	**-0.2**	**-0.6**
Australia	2.5	2.5	1.5	1.3	2.1	0.0	-0.8	-0.3
Japan	0.3	2.8	0.8	-0.2	0.5	0.0	0.0	-0.7
New Zealand	1.1	1.2	0.3	0.7	1.6	0.0	-0.8	-0.3
East Asia	**2.4**	**1.9**	**1.3**	**2.0**	**2.2**	**0.0**	**0.2**	**0.2**
China	2.6	2.0	1.4	2.1	2.3	0.0	0.3	0.3
Hong Kong SAR	4.3	4.4	3.0	2.5	2.6	0.0	0.0	0.0
Korea	1.3	1.3	0.7	1.0	1.9	0.0	-0.3	-0.3
Taiwan Province of China	0.8	1.2	-0.3	1.1	1.1	0.0	0.4	0.0
South Asia	**9.2**	**6.0**	**4.9**	**5.6**	**5.3**	**0.0**	**0.2**	**-0.1**
Bangladesh	7.5	7.0	6.4	6.7	6.9	0.0	0.0	0.0
India	9.4	5.9	4.9	5.5	5.2	0.0	0.2	-0.2
Sri Lanka	6.9	3.3	0.9	4.1	5.3	0.0	0.7	0.8
Nepal	9.9	9.0	7.2	10.0	9.9	0.0	-0.2	-1.2
ASEAN	**4.5**	**4.4**	**3.4**	**2.6**	**3.5**	**0.0**	**-0.4**	**-0.1**
Brunei Darussalam	0.4	-0.2	-0.4	-0.3	0.0	0.0	-0.5	-0.1
Cambodia	3.0	3.9	1.2	3.1	2.7	0.0	1.0	-0.1
Indonesia	6.4	6.4	6.4	3.7	4.2	0.0	-0.7	-0.3
Lao P.D.R.	6.4	5.5	5.3	-3.3	2.3	0.0	-4.8	0.0
Malaysia	2.1	3.1	2.1	2.1	3.0	0.0	-1.0	0.1
Myanmar	5.7	5.9	11.4	9.8	9.0	0.0	0.2	0.8
Philippines	2.9	4.2	1.4	2.0	3.4	0.0	0.0	0.0
Singapore	2.4	1.0	-0.5	-0.3	1.1	0.0	-0.6	-0.2
Thailand	2.2	1.9	-0.9	0.3	1.6	0.0	0.1	-0.4
Vietnam	6.6	4.1	0.6	2.0	3.6	0.0	0.8	1.3
Pacific island countries and other small states[2]	**3.5**	**2.5**	**1.6**	**2.2**	**2.7**	**-0.1**	**0.0**	**0.0**
Bhutan	11.3	9.9	6.3	4.4	4.6	-0.9	-1.7	-1.4
Fiji	2.9	0.5	1.4	3.3	2.8	-1.4	0.0	0.0
Kiribati	-1.5	2.1	0.6	1.5	2.0	-0.8	1.2	1.3
Maldives	4.0	2.5	1.4	2.1	2.6	0.0	0.0	0.0
Marshall Islands	1.9	1.1	-2.2	0.6	1.1	1.8	2.0	0.3
Micronesia	2.0	0.6	-1.0	1.9	1.3	0.0	0.0	0.0
Palau	2.8	4.0	2.2	2.0	2.0	0.0	-0.5	-0.5
Papua New Guinea	5.0	5.2	6.0	6.9	7.5	0.0	0.9	2.5
Samoa	0.6	-0.4	0.9	0.3	1.0	0.0	-0.8	-1.0
Solomon Islands	5.4	5.2	0.9	2.4	4.0	1.2	0.3	1.5
Timor-Leste	9.5	0.7	0.6	-0.6	1.3	0.0	-2.1	-2.5
Tonga	1.5	1.2	-0.1	0.1	1.5	0.0	0.5	0.9
Tuvalu	2.0	1.1	3.2	3.5	2.9	-0.1	0.5	0.0
Vanuatu	1.5	0.8	2.5	2.2	2.6	-0.9	-0.3	-0.6
Mongolia	8.6	12.9	5.9	2.4	6.7	0.0	0.5	2.4

Sources: IMF, *World Economic Outlook (WEO)* database; and IMF staff projections.
Note: ASEAN = Association of Southeast Asian Nations.
[1] Emerging Asia includes China, India, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam. India's data are reported on a fiscal year basis.
[2] Simple average of Pacific island countries and other small states which include Bhutan, Fiji, Kiribati, Maldives, the Marshall Islands, Micronesia, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu.

Table 3. Asia: Current Account Balance
(Percent of GDP)

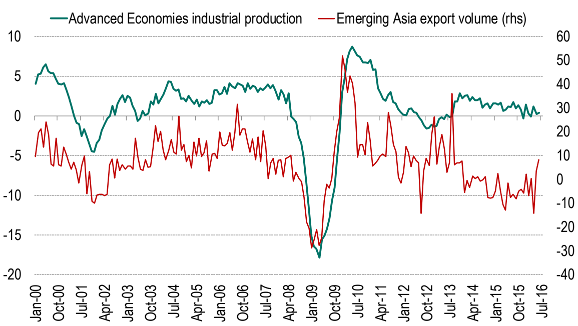
	Actual Data and Latest Projections					Difference from April 2016 WEO		
	2013	2014	2015	2016	2017	2015	2016	2017
Asia	**1.3**	**2.0**	**2.8**	**2.6**	**1.9**	**0.1**	**-0.1**	**-0.3**
Emerging Asia[1]	**0.8**	**1.9**	**2.2**	**1.7**	**1.0**	**0.2**	**-0.1**	**-0.3**
Industrial Asia	**-0.2**	**-0.2**	**1.3**	**2.1**	**1.7**	**-0.1**	**0.0**	**-0.2**
Australia	-3.4	-2.9	-4.7	-3.5	-3.9	-0.1	0.1	-0.4
Japan	0.9	0.8	3.3	3.7	3.3	0.0	-0.1	-0.3
New Zealand	-3.2	-3.1	-3.2	-3.0	-3.5	-0.2	0.7	0.1
East Asia	**2.4**	**3.4**	**3.9**	**3.4**	**2.6**	**0.2**	**-0.3**	**-0.5**
China	1.5	2.6	3.0	2.4	1.6	0.3	-0.2	-0.4
Hong Kong SAR	1.5	1.3	3.1	2.8	2.9	0.1	-0.3	-0.3
Korea	6.2	6.0	7.7	7.2	5.9	0.0	-1.0	-1.5
Taiwan Province of China	10.4	12.0	14.6	15.0	14.4	0.0	0.0	-0.1
South Asia	**-1.5**	**-1.1**	**-0.9**	**-1.3**	**-1.9**	**0.3**	**0.1**	**0.1**
Bangladesh	1.2	0.9	0.7	-0.1	-0.7	1.8	1.3	0.8
India	-1.7	-1.3	-1.1	-1.4	-2.0	0.2	0.1	0.1
Sri Lanka	-3.8	-2.7	-2.5	-1.5	-2.8	-0.4	-0.7	-1.4
Nepal	3.3	4.5	5.0	3.9	-0.9	0.0	-2.3	-1.4
ASEAN	**1.8**	**2.9**	**3.3**	**2.9**	**2.4**	**-0.1**	**0.0**	**0.2**
Brunei Darussalam	20.9	31.9	12.0	4.3	-4.1	4.2	11.2	-4.8
Cambodia	-12.3	-12.1	-10.6	-10.2	-9.4	0.6	-1.9	-1.5
Indonesia	-3.2	-3.1	-2.1	-2.3	-2.3	0.0	0.3	0.5
Lao P.D.R.	-28.9	-22.8	-23.1	-18.0	-17.6	0.1	3.0	2.2
Malaysia	3.5	4.4	3.0	1.2	1.5	0.1	-1.1	-0.4
Myanmar	-4.9	-5.6	-7.8	-8.3	-8.1	1.1	0.1	-0.1
Philippines	4.2	3.8	2.9	1.8	1.4	0.0	-0.8	-1.1
Singapore	17.9	17.5	19.8	19.3	19.3	0.1	-1.9	-1.2
Thailand	-1.2	3.8	7.8	9.6	7.7	-1.0	1.7	1.9
Vietnam	4.5	5.1	0.5	0.4	0.1	-1.0	-0.2	-0.1
Pacific island countries and other small states[2]	**-4.4**	**0.3**	**-0.1**	**-7.5**	**-9.1**	**1.8**	**0.0**	**-1.3**
Bhutan	-25.4	-26.4	-28.8	-27.8	-31.5	-2.1	-2.9	-5.3
Fiji	-9.8	-7.5	-5.4	-7.2	-7.0	0.0	0.7	-0.5
Kiribati	8.2	24.0	44.9	-7.2	-2.5	-0.8	-25.9	0.4
Maldives	-4.5	-3.9	-9.5	-11.9	-14.1	-1.5	-4.1	0.6
Marshall Islands	-9.9	-4.4	-3.2	-7.6	-9.4	-2.4	-10.3	-12.7
Micronesia	-10.0	6.8	1.0	-0.1	-0.7	0.0	0.0	0.0
Palau	-9.3	-11.8	-0.5	-5.3	-7.0	0.0	-5.5	3.4
Papua New Guinea	-31.5	3.0	10.1	7.5	6.1	7.3	6.7	2.4
Samoa	-0.2	-7.3	-3.7	-3.3	-3.0	0.3	0.8	0.8
Solomon Islands	-3.5	-4.3	-2.6	-4.4	-7.7	0.0	0.1	0.1
Timor-Leste	42.4	26.2	8.3	-9.9	-11.6	-8.2	-11.9	0.3
Tonga	-6.2	-9.4	-8.0	-7.6	-11.5	-0.3	-1.0	-4.9
Tuvalu	1.2	19.3	7.6	-4.0	-5.7	34.3	53.8	3.2
Vanuatu	-3.3	-0.3	-11.1	-16.6	-21.1	-0.9	-1.0	-6.0
Mongolia	-25.4	-11.5	-4.8	-11.1	-19.2	0.0	-0.5	-1.5

Sources: IMF, *World Economic Outlook* database; and IMF staff projections.
Note: ASEAN = Association of Southeast Asian Nations.
[1] Emerging Asia includes China, India, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam. India's data are reported on a fiscal year basis.
[2] Simple average of Pacific island countries and other small states which include Bhutan, Fiji, Kiribati, Maldives, the Marshall Islands, Micronesia, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu.

costs. In addition, corporate bonds, which have been an important source of financing for Asian firms, are largely held by domestic banks (**Box 2**), so that corporate stress could have implications for financial stability by weakening banks' balance sheets if downside risks materialize.

- Global trade growth remains weaker than global GDP growth, and despite rising current account balances (**Table 3**) in some of the major Asian economies, net exports remain a drag on regional growth. In recent years, there is some suggestive evidence that growth in Asia's exports has decoupled from the industrial cycle in advanced economies (**Figure 14**).[6] While weak investment cycle in advanced economies is in part the reason for the trade slowdown, the latter may also reflect other structural factors such as the maturation of global value chains or a deterioration in competitiveness. Lower growth in trade could also weaken investment (including FDI) and technology transfer and adoption, ultimately lowering potential growth.

Figure 14. Emerging Asia Lags Demand in the West
(Year-over-year change; percent)



Sources: Haver Analytics; and IMF staff calculations.
Note: Emerging Asia includes China, Indonesia, Japan, Malaysia, the Philippines, and Thailand.

- As discussed in the April 2016 Regional Economic Outlook: Asia and Pacific (APD REO), China's slower growth, while good for the region in the medium term, creates risks to short-term growth, especially when other growth drivers are weak or lacking. Countries more exposed to China's manufacturing and investment-related sectors or to regional value chains are particularly at risk. On the other hand, China's rebalancing from investment to consumption (and its associated transformation of the supply-side economic structure) will continue to create opportunities for services exports, including tourism, and labor-intensive, low-cost production in emerging market and frontier economies. In addition, given that financial spillovers are on the rise, rising vulnerabilities in China's corporate sector could also lead to shifts in sentiment, creating the potential for renewed financial spillovers emanating from China.

- Asia faces risks stemming from an escalation of geopolitical tensions and policy uncertainty within the region and in its main trading partners. As in

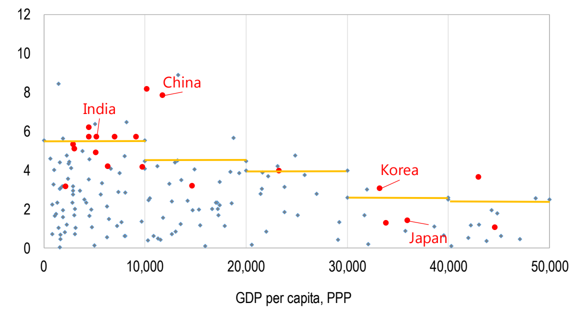
[6] Despite evidence of Granger causality from advanced economies' industrial production growth to Asia's (average) export volume growth during 2000–16, the predictive power of the former seems to have declined in recent years. In particular, the correlation between the two series has fallen: the correlation coefficient is about 0.7 (and statistically significant) for the 2000–13 period, but drops to 0.1 for the 2014–16 subsample. Dynamic forecasts from autoregressive distributed lag (2,2) models estimated over the whole sample suggest that export growth may have bottomed out.

the recent past, an escalation of geopolitical tensions could hurt FDI and trade, disrupting major sources of growth. In addition, policy uncertainty in major trading partners could lower business confidence in the region, with similar adverse effects on FDI and trade, particularly if protectionism rises.

- Climate change and natural disasters also remain an important risk to the Small States and Pacific islands countries (PICs.) The cyclone in Fiji earlier this year and the earthquake in Nepal last year show that natural disasters can severely disrupt economic activity in those economies. Smaller economies in the region also face the risks of reduced access to banking services, which is likely to impact intermediation and hurt growth.

The region also faces a number of potential medium-term headwinds. These include, among other things, the "new mediocre" in advanced economies (or relatively low growth for a long period), weaker-than-envisaged growth in key emerging market economies, and slower growth in investment and productivity. Longer-term trends, such as rising old-age dependency ratios and inequality, could also have a significant impact on growth prospects. For instance, while Asia has done well so far in terms of its relative growth performance, as per capita income levels go up, regional growth could slow, as productivity gaps with advanced economies narrow (**Figure 15**). As growth slows, the risk that investment drops too quickly, especially after a long period of debt-fueled growth, cannot be ruled out. Given capital-embodied technology, a drop in investment could lead to a broader productivity slowdown, ultimately impacting potential growth. The rise in the old-age dependency ratios in some of the major economies in the region (China, Japan, Korea) could also exacerbate risks that a drop in potential growth materializes by hurting investment prospects.

Figure 15. Real GDP per Capita Growth: 2010-2015
(Percent)



Sources: IMF, World Economic Outlook database; and IMF staff calculations.
Note: Red dots represent major Asian countries, and yellow lines indicate top 10 percentile GDP growth rate within each income group.

The prospect of the "new mediocre" and lower potential growth in advanced economies can also create negative spillovers for emerging market economies. First, Asia could face continued weakness in external demand. In addition, lower growth and investment could create demand shortages, leading to slack and weaker inflation. Should advanced economies continue to rely primarily on unconventional monetary policies to lift growth, this could lead to excess global liquidity, fanning capital flows to emerging market economies and contributing to excessive currency appreciation and deflation pressures. Combined with high private debt, declining inflation expectations and the prospect of low nominal growth could weaken spending in emerging market economies.

On the upside, faster progress on reforms could spur sentiment and investment, and favorable demographics in some countries in the region could help. A number of major economies have laid out and continue to implement ambitious reforms. As shown by India, progress on reforms could ignite business investment (including already strong FDI inflows), further boosting domestic demand. Over the medium term, a number of Asian economies stand to benefit from a demographic dividend, as the working-age population in some economies (India, Indonesia) continues to grow, potentially helping sustain strong potential growth.

Policy requirements: supporting demand and bolstering potential growth

Macroeconomic policies should focus on supporting near-term growth, while at the same time bolstering structural reforms. The policy mix needs to be comprehensive and consistent to ensure effectiveness, particularly where policy space is limited. Safeguarding financial stability will also remain critical as macrofinancial linkages become stronger, underscoring the need for strong and proactive regulation and supervision. In some frontier and low-income economies, macroeconomic adjustments are needed to address rising vulnerabilities.

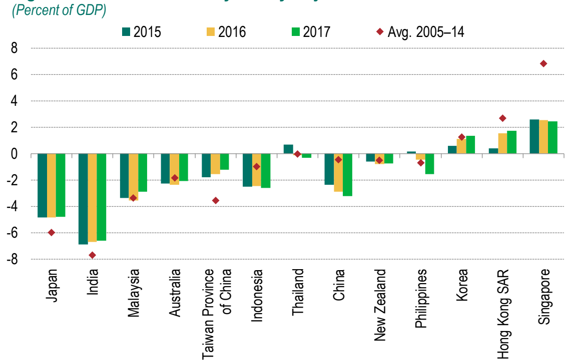
Addressing longer-term challenges to preserve Asia's growth dynamism will positively reinforce the region's resilience by lowering its vulnerabilities. For example, a multipronged approach to deliver more balanced growth in China will make growth more sustainable and inclusive, with positive spillovers to the rest of the region. Major economies in the region have buffers in the form of international reserves, generally low and manageable fiscal deficits, and low inflation. But policymakers should use policy buffers wisely, capitalizing on the solid growth momentum to push forward their reform agenda. They also need to act promptly and decisively as the effects of reforms tend to be uncertain and generally take a long time to materialize (April 2016 WEO, Chapter 3). Altogether, the comprehensive policy strategy outlined below will contribute to more robust and balanced global growth, securing Asia's position as the global growth leader.

Fiscal Policy

Fiscal support should be considered, particularly to support and complement structural reform efforts. Fiscal action should carefully consider the intersection of fiscal space and the need to support demand in a consistent fashion, and with due consideration to 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.

- In countries with an output gap and fiscal space (Korea, Thailand), fiscal stimulus, such as higher infrastructure or social spending, should be considered. With fiscal deficits in the region generally manageable (**Figure 16**), fiscal policy should be used to support structural reforms and boost potential growth. This could include higher spending or subsidies to research and development (*April 2016 Fiscal Monitor*). In addition, fiscal "reforms" should be considered to improve the incentives to invest (India), increase non-oil tax revenues (Indonesia), and reduce precautionary saving (China, Singapore). In some economies with higher public debt levels (India, Japan, Malaysia), credible medium-term fiscal plans that

Figure 16. Selected Asia: Cyclically Adjusted Fiscal Balance
(Percent of GDP)



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

encompass gradual consolidation (preferably allowing for automatic stabilizers in case of shocks) should also continue to be implemented as part of a multipronged approach to bolster policy credibility (including by strengthening fiscal institutions).

- For cases in which fiscal deficits have been partly driving external imbalances and sustainability concerns are at the forefront (such as in some frontier economies like Mongolia and Cambodia), fiscal consolidation remains critical to enhance policy credibility and reduce vulnerabilities. In such cases, growth-friendly consolidation measures should be prioritized, and the type of fiscal adjustment (for example, prioritizing public investment) should be carefully assessed.

- In addition, in most countries, the composition of spending should be recalibrated to prioritize infrastructure and social spending. This would not only help deliver a stronger countercyclical punch in the case of downturns, but also promote inclusive growth by helping lower income inequality through judicious use of social (fiscal) spending.

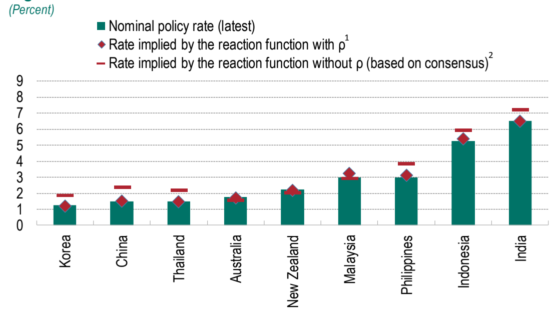
- Fiscal reforms should go beyond reorienting expenditure and mobilizing domestic revenue. They should also aim at increasing the returns on private investment, particularly through infrastructure, and on social programs that would help boost labor force participation and reduce precautionary savings. A myriad of fiscal measures to deal with climate change (from investments in mitigation infrastructure to carbon taxes) should also be a priority, especially in PICs such as Fiji, Vanuatu, and the Solomon Islands.

Monetary Policy

Given low inflation and slack in most economies in the region, monetary policy should remain accommodative.

- As inflation is expected to remain low, regional central banks have room to lower interest rates if growth slides further. Also, as the level of policy rates is generally appropriate given the output gap and inflation trends (**Figure 17**), preemptive interest rate cuts can also be considered if inflation expectations drop, fiscal consolidation is needed, or if reforms 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 global interest rates and/or lower liquidity on domestic financial conditions.

Figure 17. Estimated Central Bank Reaction Functions
(Percent)



Sources: Haver Analytics; and IMF staff estimates.
Note: As of April 1, 2016, with monthly data.
[1] Estimated as $i_t = \rho^* i_{t-1} + (1-\rho)^*(\alpha + \gamma_1 E_t[\pi_{t+1} - \pi^*] + \gamma_2 E_t OutputGap_{t+1} + \delta_1 REER_t + \delta_2 US\_3Myield_t) + \varepsilon_t$
[2] Estimated as $i_t = \alpha + \gamma_1 E_t[\pi_{t+1} - \pi^*] + \gamma_2 E_t OutputGap_{t+1} + \delta_1 REER_t + \delta_2 US\_3Myield_t + \varepsilon_t$

- In any event, some central banks in the region also need to weigh the benefits of prolonged monetary accommodation against the risks for asset prices and domestic financial conditions more broadly. For instance, in a number of economies (Australia, Korea, New Zealand), while low interest rates reflect low inflation and some economic slack, they continue to fuel high house prices. Rising and elevated house prices could, in turn, lead to a buildup of systemic risks, highlighting the need for continued intensified supervision and a strong microprudential framework.

- In Japan's case, monetary policy should remain focused on lifting inflation and inflation expectations through further easing if necessary and enhancing the Bank of Japan's communication framework. The recent adjustments to the monetary policy framework, including long-term interest rate targets, an inflation-overshooting commitment, and stronger forward guidance are welcome. A comprehensive policy package involving income policies and labor market reforms to invigorate wage-price dynamics, coordinated with sustained demand support through further monetary easing and fiscal stimulus, can help secure a sustained increase in inflation and growth.

- Where inflation levels are relatively higher, or where lower interest rates may spur excessive borrowing (China), a neutral stance is more appropriate. In some cases, including in some frontier and lower-income countries, direct measures to lower credit growth may also be needed to address external imbalances and safeguard macroeconomic stability.

- More broadly, a transparent framework and clear communication about monetary policy actions will remain critical to ensure that both inflation expectations and underlying inflation measures remain consistent with central banks' targets. This will be particularly important where monetary policy space is more limited, including where inflation is low and risks of inflation expectations becoming entrenched at low levels are significant.

Exchange Rate and Macroprudential Policies

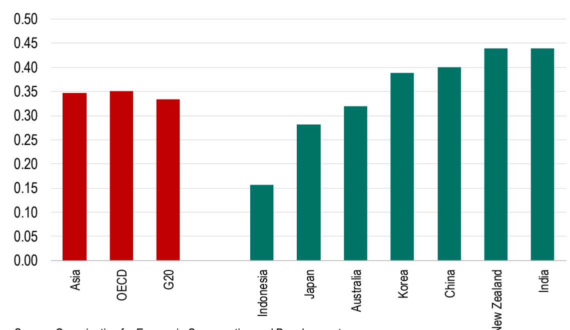
Exchange rate flexibility should be a major ingredient of the macroeconomic policy mix for advanced and emerging market Asian economies. Flexibility will be critical as economies continue to adjust to terms-of-trade and financial shocks. Where rapid exchange rate movements threaten financial or corporate stability, judicious use of foreign exchange intervention should be considered. Foreign exchange intervention could also be considered if rapid exchange rate movements are the result of illiquid or one-sided markets. **Policymakers should continue to rely on macroprudential policies to manage financial risks and bolster financial stability.** While asset price volatility has remained relatively low in recent months, equity valuations have become stretched (as evidenced by higher price-to-earnings ratios), house prices remain elevated in a number of economies, and as discussed above, domestic banks hold a large share of domestic corporate bonds (**Box 2**). In the event of large asset price declines, macroprudential policies could be used as an additional line of defense to cushion the blow to balance sheets and maintain appropriate levels of financial intermediation. This is particularly important if monetary space is constrained, or prolonged monetary accommodation might have contributed to the risk of house/asset price bubbles. Also, given the relatively high levels of corporate debt in the region—including a large share of "debt-at-risk" (*April 2016 Global Financial Stability Report*)—bolstering financial stability remains critical to ensure domestic demand remains a growth driver.

Capital flow measures can also be used to address risks associated with disruptive capital flows reversals. This approach will be particularly important as the global financial cycle continues to turn and domestic financial conditions tighten (**Box 1**). Moreover, although macroprudential policies and capital flow measures should take into account other policies— including the domestic financial cycle and policymakers' assessments regarding systemic risks—they should not be used as a substitute for macroeconomic adjustment.

Structural Reforms

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. Progress on reforms across the region has been uneven, but the Organisation for Economic Co-operation and Development's "reform responsiveness indicator" suggests that over the past five years China, India, and Korea have outperformed their G20 peers on reform implementation (**Figure 18**). Not surprisingly, no one-size-fits-all strategy exists, but structural reforms are critical to buttress Asia's efforts to deliver rapid, sustained, and inclusive growth.

Figure 18. Reforms Responsiveness Indicator, 2011–15



Source: Organisation for Economic Co-operation and Development.
Note: The responsiveness rate indicates the share of total policy recommendations from the OECD's "Going for Growth" reports on which the country has taken significant action.

- In China, reform efforts should continue to help the economy rebalance away from investment and credit. Further restructuring state-owned enterprises should be given high priority as it would improve the allocation and efficiency of new investment. This would help mitigate the impact of lower investment on overall growth and create room for new private-sector-led activities. In addition, this would help reduce excess capacity in some sectors (by preventing investment from "flowing" into those sectors), thwarting deflation pressure. Financial and fiscal reforms will also help improve the allocation of capital and bolster rebalancing.

- Japan should reinvigorate the reform agenda under Abenomics. This approach will remain important as reforms need to complement other demand support measures. Reforms should, among other things, mitigate the effects of aging on potential growth; reduce labor market duality to bolster wage-price dynamics together with income policies; encourage more dynamism in the corporate sector; and promote investments in new sectors, particularly in services.

- India's strong reform push in 2016 is welcome and should continue apace. Adoption of the goods and services tax is poised to boost India's medium-term growth. Greater labor market flexibility and product market competition remain essential to create jobs and raise growth. Priorities also include effective implementation of the new corporate debt restructuring mechanisms.

- Emerging market and frontier economies in Asia need to implement further reforms to speed up investment in infrastructure and increase productivity. Addressing infrastructure bottlenecks and boosting labor market formalization are critical to raising productivity. Improving access to health, education, and (in some frontier economies) financial services will help lower income inequality and make growth more inclusive. In some frontier economies, reforming banking and state-owned enterprises will also be needed to maintain rapid growth.

- In low-income countries and Pacific island countries efforts to improve the business climate are critical, including reforms to bolster infrastructure and reduce the cost of doing business. As with emerging market economies, they should continue to improve access to education and financial services. Finally, those economies should attract more FDI and increase their integration with the rest of the Asia-Pacific region.

Box 1. Financial Conditions in Asia and the Role of External Factors[1]

A financial condition index (FCI) combines financial time series to provide a summary of how macro-financial variables influence real activity. The computation of an FCI is typically based on a weighted average of high-frequency financial variables that conveys information about the current state of the real economy, as well as the availability of credit and the level of asset prices. As such, an FCI helps identify the sources of financial shocks and the strength of macro-financial linkages. In addition, while the level of the index should be interpreted with caution and might not be of particular relevance, the change in direction allows one to assess whether financial conditions are becoming tighter (or looser).

Two approaches are used to compute FCIs for major Asian economies, a simple average of financial variables and a dynamic factor model. The data used in the estimations are from 2000–16 and are sampled monthly. The approaches include a simple average of several financial variables assuming given weights and signs, and a dynamic factor model. [2] The simple average approach includes nine variables: REER (–), credit growth rate (+), spread between the three-month and policy rate (–), money growth rate (+), stock return (+), net bond issuance (+), VIX (–), sovereign premium (–), and credit spread between lending rate and bond rate (+), in which the sign in parentheses is imposed a priori in the FCI. Meanwhile, the dynamic factor model comprises about 15 variables, including interest rates and spreads, stock returns, quantity variables such as credit growth, and qualitative variables such as loan officer surveys where available (Japan and Korea). The weights are determined in the estimation.

The estimated FCIs for individual Asian economies are broadly consistent with each other and suggest close to "neutral" conditions in most economies (**Figure 1.1**).[3] The correlation coefficients between FCIs are generally high, exceeding 0.5, and in most cases average 0.8. In addition, the estimated FCIs are broadly in line with episodes of financial stress and risk-on and -off episodes—for instance,

- The FCIs show a tightening of financial conditions in the emerging market economies in the sample during risk-off episodes and in the immediate aftermath of the global financial crisis. This finding suggests the importance of looking at a broader set of financial conditions, as the monetary policy stance was generally loose across most economies, but financial conditions tightened. In some cases, such as China, government policies boosted credit growth, which contributed to an easing of financial conditions.

[1] The econometric framework is based on Box 1.4 of the April 2015 *Regional Economic Outlook: Asia and Pacific*.
[2] A vector autoregression (VAR) approach was also used, but the results were not as robust when compared with the other two approaches. The VAR included real credit growth, real stock return, real lending rate, and real effective exchange rate (REER) (as endogenous variables) and U.S. GDP growth rate and Chicago Board Options Exchange Volatility Index (VIX) (as exogenous variables). The weights in the FCI were based according to the effects of the financial variable on GDP growth.
[3] "Neutral" refers to the average FCI over the whole sample, not necessarily a model-based equilibrium level.

- The FCIs also show a tightening of financial conditions for emerging market Asian economies during the taper tantrum episode as spreads and interest rates rose sharply. In some cases, this was partly offset by exchange rate depreciations. In China's case, the FCI showed that conditions remained broadly accommodative during the global financial crisis and have been gradually moving closer to neutral.

- The case of Japan is a notable exception given safe haven flows and their impact on the yen. More specifically, during shocks to global risk aversion and tightening financial conditions for emerging markets, Japan tends to receive safe haven inflows. These on one hand tend to ease domestic financial conditions, but at the same time they appreciate the yen, contributing to a tightening.

The estimated set of FCIs is used to assess the effects of foreign and domestic policy variables on domestic financial conditions. In particular, several vector autoregressions were run, including the U.S. financial conditions index (see footnote 1 in the main text), gross portfolio inflows (normalized by quarterly cumulative inflows), and the domestic policy rate. The sample periods vary depending on data availability. In some cases, (Japan and Hong Kong SAR), policy rates are not included.

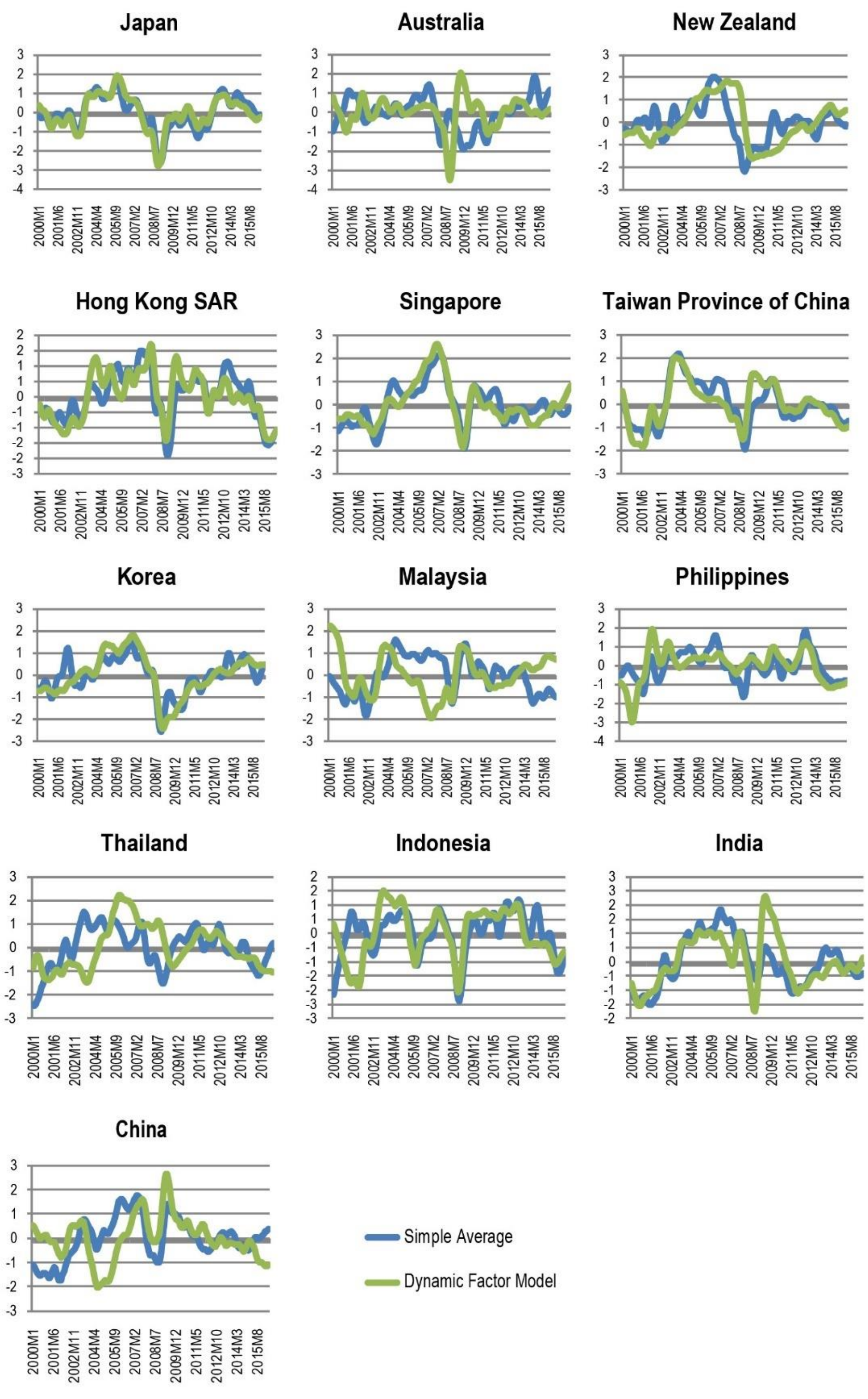
The results suggest that the effects of domestic conditions and policy rates are generally larger than the direct effect of U.S. financial conditions.

- A tightening of U.S. financial conditions generally leads to a small tightening on Asia's domestic financial conditions (on average). While the impact of U.S. financial conditions is not large in most cases, the effect of capital inflows is large and significant in a few cases (Philippines, Taiwan Province of China, Thailand), suggesting a possible channel of transmission.

- An increase in the domestic policy interest rate is also associated with a tightening of domestic financial conditions in a number of economies in Asia. This suggests some degree of broader monetary autonomy and a stronger monetary transmission mechanism.

Overall, domestic financial conditions should be monitored closely, as they reveal up-to-date information about current economic conditions. In addition, they seem to have some forecasting power for economic activity, at least over short horizons. Finally, FCIs can be useful to identify the effects of external variables on the domestic financial cycle.

Figure 1.1. Selected Asia: Estimated Financial Conditions

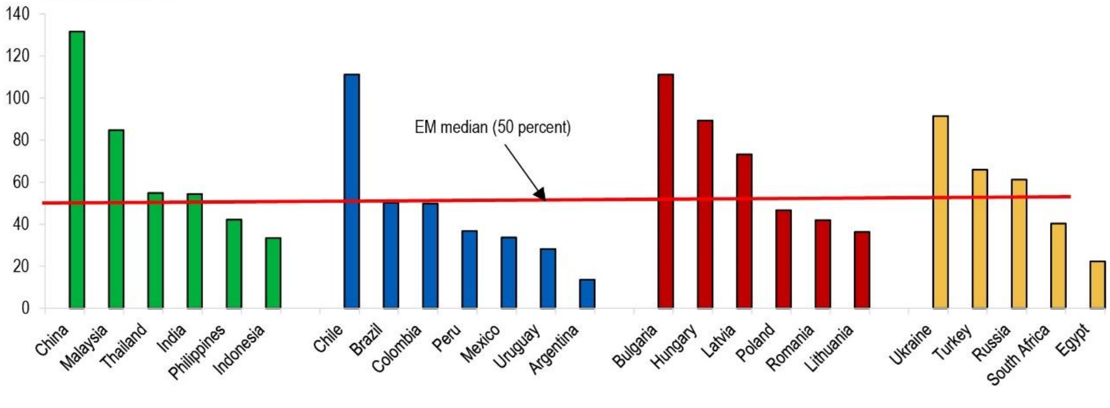


Source: IMF staff calculations.

Box 2. Investor Base of Corporate Debt in Asia[1]

Over the past decade, corporate debt has been rising across the region, most notably in emerging Asia. The increase in corporate leverage was associated with improvements in macro-fundamentals of some major emerging market economies, which experienced high inflation and current account deficits before the 2000s. The buildup of leverage was further accelerated following the global financial crisis, and as a result, corporate debt levels in Asia are usually higher than in other regions (**Figure 2.1**).

Figure 2.1. Emerging Markets: Nonfinancial Corporate Debt, end-2015
(Percent of GDP)



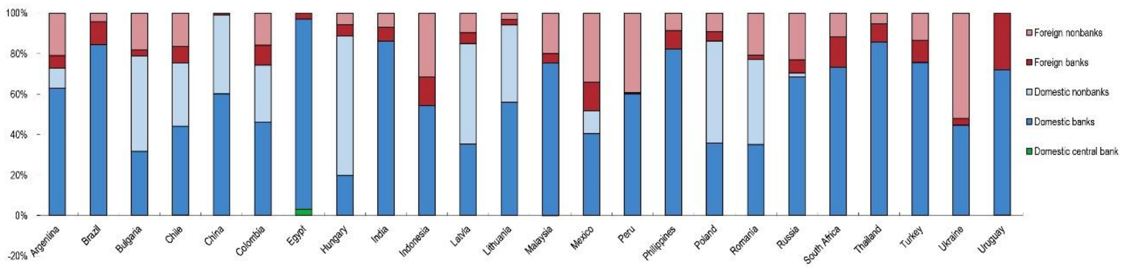
Source: Arslanalp and Tsuda, forthcoming.
Note: The figure for China excludes debt issued by local government financial vehicles (LGFVs). EM = Emerging markets.

Understanding the investor base and the holders of corporate debt is critical as historical episodes suggest that periods of rapid debt accumulation can lead to investor losses. Several studies have examined the dynamics of emerging market corporate debt by instrument (bonds and loans), currency denomination (domestic and foreign currency), firm size (large corporations and small and medium-sized enterprises), and sector (IMF 2015). However, analysis of the investor base of total corporate debt remains scarce thus far, partly due to lack of readily available, internationally comparable data. Notably, different types of investors have different risk-return preferences: for instance, foreign investors may be driven more by global factors than domestic investors, while banks and nonbanks (pension funds, insurance companies, asset management companies) are subject to different regulatory frameworks and face different liquidity and credit constraints, leading to different degrees of refinancing risk for corporates.

This box extends the sovereign investor base analysis by Arslanalp and Tsuda (2014a, b) to shed light on the investor base of emerging market corporate debt. In particular, the investor base is classified into five different categories—domestic banks, domestic nonbanks, domestic central banks, foreign banks, and foreign nonbanks. The constructed data set covers 24 emerging market economies from 2004 to 2015 on a quarterly basis (**Figure 2.2**).

[1] Prepared by Serkan Arslanalp and Takahiro Tsuda.

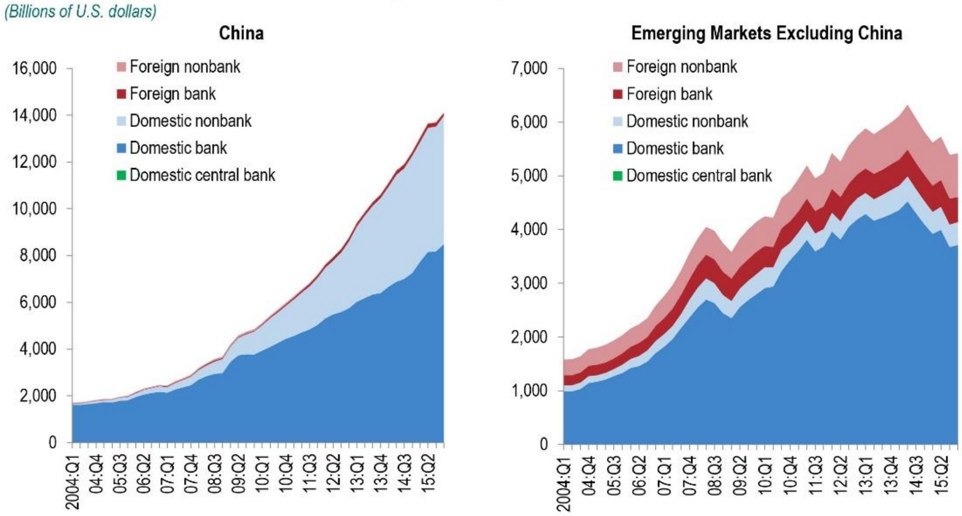
Figure 2.2. Holders of EM Corporate Debt at end-2015
(Percent of total)



Source: Arslanalp and Tsuda, forthcoming, "Tracking Global Demand for Emerging Markets Corporate Debt," IMF Working Paper.
Note: EM = Emerging markets.

Since 2004, emerging market nonfinancial corporate debt has increased steadily from US$4 trillion to US$20 trillion (Figure 2.3). The bulk of the increase was in China, where corporate debt amounted to US$14 trillion and accounted for more than 70 percent of the total emerging market corporate debt outstanding at the end of 2015. Domestic banks are still dominant players, but domestic nonbank investors have grown steadily. For most countries, the portion of corporate loans out of total bank assets has not changed much, implying domestic banks remain stable sources of funding. Foreign investors, while growing, still play a marginal role in China. On the other hand, emerging markets excluding China experienced a different pattern. All investor types reduced their exposure during market turmoil periods, including the global financial crisis and the taper tantrum. The recent sharp drop in domestic bank holdings suggests both a structural and cyclical slowdown of emerging market growth and corporate debt issuance.

Figure 2.3. Holders of EM Nonfinancial Corporate Debt, 2004–15
(Billions of U.S. dollars)



Source: Arslanalp and Tsuda, forthcoming.
Note: The figure for China excludes debt issued by local government financial vehicles (LGFVs). EM = Emerging markets.

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