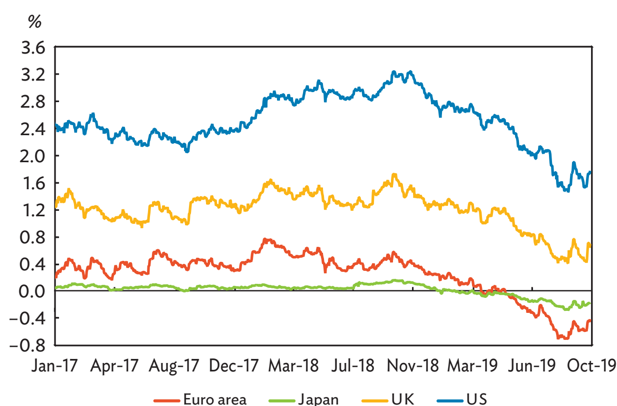
# Global and Regional Market Developments

Between 31 August and 15 October, 2-year and 10-year local currency (LCY) government bond yields rose in major advanced economies on a late boost from the limited trade deal between the People's Republic of China (PRC) and the United States (US) that was announced on 11 October (**Figure A**).

The US Federal Reserve reduced the federal funds target during its 17–18 September meeting by 25 basis points (bps) to a range of 1.75%–2.00%. In its decision, the Federal Reserve noted that while the domestic economy continues to grow and employment remains solid, there has been some weakness in trade and business investment. In addition, the Federal Reserve emphasized that there was a great deal of uncertainty in the global economy. In September, the Federal Reserve slightly upgraded its 2019 gross domestic product (GDP) growth forecast to 2.2% from its June forecast of 2.1%. The 2021 GDP forecast was also slightly increased to 1.9% from 1.8%. The inflation forecasts were unchanged. US labor markets have held steady, with some indicators showing improvements. The unemployment rate slightly inched up to 3.6% in October from 3.5% in September. The US added 128,000 nonfarm payrolls in October despite some labor strikes during the month. The August and September nonfarm payrolls were also revised upwards to 219,000 and 180,000, respectively.

**Figure A: 10-Year Government Bond Yields in Major Advanced Economies** (% per annum)




UK = United Kingdom, US = United States.
Note: Data as of 15 October 2019.
Source: Bloomberg LP.

The Federal Reserve's policy rate cut led to a decline in US 10-year yields toward the end of September. However, yields gained in October, resulting in an overall rise in yields between 31 August and 15 October. The rise in yields was mostly driven by investor demand for riskier assets amid improved sentiment following the 11 October announcement of a temporary truce in the ongoing PRC–US trade conflict. The US held back from implementing tariff hikes scheduled to go into effect on 15 October, while the PRC promised to buy more US farm products. The Federal Reserve subsequently lowered its rate by another 25 bps to a range of 1.50%–1.75% on 29–30 October.

In line with developments in the US, 10-year yields in Germany fell following the European Central Bank's (ECB) policy rate reduction of its deposit facility by 10 bps to −0.5% on 12 September. The rates on the ECB's refinancing operations and marginal lending facility were left unchanged. In addition, the ECB restarted its asset purchase program, with asset purchases of EUR20 billion per month scheduled to begin 1 November. The ECB's decision to cut the policy rate was due to downgrades of its economic forecasts, especially the worryingly-low inflation rate, which has given rise to fears about deflation. In September, the euro area's inflation rate fell to 0.8% year-on-year (y-o-y) from 1.0% y-o-y in August and fell further to 0.7% y-o-y in October. Third quarter GDP growth also fell to 1.1% y-o-y from 1.2% y-o-y in the previous quarter. However, toward the middle of October, rates began rising again as investor confidence improved on news of progress in the PRC-US trade conflict. Rates in Germany also rose following reports that the government was considering the use of fiscal stimulus to boost the domestic economy.

Despite the Bank of Japan (BOJ) leaving its monetary policy unchanged on 19 September, the BOJ has allowed the 10-year yield rate to rise and reduced its bond purchases. On 31 October, the BOJ again left its monetary policy unchanged. The BOJ noted in its decision that, while the domestic economy continues to progress as expected, there is rising risk and that it will need to pay more attention to the possible effect on its inflation target. The BOJ also adjusted its forward guidance, saying that it expected current interest rates to stay the same or lower as long as the risk to its current

macroeconomic trajectory remains, and removed the time frame of keeping rates the same at least until spring 2020.

The BOJ also updated its macroeconomic forecasts from those made in July. GDP forecasts were slightly lowered, with the GDP growth forecast for fiscal 2019 lowered slightly to an annualized 0.6% from 0.7%. The 2020 GDP growth forecast was also lowered to 0.7% from 0.9%, and the 2021 forecast was lowered to 1.0% from 1.1%. The inflation forecast for 2019 was also lowered to 0.7% from 1.0%, while 2020's inflation outlook was lowered to 1.1% from 1.3%. The 2021 inflation forecast was also lowered to 1.5% from 1.6%.

In emerging East Asia, 10-year bond yield trends were mixed.[1] Bond yields rose in most markets while yields declined in a few markets, driven primarily by individual domestic factors (**Table A**). The largest yield declines were seen in Viet Nam, where 10-year yields fell 28 bps between 31 August and 15 October, driven by the unexpected 25 bps cut in the central bank's policy rate on 13 September (**Table B**). The 10-year bond yield dropped in Indonesia by 12 bps, following a 25 bps policy rate cut by Bank Indonesia at its meeting on 18–19 September. Bank Indonesia said the rate cut was a preemptive move to help maintain economic growth in light of external challenges. On 23–24 October, Bank Indonesia reduced its policy rate by another 25 bps. Singapore saw a 5 bps decline in its 10-year rate, despite its yields historically tracking US yields, on the back of monetary easing by the Monetary Authority of Singapore. On 14 October, the Monetary Authority of Singapore reduced the slope of its Singapore dollar nominal effective exchange rate policy band due to minimal inflation and slowing economic growth.

**Table A: Changes in Global Financial Conditions**

| | 2-Year Government Bond (bps) | 10-Year Government Bond (bps) | 5-Year Credit Default Swap Spread (bps) | Equity Index (%) | FX Rate (%) |
|---|---|---|---|---|---|
| **Major Advanced Economies** | | | | | |
| United States | 11 | 27 | – | 2.4 | – |
| United Kingdom | 13 | 22 | (4) | 0.1 | 5.2 |
| Japan | 2 | 10 | (0.3) | 7.1 | (2.4) |
| Germany | 24 | 28 | (0.5) | 5.8 | 0.5 |
| **Emerging East Asia** | | | | | |
| China, People's Rep. of | (3) | 11 | (3) | 3.6 | 1.1 |
| Hong Kong, China | 3 | 29 | – | 3.0 | (0.04) |
| Indonesia | (38) | (12) | (3) | (2.7) | 0.2 |
| Korea, Rep. of | 9 | 22 | (0.2) | 5.1 | 2.2 |
| Malaysia | 0.2 | 11 | (2) | (2.8) | 0.3 |
| Philippines | 4 | 31 | (3) | (1.7) | 0.9 |
| Singapore | (10) | (5) | – | 0.3 | 1.2 |
| Thailand | 0.9 | 7 | (2) | (1.7) | 0.7 |
| Viet Nam | (19) | (28) | (2) | 0.9 | (0.02) |
| **Select European Markets** | | | | | |
| Greece | (17) | (22) | (65) | (1.1) | 0.5 |
| Ireland | 14 | 13 | (2) | 12.5 | 0.5 |
| Italy | (6) | (7) | (50) | 4.9 | 0.5 |
| Portugal | 10 | 8 | (5) | 2.1 | 0.5 |
| Spain | 11 | 15 | (4) | 6.2 | 0.5 |

( ) = negative, – = not available, bps = basis points, FX = foreign exchange.
Notes:
1. Data reflect changes between 31 August 2019 and 15 October 2019.
2. A positive (negative) value for the FX rate indicates the appreciation (depreciation) of the local currency against the United States dollar.
Sources: Bloomberg LP and Institute of International Finance.

[1] Emerging East Asia comprises the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.

**Table B: Policy Rate Changes**

| Economies | Policy Rate 1-Jan-2019 (%) | Policy Rate 31-Aug-2019 (%) | Rate Changes | | Policy Rate 31-Oct-2019 (%) | Year-to-Date Change in Policy Rates (basis points) |
|---|---|---|---|---|---|---|
| | | | Sep-2019 (%) | Oct-2019 (%) | | |
| United States | 2.50 | 2.25 | ↓ 0.25 | ↓ 0.25 | 1.75 | ↓ 75 |
| Euro Area | (0.40) | (0.40) | ↓ 0.10 | | (0.50) | ↓ 10 |
| Japan | (0.10) | (0.10) | | | (0.10) | – |
| China, People's Rep. of | 4.35 | 4.35 | | | 4.35 | – |
| Hong Kong, China | 2.75 | 2.50 | ↓ 0.25 | ↓ 0.25 | 2.00 | ↓ 75 |
| Indonesia | 6.00 | 5.50 | ↓ 0.25 | ↓ 0.25 | 5.00 | ↓ 100 |
| Korea, Rep. of | 1.75 | 1.50 | | ↓ 0.25 | 1.25 | ↓ 50 |
| Malaysia | 3.25 | 3.00 | | | 3.00 | ↓ 25 |
| Philippines | 4.75 | 4.25 | ↓ 0.25 | | 4.00 | ↓ 75 |
| Thailand | 1.75 | 1.50 | | | 1.50 | ↓ 25 |
| Viet Nam | 6.25 | 6.25 | ↓ 0.25 | | 6.00 | ↓ 25 |

( ) = negative, – = no change.
Note: Data as of 31 October 2019.
Source: Various central bank websites.

Bond yield increases in the PRC; Hong Kong, China; and the Republic of Korea were driven by positive economic news. The PRC benefited from improvements in its strained trade relationship with the US. The Republic of Korea and Hong Kong, China, which have tight economic linkages with both giants, also benefited. In addition, in both the Republic of Korea and Hong Kong, China, news of government policy measures to boost the domestic economy contributed to higher yields. The uptick in Hong Kong, China's 10-year bond yield also partly reflected domestic political instability that soured investment sentiment. The Philippines saw the largest rise in its 10-year yield during the review period at 31 bps. Investors in the market expect no further policy rate cuts this year and are selling for profit. In Malaysia, investors are facing uncertainty over whether it will remain in the FTSE World Government Bond Index pending another watchlist review in March 2020. In Thailand, the Bank of Thailand's efforts to limit capital inflows contributed to the rise in bond yields.

## Economic Outlook

Global economic growth is projected to decelerate to its slowest pace since the global financial crisis. The deceleration is taking place against a backdrop of softening manufacturing activity and an escalation of trade conflicts and geopolitical tensions. The unprecedented level of trade conflicts is generating uncertainty about the multilateral trading system that laid the foundation for the expansion of global trade and output in the postwar period. In particular, the PRC–US trade tensions show no signs of approaching a fundamental resolution. Global trade is slowing as a result of this and other trade conflicts, as well as due to easing global growth. The heightened external uncertainty is eroding business confidence, which in turn is adversely affecting investment and overall business activity, further dampening growth. The world economy is undergoing a broad-based and synchronized slowdown that is affecting both advanced and emerging economies. All major economies are headed for lower growth.

According to the International Monetary Fund's (IMF) *World Economic Outlook October 2019*, the world economy is projected to expand 3.0% in 2019 and 3.4% in 2020, down from 3.6% growth in 2018. This would mark the slowest 2-year pace of global growth since 2008–2009, when a severe financial crisis that originated in advanced economies almost threw the world economy into a pronounced recession. The IMF downgraded its forecasts for 2019 and 2020 by 0.2 and 0.1 percentage points, respectively, compared with July's forecasts. The downgrades relative to April's forecasts were even bigger: 0.3 percentage points for 2019 and 0.2 percentage points for 2020. The weakening of global growth momentum in 2019 marks a continuation of the sharp slowdown of global economic activity in the last 3 quarters of 2018. The slowdown of global trade is directly impacting global growth as well as harming business sentiment and investment, which is further weakening growth. The projected pickup in 2020 is predicated on stronger economic performances in a

number of financially stressed emerging markets and is thus far from certain. Overall, downside risks continue to outweigh upside risks by a sizable margin. There is also a chance that the global slowdown may be sharper than expected.

Advanced economies grew 2.3% in 2018 but growth is projected to slow to 1.7% in both 2019 and 2020. The IMF downgraded its forecast for 2019 by 0.2 percentage points compared with its July forecast. Emerging markets and developing economies are growing at a somewhat more robust pace, but their growth momentum is also slowing notably. Emerging markets grew 4.5% in 2018, but their growth is projected to slow to 3.9% in 2019. The forecast for 2019 marks a downgrade of 0.2 percentage points relative to the IMF's July forecast and 0.5 percentage points relative to its April forecast.

The IMF is projecting emerging markets and developing economies to rebound in 2020 to expand 4.6%, although this assumes a robust recovery of economies under stress. According to the IMF's *World Economic Outlook October 2019*, consumer price inflation in advanced economies will decline from 2.0% in 2018 to 1.5% in 2019 before picking up to 1.8% in 2020. In emerging markets and developing economies, the corresponding figures are 4.8%, 4.7%, and 4.8%.

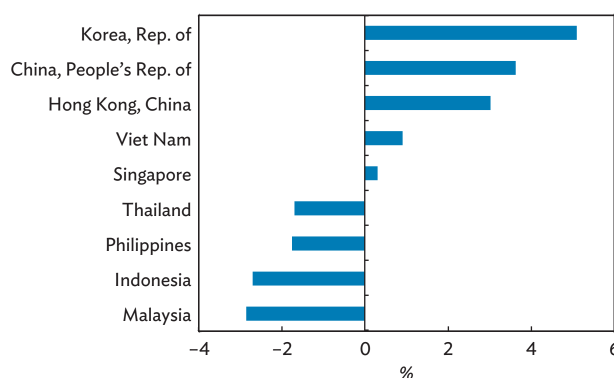
In line with the moderation of global growth momentum, developing Asia's growth is projected to slow.[2] According to the Asian Development Bank's *Asian Development Outlook (ADO) 2019 Update* released in September, the region's growth reached 5.9% in 2018 and is projected to slow to 5.4% in 2019 and 5.5% in 2020. The *ADO 2019 Update* projections for 2019 and 2020 represent downgrades of 0.3 percentage points and 0.1 percentage points, respectively, relative to April's forecasts. Excluding the region's high-income newly industrialized economies, the corresponding figures are higher at 6.4% for 2018, 6.0% for 2019, and 6.0% for 2020. Emerging East Asian economies are still growing at a robust but slowing pace. Partly as a result of ongoing trade tensions with the US, the PRC's growth is forecast to moderate from 6.6% in 2018 to 6.2% in 2019 and 6.0% in 2020. The PRC's growth slowdown also reflects structural forces, especially the natural tendency of economies to slow as they become richer and more mature.

The 2018, 2019, and 2020 actual and projected GDP growth rates for the 10 members of the Association of Southeast Asian Nations are 5.1%, 4.5%, and 4.7%, respectively. The Republic of Korea is projected to grow 2.1% in 2019 and 2.4% in 2020, down from 2.7% in 2018. The 2018, 2019, and 2000 figures for Hong Kong, China, which has been experiencing political instability, are 3.0%, 0.3%, and 1.5%, respectively. Overall, the region is not immune from the global slowdown but nevertheless continues to grow at a significantly faster pace than the rest of the world. As is the case for the world economy, downside risks to the region's growth and financial stability continue to outweigh the upside risks.

Finally, the *ADO 2019 Update* projects the region's (excluding newly industrialized economies) consumer price inflation to rise somewhat from 2.6% in 2018 to 2.9% in 2019 and 2020. There has been a recent uptick in inflationary pressures due to food price pressures associated with the African swine flu, especially in the PRC.

Equity markets showed mixed movements between 31 August and 15 October (**Figure B**). The biggest gainers were the Republic of Korea (5.1%) and the PRC (3.6%), with gains driven by the 11 October trade war truce between the PRC and the US. The equity markets of the Republic of Korea and Hong Kong, China both rose on news of fiscal stimulus plans to support the domestic economy. The declines observed in the equity markets of Indonesia, the Philippines, and Thailand were largely

**Figure B: Changes in Equity Indexes in Emerging East Asia**




Note: Changes between 31 August 2019 and 15 October 2019.
Source: Bloomberg LP.

[2] Developing Asia comprises the 46 regional developing member economies of the Asian Development Bank. https://www.adb.org/sites/default/files/publication/513146/adosupplement-july-2019.pdf.

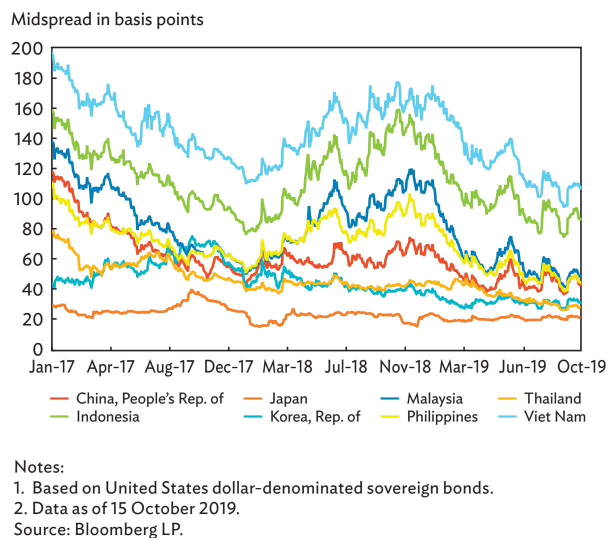
driven by growth concerns. Indonesia experienced a weak trade performance in September and its economic growth forecast was revised downward by the IMF in October. The IMF also downgraded its 2019 growth forecast for the Philippines in October. Malaysia's equity market recorded the largest decline during the review period. Investor sentiment was adversely affected by uncertainty among bond market investors over whether the country would remain in the FTSE World Government Bond Index.

Most emerging East Asian currencies appreciated amid improved investor sentiment as trade tensions between the PRC and the US eased with the announcement of a truce on 11 October (**Figure C**). The largest gainer was the Korean won, which appreciated 2.2%. Trade-sensitive currencies, such as the Korean won and the Singapore dollar, are expected to gain the most if further progress is made in the PRC–US trade conflict.

Credit default swap spreads in emerging East Asia fell during the review period (**Figure D**). One major reason for the decline was the improvement in investor confidence following the announcement on 11 October of the limited trade deal between the PRC and the US, two of the region's largest trade and economic partners. Another important factor was the positive impact on global financial conditions of monetary policy easing in advanced economies. The ECB's interest rate cut and resumption of bond purchases, which came on the heels of the Federal Reserve's rate cuts, have contributed to a more benign global financial environment.

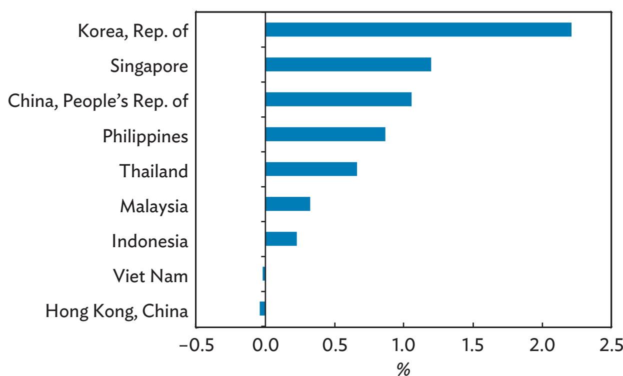
The Chicago Board Options Exchange Volatility Index, a key indicator of market sentiment, showed a large drop during the review period on the back of improved investor optimism in the aftermath of the limited trade deal between the PRC and the US (**Figure E**). The Emerging Markets Bond Index Global spread

**Figure D: Credit Default Swap Spreads in Select Asian Markets** (senior 5-year)



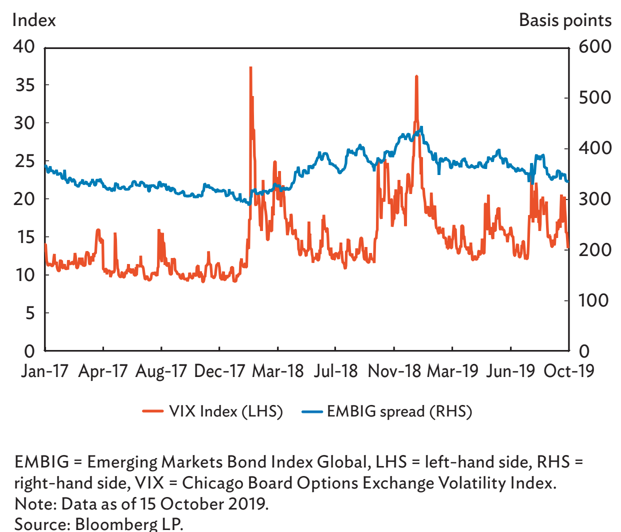

Notes:
1. Based on United States dollar-denominated sovereign bonds.
2. Data as of 15 October 2019.
Source: Bloomberg LP.

**Figure C: Changes in Month-End Spot Exchange Rates vs. the United States Dollar**



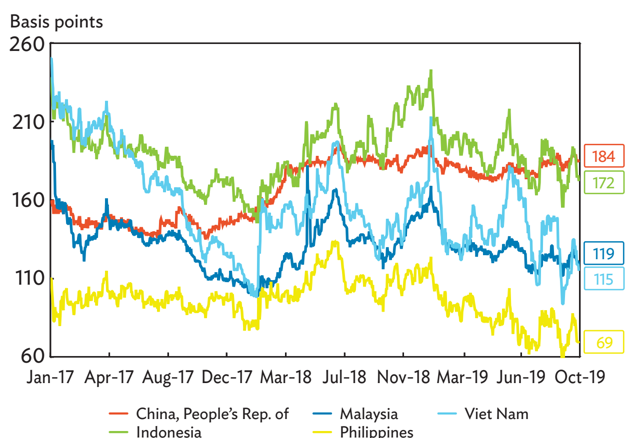

Notes:
1. Changes between 31 August 2019 and 15 October 2019.
2. A positive (negative) value for the foreign exchange rate indicates the appreciation (depreciation) of the local currency against the United States dollar.
Source: Bloomberg LP.

**Figure E: United States Equity Volatility and Emerging Market Sovereign Bond Spread**



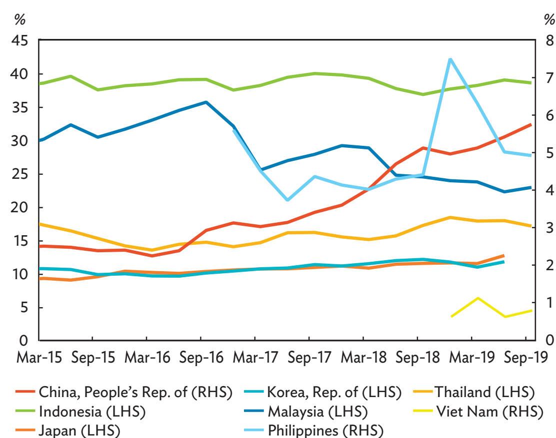

EMBIG = Emerging Markets Bond Index Global, LHS = left-hand side, RHS = right-hand side, VIX = Chicago Board Options Exchange Volatility Index.
Note: Data as of 15 October 2019.
Source: Bloomberg LP.

**Figure F: JP Morgan Emerging Markets Bond Index Sovereign Stripped Spreads**




Notes:
1. Based on United States dollar-denominated sovereign bonds.
2. Data as of 15 October 2019.
Source: Bloomberg LP.

**Figure G: Foreign Holdings of Local Currency Government Bonds in Select Asian Economies** (% of total)




LHS = left-hand side, RHS = right-hand side.
Note: Data as of end-September 2019 except for Japan and the Republic of Korea (end-June 2019).
Source: *AsianBondsOnline*.

likewise showed a decline, albeit a much smaller one (**Figure F**). Although the trade war truce agreed upon by the PRC and the US on 11 October falls far short of a comprehensive long-term settlement, it seems to have buoyed market sentiment in the region. Given the region's extensive trade, investment, and other economic links with the two economic giants, the positive reaction of emerging East Asian financial markets is not surprising.

Foreign holdings of LCY government bonds in emerging East Asia were mostly stable between 31 August and 15 October (**Figure G**). Foreign ownership in Thailand's LCY government bond market declined the most, shedding 0.8 percentage points to 17.2% at the end of the review period amid growth concerns and the Bank of Thailand's efforts to limit capital inflows. Indonesia's foreign holdings share also declined 0.4 percentage points during the review period to 38.6% on the back of a weakening domestic economy. In contrast, the PRC saw its share of foreign holdings rise by 0.3 percentage points, partly due to the removal of quotas on foreign investment in the LCY bond market. The addition of PRC government bonds to some global bond indices also provided a fillip. Foreign holdings in Malaysia recovered after the announcement that its government bonds would remain in the FTSE World Government Bond Index. However, uncertainty persists since Malaysia was kept on the watchlist pending a review scheduled for March 2020.

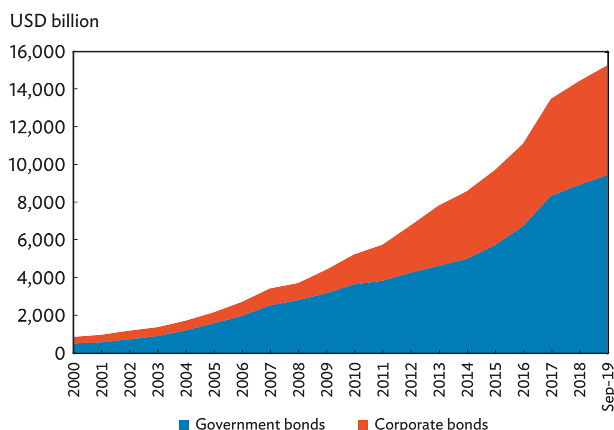
Both foreign and domestic investors in the region's bond markets will need to prepare for a potential shift away from the London Interbank Offered Rate to other alternatives due to a major scandal and consequent loss of market confidence in the benchmark (**Box 1**).

At the end of September, emerging East Asia's LCY bond market reached a size of USD15.2 trillion on issuance of USD1.5 trillion in the third quarter of 2019 (**Figures H** and **I**). Overall growth in the region's bond market, however, moderated to 3.1% quarter-on-quarter and 13.0% y-o-y in the third quarter of 2019. The region's LCY bond market faces a number of downside risks, which are elaborated below.

## Risks to Emerging East Asian Bond Markets

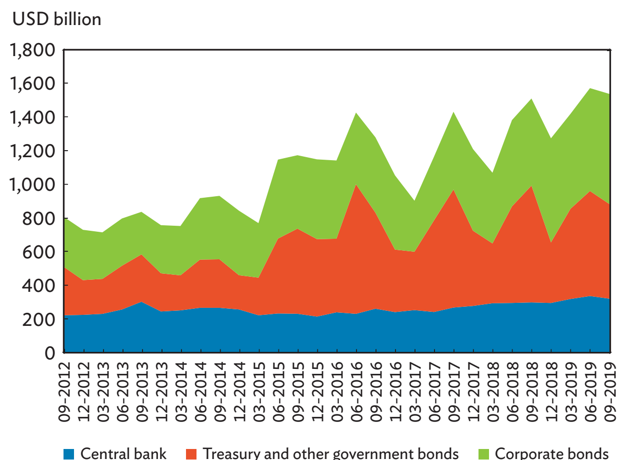
The downside risks to the region's economic growth and financial stability continue to grow and dominate the upside risks. Although the IMF has repeatedly downgraded its forecasts for global growth and the Asian Development Bank has done the same for developing Asia's 2019 growth forecast, there is a nonnegligible chance that growth may be even lower than the downgraded forecasts. The upside risks are few and far between, mainly revolving around unlikely surprises. For example, in the improbable event that

**Figure H: Size of Local Currency Bond Market in Emerging East Asia**




USD = United States dollar.
Source: *AsianBondsOnline*.

**Figure I: Local Currency Bond Issuance in Emerging East Asia** (gross)




USD = United States dollar.
Source: *AsianBondsOnline*.

## Box 1: So Long, LIBOR!

Two years have passed since Andrew Bailey, Chief Executive of the United Kingdom's (UK) Financial Conduct Authority, famously announced that London Interbank Offered Rate (LIBOR) benchmarks would be phased out after 2021, calling for a market-led transition to alternative risk-free rates (RFRs). With an estimated USD370 trillion in exposure to interbank offered rates (IBORs) across cash and derivative markets, and less than 3 years until the deadline, market participants face a daunting task.

Despite a slow start, the last 12 months have seen encouraging progress. All major markets have identified their replacement rates (**Table B1**). Regulators and public–private working groups have been raising market awareness by issuing guidance notes and conducting numerous market consultations.

Now, all eyes are fixed on the markets for the United States (US) dollar and the pound sterling, which are the most likely to be the first to go through a complete transition. Both markets have seen growing activity in their respective alternative RFRs: the Sterling Overnight Index Average (SONIA) in the UK; and the Secured Overnight Financing Rate (SOFR) in the US, which was only introduced by the Federal Reserve in April 2018.

Market infrastructures have developed trading and clearing services for new RFR futures and swap instruments. Debt issuances have gradually picked up too. However, whether liquidity in cash and derivative markets is developing fast enough to secure a smooth transition is being hotly debated.

**Table B1: Replacement Rates Proposed in Major Markets**

| Jurisdiction | Legacy Benchmark | Alternative Reference Rate |
|---|---|---|
| United States | USD LIBOR | SOFR |
| United Kingdom | GBP LIBOR | SONIA |
| Euro Area | EURIBOR, EUR LIBOR, and EONIA | €STR |
| Japan | JPY LIBOR, TIBOR, and Euroyen TIBOR | TONA |
| Switzerland | CHF LIBOR | SARON |
| Australia | BBSW | RBA cash rate |
| Canada | CDOR | CORRA |
| Hong Kong, China | HIBOR | HONIA |
| Singapore | SOR, SIBOR | SORA |

€STR = Euro Short-Term Rate, BBSW = Bank Bill Swap Rate, CDOR = Canadian Dollar Offered Rate, CHF = Swiss franc, CORRA = Canadian Overnight Repo Rate Average, EONIA = Euro Overnight Index Average, EUR = euro, EURIBOR = Euro Interbank Offered Rate, GBP = pound sterling, HIBOR = Hong Kong Interbank Offered Rate, HONIA = Hong Kong Dollar Overnight Index Average, JPY = Japanese yen, LIBOR = London Interbank Offered Rate, RBA = Reserve Bank of Australia, SARON = Swiss Average Overnight Rate, SIBOR = Singapore Interbank Offered Rate, SOFR = Secured Overnight Financing Rate, SONIA = Sterling Overnight Interbank Average Rate, SOR = Swap Offer Rate, SORA = Singapore Overnight Rate Average, TIBOR = Tokyo Interbank Offered Rate, TONA = Tokyo Overnight Average Rate, USD = United States dollar.
Source: Author's compilation.

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## Box 1: So Long, LIBOR! *continued*

On the SOFR side, futures volumes are growing but there is still no sign of liquidity in the swap market. Through the end of September 2019, only USD222 billion had been traded in SOFR swaps, while the volume of LIBOR swaps reached USD100,366 billion. Furthermore, SOFR derivatives trading is concentrated in short-term maturities (through futures and short-dated, single-period swaps).

On the cash side, there have been a number of high-profile SOFR debt issuances (USD279 billion through the end of September 2019), but corporate end-users are still reluctant to give up LIBOR rates and embrace the new RFRs. A key reason is that alternative rates like SOFR and SONIA are overnight indices that require fixing in arrears, through compounding or averaging over an observation period. They do not offer forward-looking term rates, which allows fixing the rate in advance as classical LIBOR products do. The development of forward-looking SOFR term rates could alleviate this issue; the US Alternative Reference Rates Committee is working on this idea, which is tentatively scheduled to be introduced by the end of 2021. However, the committee is cautioning market participants against delaying adoption of SOFR until term rates are available, which is necessarily predicated upon a healthy derivatives market.

SOFR liquidity has improved in some market segments, yet not to such a degree that institutions can comfortably transition away from LIBOR across all business lines. Optimists will point out that SOFR is a new market instrument, significant progress has been made, and there is still some time left before the transition. But skeptics are aplenty too, which is why the case of SONIA is of particular interest.

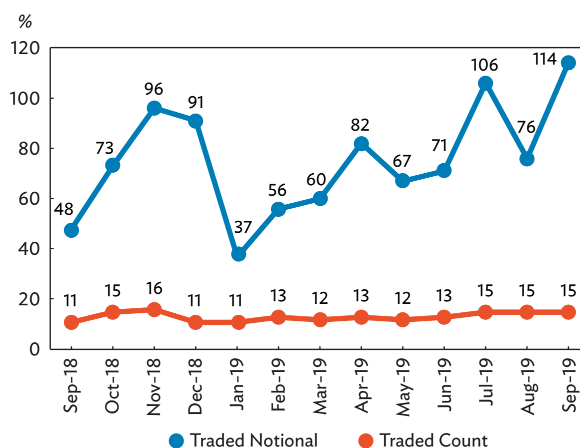
Contrary to SOFR, the 20-year old SONIA Index already had an active swap market before being selected as the alternative reference rate for LIBOR. This greatly facilitates its speedy adoption as a replacement. As the Bank of England (BOE) reports, SONIA is used to value GBP30 trillion of assets each year. SONIA-linked products have now been established in all key segments across cash and derivative markets, thus providing the necessary building blocks for a transition away from LIBOR.

Over GBP18 billion of SONIA floating-rate notes maturing beyond 2021 were issued in 2019 and, most importantly, the issuance of LIBOR-linked, floating-rate notes maturing beyond 2021 has now all but stopped. Liquidity has also slowly increased in SONIA futures, and swap volumes have been catching up to GBP LIBOR swap volumes in notional terms (**Figure B1**).

But there is a catch. The number of SONIA trades still desperately trails that of LIBOR, with no obvious sign of improvement so far. According to the International Swap Dealers Association (ISDA) SwapsInfo data, GBP LIBOR sees, on average, 1,700 swaps trades per week, whereas SONIA hovers around 225 trades per week. Tellingly, the average notional of a SONIA swap is over five times that of the LIBOR equivalent, as SONIA adoption has been sluggish amid derivative end-users.

Despite real progress in establishing SONIA products across markets, LIBOR remains the de facto standard for GBP-denominated loans, and the stock of LIBOR-linked transactions maturing beyond 2021 keeps growing, compounding the challenges of a market transition. The BOE highlighted in its July *Financial Stability Report* that the outstanding gross notional volume of GBP LIBOR swaps maturing after 2021 is still steadily increasing.[a] The problem

**Figure B1: SONIA vs. GBP LIBOR Swap Volumes**




GBP = pound sterling, LIBOR = London Interbank Offered Rate, SONIA = Sterling Overnight Index Average.
Source: Author's illustration using data from International Swap Dealers Association (ISDA). Weekly ISDA SwapsInfo analysis for the week ending on 27 September 2019.

[a] BOE. 2019. *BOE Financial Stability Report—July*. London.

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## Box 1: So Long, LIBOR! *continued*

is even more acute with noncleared positions and more worrying when considering the number of legacy contracts (instead of notional amounts) that will need to be replaced. So, one would be excused for wondering if an orderly transition is still achievable within the remaining 26 months.

A glimmer of hope comes from two upcoming market events that could genuinely catalyze the necessary expansion of RFR derivative markets. The first is the publication by ISDA of fallback provisions for LIBOR-referencing derivatives. The second is central counterparty (CCP) clearinghouses switching to RFR indices for price alignment interest and collateral discounting.

Fallback language refers to provisions describing how a contract should be managed upon the discontinuation of an underlying benchmark. It comprises three key elements: (i) the definition of the fallback trigger event, (ii) the benchmark replacement index, and (iii) the calculation of a contract-level adjustment spread (since a "credit-risky" term rate like LIBOR 6M would be replaced by a "risk-free" overnight index like SOFR).

The derivative fallbacks that ISDA has been consulting on and plans to publish by the end of 2019 will set how the conversion would take place in the worst-case scenario in which one party would have failed to replace outstanding LIBOR contracts with all its counterparties ahead of the benchmark cessation. The 2006 ISDA Master Agreement definitions will be amended so all new IBOR-referencing contracts include appropriate provisions. ISDA will also publish a multilateral amendment protocol so legacy IBOR transactions can incorporate the fallbacks. Adherence to the protocol will be voluntary though, and there is a chance that some institutions might opt out. One reason is that fallback clauses in cash products may not align with those of their derivatives hedges, creating potential timing and valuation basis risks. Moreover, the calculation mechanism proposed for derivatives ("compounded setting in arrears rate" RFR with "historical mean or median" spread adjustment) is likely to give rise to material value transfers. Thus, some participants may prefer to negotiate alternative arrangements for their legacy books instead of adopting the protocol.

Once the fallbacks have been confirmed, IBOR contracts will have a high probability of referencing the chosen RFR at a future date. Market participants may then start to manage this contingent exposure through RFR derivative hedges. The fallback mechanisms will also offer a much-needed reference point as institutions start negotiating an early conversion of their LIBOR-linked derivatives to RFR-based equivalents. This should help develop liquidity in SOFR and SONIA derivatives, especially over longer tenors.

The second compelling event for RFR adoption is the move by CCPs to switch the US dollar rate for price alignment interest and collateral discounting from the federal funds rate to SOFR. The Chicago Mercantile Exchange is proposing 17 July 2020; LCH is reportedly looking at 17 October 2020. A coordinated "big-bang" approach in which all CCPs switch in a coordinated fashion is still possible. This was the option initially touted by the US Alternative Reference Rates Committee. The impact will be significant, as firms hedging the resulting discounting basis risk will drive liquidity across the SOFR curve, paving the way for term rates.

CCPs are also devising a two-part compensation mechanism. The first element would be a cash payment offsetting the profit-and-loss jump caused by the discounting switch. The second (possibly optional) element would be a risk compensation scheme using RFR-LIBOR basis swaps to neutralize the discounting DV01 basis. In parallel, many institutions already plan to repaper their existing collateral agreements to realign the collateral rate used for noncleared positions with the new clearing standard. This would align valuation standards and eliminate basis risk between noncleared client positions and their cleared hedges. Typically, the firms renegotiating a collateral agreement would then need to estimate a fair compensation fee as well.

The transition away from IBOR rates will ultimately be executed on a firm-by-firm basis. As the deadline looms, operational and technical readiness turns into a competitive advantage. Building the capacity to trade new RFR-linked instruments—with all valuation, risk management, and operations support functions—becomes a strategic priority, as early adopters can exit from problematic positions early and cost-effectively, putting themselves in a better position to negotiate bilateral transition arrangements when the need arises.

global trade tensions suddenly ease and the threat to the postwar multilateral global trading regime recedes markedly, both the real economy and financial markets would enjoy an unexpected boost. Another unexpected fillip would be that the advanced economies and the PRC grow faster than expected, which is an unlikely scenario in light of both cyclical and structural factors, as well as against the background of an increasingly unfavorable external environment. While there is no cause for undue pessimism and there are no compelling reasons to expect a sharp and abrupt global slowdown, there is also little cause for optimism that the world economy can quickly shake off its doldrums and shift to a higher gear. In short, most indicators suggest that we are in the early stages of a downturn in the global business cycle.

The biggest and darkest cloud that hovers over the world economy and global financial markets is global trade conflict, especially persistent trade tensions between the PRC and the US, the world's two largest economies. On 11 October, the PRC and the US reached a limited trade deal that promised to provide some relief to the struggling world economy and calm nerves in global financial markets that have been unsettled by rising tensions between the two countries. The US agreed to put on hold an increase in tariffs from 25% to 30% on USD250 billion worth of imports from the PRC, which had been scheduled to come into effect on 15 October. However, the US did not roll back any of the tariffs that it had already imposed on Chinese imports since it initiated the trade conflict in early 2018. The PRC, for its part, agreed to increase its purchase of agricultural products from the US, especially pork and soybeans, to between USD40 billion and USD50 billion per year. The PRC's concessions were basically a repackaging of existing concessions and relatively minor. Notwithstanding the optimism it generated, the limited trade deal is a temporary truce at best and falls far short of a comprehensive long-term settlement. In light of fundamental differences that separate the two heavyweights—US unhappiness with what it perceives to be the PRC's unfair government support for businesses, and the PRC's resentment at what it perceives to be the blatant and one-sided infringement by the US of Chinese sovereignty—the more likely outcome is a conflict that will persist over time rather than resolve itself in the short term.

The persistence and potential intensification of the PRC–US trade conflict poses a major risk to emerging East Asia. Given the tight economic linkages that emerging East Asian economies have with both the PRC and the US, the elevated level of trade and other economic tensions between the two giants is expected to have negative consequences for the region. Notwithstanding such common sense intuition, the resulting economic impacts on the PRC's neighbors are not so straightforward. There are three different channels through which the US–PRC trade conflict can affect the PRC and other economies in emerging East Asia. The first is the direct channel (i.e., the impact of US tariffs on the PRC's exports to the US). The second channel pertains to indirect impacts via production linkages. The PRC imports many parts and components from other emerging East Asian economies and assembles them into final products for export to the US. Therefore, Korean, Malaysian, and Thai exporters of laptop parts and components to the PRC, for example, will be hit by US tariffs against the PRC's laptop exports. Finally, some producers in the PRC's neighboring markets may benefit from the US tariffs via the redirection of US imports away from the PRC and toward other developing Asian economies. For example, Cambodian producers of garments and textiles may benefit from US tariffs that make Chinese garments and textiles relatively more expensive. Recent empirical analysis suggests that such redirection effects could be substantial (**Box 2**). During the first half of 2019, US imports from the PRC fell 12.4% y-o-y, while US imports from the rest of developing Asia rose 9.7% y-o-y. Furthermore, the analysis finds that the effect of the conflict on the GDP growth of Asian economies other than the PRC is negative if trade redirection effects are excluded and positive if those effects are incorporated. However, the positive effect is generally small.

The negative effect of the trade conflict on emerging East Asian economies is likely to be substantially larger if the negative effect on the PRC is factored in. Even if the direct effect of the conflict on the region is relatively small, it may pose a far bigger risk to the region because the conflict can significantly increase the likelihood of a sharper-than-expected slowdown in the PRC. While the two main protagonists, the US and the PRC, stand to lose the most from the conflict, the PRC is bound to suffer more. According to the *ADO 2019 Update*, the US trade measures that have already been implemented will reduce the PRC's GDP by 0.65%–0.68% relative to what it would have been in the absence of any trade conflict. The corresponding negative impact for the US economy is noticeably smaller at 0.13%–0.17% of GDP. Since the PRC depends more on US demand for its products than

## Box 2: Update on the People's Republic of China–United States Trade Conflict

The People's Republic of China (PRC) and the United States (US) agreed to a truce in their ongoing trade conflict on 11 October. Under the limited trade deal, the US will hold off on tariff increases scheduled for the middle of October in exchange for limited concessions from the PRC, mainly in the form of a commitment to purchase more US agricultural products. Although the agreement may offer some relief to the slowing world economy and help calm jittery financial markets, it falls far short of a comprehensive and permanent settlement of the trade conflict. As such, it is premature to presume the normalization of the fraught economic relationship between the world's two largest economies, who remain divided by fundamental differences.

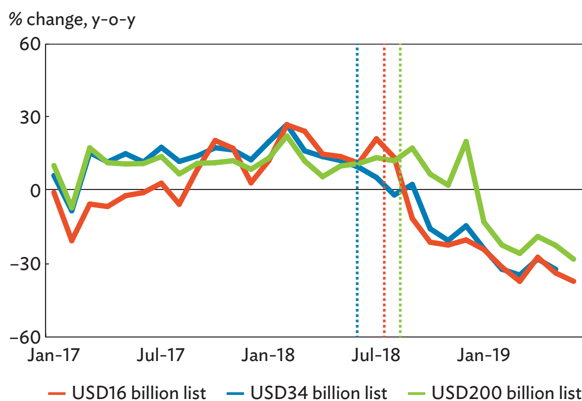
The PRC–US trade conflict continues to pose the biggest single threat to emerging East Asia's economic growth. It also poses a significant threat to the region's financial stability. Declines in business and consumer confidence over concerns about global trade can adversely affect regional financial markets, which in turn can further dent economic activity. In this context, the *Asia Bond Monitor September 2018* issue analyzed the impact of the PRC–US trade conflict on the region's financial markets. The analysis confirmed the presence of a significant link between financial markets—specifically, stock market returns—and new developments in the trade conflict.

Since September 2018, there have been a number of new developments in the trade conflict, including the limited deal announced on 11 October. Prior to this, a temporary truce had been agreed upon in December 2018 to allow for bilateral negotiations, raising hopes for a long-term settlement. Those hopes were dashed in May 2019 when the talks fell through and both sides imposed new tariffs on a number of goods and raised rates on existing tariffs. August 2019 saw the announcement of the latest round of US tariffs, which were to be implemented stepwise in September, October, and December. However, the ceasefire announced on 11 October halted the planned October tariff hikes.

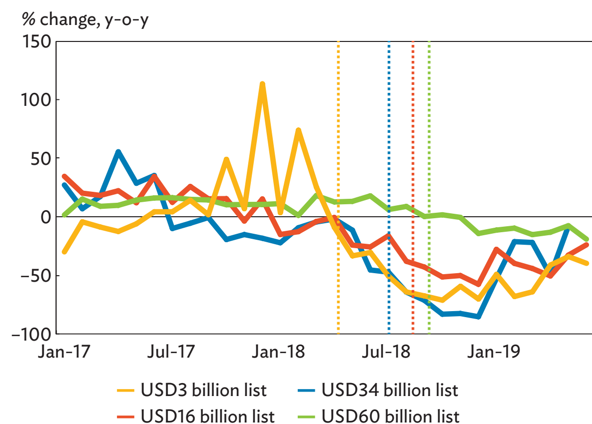
As discussed in the *Asian Development Outlook (ADO) 2019 Update,* data from the first 6 months of 2019 already show the significant impact of tariffs on bilateral PRC–US trade. The PRC's exports that are subject to US tariffs were down 30%–40% year-on-year (y-o-y) in June 2019, while US exports that are subject to PRC tariffs fell by a similar magnitude (**Figure B2.1**). The conflict is also affecting the PRC's tight trade linkages with East and Southeast Asian economies, which collectively form a regional production network that is often referred to as "Factory Asia." Due to weaker demand from the US, firms in the PRC are now buying less from their suppliers in Japan and other economies in the region.

**Figure B2.1: Growth in Imports of Tariff-Affected Goods** (y-o-y, %)

**A. United States' Imports from the People's Republic of China**




**B. People's Republic of China's Imports from the United States**




y-o-y = year-on-year.
Notes: Broken lines indicate the date when tariffs went into effect. Left panel: 6 July 2018, 25% on initial USD34 billion list; 23 August 2018, 25% on USD16 billion list; and 24 September 2018, 10% on USD200 billion list, rising to 25% on 10 May 2019. Right panel: 2 April 2018, 15%–25% on USD3.3 billion list; 6 July 2018, 25% on initial USD34 billion list; 23 August 2018, 25% on USD16 billion list; and 24 September 2018, 10%–25% on USD60 billion list, rising to as much as 25% on 10 May 2019.
Source: Asian Development Bank estimates using data from the United States Census Bureau. https://usatrade.census.gov (accessed 16 September 2019).

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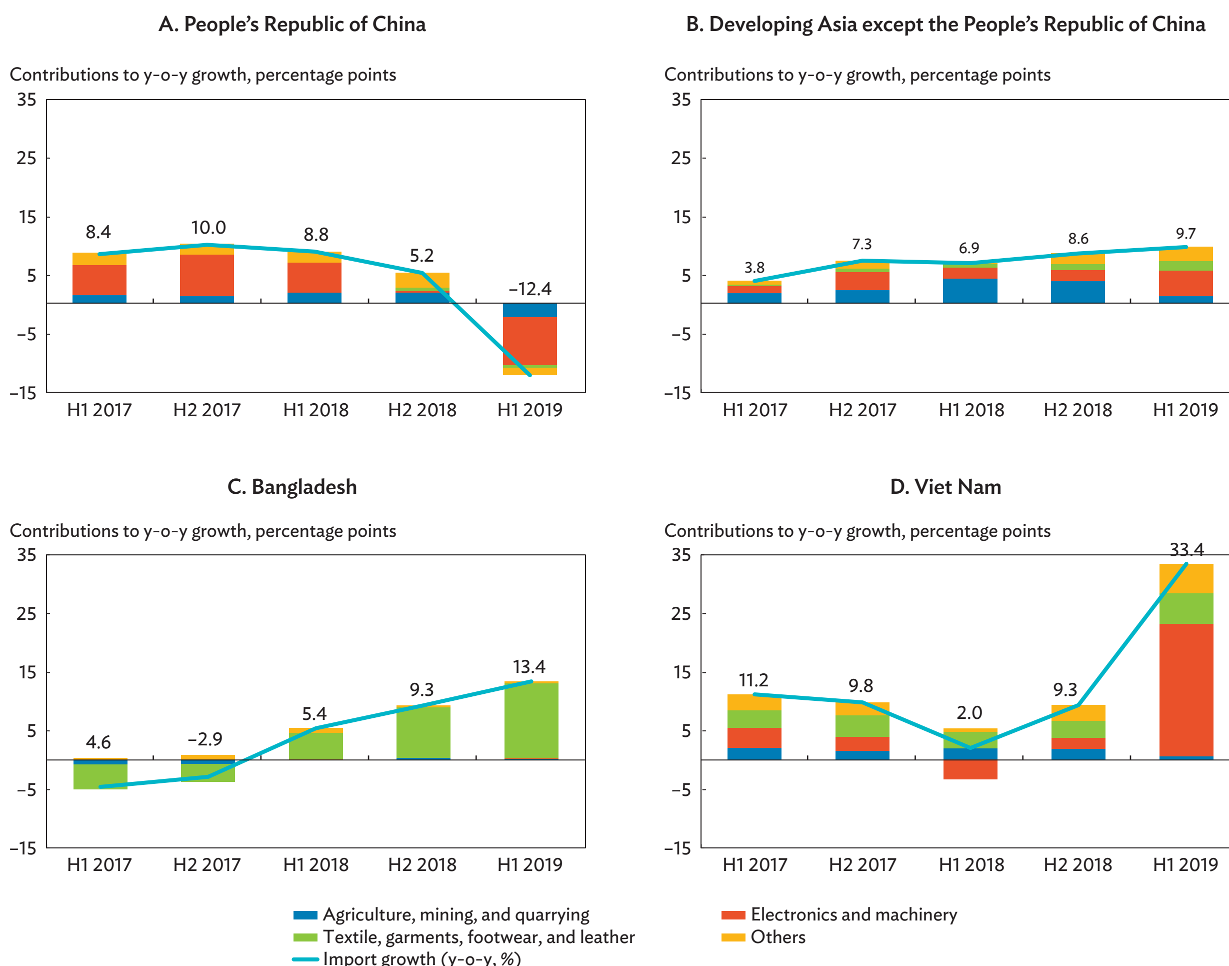
## Box 2: Update on the United States–People's Republic of China Trade Conflict *continued*

In addition to affecting the intra-regional trade driven by Factory Asia, the PRC–US trade conflict also seems to be shifting US imports from the PRC to other Asian economies. According to trade data, US imports from the PRC fell about 12% y-o-y in the first half of 2019, while US imports from the rest of developing Asia rose about 10% y-o-y during the same period. Viet Nam; Taipei,China; and Bangladesh enjoyed the most pronounced expansion in their exports to the US, with y-o-y increases of about 33%, 20%, and 13%, respectively (**Figure B2.2**). The primary drivers of increased exports were garments for Bangladesh, and electronics and machinery for Viet Nam and Taipei,China.

Such significant trade developments are bound to have a substantial impact on economic activity. Updated estimates of the effects of the PRC–US trade conflict in the *ADO 2019 Update* confirm this conjecture. The PRC will suffer sizable losses under the current scenario, which includes all tariffs that have been implemented through 30 September, while some economies in the region may see gains due to trade redirection. Estimates show that under the current scenario the trade conflict will reduce the PRC's gross domestic product (GDP) by 0.65% over the medium term relative to a baseline scenario of no conflict. The corresponding figure for the US is much smaller at 0.13% of GDP. The rest of

**Figure B2.2: United States Imports from Selected Economies in Developing Asia**




H1 = first half, H2 = second half, y-o-y = year-on-year.
Source: Asian Development Bank estimates using data from the United States Census Bureau. https://usatrade.census.gov (accessed 16 September 2019).

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## Box 2: Update on the United States–People's Republic of China Trade Conflict *continued*

developing Asia will experience a small GDP gain of 0.11%, primarily due to the redirection of US imports from the PRC. These estimates exclude any negative effects caused by uncertainty, loss of confidence, or risk aversion, which are much harder to quantify. But as noted in the *ADO 2019 Update*, there has already been a decline in investment growth in a large number of economies in developing Asia.

Ultimately, the impact of the PRC–US trade conflict on the region's economies and financial markets will be determined by the dispute's future evolution, which is inherently unpredictable and unknowable. Although the limited trade deal of 11 October gives some cause for optimism, it falls far short of a comprehensive settlement and it is not clear whether it heralds the eventual normalization of the PRC–US trade relationship. What is more certain is that if the conflict persists into 2020 and beyond, which is the more likely scenario given the fundamental differences that separate the two economic heavyweights, the real economic and financial impacts will be substantial.

vice versa, and the tariffs imposed by the US on the PRC are relatively larger, the expectation of greater damage to the PRC's economy is not surprising.

The sizable negative effects on the PRC matter for other emerging East Asian economies because they are closely integrated with the PRC's economy. Above all, these economies depend on the huge Chinese market for exports and growth. As such, any negative effects on the PRC is likely to have tangible spillovers for the rest of the region. Although the trade conflict is by no means the only cause of the PRC's moderating growth in recent years, it is a significant contributor. The toll that the conflict is taking on the PRC's growth is evident in the latest economic data. According to the *ADO 2019 Update*, the PRC's GDP expanded 6.0% y-o-y in the third quarter of 2019, the slowest pace in 27 years. Weakening investment, along with sluggish exports, were the major drivers of the slowdown. In addition to negative spillovers from the PRC's growth slowdown, the simmering conflict is denting business confidence and investment throughout the region, further contributing to slower growth. Declining investment is evident in all subregions and most major economies of developing Asia. Although there are domestic factors behind the investment decline in some economies, a less rosy external environment is clearly a contributing factor.

Although the persistent PRC–US trade conflict remains the primary threat to emerging East Asia's economic growth and financial stability, a number of other downside risks loom on the horizon. According to empirical analysis in the *ADO 2019 Update*, the rapid growth of private debt in the region can adversely affect financial stability. Public and private debt have continued to grow in developing Asia. Since the global financial crisis of 2008–2009, markets in the region have continued to accumulate public debt, partly reflecting countercyclical fiscal stimulus measures taken in response to the crisis, and more recently investment pushes by a few regional economies. The ratio of private debt to GDP has expanded even more rapidly in some economies. The PRC, for example, witnessed rapid growth of corporate debt, while the Republic of Korea, Malaysia, and Thailand have seen their household debt grow quickly. For the region as a whole, the ratio of total debt relative to GDP expanded by about two-thirds during the past decade.

High and mounting public debt raises investor concerns about fiscal sustainability and a government's liquidity and solvency. Rapid private debt accumulation can jeopardize the ability of companies and households to service their debt. The 1997/98 Asian financial crisis underlined the damage caused by the unsustainable buildup of private debt. High levels of debt render the economy more vulnerable to shocks. Private debt is significantly linked to financial vulnerability. The analysis in the *ADO 2019 Update* revisits the debt–financial vulnerability nexus using an index of currency stress as a proxy for financial vulnerability.

The analysis finds that if the private-debt-to-GDP ratio rises from the first quartile of 39% to the third quartile of 161%, the exchange rate loss compared to its 12-month peak (i.e., maximum currency loss) increases by 13.5 percentage points. The adverse effect of private debt buildup on currency depreciation is more pronounced in emerging markets. Moving from the first quartile to the third quartile of the private-debt-to-GDP ratio results

in a 7.6 percentage points greater exchange rate loss in emerging economies relative to advanced economies. The analysis also reveals a significant association between public debt and financial vulnerability during periods of financial stress. Furthermore, public debt and private debt are interrelated; a private debt boom–bust may require government bailouts of troubled financial institutions.

As mentioned, other downside risks also loom on the horizon. The risk of a disorderly Brexit continues to hover over the economies and financial markets of the United Kingdom and the European Union. In light of the limited trade and other economic linkages between the United Kingdom and Asia, the fallout from a disorderly Brexit on Asia is likely to be limited. However, in the unlikely scenario that the disruption from Brexit becomes severe enough to destabilize European (and even global) financial markets, emerging East Asia would not be immune from the resulting instability.

A somewhat more likely potential source of volatility in emerging East Asian markets is financial instability in vulnerable emerging markets outside the region. Against a backdrop of slowing global growth and heightened uncertainty associated with rising trade and geopolitical tensions, financial stress in a major emerging market with weak fundamentals and political instability—for example, Argentina or Turkey, both of which remain financially fragile—could trigger a generalized risk aversion toward emerging markets. In other words, the fragile state of global financial conditions could amplify the spillovers and contagion effects from external shocks such as an emerging market financial crisis. Finally, on the trade front, the current downturn in the global electronics cycle may turn out to be more pronounced than expected. The electronics industry, which produces semiconductors and other products that depend heavily on them, plays a major role in many economies in emerging East Asia.

The one silver lining amid the gathering dark clouds that threaten the global financial and economic landscape is the easing of monetary policies in advanced economies. The Federal Reserve cut the federal funds rate, its key benchmark rate, by 25 bps each in July, September, and October. The Federal Reserve indicated that the rate cut was designed to support economic growth amid elevated uncertainty about future growth. In September, the ECB announced its biggest package of rate cuts and economic stimulus in 3 years. Specifically, the central bank cut interest rates further below zero and revived bond purchases in a bid to revive growth and lift worryingly-low inflationary expectations. Easier monetary conditions in advanced economies have allowed many emerging East Asian economies—such as the PRC, Indonesia, the Republic of Korea, Malaysia, the Philippines, Thailand, and Viet Nam—to follow suit since May 2019. The shift toward more accommodative monetary policies around the world has helped to mitigate the deterioration of financial market sentiment due to the global growth slowdown and uncertainty. The sustained easing of monetary conditions in advanced economies may have also stemmed capital outflows from emerging markets.

Overall, the downside risks to emerging East Asia's growth prospects and financial stability continue to significantly outweigh the upside risks. The easing of global financial conditions due to more accommodative monetary policies in both advanced and emerging economies provides some relief from the gloomy global outlook, but it will be limited relief at best. Emerging East Asia's strong fundamentals should keep it in good stead amid the current global financial and economic landscape of slowing growth and elevated uncertainty, exacerbated by simmering global tensions that may further intensify. However, the region should prepare itself for a downturn in the global business cycle and a number of sizable downside risks. Although there is no cause for undue pessimism, the region's policy makers would do well to support growth and maintain their guard against potential vulnerabilities.