Challenges from rising headwinds

Developing Asia posted strong but moderating growth in 2018, and this trend will continue into 2019 and 2020. Growth weakened slightly from 6.2% in 2017 to 5.9% in 2018 as global trade and economic activity softened and as trade tensions persisted. The region’s two largest economies, the People’s Republic of China (PRC) and India, both saw growth dip slightly to still-robust rates thanks to strong consumption growth. Inflation in the region edged up from 2.2% in 2017 to 2.5% on rising food and oil prices but remained low by historical norms. Trade growth remained strong in the first half of 2018 but slowed toward year-end as global economic activity softened and trade tensions between the United States and the PRC escalated (Figure 1.0.1).

The outlook for developing Asia is for continued deceleration. The region is expected to grow by 5.7% in 2019 and 5.6% in 2020 (Figure 1.0.2). Growth in the PRC is expected to continue moderating to 6.3% in 2019 and 6.1% in 2020 as the economy matures and as measures to control financial risks are maintained. In India, growth is expected to pick up to 7.2% and 7.3% in response to more accommodative policies. For most subregions except the Pacific, growth is expected to stay flat or decline slightly.

The main risk to the outlook is still the ongoing trade conflict, as heightened trade policy uncertainty can negatively affect investment and manufacturing activity. A sharper slowdown in the advanced economies or the PRC is another risk. A rapid hike in the US policy rate is now less likely. But the risk of financial volatility remains, and this can affect domestic financial conditions. In sum, persistent headwinds that slowed growth in 2018 will continue to shape the region’s economic performance in 2019 and 2020.
Softening growth amid prolonged trade tensions

After stellar growth in 2017 at 6.2%, developing Asia slowed slightly to 5.9% in 2018 as rising trade tensions generated stiffening headwinds. This slowdown occurred in tandem with a slowdown in the major industrial economies of the US, the euro area, and Japan, where composite growth moderated slightly from 2.3% in 2017 to 2.2%. Expansion in the two largest economies in developing Asia decelerated, with growth in the PRC declining from 6.8% in 2017 to 6.6% in 2018 and in India from 7.2% to 7.0%. Excluding the newly industrialized economies (NIEs), GDP growth in 2018 was down from 6.6% in 2017 to 6.4%. Growth decelerated in 28 economies in the region, or 62% of them, and accelerated in 14, or 31%, with Bangladesh leading the pack as growth at 7.3% in 2017 accelerated to 7.9%. Solid growth momentum in the first 3 quarters of 2018 started to fade in the last few months, the weakness most evident in exports (Figure 1.1.1A). This trend was clearest in the PRC, the NIEs, and five larger economies in the Association of Southeast Asian Nations (ASEAN-5). Growth in industrial production also showed some signs of weakening (Figure 1.1.1B).

Key drivers of growth

Much of the impetus for growth in 2018 on the demand side came from consumption, while export growth slowed. On average, the consumption contribution to growth rose from 3.4 percentage points in 2017 to 3.7 points in 2018 (Figure 1.1.2). Net exports subtracted from GDP growth in 7 of the 11 larger economies in the sample, reflecting slowing export growth as the external environment weakened, as well as rising imports with higher oil prices.

Investment spurred growth in some economies but dragged on growth in others. In 2018, the contribution of investment to growth picked up in Indonesia; the Philippines; Taipei, China; and Thailand (Figure 1.1.3). This reflected increased public investment as governments launched initiatives for infrastructure and new technology, as well as private investment funded by foreign direct investment (FDI), particularly in Indonesia and Thailand (Section 1.1.6). Meanwhile, the contribution to growth from investment declined notably in Malaysia, the Republic of Korea (ROK), and Singapore.

### 1.1.1 Growth in exports and industrial production, selected economies

Export growth in developing Asia was strong in 2017 and most of 2018 but lost momentum in the last months of 2018...

**A. Exports growth**

<table>
<thead>
<tr>
<th></th>
<th>Jan 2015</th>
<th>Jan 2016</th>
<th>Jan 2017</th>
<th>Jan 2018</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIEs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASEAN-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

% change year on year, 3-month moving average

...while growth in industrial production moderated.

**B. Industrial production**

<table>
<thead>
<tr>
<th></th>
<th>Jan 2015</th>
<th>Jan 2016</th>
<th>Jan 2017</th>
<th>Jan 2018</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIEs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASEAN-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

% change year on year, 3-month moving average

1.1.2 Demand-side contributions to growth, selected economies

The impetus for growth in 2018 came from consumption, while net exports subtracted from growth in most economies.

<table>
<thead>
<tr>
<th>Percentage points</th>
<th>Consumption</th>
<th>Investment</th>
<th>Net exports</th>
<th>GDP growth</th>
<th>Net exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>6.8</td>
<td>7.0</td>
<td>3.1</td>
<td>2.7</td>
<td>3.1</td>
</tr>
<tr>
<td>2018</td>
<td>6.6</td>
<td>3.1</td>
<td>3.2</td>
<td>2.6</td>
<td>3.1</td>
</tr>
<tr>
<td>2019</td>
<td>5.1</td>
<td>5.2</td>
<td>5.9</td>
<td>4.7</td>
<td>6.2</td>
</tr>
<tr>
<td>2020</td>
<td>4.0</td>
<td>4.1</td>
<td>4.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ASEAN = Association of Southeast Asian Nations, FY = fiscal year, HKG = Hong Kong, China, IND = India, INO = Indonesia, MAL = Malaysia, NIEs = newly industrialized economies, PHI = Philippines, PRC = People’s Republic of China, ROK = Republic of Korea, SIN = Singapore, TAP = Taipei, China, THA = Thailand, VIE = Viet Nam. Notes: Data for India are in fiscal years ending March of the next year. Components do not sum to GDP growth because statistical discrepancy was excluded. Sources: Haver Analytics (accessed 25 March 2019); ADB estimates.

In Malaysia, the investment decline resulted partly from private investors waiting out an election and partly from some major public investment projects being put on hold. In the ROK and Singapore, a slowdown in private investment was the main factor, reflecting a decline in confidence as the external environment weakened.

The loss in momentum during 2018 was evident in consumer confidence and retail sales and also in business confidence in several economies. Consumer confidence declined through most of 2018 in the PRC, the ROK, and Taipei, China (Figure 1.1.4A). Lower consumer confidence in East Asia manifested itself in retail sales, which followed a similar pattern (Figure 1.1.4B). In Southeast Asia, however, growth in retail sales held steady or increased in 2018, except in Singapore. Rising consumer confidence in India played a key role in raising domestic demand and creating a positive outlook for 2019.

1.1.3 Change in the investment contribution to growth, 2018 versus 2017

Investment boosted growth in some economies but dragged on growth in others.

<table>
<thead>
<tr>
<th>Percentage points</th>
<th>Taipei, China</th>
<th>Philippines</th>
<th>Indonesia</th>
<th>Thailand</th>
<th>People’s Rep. of China</th>
<th>India</th>
<th>Viet Nam</th>
<th>Hong Kong, China</th>
<th>Malaysia</th>
<th>Singapore</th>
<th>Republic of Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1.7</td>
<td>1.4</td>
<td>1.0</td>
<td>0.9</td>
<td>-0.0</td>
<td>-0.2</td>
<td>-0.4</td>
<td>-0.8</td>
<td>-2.9</td>
<td>-3.5</td>
<td>-3.7</td>
</tr>
<tr>
<td>2018</td>
<td>-2.0</td>
<td>0.0</td>
<td>2.0</td>
<td>0.0</td>
<td>1.7</td>
<td>1.4</td>
<td>1.0</td>
<td>0.9</td>
<td>-0.8</td>
<td>-3.5</td>
<td>-3.7</td>
</tr>
</tbody>
</table>

Sources: Haver Analytics (accessed 8 March 2019); ADB estimates.
1.1.4 Consumer confidence and retail sales, selected economies

Fading momentum was evident in consumer confidence in East Asia, but less so in Southeast Asia... and trends in consumer confidence were mirrored by retail sales, with slower growth in the second half of 2018.

A. Consumer confidence

East Asia and India

- India
- People's Republic of China
- Republic of Korea
- Taipei, China

% change year on year

-20  10  0  10
Jan 2016 Jul 2017 Jan 2018 Jul 2018 Dec

Southeast Asia

- Indonesia
- Malaysia
- Thailand
- Philippines

% change year on year

-20  80  60  40  20  0
Jan 2016 Jul 2017 Jan 2018 Jul 2018 Dec

B. Retail sales

East Asia

- People's Republic of China
- Republic of Korea
- Hong Kong, China
- Taipei, China

% change year on year, 3-month moving average

-10  10  0
Jan 2016 Jul 2017 Jan 2018 Jul 2018 Dec

Southeast Asia

- Indonesia
- Malaysia
- Thailand
- Singapore

% change year on year, 3-month moving average

-30  30  60  90  120  150  180
Jan 2016 Jul 2017 Jan 2018 Jul 2018 Dec

Note: Data unavailability and inconsistency exclude Central Asia, the Pacific, and some other smaller economies from this analyses, as well as South Asia except for India’s inclusion in consumer confidence. Data are quarterly for India, Malaysia, and the Philippines, for the last of which the consumer confidence index measures positive or negative consumer household expectations.

Sources: Haver Analytics; CEIC Data Company (both accessed 31 January 2019).

Reflecting trends in consumer confidence and retail sales in 2018, business expectations deteriorated in East Asia but not in Southeast Asia (Table 1.1.1). In the PRC, the ROK, and Taipei, China, the purchasing managers’ index (PMI) was its lowest in 2 years, with muted business plans reflecting weaker external demand and an ongoing downcycle in electronics. Meanwhile, Southeast Asia showed signs of continued expansion in manufacturing, with a PMI over 50 in the latest available quarter. In India, the only economy in South Asia for which PMI data are available, continued strength in manufacturing was evident throughout 2018.
Growth by subregion

Growth in East Asia remained broadly in line with expectations, moderating from 6.2% in 2017 to 6.0% in 2018 (Figure 1.1.5). Tighter financial conditions and trade tensions between the PRC and the US weighed on economic activity in the subregion’s major economies. The PRC, which accounts for three-fifths of the subregion’s economic activity, saw continued moderation to a more sustainable growth rate that reflected efforts to contain financial risk and restrictions to cool the housing market—but also uncertainty about trade policy and prospects. The ROK grew at a slower pace in 2018, down from 3.1% in 2017 to 2.7%, with a decline in fixed investment and tighter property financing to cool the real estate market. In Hong Kong, China, growth decelerated from 3.8% in 2017 to 3.0% as private spending and external demand weakened. Taipei, China continued to bear the brunt of the slowdown in the PRC and of heightened trade tensions between the PRC and the US, with growth slowing from 3.1% in 2017 to 2.6%. Mongolia, on the other hand, was buoyed by strong investment and posted robust growth acceleration from 5.3% in 2017 to 6.9% in 2018.

In South Asia, growth decelerated slightly from 6.9% in 2017 to 6.7% as all economies in the subregion except Bangladesh and Maldives expanded more slowly. Growth in India slipped by 0.2 percentage points to an estimated 7.0% with weaker private consumption. Meanwhile in Sri Lanka, continued fiscal and structural reform slowed growth from 3.4% in 2017 to 3.2%.

1.1.5 Growth by subregion, 2016 to 2018

With the exception of Central Asia, growth in 2018 edged downward across the region.

Source: Asian Development Outlook database.
Growth in Pakistan edged lower from 5.4% in 2017 to 5.2% as the country continued to grapple with its large current account deficit. Growth in Nepal slowed from 7.9% in 2017 to 6.3% in 2018 as agriculture suffered under poor weather. In Bangladesh, however, growth remained buoyant, accelerating from 7.3% in 2017 to 7.9% in 2018 on strong domestic demand and growth in remittances.

Southeast Asia ended 2018 on a fairly solid footing with average growth coming in at 5.1%, lower than in 2017. Strong exports and domestic demand pushed growth up to 7.3% in Cambodia and 7.1% in Viet Nam. By contrast, weaker exports and domestic demand dragged down growth in Malaysia from 5.9% in 2017 to 4.7% and in Myanmar from 6.8% to 6.2%. Meanwhile, robust domestic demand more than offset weaker exports to drive growth higher to 5.2% in Indonesia and 4.1% in Thailand. Elsewhere in the subregion, weaker external demand trimmed growth in the Philippines from 6.7% in 2017 to 6.2% and in Singapore from 3.9% to 3.2%, while domestic factors slowed growth in the Lao People's Democratic Republic.

Growth in Central Asia exceeded expectations in 2018, rising from 4.2% in 2017 to 4.4%, thanks to a recovery in energy and mining that boosted expansion in Azerbaijan and Uzbekistan. Expansion in Tajikistan accelerated from 7.1% in 2017 to 7.3% thanks to continued strong public investment and higher remittances. However, growth in Armenia slowed from an exceptionally strong 7.5% in 2017 to 5.2% with lower industry production and contraction in agriculture. In the Kyrgyz Republic, lower output in mining and manufacturing slowed growth to 3.5% in 2018. In Turkmenistan, growth slowed as fiscal consolidation trimmed expansion outside of the large hydrocarbon economy. Growth was unchanged in Georgia at 4.8% and in Kazakhstan at 4.1%.

In the Pacific, growth fell from 2.4% in 2017 to 0.9% in 2018 after a devastating earthquake slashed growth in Papua New Guinea, the dominant economy in the subregion, to only 0.2%. Growth slowed as well in Solomon Islands as log exports and fish catches slumped. Timor-Leste contracted again in 2018, though less than in 2017. Meanwhile, Fiji was able to maintain 3.0% growth thanks to robust tourism receipts.

**India continues to outpace the PRC**

The region’s two largest economies continued their robust growth in 2018, albeit at slightly lower rates than in 2017. Domestic demand remains the main growth driver in both the PRC and India, with consumption contributing about 5 percentage points to growth in each country in 2018 (Figure 1.1.6).

Economic growth in India slowed to 7.0% in fiscal 2018 (FY2018, ended 31 March 2019), slightly down from 7.2% in FY2017. The slowing reflected subdued agriculture, which grew by only 2.7%, the lowest in 3 years. Food grain production was robust but slightly below the harvest in the previous year, mainly from a shortfall in cereals and pulses. Services also slowed to 7.4%,
their lowest growth rate in 7 years. Small and medium-sized enterprises, which account for a large part of this sector, may have struggled to comply with new regulations under the goods and services tax (GST), undermining the sector’s performance. In contrast, growth in industry sharply increased to 7.7% in FY2018, owing to strong manufacturing, construction, and utilities.

On the demand side, private consumption was the main driver of India’s growth in FY2018. It grew by 8.3%, the highest rate in 7 years, despite rural consumption remaining sluggish under subdued crop prices, slow growth in rural wages, and stress on nonbank lenders. Consumption is likely to have received impetus from reduced GST rates across a wide range of commodities during the year and a cut in key monetary policy rates. Government consumption slowed, as expected, because of tightened finances. Gross fixed capital formation grew by a robust 10% in FY2018, sustained by 20.3% growth in central government capital expenditure as investment in roads, railways, and urban infrastructure remained strong. Private investment is estimated to have increased a bit, reflecting a pickup in lending to industry, an uptick in capacity utilization, and increased production of capital goods.

The PRC saw growth slow from 6.8% in 2017 to 6.6% in 2018, in line with the government’s growth target of around 6.5%. Growth moderation is partly structural as the PRC economy matures. But it also reflected rising trade tensions with the US combined with domestic efforts to manage risks in the financial sector as well as tighter fiscal policy in the first half of the year.
Consumption growth accelerated from 7.5% in 2017 to 9.6% in 2018, supported by a rapid increase in government social spending, a cut in personal income tax, and solid growth in household disposable income. But the contribution of investment to growth slipped, as local governments tightly controlled expenditure, both on budget and off budget, in the first 9 months of 2018. Growth in infrastructure investment plummeted from 19.0% in 2017 to 3.8% in 2018. Exports rose in the PRC partly because shipments were frontloaded ahead of the imposition of tariffs, but growth in merchandise imports accelerated even more, so that net exports subtracted 0.6 percentage points from growth.

On the supply side, services remained the main driver of PRC growth, despite slowing from 7.9% growth in 2017 to 7.6% last year. Growth was strong in transport, in leasing and commercial services, and in information technology services, while financial and real estate services remained weak. Growth of industry including construction and mining moderated marginally from 5.9% in 2017 to 5.8% in 2018. Strong increases in consumer, high-tech, and export-oriented manufacturing partly offset deceleration in mining and raw materials, where retrenchment targets reined in production.

The PMI, which is a forward-looking indicator of health in manufacturing, suggests the trajectories of the two economies may be diverging (Figure 1.1.7). The most recent data for India indicate that India's PMI surged to a 14-month high of 54.3 in February 2019, distinguishing it from the rest of developing Asia (Table 1.1.1). In the PRC, by contrast, the PMI declined for much of 2018, as export growth slowed, to reach its lowest reading in 34 months, though still averaging 50.7 in the whole of 2018, slightly above the threshold at 50 indicating expansion.

### Tighter monetary policy in response to currency depreciation

Many currencies in developing Asia depreciated against the US dollar in 2018. This reflected a steady increase in the federal funds rate set by the US Federal Reserve and jitters in emerging markets caused by problems in Argentina and Turkey. Currencies that experienced especially deep depreciation against the US dollar were the Indian rupee, Indonesian rupiah, and Philippine peso (Figure 1.1.8). The Indonesian rupiah hit a 20-year low against the US dollar, and the Philippine peso a 13-year low. By late 2018, most currencies had stabilized, and since then several have appreciated, but bouts of currency turmoil could recur (Box 1.1.1). In response to currency depreciation against the US dollar, many central banks in developing Asia raised policy rates during the year, with India, Indonesia, and the Philippines raising their benchmark interest rates the most (Table 1.1.2).
1.1.8 Exchange rate against the US dollar in selected economies, January 2018 = 100

Many countries in developing Asia saw their currencies depreciate sharply against the US dollar, though with some reversal toward the end of 2018...


1.1.2 Policy rates, selected economies in developing Asia

...Partly in response to this, countries in the region tightened their monetary policies.

<table>
<thead>
<tr>
<th>Countries</th>
<th>Latest policy rate (as of 31 Dec 2018)</th>
<th>Change from 2017, same period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% per annum</td>
<td>Date of decision</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>2.75</td>
<td>20 Dec 2018</td>
</tr>
<tr>
<td>India</td>
<td>6.50</td>
<td>19 Dec 2018</td>
</tr>
<tr>
<td>Indonesia</td>
<td>6.00</td>
<td>20 Dec 2018</td>
</tr>
<tr>
<td>Japan</td>
<td>-0.10</td>
<td>19 Dec 2018</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>9.25</td>
<td>4 Dec 2018</td>
</tr>
<tr>
<td>Malaysia</td>
<td>3.25</td>
<td>8 Nov 2018</td>
</tr>
<tr>
<td>Pakistan</td>
<td>10.00</td>
<td>30 Nov 2018</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>6.25</td>
<td>30 Sep 2018</td>
</tr>
<tr>
<td>People’s Republic of China</td>
<td>4.35</td>
<td>27 Dec 2018</td>
</tr>
<tr>
<td>Philippines</td>
<td>4.75</td>
<td>13 Dec 2018</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>1.75</td>
<td>30 Nov 2018</td>
</tr>
<tr>
<td>Singapore</td>
<td>127.19</td>
<td>12 Oct 2018</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>8.00</td>
<td>27 Dec 2018</td>
</tr>
<tr>
<td>Taipei, China</td>
<td>1.38</td>
<td>20 Dec 2018</td>
</tr>
<tr>
<td>Thailand</td>
<td>1.75</td>
<td>19 Dec 2018</td>
</tr>
</tbody>
</table>

*■ = no change, ▲ = increase, ▼ = decrease.
*The Reserve Bank of India hiked its policy rate by 25 basis points on 6 Jun 2018 and 1 Aug 2018.
*Pakistan increased its rate by 50 basis points on 25 May 2018, 100 points on 14 Jul 2018 and 29 Sep 2018, and 150 points 30 Nov 2018.
*Bank of Korea raised the policy rate by 2 basis points on 30 Nov 2018.
*Singapore manages monetary policy by tweaking the exchange rate, rather than with the interest rate, letting the nominal effective exchange rate rise or fall within an undisclosed policy band. It adjusted upward its policy rate on 13 Apr 2018 and 12 Oct 2018.
*Sri Lanka hiked its policy rate by 75 basis points on 13 Nov 2018.
*Thailand increased its policy rate by 25 basis points on 19 Dec 2018.

Sources: Haver Analytics; CEIC Data Company; and Central bank websites (all accessed 8 March 2019).
1.1.1 Are emerging market currencies out of the woods?

Last year witnessed a great deal of instability in foreign exchange markets, epitomized by sharp depreciation of the Turkish lira and Argentine peso. The instability, driven by the US Federal Reserve’s repeated interest rate hikes, raised concerns about broader risk aversion toward emerging markets. In recent months, a measure of stability has returned to emerging markets, but it remains unclear how long the calm will last.

Emerging market currencies on the rebound

The Turkish lira and Argentine peso have both stabilized since the fourth quarter (Q4) of 2018. Forceful interest rate hikes by the Central Bank of Turkey seem to have restored investor confidence in that economy. In Argentina, expansion and acceleration of an International Monetary Fund loan package and the government’s commitment to fiscal consolidation arrested the peso’s fall. Despite clear improvement in investor sentiment toward both economies, they still suffer under substantial macroeconomic imbalances and remain vulnerable to shocks. In line with the stabilization of the lira and peso, the currencies of emerging markets as a whole have performed noticeably better since Q4 of 2018 (box figure 1). Broadly speaking, emerging market currencies fell sharply during Q2 of 2018, bottomed out in Q3, and rebounded in Q4. To a large extent, according to the International Institute of Finance, depreciation reflected correction of exchange rate misalignment that prevailed at the beginning of the year. Since misalignment has been largely corrected, emerging market currencies are now showing greater stability.

1 MSCI Emerging Markets Currency Index

MSCI = Morgan Stanley Capital International.

Notes: MSCI Emerging Market Currency Index measures the total return of 25 emerging market currencies relative to the US dollar where the weight of each currency is equal to its country weight in the MSCI Emerging Markets Index. Data are from 1 January 2018 to 1 March 2019.


2 Indian rupee and Indonesian rupiah versus the US dollar

Emerging Asian currencies recover as well

Relatively strong fundamentals are giving a fillip to emerging market currencies. Emerging Asian economies in particular enjoy relatively healthy fundamentals and are thus well positioned to withstand shocks. For example, inflation is below 4% in the two major Asian markets that came under the most pressure during emerging market currency turmoil in 2018: India and Indonesia. The same two economies also suffered the most volatility during the “taper tantrum” of 2013. In line with broader recovery of emerging market currencies, both the Indian rupee and Indonesian rupiah rebounded since Q4 of 2018 (box figure 2). Although India and Indonesia are still burdened with twin deficits in their fiscal and current accounts, the magnitude of these deficits is manageable. In addition to relatively strong fundamentals, the two economies have benefited from decisive policy action to stabilize financial markets. The Reserve Bank of India and Bank Indonesia each aggressively hiked their benchmark interest rates in Q2 and Q3 of 2018 to defend their currencies and stave off inflationary pressures.

Fragile but improving outlook for financial stability in developing Asia

Notwithstanding a notable trend toward more stable emerging market exchange rates since Q4 of 2018, global financial markets remain febrile and vulnerable to shocks. Global trade tensions, especially tensions between the PRC and the US, the world’s two biggest economies, have not yet been resolved, casting a shadow over the global economic outlook...
and financial stability. Although the effects of trade tensions seem to be limited so far, their persistence creates uncertainty and thus may yet harm economic growth. Uncertainty over trade and more generally global growth prospects contributed to severe volatility in the US stock market in December. Risk aversion toward emerging markets is therefore likely to remain elevated. As noted above, the most vulnerable emerging markets still suffer from imbalances. Lingering vulnerability helps explain why emerging market credit spreads remain elevated even though they are trending down (box figure 3).

Therefore, in light of the heightened uncertainty surrounding global growth prospects partly because of the unsettled status of the US–PRC trade conflict, and considering the unsettling effect this is having on global financial markets, it is premature to say that emerging markets are completely out of the woods. Furthermore, going forward, there is a great deal of uncertainty surrounding the trajectory of US monetary policy, which may destabilize emerging-market exchange rates (Box 1.1.5). Nevertheless, on balance, the foreign exchange markets of emerging economies, including those in Asia, are unlikely to be as volatile in 2019 as they were in 2018. One reason for confidence is that the most vulnerable economies have implemented various measures to promote financial stability, including fiscal consolidation and monetary tightening. The stabilizing effects of such confidence-building measures will persist into the near future.

Major equity markets across the region declined in 2018 (Figure 1.1.9). The worst performing equity markets were in the PRC, as the major indexes in Shanghai and Shenzhen suffered annual losses of close to 25%. All 10 sectors in Shanghai stock index declined in 2018, with some of the sharpest drops in the technology sector. The story was different in India, where equity markets were among the best performers among emerging markets.

Subdued inflation despite rising oil prices

Despite rising oil prices and currency depreciation, inflation remained subdued in developing Asia at 2.5% in 2018 (Figure 1.1.10). A recent spike in food prices and higher prices for health care, education, and rent all put upward pressure on consumer prices in the PRC, which pushed up inflation in East Asia from 1.6% in 2017 to 2.0% in 2018.
Inflation declined in other subregions, most notably from 9.0% to 7.9% in Central Asia.

The subregion with the highest inflation rate, Central Asia, saw inflation slow in 2018 because of decreases in Azerbaijan and Kazakhstan (Figure 1.1.11). In Kazakhstan, Central Asia’s biggest economy, inflation decelerated from 7.4% in 2017 to 6.0% in 2018 as food price inflation slowed sharply from 8.6% in 2017 to 5.1% and increases for other goods slowed from 8.4% to 7.8%. In Azerbaijan, inflation plunged from 12.9% in 2017 to 2.3% in 2018 as higher oil prices and monetary tightening stabilized the exchange rate, thereby minimizing pass-through to domestic prices.

Trade remained buoyant but lost momentum at the end of 2018

Following a sharp rise in 2017, external demand moderated in 2018. Excluding the newly industrialized economies (NIEs), growth in both exports and imports was higher, reflecting how the US–PRC trade conflict and the global down cycle in the semiconductor industry depressed business sentiment in the NIEs. About 40% of aggregate NIE exports in 2018 went to the PRC and the US, while as much as two-thirds of their global exports were in electronics, one of the industries hardest hit by the trade conflict.

Growth in exports across the region moderated in most economies (Figure 1.1.12). Exports began strong in the first half of 2018 in most economies—partly reflecting frontloading ahead of tariff hikes—but moderated toward the end of the year as export orders and manufacturing slowed. On balance, growth in regional exports slowed from 11.3% in 2017 but still expanded by 7.9% in 2018. Exports slowed in every subregion except the Pacific. Export growth held up well in Central Asia, continuing double-digit expansion recorded in 2017, as commodity exporters benefited from the rise in global fuel prices and notable recovery in the Russian Federation, the subregion’s largest trade partner. It decelerated in East Asia from 9.9% to 7.6% largely from the downturn in electronics, which caused declines in Hong Kong, China; the ROK; and Taipei, China. Growth in PRC exports accelerated from 6.5% in 2017 to 8.5% on higher exports of manufactures, particularly machinery and transport equipment, partly reflecting frontloading ahead of the imposition of tariffs. Exports surged in the first half of 2018 in Southeast Asia as manufacturers ramped up production and shuffled their production networks to the region ahead of escalating US–PRC trade tension. However, this growth trend reversed in the second half as factory activity declined and some...
large economies suffered supply interruptions. Deceleration in South Asia, from 11.7% to 7.9%, reflected lower exports from Pakistan and soft recovery in India. By product, exports of manufactures remained steady, while shipments of commodities and primary goods halved in 2018 despite a huge bump in mid-2018 (Figure 1.1.13).

As in exports, growth in imports decelerated across the region from 15.1% in 2017 to 11.5% in 2018, reflecting waning imports to the region’s largest economies.
Much of the deceleration reflected lower imports of commodities and primary products—particularly in the 10 large economies of East, South, and Southeast Asia that produce about 90% of regional output—though these products were only about 30% of all regional imports in 2018. Imports of manufactures, the bulk of imports to these 10 economies, remained strong, expanding by 10.3%, almost unchanged from 2017. The drop in imports of primary goods to the PRC came largely from a significant decline in imported mineral fuels. Elsewhere, external demand exhibited a similar trend, in line with deceleration in global trade volume from 4.7% in 2017 to 3.3% in 2018, except in Central and Eastern Europe, where exports maintained steady growth in 2018, buoyed by strong shipments in oil-exporting economies (Figure 1.1.14).

**Growth outlook moderates**

Developing Asia is projected to grow by 5.7% in 2019 and 5.6% in 2020. Excluding the NIEs, growth will taper from 6.4% in 2018 to 6.2% in 2019 and 6.1% in 2020. The declines in trade, sentiment, and activity seen in the fourth quarter (Q4) of 2018 will continue affecting the most open economies in the region, the NIEs and ASEAN countries in particular.
1.1.14 Real growth in exports and imports, by selected regions

Slower trade toward the end of 2018 was evident in other parts of the world as well, in both nominal and real terms.

![Graph showing real exports and imports growth]

Notes: Export and import volume and price per unit values in US dollars are indexed to 2010 (2010 = 100). The advanced economies are Australia, Bulgaria, Canada, Croatia, the Czech Republic, Denmark, the euro area, Hungary, Iceland, Japan, New Zealand, Norway, Poland, Romania, Sweden, Switzerland, Turkey, the United Kingdom, the United States, and the Former Yugoslav Republic of Macedonia. Central and Eastern Europe are Belarus, Kazakhstan, the Russian Federation, and Ukraine. Emerging Asia are Hong Kong, China; India; Indonesia; Malaysia; Pakistan; the People’s Republic of China; the Philippines; the Republic of Korea; Singapore; Taipei,China; Thailand; and Viet Nam.


Declining oil prices will affect oil exporters directly—and other Central Asian economies indirectly through lower growth in the Russian Federation—and will likely weigh on growth in that subregion throughout 2019. Growth in Q1 of 2019 is expected to be further muted but will recover somewhat toward the latter half of 2019 and in 2020. Private consumption will continue to be the driver of growth in most of developing Asia’s large economies.

The baseline assumes that external demand will continue to weaken over the outlook period as growth slows in the advanced economies. Aggregate growth in the advanced economies should moderate from 2.2% in 2018 to 1.9% in 2019 and 1.6% in 2020 (Table 1.1.3), with slower global trade acting as a drag. The US will slow the most, from 2.9% in 2018 to 2.4% in 2019 and 1.9% in 2020, in part as the impact of fiscal stimulus in 2018 wears off, though consumption growth should remain healthy as wage income rises.

In the European Union, growth will slow slightly amid weaker economic sentiment. In Japan, a slight pickup in consumption demand ahead of higher taxes will boost growth slightly in 2019, but the trade slowdown will weigh on manufacturing growth. Inflation in the advanced economies will remain steady at 1.9% over the outlook period.
The resulting slowing growth in external demand will weigh on developing Asia’s expansion, but growth will remain robust. Domestic demand is expected to remain strong and offset much of the slowdown in external demand. Despite their high trade dependence, many East and Southeast Asian countries have reached a stage of development where household consumption can be a stable and leading driver of growth (Figure 1.1.2).

Much of the expected slowdown in regional growth in 2019 reflects growth moderation in the PRC. The downward trend in GDP growth is expected to persist as uncertainties pertaining to trade tensions with the US continue to weigh on consumption, investment, and trade. Growth in the PRC should slow to 6.3% in 2019 and moderate further to a more sustainable 6.1% in 2020, reflecting ongoing efforts to contain risks in the financial sector. Fiscal policy should remain supportive through greater social expenditure, targeted programs to support employment, and lower value-added tax rates for manufacturers, transportation firms, and utilities, among others. On the demand side, private consumption will remain the main driver of growth, but less so as growth in household income slows. Relaxed real estate restrictions expected in 2019, and continued industrial upgrading, should help keep investment in manufacturing growing but at a slower pace, owing to declining profits in manufacturing and less dynamic external trade. Accommodative PRC monetary policy so far in 2019 will continue, aiming to prevent any sharp deceleration in growth, even if the tradeoff is a lower growth rate than in 2018. While restrictions on shadow bank financing—the main alternative financing vehicle for small and medium-sized enterprises—are expected to continue through 2019 and 2020, they may be relaxed to allow a more gradual reduction in the volume of outstanding shadow credit.

### 11.3 GDP growth in the major advanced economies

<table>
<thead>
<tr>
<th></th>
<th>2017 Actual</th>
<th>2018 Actual</th>
<th>ADO 2019 Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major industrial economies(^a)</td>
<td>2.3</td>
<td>2.2</td>
<td>1.9</td>
</tr>
<tr>
<td>United States</td>
<td>2.2</td>
<td>2.9</td>
<td>2.4</td>
</tr>
<tr>
<td>Euro area</td>
<td>2.5</td>
<td>1.8</td>
<td>1.5</td>
</tr>
<tr>
<td>Japan</td>
<td>1.9</td>
<td>0.8</td>
<td>0.8</td>
</tr>
</tbody>
</table>

\(^a\) Average growth rates are weighed by gross national income, Atlas method.

ADO = Asian Development Outlook, GDP = gross domestic product.

In India, growth is poised to pick up over the outlook period, as South Asia’s largest economy is less exposed than other Asian economies to the slowdown in manufacturing trade. Growth is projected to step up from 7.0% in 2018 to 7.2% in 2019 and 7.3% in 2020, with domestic demand still the main driver. Rural income and consumption will enjoy policy boosts from enhanced income support to farmers and hikes in procurement prices for food grains, while interest rate cuts and soft food and fuel prices will bolster consumption in urban areas. Consumer sentiment will remain strong, and private sector investment will likely grow at a healthy pace, as business surveys indicate upbeat trends in confidence and credit availability. Net exports are expected to drag less on growth as lower oil and commodity prices restrain import growth and a more competitive exchange rate helps exports.

Growth in the higher-income economies of East Asia and large Southeast Asian economies will slow in 2019 in tandem with slower growth in the PRC and lower trade in manufactures. Semiconductor producers and users with large high-tech manufacturing bases—such as Malaysia; the ROK; Singapore; Taipei, China; and Viet Nam—already saw exports drop in late 2018 and early 2019 after some frontloading of sales ahead of tariff increases in 2018. All these countries are fully engaged in electronics value chains and are large suppliers to high-tech companies in both the PRC and the US. Private investment is also in a lull as firms await the resolution of trade negotiations that directly affect their exports. Growth in East Asia including the PRC will step down from 6.0% in 2018 to 5.7% in 2019 and 5.5% in 2020.

In Southeast Asia as a whole, growth is expected to moderate slightly as external demand falls a little more quickly than domestic demand grows. Some economies will pick up in 2020, while others see continued growth moderation. Growth is projected to dip from 5.1% in 2018 to 4.9% in 2019, recovering to 5.0% in 2020. A downturn in the global electronics trade cycle, and a slowdown in world trade more generally, will dampen the investment and export prospects of this highly open subregion in 2019—though investment approvals and FDI figures in late 2018 in Malaysia and Viet Nam suggest that investment will pick up later in the outlook period as uncertainty is resolved. Business surveys show plans heavily affected by uncertainty, both domestic and external, while purchasing managers’ indexes in the main ASEAN economies have been generally falling since mid-2018 (Table 1.1.1). Even as external demand softens, strength in domestic demand should provide some cushion to subregional growth both this year and next.

Accelerating domestic investment and buoyant consumption will boost growth in the Philippines in 2019 and in Indonesia both this year and next. Growth will strengthen on improved prospects for tourism and FDI in Myanmar and as oil refineries
Asian Development Outlook 2019

come back online in Brunei Darussalam. Viet Nam and Thailand should see growth stabilize in 2020, and Malaysia should see a pickup as investment and resulting exports regain strength with intermediate trade redirected from the tariff-affected PRC and US, as well as from continued strong domestic demand.

In Singapore, a more mature economy, growth in private consumption may have already reached its peak. The remaining smaller Southeast Asian economies will continue to grow at rates of 6%–7% in 2019 and 2020.

Meanwhile, growth will rebound in South Asia and the Pacific and, with lower external demand, moderate only slightly in Central Asia. South Asia will remain the fastest-growing subregion in the world, projected to grow by 6.8% in 2019 and 6.9% in 2020, led by Bangladesh at 8.0% in both years.

In contrast, Pakistan's outlook is for a sharp drop in growth as, following a pronounced widening of its balance of payments deficit in 2018, it likely embarks on austerity measures supported by the International Monetary Fund. Some oil-exporting Central Asian countries will see a small drop in growth from 4.4% in 2018 to 4.2% in 2019 and 2020 as oil prices moderate. Sluggish growth in the Russian Federation will limit the rise in income from remittances in the Kyrgyz Republic, Tajikistan, and Uzbekistan. Country-specific factors will have effects, with higher natural gas production boosting growth slightly in Azerbaijan and a recovery in gold production doing the same in the Kyrgyz Republic, offsetting slowing factors in Uzbekistan. Currency woes in 2018 in neighboring Turkey spilled over into Central Asia, particularly Azerbaijan and Georgia, where strong economic links with the troubled regional power are calculated to have shaved about 0.6 percentage points off GDP (Box 1.1.2).

By contrast, growth in the Pacific is expected to recover from near stagnation at 0.9% in 2018 to 3.5% growth in 2019. This is largely the result of liquefied natural gas facilities coming back online in Papua New Guinea after suffering earthquake damage in 2018. Growth in the Pacific is forecast to ease to 3.2% in 2020.

**Inflation will remain low and stable**

Headline inflation in developing Asia is forecast unchanged at 2.5% in 2019 and 2020, assuming that commodity prices stabilize. Brent crude oil prices are projected to fall from an average of $71/barrel in 2018 to $62/barrel in 2019 and 2020. This will keep energy-related inflation under control. Moreover, fuel subsidies in many larger economies will dampen pass-through effects. Price changes for other commodities in developing Asia—such as copper, steel, natural gas, timber, and palm oil—are exported mainly to markets outside of developing Asia, so they generally have little impact on inflation in the region, but they have important direct effects on export growth in exporting countries. On the other hand, prices for food, particularly rice,
Sustained rapid economic growth has turned Turkey into a regionally significant economy. Turkey’s economic presence is felt in the Balkans, the Middle East, the Caucasus, Central Asia, and other regions. Among ADB developing member countries, the three Caucasian republics and the five Central Asian republics enjoy the closest historical, cultural, and economic links with Turkey. Given Turkey’s relative economic weight—in 2017, its GDP was twice the combined GDP of the eight economies in the Caucasus and Central Asia—it is bound to have a substantial economic impact on them (box figure 1).

The primary economic link between Turkey and Central Asia is trade, but investment and remittances also come into play. Turkey’s importance as a trading partner varies across Central Asia. It is an especially important export market for Azerbaijan, receiving 12% of its exports, and for Tajikistan, receiving 30%. Meanwhile, Georgia has the highest share of imports from Turkey, valued at the equivalent of 9% of GDP, and relies heavily on Turkey for machinery, chemicals, and metals. Azerbaijan, the Kyrgyz Republic, and Turkmenistan also import substantially from Turkey, amounts equal to about 3% of their GDP. Since 2003, about 37% of Turkish FDI in Central Asia went to Azerbaijan, while another 54% went to Georgia, Kazakhstan, and Turkmenistan. Azerbaijan is the main Central Asian investor in Turkey, providing 95% of FDI from the subregion into Turkey since 2003.
1.1.2 Continued

By contrast, imports from Turkey into Central Asia increased for all the economies except Kazakhstan and Turkmenistan.

In 2018, FDI flows from Turkey markedly contracted from 2017, by 76% to Azerbaijan and by 86% to Kazakhstan, though they picked up to Georgia. Further, remittances sent from Turkey to Georgia have been falling since August 2018. Azerbaijan's financial exposure to Turkey can become a concern in the event of default by Turkish borrowers because Azerbaijan had $4 billion of its sovereign wealth fund deposited in Turkish banks in 2017 and more than $2 billion in outstanding private sector loans to financial and nonfinancial borrowers in Turkey in 2018.

To more formally assess spillover from Turkey’s growth slowdown on Central Asia, the impact of Turkey’s growth on Central Asian economies was separately estimated using a vector autoregression analysis for Azerbaijan, Georgia, Kazakhstan, and Tajikistan. The vector of endogenous variables contains the economy's own GDP growth, inflation, and real effective exchange rate; the GDP of Turkey; and the GDP of Russian Federation, using quarterly data from Q1 of 1998 to Q4 of 2018, where available.

Impulse response functions show how an exogenous growth shock in Turkey spills over to selected Central Asian economies. Impulse responses from positive growth shocks of one standard deviation to Turkey’s growth is highest after 1 year in Georgia at 1.2 percentage points, 3 quarters in Tajikistan at 0.5 percentage points, and 2 years in Azerbaijan at 1.1 percentage points (box figure 3). Spillover is almost nonexistent in Kazakhstan. These effects are statistically significant at 95% confidence bands for Georgia and Tajikistan.

The effects linger for about 6 quarters in Georgia, with maximum cumulative impact of 4.6 percentage points, and for about 3 quarters for Tajikistan, with maximum cumulative impact of 1.2 percentage points.

The implication of these results is that a decline in Turkey’s GDP growth adversely affects Central Asia’s growth, though the effects differ considerably across the eight economies. Reduced financial stress in recent months provides some grounds for optimism about Turkey’s growth prospects beyond the very short term. In the meantime, Central Asian economies should continue to pursue policies that strengthen their fundamentals and insulate them from the risk of contagion, from Turkey or elsewhere.

significantly affect the welfare of low-income urban households in developing Asia. They are expected to remain flat in 2019 and rise by a moderate 1.5% in 2020 as global food prices stay broadly stable under forecasts for generally favorable weather (Figure 1.1.15).

Domestic inflationary pressures vary, but regional inflation will remain well anchored below the 10-year average of 3.2% (Figure 1.1.16). In the PRC, inflation is expected to remain moderate at 1.9% in 2019 and 1.8% in 2020, in line with slightly slower economic growth. Inflation in India is expected to climb to 4.3% in 2019 and 4.6% in 2020 as food inflation accelerates with upticks in procurement prices paid to farmers, wages paid to agricultural workers, and prices for fertilizer.
Further, Indian rupee depreciation in 2018 adds inflationary pressure with a lagged effect. More broadly in South Asia, inflation will rise slightly in response to domestic demand pressures. Average inflation in Southeast Asia this year and next will remain near the 2.7% recorded in 2018. Administered domestic fuel prices may prevent lower oil prices being passed on to consumers.

Inflation in Central Asia will rise on one-time price jumps in Azerbaijan, the Kyrgyz Republic, and Tajikistan. Inflation in Turkmenistan and Uzbekistan will remain high on average but should ease over time with fiscal reform, especially in Turkmenistan, and as monetary and exchange rate reform takes hold. The same holds true for their southern neighbor Afghanistan. Inflation in the Pacific will moderate from 4.0% in 2018 to 3.7% in 2019 and then return to 4.0% in 2020 as country-specific effects offset pass-through from import prices.

**A cloudy external outlook**

The trade outlook will be shaped by the US–PRC trade conflict and a forecast general deterioration in external demand in 2019 and 2020. Trade growth will be much lower than it has been lately, and some global supply chain reallocations will occur in response to the trade conflict. The outlook assumes that some headway is made on removing technology restrictions, but also that some sticking points, such as digital trade issues and technology transfer modalities, will continue to affect investment decisions in the first half of 2019.

The deterioration of developing Asia’s current account balance will continue into 2019 and 2020 (Figure 1.1.17). In 2018, it dropped to the equivalent of 0.8% of GDP in 2018, the lowest it has been since the Asian financial crisis of 1997–1998. This largely reflects a new focus in the PRC on its domestic economy, as well as lower global demand and muted export activity spurred by the trade conflict. The current account surplus for the region will narrow further to 0.4% in 2019 and 0.3% in 2020, reflecting significantly narrower gaps in the PRC, and in some other larger economies in East and Southeast Asia. South Asia will continue to incur a current account deficit to the forecast horizon, the Central Asian deficit will narrow, and East and Southeast Asia and the Pacific will see their current account surpluses shrink. In Southeast Asia, aside from trade policy uncertainty, softer global fuel prices will exert downward pressure on commodity exports despite likely higher volumes shipped, while higher imports for intermediate and capital goods to supply manufacturers and public projects will likely balance some of the gains the Philippines and Viet Nam garner in higher exports.
With declining global growth tempering export demand and a service deficit persisting, the PRC current account surplus is forecast to disappear in 2019 and become a thin deficit in 2020. The surpluses of the other economies in East Asia are expected to weaken further to the forecast horizon as the impact of frontloading of exports across the region during mid-2018 reverses, and as trade policy uncertainty continues to hamper external demand.

Inter- and intraregional trade patterns in developing Asia look likely to shift more quickly than usual in 2019 and 2020 as global production relocates in response to the trade conflict. Some relocation will reflect a long-term trend toward greater reliance on domestic demand, given large structural changes in the past 2 decades, particularly in the PRC. And some will reflect new trade agreements such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership signing in early 2019. Slower trade this year and next should narrow the regional current account surplus with the rest of the world (Figure 1.1.18). With the reallocation within the region of production for some US–PRC trade, the pattern of trade is likely to show an increased share of trade within Asia. In addition, demand in the PRC and the US for imports from the rest of developing Asia will rise, slightly widening the US trade deficit with developing Asia excluding the PRC (Figure 1.1.19).
Current trade negotiations to affect more than just tariffs and trade

Very little can be predicted at this stage about the outcome of trade negotiations between the PRC and the US. Without a clear end date for the negotiations, estimates of the effects of foregone trade are difficult to calculate, and they provide only one aspect of the far-reaching impact of the trade conflict. The baseline scenario assumes that tariffs remain at current levels throughout 2019 and 2020, with additional tariffs avoided by some agreement—perhaps requiring the PRC to wind back some regulatory restrictions on high-tech investment, for example, or to ease some financial restrictions. A step in this direction is a new investment law the PRC passed on 15 March 2019 that addresses priority issues for foreign investors regarding the protection of intellectual property rights. This scenario would have a relatively benign impact over the medium term, much of which may already have been priced in by global markets.

The outcome of the negotiations is likely to influence broad areas of developing Asia's economy beyond its effects on tariffs and trade. As discussed in Asian Development Outlook 2018 Update last September, the tariffs enacted last year will likely suppress and redirect trade, affecting employment. Estimates of these effects have since been updated to reflect the assumed continuation of existing tariff rates into 2019 and 2020. Relative to there being no trade conflict (the situation in December 2017), global GDP is estimated to be 0.05% lower by the end of 2020. The PRC comes out as worst hit, with GDP 0.25% lower than in a no-conflict scenario, but the US also suffers a net loss of 0.13% of GDP. On the other hand, the NIEs may see a net gain of 0.06% of aggregate GDP, and the ASEAN-5 a gain of 0.04%, if trade redirection materializes (Figure 1.1.20). These are very small percentages; for the NIEs, falling external demand more than offsets this effect, causing growth in the outlook period to underperform 2018. Taipei, China, for example, will see growth drop from 2.6% in 2018 to 2.2% in 2019 and 2.0% in 2020 as business confidence suffers heavily under both the trade conflict and the slowdown in external demand.

Employment in key areas of the protagonists’ economies suffers the most. Losses are not limited to tradable sectors but extend to services that support export sectors. According to the model estimates, the PRC loses about 1.76 million jobs relative to a no-conflict scenario—equal to 0.21% of 2017 employment over both years—with the largest losses occurring in agriculture, community and social services, retail trade, electrical and optical equipment, and machinery. The US may lose 194,000 jobs over both years compared with a no-conflict scenario, with the largest losses in agriculture, business services, metals,
transport equipment, and food and beverages. With lower exports and lower imports, the US–PRC trade imbalance will narrow over the outlook period very marginally from its record gap of $419.2 billion in 2018 (Figure 1.1.21).

Foreign direct investment (FDI) flow patterns between the PRC and the US suggest that the trade conflict can affect production links (Figure 1.1.22). Current investment flows provide some clues about trade and growth patterns 1–2 years from now. For 2018 as a whole, US FDI outflows to the PRC surged, particularly toward the end of 2018, and especially into auto components and chemical products. These goods are subject to US import tariffs, suggesting that some investment may have been motivated by the desire to circumvent tariffs on future exports or in expectation of future investment restrictions. Still, the PRC receives on average only about 12% of total FDI from the US. In contrast, FDI flows from the PRC to the US barely rose, and now constitute only 7% of the PRC’s total FDI flows compared to 11% on average in 2011–2017. All flows of FDI into the PRC slowed sharply in Q4 after having increased in the first 3 quarters of 2018, owing mainly to the unresolved trade conflict.

The PRC has been tightening its investment links with the rest of developing Asia in recent years, but the trend seems to have accelerated under the trade conflict in 2018, just as intraregional trade links strengthened. This trend is expected to continue to the forecast horizon (Figure 1.1.23). Greenfield FDI from the PRC to the rest of developing Asia soared by 198% in 2018, with the region’s share climbing from 40% of the PRC total in the previous 8 years to 60%. Investment went to diverse sectors, such as renewable energy in Indonesia; oil, gas, and metals in the Philippines; software and electronics in Singapore; real estate in Hong Kong, China; leisure and entertainment in the ROK; and even high-tech textile production in Kazakhstan. Investment approval data indicate that FDI into machinery and electronic components is poised to grow in Malaysia and Viet Nam, though actual investment has been slow so far in 2019. FDI from the US to developing Asia excluding the PRC also rose, by 71% in 2018 to reach its highest since the global financial crisis of 2008–2009, though it is still less than 20% of all US outbound FDI.

Going forward, the outcome of the negotiations has the potential to shape FDI flows into high-tech over the medium term. The FDI index of regulatory restrictions sheds light on this issue (Figure 1.1.24). The most protected areas are not high-tech and typically involve non-traded services other than air travel. Nevertheless, taking into account restrictions in all areas, the PRC is generally more restrictive than most of the advanced economies. Moreover, according to data available for 13 economies in developing Asia that together account for 87% of regional income, the PRC is the second-most-restrictive economy in the region, after the Philippines. It is particularly restrictive in high-tech services.
1.1.22 PRC and US outbound greenfield investment by host region

Greenfield investment—defined as equity investment into new projects—from the PRC and the US rose in 2018 despite some tightening of restrictions at the end of 2018...

1.1.23 Greenfield investments to developing Asia by source

... but there was an even sharper pickup of investment into developing Asia from all regions, particularly the PRC.

1.1.24 FDI regulatory restrictiveness, 2017

The index of FDI regulatory restrictiveness—indicating more restrictions—is high in developing Asia, especially in the telecommunications sector in the PRC...

1.1.25 Outward greenfield investment to key technology sectors by destination, 2014–2018

... but FDI between the PRC and the US is small in the sectors targeted by US negotiators: aerospace equipment, energy, biotechnology, engineering services, the internet of things, and defense.
More broadly, the outcome of the negotiations may influence the pace and pattern of technology transfers within the region. Underlying the negotiations are issues around “winning the technology race,” particularly for advanced technologies in manufacturing, robotics, 5G cellular mobile communications, artificial intelligence, biotechnology, aerospace, and the internet of things. These areas do not loom particularly large in their share of FDI flows, as they are mostly between the US and other advanced economies. Over the 5 years to 2018, these sectors accounted for 18.6% of all FDI inflows from the US, and the amount of those sectors bound for PRC was only 1.6% of all US outward FDI; and 3.3% of total outbound FDI from the PRC was in those sectors, but only 0.6% bound to the US (Figure 1.1.25). Nevertheless, one potential casualty of new restrictions would be the semiconductor industry. At the end of 2018, the industry was forecast to grow by a meager 2.6% in 2019, following 2 years of double-digit growth. Now estimates are for sales to contract by 3.0% this year (Figure 1.1.26). Production may be thwarted because of the national security concerns of European Union, PRC, and US governments that geopolitical rivals may inappropriately use semiconductors in high-tech defense applications. However, semiconductors are also used in mass consumer goods. Semiconductor production for mass applications is thus likely to be lower as well (Figure 1.1.27). Small businesses in high-tech sectors globally—which tend to be highly innovative but rely on open source technologies—could suffer disproportionately if protracted negotiations continue to affect semiconductors.

1.26 Semiconductor trends and forecast

Semiconductor sales are expected to disappoint...

<table>
<thead>
<tr>
<th>Month</th>
<th>SEAJ manufacturing equipment billings</th>
<th>SEAJ manufacturing equipment billings (January 2019 forecast)</th>
<th>WSTS revenue</th>
<th>WSTS revenue (February 2019 forecast)</th>
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</thead>
<tbody>
<tr>
<td>Jan 2016</td>
<td>$412.2 (21.6% change year on year)</td>
<td>$468.8 (13.7% change year on year)</td>
<td>$454.5 (&lt;3.0% change year on year)</td>
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</tr>
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Challenges from rising headwinds

The outlook cloudy, the risks tilting to the downside

The greatest risks to the outlook arise from the US–PRC trade conflict. Tariff hikes that were originally scheduled to take effect in January were postponed as negotiations continued. This development suggests that the risk of tariff escalation has subsided somewhat since the September publication of Asian Development Outlook 2018 Update. But the risks still tilt to the downside. The sluggish pace of negotiations, and fluctuating views about whether a resolution is on the horizon or not, have expanded the cloud of uncertainty for businesses, particularly those engaged in trade. With the possibility of protracted negotiations and periodic announcements of tightening regulations governing high-tech investment, uncertainty could deepen and spread to other sectors of the economy beyond those directly affected. A news-based indicator of trade policy uncertainty finds investor perceptions of trade policy uncertainty at an all-time high (Box 1.1.3). Uncertainty is particularly damaging to investment, which depends heavily on investors’ view of the future. Greater uncertainty can cause investors to delay costly and irreversible investment. Box 1.1.3 provides evidence that spikes in trade policy uncertainty like the current one can reduce PRC investment by about 1%. A possible upside risk, though, is that negotiations will quickly bring an agreement that lowers existing tariffs. Recent announcements can be read as gestures of good faith on both sides, raising the possibility of an agreement being reached, at which time trade and investment barriers may be reduced.

1.1.3 Trade policy uncertainty: trends and impact

Analysis in the September Asian Development Outlook 2018 Update showed how economies and their sectors in developing Asia would be affected by tariffs already imposed and under various scenarios of escalated tariffs. A potentially important and distinct concern is uncertainty about trade policy. Trade policy uncertainty (TPU) may cause firms to postpone investment decisions until the uncertainty is resolved. The literature has found that investment can sometimes pick up in periods of TPU, when, for example, the uncertainty is over a country’s negotiations to join a trade agreement (Hlatshwayo forthcoming). This analysis provides new measures of TPU pertinent to Asia, documents trends in these measures, and provides initial evidence of uncertainty’s impact on investment.

To measure TPU, a useful resource is the news-based index developed in Baker, Bloom, and Davis (2016). The indicator utilizes the number of news articles that mention TPU and captures the degree of uncertainty that the public perceives about trade policy actions and their consequences. Box figure 1 plots the measure of US TPU using the index. Readings peaked in the early 1990s during negotiations on the North American Free Trade Agreement but have been rising again over the past 2 years. Box figure 2 plots a newly constructed variant of this index that captures US TPU vis-à-vis Asia. This is at an all-time high.

TPU indicators can also be constructed for individual economies in the region. Box figure 3 plots the TPU indicator for the PRC, constructed in Hlatshwayo (forthcoming), from January 1995 to January 2019. The indicator was high in 1995 during a US–PRC trade conflict over intellectual property rights. It was also elevated in the late 1990s and early 2000s when the PRC was negotiating to join the World Trade Organization. The indicator began rising again in 2017 and 2018 when the US and the PRC started threatening to impose tariffs on each other’s products. The PRC TPU indicator is now at an all-time high.

continued next page
To analyze the effects of high TPU on investment, a vector autoregression model similar to that in Baker, Bloom, and Davis (2016) was estimated.\(^a\) Box figure 4 shows that periods of high TPU—similar to those observed in 1995, the early 2000s, and at present—have statistically significant and measurable effects on investment in the PRC. Spikes in TPU tended to depress investment by 1% in the third quarter after the shock. There was no significant effect beyond the third quarter. The analysis confirmed that TPU causes a temporary decline in investment, probably because firms postpone investment decisions until the uncertainty is resolved.

\(^a\) The vector autoregression includes the log of fixed asset investment, TPU, the money market rate, and the stock market index using quarterly data from Q1 of 1996 to Q4 of 2018. To focus on the effects of high TPU on investment, the vector autoregression uses dummy variables that identify periods where TPU is more than one standard deviation above the mean.

References:
An additional downside risk is the possibility of disappointing growth in the major economies. Triggers for such a scenario include heightened fiscal uncertainty deepening the slowdown of economic activity in the US, or a disorderly exit of the United Kingdom from the European Union causing a sharper slowdown there. The direct effects of Brexit on developing Asia through trade channels are likely to be small. Even for countries like Sri Lanka—for which the United Kingdom is an important trade partner, and which benefits from tariff-free entry of its products into that market—the forecast effects of Brexit are small (Box 1.1.4). But a disorderly Brexit might roil global financial markets, worsen uncertainty, and raise risk aversion, which would affect developing Asia more broadly. Within the region, while the PRC is working both to support growth and to reduce financial risks, various external or internal shocks could still materialize, making it a challenge for the authorities to continue to engineer controlled growth moderation.

### 1.1.4 How might Brexit affect developing Asia? Evidence from Sri Lanka

The United Kingdom (UK), a member of the European Union (EU) since 1973, held a referendum on 23 June 2016 on whether to withdraw from the EU. The decision to leave the EU, or Brexit, passed by a narrow margin. On 29 March 2017, the UK invoked Article 50 of the Lisbon Treaty, which provides 2 years to negotiate an exit from the EU. As Asian Development Outlook 2019 goes to press, the deadline to close negotiations looms large, and UK parliamentary deliberations are in full swing to either approve a plan already agreed with the EU, extend the negotiations, or institute measures to manage a “hard Brexit.” Uncertainty over the fate of the negotiations poses a downside risk to the economy of the UK and the EU, and the global economy at large, including developing Asia. There are many channels through which Brexit could have an economic impact on the rest of the world, including confidence channels that are difficult to anticipate and quantify. This analysis sheds light on the economic impact of Brexit by examining the trade channel closely, using Sri Lanka to illustrate.

One of the special bilateral trade arrangements that some developing economies have with the EU is the Generalised Scheme of Preferences Plus (GSP+), a preferential tariff system that grants full tariff removal on more than two-thirds of EU tariff lines. With Brexit, the UK will no longer be covered by GSP+. Sri Lanka and other exporters can be directly affected by Brexit because they lose access to the UK market through the EU GSP+ program, and what replaces GSP+ is still unclear. Currently, the UK is Sri Lanka’s second-largest trading partner, taking 8.3% of Sri Lanka’s exports.

Analysis of the economic impact of Brexit employs two scenarios, both of which influence trade flows through changes in tariffs. The first scenario is no-deal Brexit, which assumes that trade between the UK and the EU will be reduced by higher tariffs post-Brexit. The second scenario is tariff escalation between Sri Lanka and the UK, which extends the analysis to explore potential impacts if Sri Lanka’s exports to the UK become subject to a tariff when the UK is no longer party to the GSP+. In both scenarios, the tariff change from the baseline is assumed to be equal to the average most-favored nation rate of 5.62% imposed by the UK and the EU on manufactured goods.

Assuming that the UK reaches the Brexit date without a deal with the EU or other countries, trade between the UK and the EU, as well as bilateral trade between Sri Lanka and the UK, will then be subject to tariff rates charged by the EU in its common customs tariff or the most-favored nation rates.

The effects on Sri Lanka’s economy through the trade channel are small (box figure). There are no direct effects from increased tariffs between the UK and the EU, and indirect effects through international supply chains shave 0.06% off Sri Lanka’s GDP. The adverse indirect effects may even be offset by a potential gain of 0.08% of GDP if trade redirection to accommodate new tariffs between the UK and EU allowed Sri Lanka to provide more agricultural and industrial exports. If these gains from trade redirection materialized—and it should be stressed that they are neither automatic nor assured—the net impact would be small but positive at 0.01%. If Sri Lanka faced higher tariffs when the UK exits the EU and its GSP+ program, the direct effects of those tariffs would be...
1.1.4 Continued

Impact of Brexit on Sri Lanka

A. Impact on Sri Lanka economy and bread sectors

<table>
<thead>
<tr>
<th>Sector</th>
<th>Direct and indirect effects</th>
<th>Trade redirection effects</th>
<th>Net impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>0.01</td>
<td>0.05</td>
<td>0.13</td>
</tr>
<tr>
<td>Agriculture</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.02</td>
</tr>
<tr>
<td>Industry</td>
<td>0.03</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>-0.02</td>
<td>0.04</td>
<td></td>
</tr>
</tbody>
</table>

B. Impact on selected industries

<table>
<thead>
<tr>
<th>Industry</th>
<th>Direct and indirect effects</th>
<th>Trade redirection effects</th>
<th>Net impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Textiles &amp; garments</td>
<td>0.25</td>
<td>0.33</td>
<td>0.23</td>
</tr>
<tr>
<td>Rubber &amp; plastic</td>
<td>-0.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food &amp; beverage</td>
<td>-0.09</td>
<td>-0.15</td>
<td></td>
</tr>
</tbody>
</table>

Sources: ADB estimates using data from ADB Multi-regional Input–Output Table (MRIOT) database and Abiad et al. (2018).

Impact of Brexit on Sri Lanka

to decrease Sri Lankan exports to the UK by 3.1% and overall exports by 0.4%, and Sri Lanka's GDP would be lower by 0.11%. Trade redirection would potentially offset 0.07% of the loss.

Under both scenarios, industry appears to be the sector most affected, with certain segments like textiles and garments suffering significant losses. The combined effects of higher tariffs and disrupted supply links could hit industry gross value added by as much as 0.08%–0.28%, though this could be offset by trade redirection. The effects on agriculture and services are smaller. In a scenario where tariffs escalate between Sri Lanka and the UK, textiles would be hurt the most. The direct and indirect effects would reduce textile and garment exports to the UK by 7.7%, and textiles and garments gross value added by 0.85%. Trade redirection would attenuate but not completely offset these losses.

In sum, the economy-wide effects of Brexit through trade channels are small even for Sri Lanka, which has strong trade ties with the UK and risks losing a preferential trade arrangement if the UK leaves the EU. This suggests that the effects through trade channels on developing Asia more broadly are likely to be small as well. This updated assessment is consistent with analysis in the July 2016 Asian Development Outlook Supplement, which assessed the impact on developing Asia to be small. An important caveat is that a disorderly Brexit could significantly affect growth prospects in the EU, as highlighted in the main text of this chapter, as well as rattle global financial markets. These channels are harder to quantify and could have more significant implications for developing Asia.

a GSP+ provides tariff exemptions to vulnerable developing countries from the more general rules of the World Trade Organization (WTO) on exports to the EU. The European Commission states that it has three main objectives: to contribute to poverty reduction by expanding exports from poorer countries, to promote sustainable development and good governance, and to ensure that EU financial and economic interests are safeguarded.

b Other ADB member countries covered by GSP+ are Armenia, the Kyrgyz Republic, Mongolia, Pakistan, and the Philippines.

c Under most favored nation (MFN) rule of the WTO, the UK cannot decrease tariffs for any country unless a trade deal has been agreed with it. In 2018, the UK submitted WTO schedules of goods tariffs following its withdrawal from the EU, which is pending approval by the WTO. In the absence of this information, a no-deal scenario is assumed wherein the UK applies rates close to the MFN rates to avoid damaging trade effects. Therefore, this study applies the average MFN rate of 5.62%.
One risk that has subsided since the publication of *Asian Development Outlook 2018 Update* is the possibility of interest rates rising faster than anticipated. Weakening global and US economic activity in late 2018 and early 2019 motivated the US Federal Reserve to bring to a pause its monetary tightening, and the previous view that the Fed would hike rates three or four times in 2019 no longer holds. Despite this, the risk of financial volatility remains. There is now also greater uncertainty regarding US monetary policy, and estimates show that this is associated with greater exchange rate volatility for Asian currencies (Box 1.1.5). And, while the jitters evident in emerging markets in 2018 have abated for now, this could reemerge, with consequences for domestic financial conditions.

### 1.1.5 Impact of US monetary policy uncertainty on Asian exchange rates

Analysis here examines the impact of uncertainty about US monetary policy on the exchange rates of Asian countries. Currency turmoil in mid-2018—during which Turkey and Argentina suffered large currency depreciation in the wake of the US Federal Reserve steadily raising its interest rates since 2017—underlined the role US monetary policy can play in shaping exchange rate behavior in emerging markets. Regional currencies, including the Indian rupee and Indonesian rupiah, have recovered fairly well since Q4 of 2018. In light of slowing US and global growth, the future trajectory of US monetary policy is increasingly uncertain. The Fed is now expected to take a more cautious and gradual approach to monetary policy normalization, but how cautious and how gradual is the subject of much debate.

Uncertainty about US interest rates may affect exchange rates in emerging markets independently of what the rates actually are. Systematic analysis of news reports confirms that the public is becoming increasingly unclear about the exact trajectory of US monetary policy. Recent research finds that searching for relevant text can deliver useful information on uncertainty about economic policy. Baker, Bloom, and Davis (2016) constructed a news-based index of US monetary policy uncertainty (MPU) that attempts to capture the degree of uncertainty that the public perceives about the Fed’s actions and their effects. The MPU index for the US remains elevated, most likely reflecting the uncertain effect of global trade tensions and global growth slowdown on the Fed’s policy calculus.

The box figure plots data on monetary policy uncertainty based on Baker, Bloom, and Davis (2016) from January 1985 to January 2019. It shows large spikes occurred around times of uncertainty: Black Monday in October 1987, the 11 September attacks, the March 2003 invasion of Iraq, the Lehman Brothers collapse in September 2008, prior to the October 2015 Federal Open Market Committee meetings to discuss interest rate liftoff from the zero lower bound, Brexit, and the November 2016 election in the US. Another spike seems to be brewing recently, presumably in response to the issues surrounding trade uncertainty and US federal government shutdown.

Park, Qureshi, Tian, and Villaruel (forthcoming) examined the effect of uncertainty about US Fed monetary policy on exchange rate fluctuations in 10 Asian economies using monthly data from 2006 to 2019. The study combined the news-based measure of monetary policy uncertainty with a measure of actual exchange rates and the interest rate spread using a country-specific model of exchange rate returns and volatility called the GARCH model (Bollerslev 1986). This framework enabled the capture not only of time variance in the exchange rate market but also extracted the impacts of MPU on both exchange rate values and variance of return.

Monthly data on the US federal funds rate, exchange rates against the US dollar, and policy interest rates in the selected Asian economies were collected from Bloomberg. Data availability limited the sample period to February 2006–January 2019 in India; Indonesia; Japan; Malaysia; the PRC; the Philippines; the Republic of Korea; Singapore; Taipei, China; and Thailand. In the analysis, the monthly percentage change in MPU and exchange rates are constructed using log difference between levels in the current and previous month. The interest rate spread was defined as the difference between each Asian economy’s policy interest rate and the...
US federal fund rate. The econometric analysis then examined how US monetary policy uncertainty would affect return patterns in exchange rates in Asian economies, in terms of both values and variances.

The empirical results indicated that uncertainty about US monetary policy affected exchange rate variability but not the exchange rate levels of Asian countries. The box table reports the estimated effect of uncertainty about US monetary policy on the variance of exchange rate in the 10 Asian economies. The effect was uniformly positive. It appeared that greater uncertainty about the path of US interest rates generated greater diversity of belief about exchange rates among participants in foreign exchange markets. More diverse beliefs meant more diverse trading and hence more volatile exchange rates. The magnitudes varied across economies. For example, during the sample period, the average monthly increase in MPU was 0.59%, which was associated with an increase in exchange rate return variance of 0.02 in the Philippines. When the MPU rose sharply in 2018 by 14%, variance increased by 0.50. Similarly, exchange rate return variance rose by approximately 0.30 in Indonesia in 2018.

Analysis suggested that periods of heightened uncertainty about US monetary policy tended to be periods of heightened volatility in Asian exchange rates. This strengthens the case for more closely monitoring exchange rates when there is less clarity about the Fed’s course of action. Although heightened volatility strengthens the case for measures to stabilize exchange rates, a great deal of caution is advised because US monetary policy uncertainty is just one of many factors that affect exchange rates.

References:

Impact of US monetary policy uncertainty on the variance of exchange rates in 10 Asian economies

<table>
<thead>
<tr>
<th>Dependent variable: actual exchange rate (t)</th>
<th>PRC</th>
<th>INO</th>
<th>IND</th>
<th>JPN</th>
<th>ROK</th>
<th>MAL</th>
<th>PHI</th>
<th>SIN</th>
<th>THA</th>
<th>TAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variance equation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MPU (t-1)</td>
<td>0.261 (0.3760)</td>
<td>0.707 (0.4350)</td>
<td>0.479 (0.6530)</td>
<td>0.725 (0.6360)</td>
<td>1.079 (1.2710)</td>
<td>3.531 (5.670)</td>
<td>1.257 (0.896)</td>
<td>0.0853 (0.4290)</td>
<td>0.447 (0.058)</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>154</td>
<td>154</td>
<td>154</td>
<td>154</td>
<td>154</td>
<td>154</td>
<td>154</td>
<td>154</td>
<td>154</td>
<td>154</td>
</tr>
<tr>
<td>chi-squared</td>
<td>31.94</td>
<td>0.00842</td>
<td>2.603</td>
<td>1.353</td>
<td>1.925</td>
<td>1.948</td>
<td>0.321</td>
<td>0.473</td>
<td>8.836</td>
<td>4.318</td>
</tr>
</tbody>
</table>

IND = India, INO = Indonesia, JPN = Japan, MAL = Malaysia, MPU = monetary policy uncertainty, PRC = People’s Republic of China, PHI = Philippines, ROK = Republic of Korea, SIN = Singapore, TAP = Taipei, China, THA = Thailand.

Note: For the Philippines and Taipei, China, GARCH (1 1) is employed to fit particular time series attributes. Standard errors in parentheses.

*** denotes significance at 0.01, ** at 0.05, and * at 0.10.
Source: Park, Qureshi, Tian, and Villaruel, forthcoming.
Exchange rates affect domestic financial conditions through trade and financial channels

Many economies in developing Asia saw their currencies depreciate in 2018, reversing the appreciating trend in 2017 (Figure 1.2.1). This resulted from a confluence of factors including a steady rise in US policy rates that caused a shift in market sentiment away from riskier assets in the region. Those factors, woven with trade tensions, led investors to reevaluate their emerging market portfolios more generally. Indeed, some regional currencies depreciated significantly against the US dollar in 2018.

By late 2018, most regional currencies had stabilized, and since then several have appreciated. As Box 1.1.1 makes clear, however, regional exchange rates are not out of the woods; local currency depreciation and challenging financial market conditions could recur. With the recent subsiding of the earlier risk that the US Federal Reserve would raise its rates more quickly than expected, the path for normalizing monetary policy in the US has become less certain. And, as analysis in Box 1.1.5 shows, periods of heightened US monetary policy uncertainty are associated with greater volatility in bilateral exchange rates vis-à-vis the US dollar.

As the present analysis documents, exchange rate fluctuations can have significant effects on domestic financial conditions in many open economies. These effects can work through two distinct channels with opposing effects: the trade channel and the financial channel, as described in more detail below. Recent years have seen more analysis of these effects, most notably in a Bank of International Settlements study (Hoffman, Shim, and Shin 2017). The present analysis explores these issues in the context of ADB developing member countries. It provides quantitative estimates of the relative strength of the trade and financial channels’ effects on domestic financial conditions, examines whether the strength of these channels varies across selected economies in developing Asia, and discusses how exchange rate fluctuations in 2018 affected domestic financial conditions in the region. It considers the role of the US dollar in global liquidity conditions and illustrates how exchange rate changes can have significant impacts on sovereign credit risk premiums.

1.2.1 Change in nominal exchange rate against the US dollar

<table>
<thead>
<tr>
<th>Country</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td></td>
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<tr>
<td>Republic of Korea</td>
<td></td>
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</tr>
<tr>
<td>Malaysia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Because all currency units are smaller than $1, negative values indicate appreciation and positive values indicate depreciation.
Exchange rates and the transmission of global financial conditions

One of the main causes of the Asian financial crisis of 1997–1998 was currency and maturity mismatches in the debt held in many economies in the region. Large amounts of short-term debt denominated in foreign currency were used to finance long-term investments that yielded revenue in local currency. Deteriorating values of local currencies in 1997, despite closely managed exchange rates in the region at the time, triggered the crisis by inflating external debt to unsustainable levels and prompting large capital outflows.

Today, financial systems in the region have generally become more resilient, thanks to a wide range of reforms implemented after the Asian financial crisis. However, the US dollar remains the major funding currency for the region’s growing external debt. In recent years, the value of outstanding US dollar-denominated international debt securities has increased as a percentage of total external debt in a number of Asian economies (Figure 1.2.2). The concentration of foreign borrowing in a single currency leaves the region’s financial systems vulnerable to external shocks through unexpected changes in global currency liquidity conditions and related capital flow reversals, with significant implications for domestic financial and macroeconomic conditions.

In this regard, the bilateral US dollar exchange rate can transmit global dollar funding conditions into emerging economies. Recent data suggest that exchange rates movements—both the bilateral US dollar exchange rate (BER) and the trade-weighted nominal effective exchange rate (NEER)—correlated throughout 2018 in most economies in emerging Asia with changes in sovereign bond spreads (Table 1.2.1). The bond spreads are measures of domestic financing conditions relative to global conditions, as they show the yield premium between domestic and foreign bonds.

In 2018, the correlation between changes in the spread and exchange rates was highest in Malaysia and lowest in the Republic of Korea. Meaningful correlation was observed in other economies. Positive correlation indicates that currency depreciation tended to come in tandem with a widening spread, or a tightening of domestic financing conditions, and currency appreciation with a loosening of domestic financing conditions as the spread narrowed. Correlation coefficients tended to be higher and more consistent for the BER than for the NEER, as the sign of the latter’s coefficient tended to vary more across economies.
These observations suggest that the exchange rate may play a role as a transmission channel influencing domestic financial conditions in emerging markets. Variation in the correlation sign, however, raises the possibility of contrasting channels through which exchange rates affect domestic financial conditions. In theory, the exchange rate may affect domestic financial conditions positively through the trade channel and negatively through the financial channel. In the trade channel, currency depreciation improves international competitiveness, which boosts net exports and eventually improves the current account, which loosens domestic financial conditions. However, currency depreciation can also work through the financial channel by inflating the size of foreign currency-denominated debt, thereby tightening domestic financial conditions and worsening the economy’s balance sheet. Depending on which of the two channels dominates, the effect of exchange rates on domestic financial conditions can vary across economies.

Evidence from the region

The trade and the financial channels both seem to influence domestic financing conditions in the region. Empirical findings from Lee, Rosenkranz, and Pham (forthcoming), summarized in Box 1.2.1, showed that changes in exchange rates affected sovereign credit risk premiums, which could then influence domestic financial conditions. Changes to BERs against the US dollar affected financial conditions largely through the financial channel, as depreciation worsened the balance sheets of indebted economies and hence tightened their financial conditions. In contrast, movements in NEERs acted more through the trade channel, as depreciation improved competitiveness and therefore improved financial conditions. On average, the analysis found that 1% bilateral depreciation against the US dollar tended to widen sovereign bond spreads by approximately 4.2 basis points, while 1% depreciation in NEER terms tended to narrow local currency spreads by approximately 7.2 basis points.

To illustrate, the following paragraphs decompose the factors behind the actual changes in the sovereign bond spread in 2018, based on the estimates reported in Box 1.2.1. Figure 1.2.3 shows the decomposition of the average monthly changes to the sovereign bond spread in 2018 in eight emerging market economies in Asia: India, Indonesia, Malaysia, the Philippines, the PRC, the Republic of Korea, Singapore, and Thailand. The red dots show the average of monthly changes in spread for each economy in 2018, which are decomposed into the average effects contributed by changes to the BER, the NEER, and other factors explaining movements in the spread.
1.2.1 The influence of US dollar funding conditions on Asian financial markets

In a panel analysis of 20 emerging market economies, Hofmann, Shim, and Shin (2017) found that local currency appreciation against the US dollar improved a country’s balance sheet as the value of dollar-denominated liabilities decreased relative to assets. Appreciation also increased foreign fund flows into sovereign bonds, suppressed yield spreads between bonds denominated in local currency and foreign currency, and lowered an economy’s credit risk premium, thereby loosening financial conditions.

Avdjiev, et al. (2018) found evidence that a stronger dollar was associated with lower growth in dollar-denominated cross-border bank flows and lower real investment in emerging market economies. These findings support the view that a stronger US dollar can have real macroeconomic effects in the opposite direction to effects from the standard trade channel.

Focusing more on evidence from emerging economies in Asia, Lee, Rosenkranz, and Pham (forthcoming) estimated a dynamic panel model for eight such economies—India, Indonesia, Malaysia, the People’s Republic of China, the Philippines, the Republic of Korea, Thailand, and Viet Nam—with monthly data from December 2006 to August 2018. The following equation was estimated using Anderson-Hsiao’s instrumental variable estimation (Anderson and Hsiao 1982), which also addressed possible endogeneity problems.

\[
\Delta y_{it} = \alpha + \delta \Delta y_{i,t-1} + \beta_1 \Delta B E R_{i,t-1} + \beta_2 \Delta N E E R_{i,t-1} + \gamma_1 \Delta C P I_{i,t-1} + \gamma_2 \Delta \Pi_{i,t-1} + \gamma_3 \Delta V I X_{i,t-1} + \eta_1 \Delta C P I U S_{i,t-1} + \eta_2 \Delta \Pi U S_{i,t-1} + \eta_3 \Delta M M U S_{i,t-1} + \epsilon_{it}
\]

The dependent variable was defined as the change month on month in local currency sovereign bond spread,\(^a\) whereby an increase indicated tightening domestic financial conditions. The main control variables were the change month on month in the BER against the US dollar and the change month on month in the NEER. Other variables included were the change month on month in the volatility index; change in the domestic and US consumer price index year on year; change in the domestic and US industrial production index year on year; change in the domestic lending rate month on month, which was defined as the average 1-year lending rate of domestic commercial banks; and change month on month in the 3-month money market rate in the US. Regression results are presented in the box table.

The results point to two opposing channels of the exchange rate being in play. While changes in BERs against the US dollar primarily affected financial conditions through the financial channel, changes in NEERs acted more through the trade channel.

### Estimation results dynamic panel regression

<table>
<thead>
<tr>
<th>Dependent variable: change month on month in the local currency sovereign bond spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\Delta y_{i,t-1} )</td>
</tr>
<tr>
<td>(\Delta B E R_{i,t-1} )</td>
</tr>
<tr>
<td>(\Delta N E E R_{i,t-1} )</td>
</tr>
<tr>
<td>(\Delta C P I_{i,t-1} )</td>
</tr>
<tr>
<td>(\Delta \Pi_{i,t-1} )</td>
</tr>
</tbody>
</table>

*** = significant at 1%, ** = significant at 5%, * = significant at 10%, \(\Delta B E R = \log\) change month on month in the bilateral exchange rate against US dollar (an increase indicates local currency depreciation), \(\Delta C P I, \Delta C P I U S = \log\) change year on year in the domestic and US consumer price index, \(\Delta \Pi, \Delta P U S = \log\) change year on year in the domestic and US industrial production index, \(\Delta M M U S = \log\) change month on month in the 3-month money market rate in the US, \(\Delta N E E R = \log\) change month on month in the nominal effective exchange rate (an increase indicates local currency depreciation), \(\Delta \gamma = \log\) change month on month in the lending rate (defined as the average 1-year lending rate of domestic commercial banks), \(\Delta V I X = \log\) change month on month in the Chicago Board Options Exchange volatility index, US = United States.

Sources: Lee, Rosenkranz, and Pham, forthcoming.

Estimation results suggested that, on average, 1% bilateral depreciation against the US dollar tended to increase sovereign bond spreads by approximately 4.2 basis points, while 1% currency depreciation in NEER terms tended to decrease sovereign bond spreads by approximately 7.2 basis points. Qualitatively, the regression results aligned with the findings of Hofmann, Shim, and Shin (2017). The findings suggested a significant relationship between US dollar funding and domestic financial conditions in selected emerging Asian economies and highlight the vulnerabilities that stem from the region’s high reliance on US dollar-denominated external funding.

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\(^a\) The difference between the 5-year local currency sovereign bond yield and the 5-year US Treasury yield, following the definition used in Hofmann, Shim, and Shin (2017).

**Background Paper**


**References**


Figure 1.2.3 suggests that variations in exchange rates explained part of the spread variations for sovereign bonds in 2018. In India, Indonesia, and the Philippines, currencies depreciated in both BER and NEER terms on average throughout the year. As a result, the two opposing channels for the exchange rate effects on the spread were in play, with a tightening effect from the BER and a loosening effect from the NEER. In contrast, the PRC and Singapore saw their BERs and NEERs move in different directions in 2018, with the BER showing currency depreciation and the NEER appreciation. Therefore, instead of causing contrasting effects, the two channels worked in the same direction, tightening domestic financial conditions.

In addition to changes in exchange rates, other factors, both domestic and external, were in play driving the actual direction of the changes in sovereign bond spreads, as captured by the gray portion of the bars. However, for explaining the differences in spread movements across economies, what matters are the country-specific drivers of the spreads, which included a wide range of variables from domestic macroeconomic indicators—such as prices, production activity, and lending rates—and other factors that might affect investors’ and consumers’ confidence domestically, such as political uncertainty and disasters. These other factors were generally in play to explain the dynamics of spread movements in most regional economies in 2018.

The relative importance of exchange rate movements in explaining changes in sovereign bond spreads also varied depending on the conditions experienced within a year. The monthly decomposition of the region’s average spreads in 2018 showed that, within the year, exchange rate changes tended to dictate the movements in sovereign bond spread, especially in Q3 of 2018, when regional currencies were under pressure to depreciate against the US dollar (Figure 1.2.4). Similar observations on the opposing channels of the exchange rate effects on domestic financial conditions appeared in the months when the average changes in both BER and NEER were pointing at the same direction.

Figure 1.2.3 highlights heterogeneity in the relative importance of factors explaining the spreads across economies—and therefore cautions against drawing general conclusions. A closer look at individual country analyses explained in Box 1.2.2 further supports this observation. The role of exchange rates in explaining variations in sovereign bond spreads differed across economies. For example, effects on economies’ country risk premiums associated with a stronger US dollar were found to be prominent in the Philippines but less so in India. Effects from depreciation in NEER terms tended to be heterogeneous across economies but with a general tendency to loosen domestic financial conditions.
Analysis in Box 1.2.2 further suggests the important positive link between the sovereign bond spread and the domestic lending rate, which highlights the connection between the spreads and domestic financial conditions. In general, widening spreads translates into a tightening of domestic credit conditions. However, heterogeneity in country estimates presented in Box 1.2.2 suggests that applying a one-size-fits-all approach for policy prescriptions may not be appropriate, calling instead for country-specific action.

**What can the region do?**

Despite heterogeneity by country, there are still some general approaches to policy that can be adopted to limit the influence of adverse external conditions on domestic financial systems. Ensuring domestic financial stability is a challenge, especially when external funding conditions are clouded with uncertainty. Experience from past crises like the Asian financial crisis of 1997–1998 and the global financial crisis of 2008–2009 repeatedly highlights the importance of strengthening domestic financial resilience to mitigate negative spillover from changes in global funding conditions.

The analysis here points to the role of smoothing exchange rate fluctuations to reduce uncertainty regarding domestic financial conditions. To this end, both monetary and macroprudential policies need to take into consideration the effects exchange rate movements have on domestic financial conditions through both the financial channel and the trade channel. As such, domestic policies should be coordinated to ensure that they are effective, avoiding potential conflict and undesirable outcomes.

More broadly, further developing and deepening capital markets in the region can provide a better environment for maintaining healthy domestic financial conditions. Expanding the investor base at home and further developing local currency bond markets can dampen unwanted effects from the global financial environment.

To promote better domestic financial resilience and dampen the impact of external funding conditions on domestic financial markets, all these policies should go together with strengthened policy dialogue across borders to monitor macrofinancial conditions, identify systemic risks, and improve regional financing arrangements. Capital flow management measures should also be considered to mitigate disruptive spillover of capital flows in an increasingly interconnected global financial system.
1.2.2 Checking for a feedback effect from sovereign bond spreads

The results from Lee, Rosenkranz, and Pham (forthcoming) reported in Box 1.2.1 were based on a single equation estimation that explained how changes in exchange rates affected sovereign bond spreads. The estimation considered the potential for solving the endogeneity problem and dealt with it through an instrumental variables approach. Therefore, while the analysis reflected how exchange rates affected sovereign bond spreads, it dealt only implicitly with feedback loops to other variables considered in the estimation.

To uncover the feedback to other variables, the present analysis extended the approach in Lee, Rosenkranz, and Pham (forthcoming) by estimating the following vector autoregression with exogenous variables (VAR-X), which is specified exactly according to the logic of equation (1) in Box 1.2.1:

\[ Y_t = A(L)Y_t + BX_t + Cu_t \]

\( Y_t \) is a vector of domestic endogenous variables that include the change month on month in the local currency sovereign bond spread, the change month on month in the BER against the US dollar, the change month on month in the NEER, consumer price inflation year on year, growth year on year in industrial production, and changes month on month in the domestic lending rate. \( X_t \) is a vector of exogenous external indicators used in equation (1) of Box 1.2.1, and \( u_t \) is a vector of six residuals that represent relevant shocks to \( Y_t \). The VAR-X is estimated for each of the eight emerging Asian economies considered in Box 1.2.1, and the impulse responses to shocks that alter the exchange rates are identified based on Cholesky decomposition approach, which in this case is insensitive to variable ordering.

On average, an exogenous shock that depreciated the local currency in BER terms by 1% tended to tighten financial conditions by widening sovereign bond spreads by 3.5 basis points in a following month (box figure 1). By contrast, an exogenous shock that depreciated the local currency in NEER terms by 1% was followed by a spread narrowing by 2.0 basis points and a consequent loosening of domestic financial conditions (box figure 2). Qualitatively, this confirmed the results reported in Box 1.2.1, which said that the BER effects on spreads in emerging Asia were dominated by the financial channel, and those of the NEER were dominated by the trade channel. Box figures 1 and 2 highlight, however, differences in the magnitude of effects in different economies. First, effects on sovereign bond spreads following a shock to the US dollar exchange rate tended to be more uniform across economies, with the Philippines having the most pronounced effect. Second, effects resulting in shocks on the NEER appeared to be more heterogeneous across economies. On average, however, results aligned with the single equation estimation. Vector autoregression analysis also highlighted that an exogenous increase in sovereign bond spreads tightened domestic lending conditions by increasing lending rates.

1 Change in the spread between local currency and US bonds following a shock to bilateral exchange rate

2 Change in the spread between local currency and US bonds following a shock to nominal effective exchange rate

Source: ADB estimates.
Endnotes

1 Traditional analysis of the mechanisms underlying exchange rate movements points to the positive effect of currency depreciation making exports more competitive and encouraging their growth, thereby positively affecting the current account and thus improving domestic financial conditions (Fleming 1962, Mundell 1963). More recent analysis, however, highlights an alternative financial channel. Through it, currency appreciation pushes down the size of foreign debt denominated in local currency, effectively loosening domestic financial conditions and consequently improving the economy’s balance sheet position (Borio and Lowe 2002, Reinhart and Reinhart 2009).

2 Sovereign bond spread is defined as the difference between the 5-year sovereign local currency bond yield and the 5-year US Treasury yield (Box 1.2.1).

References


Annex: Dimming global growth prospects

Aggregate growth in the major industrial economies of the United States, the euro area, and Japan moderated somewhat from 2.3% in 2017 to 2.2% in 2018 despite a growth pickup in the US (Table A1.1). Growth is set to continue slowing to the forecast horizon, to 1.9% in 2019 and further to 1.6% in 2020, as less accommodative monetary policy in the US, uncertainty surrounding Brexit, and continued trade tensions weigh on growth. A weakening external sector and waning domestic consumer and business sentiment cloud prospects in Japan.

A1.1 Baseline assumptions on the international economy

<table>
<thead>
<tr>
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<th>2017</th>
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<th>2019</th>
<th>2020</th>
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<tr>
<td><strong>Actual</strong></td>
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<tr>
<td>GDP growth (%)</td>
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<td>0.8</td>
<td>0.6</td>
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<td>Prices and inflation</td>
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<td>Food index (2010 = 100, % change)</td>
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<td>Interest rates</td>
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<td>United States federal funds rate (average, %)</td>
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<tr>
<td>$ Libor* (%)</td>
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<td>1.8</td>
<td>2.6</td>
<td>2.9</td>
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</table>

ADO = Asian Development Outlook, GDP = gross domestic product.
* Average growth rates are weighted by gross national income, Atlas method.
* Average London interbank offered rate quotations on 1-month loans.
Recent developments in the major industrial economies

United States

Economic growth greatly accelerated from 2.2% in 2017 to 2.9% in 2018. All components of domestic demand in the US contributed positively to growth, with consumption contributing 1.8 percentage points, investment 1.1 points, and government spending 0.3 points. Thus, domestic demand overwhelmed a slight drag on growth by 0.3 points from net exports. GDP growth in the fourth quarter (Q4) of 2018 was still healthy at a seasonally adjusted annualized rate (saar) of 2.6% but slowed from even higher expansion at 3.4% saar in Q3 (Figure A1.1).

Supporting this strong economic performance, consumption held up well throughout 2018. After disappointing 0.5% expansion in Q1, it jumped by 3.8% in Q2 and 3.5% in Q3, before slowing to 2.8% in Q4. The trend in consumer confidence also turned positive during the year, particularly in the second half, when in October it reached 133.4, its highest reading since September 2000 (Figure A1.2). Retail sales also rose through much of the year, with the index hovering above 130.0.

Private investment growth slowed in Q4 with slower expansion in private inventories. Fixed investment expanded further, as nonresidential fixed investment increased by 6.2% in real terms in Q4 on high growth in equipment and double-digit growth in intellectual property products. The purchasing managers’ index (PMI) echoed strong investment figures throughout the year with values well above 50, indicating continued expansion in manufacturing (Figure A1.2). In addition, the industrial production index shows a positive trend and continues to hover above readings recorded in 2007.

However, economic activity tended to decelerate toward the end of 2018. PMI readings declined from as high as about 60 in September–November to 57.6 in December. The decline continued further to 56.7 in January 2019, but the PMI bounced back to 59.1 in February, putting question the belief of many that production growth was starting to slow in the US. A similar pattern was observed on the consumption side. Retail sales slowed in December 2018 in tandem with declining consumer confidence. The consumer confidence index continued to decline to 117.7 in January 2019 but sharply reversed to 127.1 in February. The PMI and consumer confidence figures still suggest, therefore, continuing expansion of private spending in the US, at least to Q1 of 2019, particularly in view of a relatively strong recent outturn in the labor market.

A1.1 Demand-side contributions to growth, United States


A1.2 Business activity and consumer confidence indicators, United States

The labor market trended positive throughout 2018 and into 2019, though nonfarm jobs increased by only 20,000 in February after surging to 227,000 in December 2018 and 311,000 in January 2019. A rapid increase in labor force participation beginning in December 2018 took unemployment to 4.0% in January 2019, but the rate eased back to 3.8% in February. The average duration of unemployment remained at 20–22 weeks in the 3 months to February 2019, an improvement from 23–24 weeks a year earlier (Figure A1.3). Average worker earnings also rose steadily in the first 2 months of 2019. All in all, current trends suggest that continuing income growth will lend support to further expansion in domestic spending.

Inflation continued to ease as lower energy prices brought headline inflation down from 1.9% in December 2018 to 1.6% in January 2019. Meanwhile, core inflation has remained above 2.0% (Figure A1.4). Headline inflation may pick up with dissipation of the effects of lower oil prices, though, and somewhat higher core inflation may persist given current low unemployment and rising wages. That said, the inflation rate is not seen rising significantly in the near future, especially as slowing global growth may sap some momentum in the US.

In this situation, the Federal Reserve is seen to have less appetite for raising its benchmark policy interest rate, suggesting a more gradual increase this year than last. The already higher interest rate will, with the waning of fiscal stimulus and slower growth prospects for the global economy, at least tap the brakes on US growth in the months ahead. However, continuing strong consumer confidence, wage increases, and further expansion in production as suggested by the PMI support a growth forecast of 2.4% in 2019—still strong but considerably down from 2018, perhaps partly reflecting the 35-day partial government shutdown from 22 December 2018. Growth is projected to slow further to 1.9% in 2020. This suggests more moderate inflation to the forecast horizon, projected to average 2.2% in 2019 and 2.1% in 2020. Risks to growth projections are mostly on the downside.

### Euro area

After growth slowed to 0.9% saar in Q4, full-year data confirm that growth in the euro area slowed from 2.5% in 2017 to 1.8% in 2018. The slowdown reflects a broad decline in most GDP components. Fixed investment was the exception as supportive financing conditions propelled its growth from 2.9% in 2017 to 3.1% in 2018, when it contributed 0.6 percentage points to growth. Growth in private spending weakened from 1.8% in 2017 to 1.3%, restrained by cautious consumer sentiment, but it still contributed 0.7 percentage points to growth.
Growth in government consumption also softened, from 1.2% to 1.0%, for a contribution of 0.2 percentage points. Externally, a firm euro and slower global trade in the past year weighed on growth in net exports, which dropped from 22.4% in 2017 to 4.7% in 2018, also contributing 0.2 percentage points to GDP growth (Figure A1.5).

Consistent with the weaker outturn for the whole euro area, economic growth is marked down for several economies within it. In Germany, GDP growth dropped from 2.5% in 2017 to 1.5% in 2018 under drag imposed by the external sector. In Italy, growth softened from 1.7% in 2017 to 0.8% in 2018, mainly because of weak domestic demand and higher borrowing costs. In France, economic expansion slowed from 2.3% in 2017 to 1.5% against a difficult political backdrop. Other economies in the region also slowed as both Spain and the Netherlands shaved half a percentage point off their 2017 growth rates to expand by 2.5% in 2018. Economic growth weakened in Portugal from 2.8% to 2.1%, and in Belgium from 1.7% to 1.4%.

The growth forecast for the euro area as a whole is downgraded to 1.5% in both 2019 and 2020, weighed down by weakening economic sentiment, less favorable external developments, and sluggish growth in key trade partners. Domestic demand looks set to support continued growth, albeit at a lower rate than in 2018. Consumer spending will go some way toward sustaining activity, shored up by a tighter labor market and a more positive jobs outlook. Investment is also set to drive growth, buoyed by favorable financing conditions. Continuing accommodative monetary policy and expansionary fiscal measures—notably in France and Germany—will help buttress economic activity in the European currency bloc.

Early indicators suggest the euro area entered 2019 on a sour note. The downbeat data observed in the past year has persisted into 2019, signaling a slower growth path for the region. Surveys of economic sentiment remained in positive territory but deteriorated notably throughout 2018, ending the year at 107.4 in December and weakening further to 106.3 in January and to 106.1 in February. The PMI improved slightly from 50.7 in January, the lowest reading since July 2013, to 51.4 in February (Figure A1.6). After its sharpest plunge in over 2 years in November 2018, industrial production rebounded slightly in December but continues to indicate contraction. And, indeed, broad-based contraction was observed in November in 11 euro economies, including the 4 largest (Figure A1.7).

A tightening labor market is providing some lift to aggregate demand in the euro area. The unemployment rate fell to 7.8% in January, the lowest since the global financial crisis of 2008–2009. Unemployment rates fell in France, Germany, and Spain but inched up in Italy and Portugal.
Wage growth increased from 2.3% in Q2 of 2018 to 2.5% in Q3, which may spur inflation over the coming months.

Headline inflation cooled from 1.5% year on year in December 2018 to 1.4% the following month as the effects of higher oil prices in the past year faded. Core inflation inched up from 1.1% year on year in December to 1.2% in January. Consumer price inflation averaged 1.7% in 2018, well within the European Central Bank target of below 2.0%. The central bank left interest rates unchanged in January and reiterated guidance that it will keep rates at current levels until the end of summer in Q3 of 2019. Even so, inflation is seen to pick up only gradually as the year progresses, not enough to raise the inflation forecast for 2019 and 2020 above this year’s rate of 1.7%.

Risks to the outlook tilt to the downside. Economic prospects in the region are muted by trade policy uncertainty and weakening sentiment in financial markets. The threat of new tariffs remains a possibility that could make net exports an even heavier drag on growth in the euro area. Disruption from a no-deal Brexit, or prolonged uncertainty if the matter is further delayed, became more likely as British lawmakers voted down the Prime Minister’s proposals for a withdrawal agreement three times in January and March. The specter of a populist surge in May 2019 elections for the European Parliament raises the possibility of a Europe disunited over some members’ quest for radical changes to institute more flexible rules.

Japan

A growth streak continued, however modestly, at 0.8% in 2018. The year ended on a positive note on the back of a recovery in domestic demand, but output contractions in Q1 and Q3 dragged annual growth down from the 1.9% rate recorded in 2017 (Figure A1.8). The performance was enfeebled by weakness in the all-important external sector, with net exports weighing on growth in the last 3 quarters, and by natural disasters that disrupted activity in Q3. Private consumption and investment were choppy as slumps in 2 quarters alternated with rebounds in the others. While government consumption boosted growth to a limited extent, public investment dragged it down throughout the year.

Other recent indicators suggest that a recovery in domestic demand is fragile, particularly in business investment. Industrial production fell for a third consecutive month in January 2019, by a steep 3.7% (Figure A1.9). Further, the Nikkei manufacturing PMI fell sharply from 50.3 in January to 48.9 in February. This sends the index below the 50-point threshold that indicates contraction in manufacturing and is the lowest reading since July 2016.
Contraction in January in core machinery orders, considered a leading indicator for capital expenditure over a couple of quarters, similarly suggests that recent gains in investment may be slipping away.

On the consumption side, seasonally adjusted retail sales declined in January by a sharp 2.3% month on month, reversing a 0.9% increase in the previous month. The consumer confidence index, having shown a weakening trend since the start of 2018, fell further in February to a 2-year low of 40.9 on a scale of 0–100 measuring consumers’ expectations for their living standards over the next 6 months. Sluggish spending and a pessimistic outlook could reflect concerns about job prospects, as the January unemployment rate edged up slightly to 2.5%. While sales may surge ahead of a planned sales tax hike in October, and may enjoy additional support from expenditure related to the 2020 Olympics, prevailing consumer thrift could be exacerbated by the end of the year as consumers cut back on purchases after the higher sales tax takes effect.

Despite a tight labor market, wage gains have been lackluster, and price pressures have built only slowly. Consumer price inflation was steady at 0.2% year on year in January 2019, while core inflation excluding energy and fresh food crept up in the same month from 0.1% in December to 0.3% in January. With inflation remaining well below the target of 2.0%, the Bank of Japan decided at its last meeting to continue expanding the monetary base and keep its policy rates low, with the short-term rate at −0.1% and the yield of the 10-year government bond within a narrow band around zero.

Merchandise exports declined in January 2019 for a third consecutive month, by 6.9% year on year, the sharpest decline in 36 months (Figure A1.10). This reflected low demand for machinery and transport equipment in the People’s Republic of China (PRC). Import growth also weakened in the same month, to 1.0%, and the trade deficit ballooned from $496 million in December 2018 to $13.0 billion.

The Japanese economy having headed into 2019 with a slow start amid concerns over a global slowdown, full-year growth is expected to moderate. Consumption demand in early 2019 may improve ahead of the upcoming tax hike from 8% to 10% in October, but the impact is expected to be smaller than from a hike in April 2014, which was by a full 3 percentage points. The government plans to implement measures to counter the negative impact of the hike and to bolster spending in 2020, which may avoid a sharp plunge as was seen after the 2014 hike. Nonetheless, as trade tensions continue to threaten global trade and growth, and as domestic business sentiment wanes, the forecast for 2019 is a cautious 0.8%, downgraded to 0.6% for 2020.
Recent developments and outlook in other economies

Australia

GDP slowed from 1.1% saar in Q3 of 2018 to 0.7% in Q4 of 2018 because of weak demand at home and abroad (Figure A1.11). Consumption was the largest contributor to growth, adding 2.3 percentage points. Changes in inventory contributed 0.6 points as fixed capital formation subtracted 1.0 point and net exports subtracted another 0.7 points. Seasonally adjusted retail sales grew in January 2019 by 0.1% month on month, down from average monthly growth of 0.2% in 2017 and 2018. The consumer sentiment index stayed in 2018 above the 100-point threshold that indicates optimism, slipped marginally to 99.6 in January, then recovered to 103.8 in February. The business confidence index, which subtracts the percentage of pessimists from that of optimists, fell in December to a 12-month low of 2.7, still above the zero threshold and improving to 3.6 the following month. The seasonally adjusted unemployment rate improved from an average of 5.6% in 2017 to 5.3% in 2018. The Australian Industry Group’s manufacturing performance index ended 2018 at the threshold of 50 that separates expansion in manufacturing from contraction, but it climbed in the next 2 months to 54 in February.

Inflation declined steadily from 2.1% in Q2 to 1.8% in Q4, moving below the target range of 2.0%–3.0% set by the Reserve Bank of Australia, the central bank. In its 5 March 2019 monetary policy meeting, the board of the central bank decided to leave the cash rate unchanged at a low 1.50% to continue to support the economy. With income tax cuts approved by the Senate in mid-June, positive consumer sentiment, and a significant increase in employment sustaining private spending, consumption is expected to continue as the main driver of economic growth. Indications of stable economic growth include expansion in manufacturing, measures of business confidence reflecting optimism about future economic conditions, and a robust labor market. FocusEconomics panelists predict GDP to expand by 2.7% in 2019 and 2.6% in 2020, bolstered by robust commodity exports and favorable financing conditions to support stronger business investment outside of the large mining industry.

New Zealand

Economic expansion slowed from 4.4% saar in Q2 of 2018 to 1.9% in Q3 with weaker exports and contraction in government consumption and fixed capital formation. Consumption was the top contributor to growth, adding 1.7 percentage points while
net exports contributed 0.7 points. Change in inventories subtracted 1.2 points, and fixed capital formation deducted 0.9 points (Figure A1.12). Retail sales expansion accelerated from 4.0% in Q3 to 4.5% in Q4. The seasonally adjusted performance of manufacturing index slipped from 54.8 in December 2018 to 53.1 in January 2019 but still indicated expansion by staying above the threshold of 50. The business confidence index sank deeper into negative territory, from –24.1 in December to –30.9 in February. However, consumer confidence climbed from 103.5 in Q3 of 2018 to 109.1 in Q4, both values above 100 and indicating optimism.

Inflation was stable at 1.9% in the last 2 quarters of 2018, still within the target range of 1.0%–3.0% set by the Reserve Bank of New Zealand, the central bank. The seasonally adjusted unemployment rate rose from 4.0% in Q3 of 2018 to 4.3% in Q4. On 13 February 2019, the central bank announced that the official cash rate would remain at a record low of 1.75%. Consumer optimism, a low policy interest rate, and only moderate inflation continue to boost private consumption, as shown by increasing retail sales. Potential dampening factors are the rise in unemployment and a projected slowdown in fixed investment under tighter financial conditions and imminent changes to bank capital requirements. FocusEconomics panelists forecast growth at 2.7% in 2019, slowing to 2.5% in 2020, with exports expected to be weaker in the near term as slowing in the PRC reduces demand for dairy products, New Zealand’s major export.

Russian Federation

In developing Asia’s vast northern neighbor, GDP growth accelerated from 1.6% in 2017 to 2.3% in 2018, the highest rate in 6 years (Figure A1.13). This reflected thriving construction at home and an improved external sector, with net exports reversing 44.1% contraction in 2017 to grow by 27.4% in 2018. All demand components contributed positively to growth, with consumption in the lead, adding 1.3 percentage points, as net exports contributed 0.8 points and capital formation 0.4 points. Industrial production improved on 2.1% growth in 2017 with 2.9% expansion in 2018. Although the Markit manufacturing PMI declined from 51.7 in December 2018 to 50.9 in January, it remained above the threshold of 50 indicating expansion. The average consumer confidence reading in 2018 was negative, but only a quarter as bad as the worst-ever reading in Q4 of 1998. Retail sales also reflect improving consumer sentiment as growth more than doubled from 1.2% in 2017 to 2.6%.
Average inflation eased from 3.7% in 2017 to 2.9% in 2018, and unemployment improved from 5.2% to 4.8%. On 14 December 2018, the Central Bank of the Russian Federation raised its key policy rate from 7.50% to 7.75% on the expectation that prices could spike in the wake of ruble depreciation and a 2019 hike in the value-added tax. In 8 February 2019, the central bank decided to keep the key rate unchanged as the balance of risks remained tipped toward inflation. FocusEconomics panelists expect growth to moderate to 1.4% in 2019 with constrained oil production, the value-added tax hike, tight financial conditions, and uncertainty over economic sanctions. The panels predict growth recovering to 1.7% in 2020.

Commodity prices

Average commodity prices continued to rise in 2018, albeit at a much slower pace than in the previous year. Economic and geopolitical developments caused wide fluctuations in oil prices in 2018, taking them to 4-year highs in early October before they started declining again in November. Oil prices are forecast to remain below $70/barrel as upward price pressure stemming from reduced output by members of the Organization of the Petroleum Exporting Countries (OPEC) is tempered by downward pressure from higher output outside of OPEC and by global growth concerns. The food price index is expected to be little changed in 2019 and to rise by just under 2% in 2020, owing mainly to lower energy costs and adequate supply.

Oil price movements and prospects

Brent crude finished 2018 at $53/barrel, or almost $14/barrel lower than at the end of 2017 (Figure A1.14). The US decision to allow eight countries to continue purchasing Iranian oil after its implementation of sanctions on 4 November 2018 sent oil prices into a downward spiral. At the same time, the world’s top three oil producers—Saudi Arabia, the Russian Federation, and the US—pumped volumes close to all-time highs, placing further downward pressure on prices. On the demand side, concern over anemic growth prospects in the euro area, Japan, and the PRC weighed on prices.

After brief respite toward the end of last year, crude oil prices increased throughout January and February and into March as global oil stocks shrank. Brent crude oil breached the $60/barrel mark in mid-January and has stayed above it since then. The Brent crude average in the year to the first week of March was $61.90/barrel. According to the International Energy Agency, oil price increases are not yet alarming because the market is still getting rid of surpluses built up in the second half of 2018, when global supply exceeded demand by an estimated 1.3 million barrels/day (mbd).
In 2018, global oil supply rose by 2.6 mbd, more than 5 times the increase in 2017. As in the previous year, the US accounted for most of the increase as its crude oil production grew by 1.6 mbd (with rounding) from 9.4 mbd in 2017 to 10.9 mbd in 2018, while supply from OPEC fell by 0.1 mbd. Meanwhile, growth in world oil demand slowed by a quarter, from a 1.6 mbd increase in 2017 to 1.2 mbd in 2018. With oil supply increasing faster than demand, global oil inventories increased by 0.8 mbd in 2018, reversing year’s inventory drawdown.

The International Energy Agency report *Oil 2019* predicted a gradual rebalancing of the oil market in 2019. Growth in global oil demand is forecast to be 1.4 mbd in 2019, or 0.1 mbd higher than estimated growth in 2018. For world oil supply, the swing factor will still be US production. The US Energy Information Agency forecasts US crude oil production to average 12.4 mbd in 2019 and 13.2 mbd in 2020. According to the agency, growth in domestic production will offset forecast decreases in OPEC production to the forecast horizon. Meanwhile, OPEC continues its efforts to drain the global oil glut and support prices. OPEC’s oil output fell in February to a 4-year low as member countries, especially Saudi Arabia, overdelivered on the group’s cutback agreement. Meanwhile, output from Venezuela and Iraq continued to decline, and 0.3 mbd remained offline in Libya because of a shutdown at El Sharara, the country’s largest oilfield.

Opposing factors will keep Brent crude oil prices volatile. Support for oil prices will come from the forecast increase in global oil demand, agreed oil production cuts, and economic and geopolitical tensions that impinge on oil production and trade. Upward price pressure will come as well from the implementation of the International Maritime Organization’s 0.50% global sulfur cap for marine fuels on 1 January 2020, especially for Brent and West Texas intermediate crude, which have relatively low sulfur content. Upward pressure on Brent crude prices will be tempered, however, by concerns about slowing global economic growth, further strengthening of the US dollar, the resumption of oil production in Libya from El Sharara, and higher US crude oil production. The futures market shows Brent crude trading above $60/barrel to the forecast horizon (Figure A1.15). Barring major supply disruptions, the price of Brent crude is forecast to average $62/barrel in both 2019 and 2020.

### Food price movements and prospects

Food prices, as measured by the World Bank food price index, increased by 0.3% in 2018 (Figure A1.16). Apart from grain, the other two indexes used to calculate the index fell in 2018.
The retreat in the edible oil index came primarily as international palm oil prices dropped by 15% because of persistently large inventories in the leading exporters. At the same time, soybean oil values weakened with abundant supplies across the European Union, the US, and several emerging markets, as well as positive production prospects near the Black Sea. Similarly, the “other food” category fell by 3.2% in 2018 with a continued glut-driven decline in the price of sugar, the commodity with the highest weight in the index, and an easing of meat prices because of increased production.

Meanwhile, grain prices increased by 10.2% last year. The grain index trended upward in 2018, with wheat and maize prices higher in Q4. Wheat prices benefited from weather disturbances, especially in Australia, the Russian Federation, and Ukraine, as did maize prices from robust demand. By contrast, rice prices dropped in the second half of 2018 as bountiful harvests, competition among exporters, and currency movements weighed on them. These price movements have continued into 2019, pushing the food price index down by 5.0% year on year in the first 2 months of the year.

The latest forecasts in a March 2019 report from the US Department of Agriculture show global grain production reaching 2,606.5 million tons in the current 2018/19 crop season, which is lower than the previous crop year estimate but still higher than the 5-year average. The outlook for edible oil remains favorable, with the US Department of Agriculture forecasting higher production and exports in 2018/19 and higher stocks at the end of the year.

According to a 26 February update from the World Meteorological Organization, there is a 50%–60% chance that El Niño will recur by May 2019, though it is expected to be not as strong as in 2015 and 2016. In any case, it is notable that current and past El Niño weather disturbances show only a weak link with global food prices, as reported in ADO 2016: Food prices first dropped by 16.6% in 2015 before rising by 1.3% in 2016. With ample supplies of major agricultural commodities and energy prices low, the forecast El Niño is unlikely to cause global food prices to spike. In view of recent deep declines in food commodity prices, and of mostly subdued oil prices, the food commodity price index is forecast to remain unchanged in 2019 before rising by 1.5% in 2020.

There are several risks to the forecasts, key among them more adverse weather, oil price volatility, worsening trade frictions, domestic support policies, and further currency depreciation hitting commodity exporters.