Introduction: Yield Curves Steepen in Emerging East Asia

Yields on 10-year local currency (LCY) government bonds in emerging East Asia were largely up between 29 December 2017 and 15 February 2018 as global economic growth maintained its momentum and inflation continued to rise. Meanwhile, yields on 2-year LCY government bonds declined in most emerging East Asian markets. In line with advanced economies, emerging East Asia also saw steeper yield curves, reflecting brighter economic prospects and rising inflation (**Table A**).[2]

Between 29 December and 15 February, major advanced economies witnessed an increase in their 2-year and 10-year government bond yields, with 10-year government bond yields climbing faster than 2-year government bond yields. The steeper yield curves confirm the continued expansion of the global economy and increased prospects of higher inflation (**Figure A1**).

Despite a somewhat weaker economic performance in the fourth quarter (Q4) of 2017, the outlook for major economies remains decidedly positive. While gross domestic product (GDP) growth fell slightly in the United States (US) in Q4 2017 to 2.5% year-on-year (y-o-y) from 3.2% y-o-y in the third quarter (Q3) of 2017, growth remains firmly on track, with consumption growth increasing from 2.2% y-o-y in Q3 2017 to 3.8% y-o-y in Q4 2017. The labor market continues to strengthen as nonfarm payrolls posted strong gains in January, adding 200,000 jobs versus a gain of 160,000 in December.

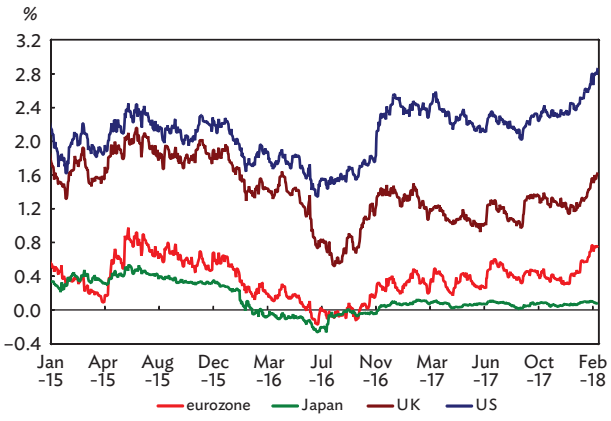
Table A: Changes in Global Financial Conditions

	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	30	50	–	2.2	–
United Kingdom	26	46	(3)	(5.9)	4.3
Japan	(2)	2	(9)	(5.2)	6.2
Germany	7	34	0.3	(4.4)	4.2
Emerging East Asia					
China, People's Rep. of	(24)	7	8	(3.3)	2.6
Hong Kong, China	(16)	20	–	4.0	(0.1)
Indonesia	(19)	11	3	3.7	(0.04)
Korea, Rep. of	6	29	(2)	(1.9)	(0.5)
Malaysia	18	10	3	2.3	3.9
Philippines	12	101	4	0.6	(4.4)
Singapore	(8)	29	–	1.2	2.1
Thailand	(13)	8	(4)	2.7	4.1
Viet Nam	(93)	(84)	(2)	7.7	(0.03)
Select European Markets					
Greece	(7)	6	(45)	5.1	4.2
Ireland	10	24	(3)	(3.7)	4.2
Italy	(1)	8	(21)	2.9	4.2
Portugal	1	(0.1)	(22)	1.4	4.2
Spain	5	(3)	(8)	(3.3)	4.2

( ) = negative, – = not available, bps = basis points, FX = foreign exchange.
Notes:
1. Data reflect changes between 29 December 2017 and 15 February 2018.
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.

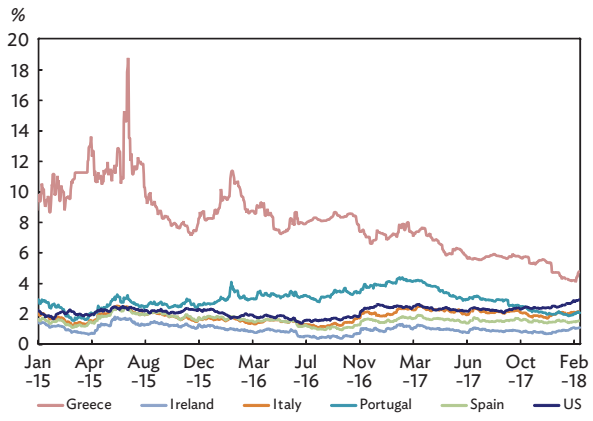
[2] Emerging East Asia comprises the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.

Figure A1: 10-Year Government Bond Yields in Major Advanced Economies (% per annum)



UK = United Kingdom, US = United States.
Note: Data as of 15 February 2018.
Source: Bloomberg LP.

Figure A2: 10-Year Government Bond Yields in Select European Markets and the United States (% per annum)



US = United States.
Note: Data as of 15 February 2018.
Source: Bloomberg LP.

Amid continuing economic growth momentum and a robust labor market, the United States (US) Federal Reserve raised its key policy rate target range by 25 basis points (bps) to between 1.25% and 1.50% at its Federal Open Market Committee meeting in December. It also upgraded its projections for US GDP growth in 2018, 2019, and 2020 from 2.4% to 2.5%, from 2.0% to 2.1%, and from 1.8% to 2.0%, respectively.

The economic outlooks for the eurozone and Japan also remain positive. The flash estimate of the eurozone's annual GDP growth in Q4 2017 was 2.7%, down slightly from 2.8% in Q3 2017. In January, the European Central Bank's (ECB) Survey of Professional Forecasters upgraded its previous GDP growth projections for 2018 and 2019, made in September, from 1.9% and 1.7% to 2.3% and 1.9%, respectively. While the ECB kept its monetary policy unchanged at its January meeting, the reduction in ECB bond purchases starting in January partly contributed to bond yields rising in many eurozone markets (**Figure A2**). In Japan, despite annual GDP growth slowing to 0.5% in Q4 2017 from 2.2% in Q3 2017, the Bank of Japan held monetary policy steady at its January meeting and raised its 2018 GDP growth forecast range from 1.2%–1.4% to 1.3%–1.5%. In March, the Bank of Japan also indicated that it would begin thinking and debating about monetary policy normalization in April 2019.

While inflation has been muted globally, it is projected to gradually rise as economic growth strengthens. In the US, inflation has shown steady signs of picking up. In January, the monthly gain in the Consumer Price Index (CPI) and core CPI rose to 0.5% month-on-month (m-o-m) and 0.3% m-o-m, respectively, from 0.2% m-o-m and 0.2% m-o-m in December. The annual inflation rate in the US has been running below the Federal Reserve's 2.0% target but is projected to reach this target in the medium term. In the eurozone, annual inflation fell marginally to 1.2% in February from 1.3% in January, but the ECB projects inflation to pick up by 2019. In Japan, annual inflation rose to 1.4% in January from 1.0% in December and is expected to reach the Bank of Japan's 2.0% target by 2019.

In line with the bright global economic outlook, emerging East Asian countries are enjoying robust economic growth. According to the latest forecasts of the Asian Development Bank (ADB), published in December in the *Asian Development Outlook Supplement*, developing Asia as a whole is estimated to have grown by 6.0% in 2017 and is projected to grow by 5.8% in 2018. Growth in East Asian and Southeast Asian economies is estimated to have exceeded ADB's September 2017 forecast that was published in the *Asian Development Outlook Update*. ADB's December growth estimate for the PRC in 2017 was 6.8%, compared with the September growth forecast of 6.7%. Similarly, ADB's December growth estimates for Hong Kong, China and the Republic of Korea both exceeded September's forecasts. The PRC is projected to grow by a moderately slower but still healthy 6.4% in

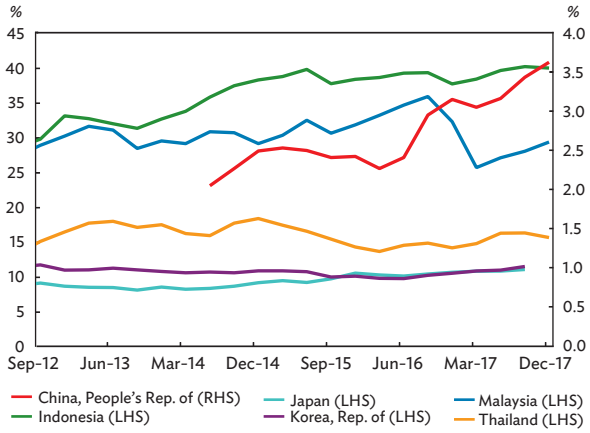
2018. Southeast Asia surprised on the upside too, with the December GDP growth estimate of 5.2% surpassing the September forecast of 5.0%. Southeast Asia's growth forecast for 2018 was also upgraded, from 5.1% to 5.2%.

As a result of strengthening growth momentum and other factors, such as recovering global commodity prices, developing Asia's inflation is gradually (if unevenly) picking up. According to ADB's December projections, the region's CPI inflation will rise from 2.4% in 2017 to 2.9% in 2018. The PRC's CPI inflation is projected to rise from 1.7% to 2.4% over the same period. Inflation is also projected to pick up modestly in Hong Kong, China. In Southeast Asia, inflation is expected to rise in the Philippines, Singapore, Thailand, and Viet Nam. For the subregion as a whole, inflation is projected to rise from 3.0% in 2017 to 3.1% in 2018. Overall, the inflationary environment in emerging East Asia remains stable, although inflationary pressures are beginning to emerge.

With benign global and regional economic outlooks and nascent inflation in major advanced economies as well as in the region, 10-year LCY government bond yields in emerging East Asia continue to rise. The largest increase in the 10-year yield was seen in the Philippines, where a 101-bps increase between 29 December and 15 February was driven by the passage of a new tax bill that was expected to push up inflation. The Republic of Korea posted the second-largest increase as the Bank of Korea raised its policy rate by 25 bps to 1.5% on 30 November. Singapore and Hong Kong, China saw increases of 29 bps and 20 bps, respectively, during the review period as both markets closely track the US market. The only exception to this rising trend was Viet Nam, which cut its policy rate in the second half of 2017. Furthermore, foreign participation in Viet Nam's bond market is still limited.

On the other hand, 2-year government bond yields fell in most emerging East Asia markets between 29 December and 15 February. In Singapore, the decline was largely due to investors rebalancing their portfolios, creating greater demand for short-term government bonds. In Hong Kong, China, the decline was due to ample liquidity. Several markets witnessed increases in 2-year government bond yields, with Malaysia's rising the most, largely due to its policy rate hike on 25 January of 25 bps to 3.25%. In line with advanced economies, yield curves in emerging East Asian markets steepened during the review period, echoing the globally synchronized improvement of economic fundamentals.

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

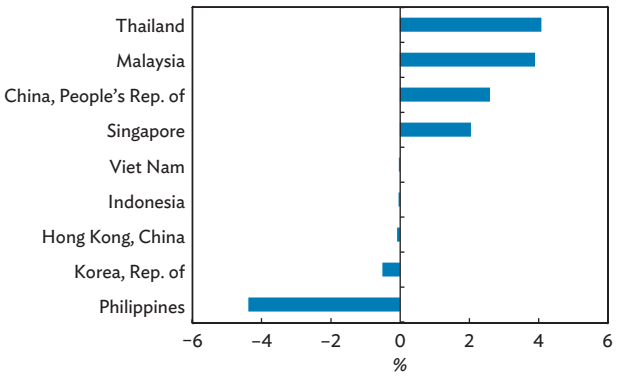


LHS = left-hand side, RHS = right-hand side.
Note: Data as of 31 December 2017 except for Japan and the Republic of Korea (30 September 2017).
Source: *AsianBondsOnline*.

The worldwide recovery has fostered positive investor sentiment. Foreign demand for LCY government bonds in emerging East Asia was strong through the end of 2017 (**Figure B**). For example, the foreign holdings share in Malaysia rose from 27.9% at the end of September to 29.2% at the end of December. The ringgit strengthened, bond yields rose on the back of a rate hike by the central bank in January, and the economic outlook improved. Most emerging East Asian currencies also appreciated during the review period except for the Philippine peso, which felt the effects of a widening trade deficit and strong US dollar demand from corporates (**Figure C**).

Against the backdrop of a firm global recovery, financial markets worldwide continued to rally through January. Measures of financial risk and volatility implied positive investor sentiment. The CBOE Volatility Index fell and credit default swap spreads and emerging markets bond spreads continued to narrow in January (**Figures D, E, F, and G**). However, uncertainty over macroeconomic policies in the US, along with the fear of accelerated rate hikes by the US Federal Reserve in response to a tightening labor market and rising inflation, triggered a price correction in the US stock market amid sharp sell-offs in the first week of February. The rapid decline in the US equity market in early February quickly spread to global equity markets and affected global investor sentiment. The withdrawal of foreign funds was noted in some Asian markets. For example, foreign holdings

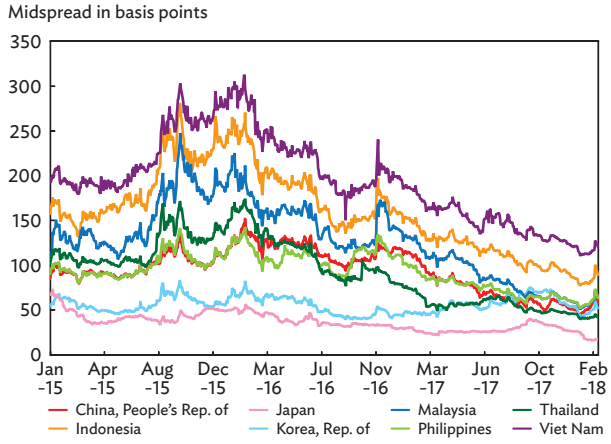
Figure C: Changes in the United States Dollar Value per Unit of Local Currency



Notes:
1. Changes between 29 December 2017 and 15 February 2018.
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.

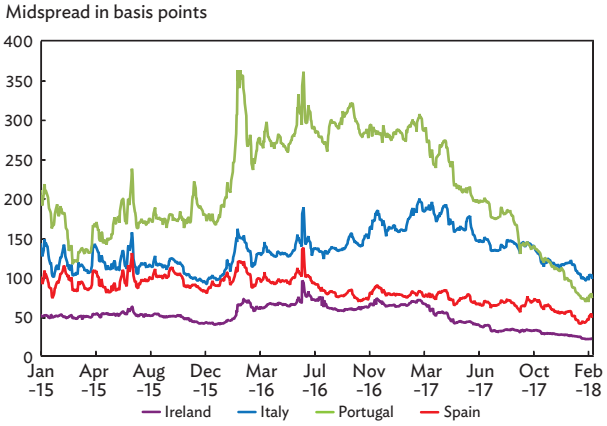
Figure D: Credit Default Swap Spreads in Select Asian Markets (senior 5-year)



Notes:
1. Based on USD-denominated sovereign bonds.
2. Data as of 15 February 2018.

Source: Bloomberg LP.

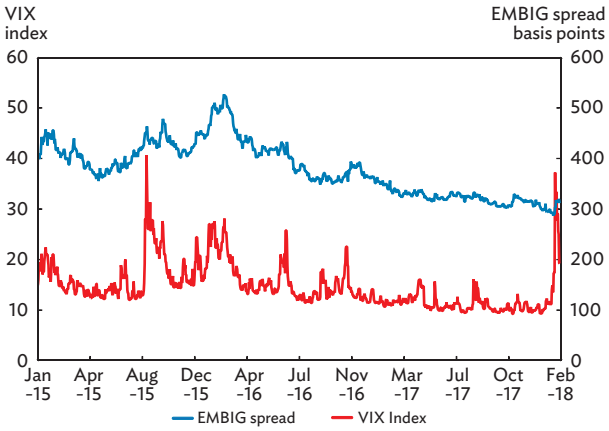
Figure E: Credit Default Swap Spreads in Select European Markets (senior 5-year)



Notes:
1. Based on USD-denominated sovereign bonds.
2. Data as of 15 February 2018.

Source: Bloomberg LP.

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



EMBIG = Emerging Markets Bond Index Global, VIX = Chicago Board Options Exchange Volatility Index.
Note: Data as of 15 February 2018.

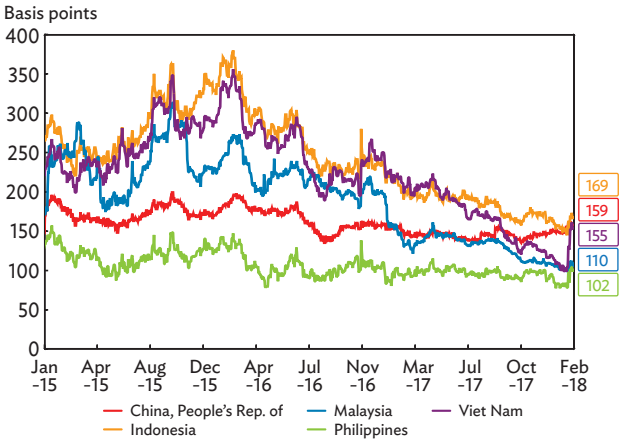
Source: Bloomberg LP.

in Thailand slightly fell due to a relatively lower level of foreign net inflows.

Despite upticks being observed in all major risk indicators, given the solid economic fundamentals and strong corporate earnings, the price correction had stabilized by the middle of February as most markets slowly recovered except for the PRC and the Republic of Korea (due to market closure during the Lunar New Year) (**Figure H**). Credit default swap spreads and EMBIG spreads also recovered.

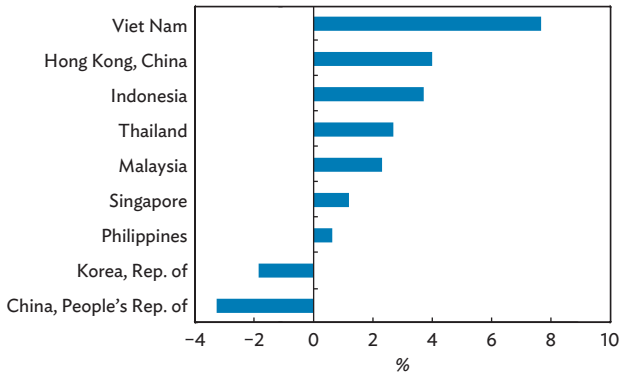
The global equity slide highlighted lingering uncertainty over the pace of global monetary policy normalization in response to the gradual pickup in inflation. Tightening global liquidity may have both short- and long-term impacts on the region's equity markets. In the short-term, rising interest rates could lead to temporary price

Figure G: JP Morgan Emerging Markets Bond Index Sovereign Stripped Spreads



Notes:
1. Based on USD-denominated sovereign bonds.
2. Data as of 15 February 2018.
Source: Bloomberg LP.

Figure H: Changes in Equity Indexes in Emerging East Asia



Note: Changes between 29 December 2017 and 15 February 2018.
Source: Bloomberg LP.

corrections in the stock market that not only help bring market valuations back in line with corporate earnings and fundamentals, but also allow some markets to further deleverage. In the long-term, however, rising interest rates may weigh on the valuations of equities and other types of assets. In order to protect financial stability, emerging East Asian markets may need to closely monitor capital flows, as well as leverage levels and exposure to foreign exchange rate risk (**Box 1**).

The rapid buildup of private sector debt, especially bank loans, during the recent global low interest rate era could influence future real economic activity by jeopardizing financial stability as the global monetary policy stance and global liquidity conditions tighten (**Box 2**). Corporates could cut back on investment and households could cut back on consumption to rebuild their balance sheets, crimping aggregate demand and economic growth.

Overall, emerging East Asia enjoys a benign mix of strong growth and relatively stable financial markets. The risks to the region's economic growth and financial stability are primarily external and seemingly manageable for now. Nevertheless, as always, there are some risks lurking in the background. Faster-than-expected interest rate hikes in the US and other major advanced economies pose perhaps the biggest risk to the region. The adverse effects of such interest rate hikes would be magnified if the region's central banks were forced to follow suit. Another external risk that has become more concrete in recent months is the growing threat of protectionism. If protectionism escalates further and significantly dents the momentum of global trade expansion, which has been the main driver of the improving global economic outlook, then the region's growth momentum will be adversely affected.

Box 1: United States Interest Rate Hikes and Possible Impacts on Global Equity Markets

Since December 2015, the United States (US) Federal Reserve has raised the federal funds rate five times to 1.25%–1.50%, with another three possible rate hikes in 2018 according to the discussions at the December 2017 Federal Open Market Committee meeting.[a] As part of monetary policy normalization, this round of federal funds rate hikes features a gradual path and clear communication with financial markets, which have reacted calmly so far to the tightening monetary stance. As the global economy recovered in 2017, equity markets surged worldwide; further evidence of investor confidence includes the low and stable Chicago Board Options Exchange Volatility Index (**Figures B1.1a, B1.1b**). Nevertheless, potential risks loom on the horizon as interest rates gradually normalize.

Over the short-term, rising interest rates are reflected in stock price corrections, but the gradual nature of the current round of monetary policy normalization is likely to have only limited impact on equity markets if the global economy continues to expand.

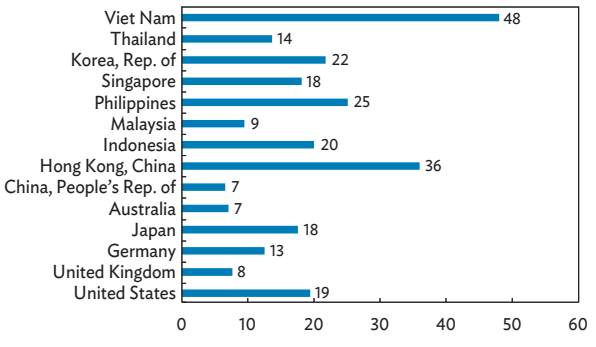
Despite the clearly communicated and widely expected normalization of US monetary policy, uncertainties may still arise if the pace of interest rate normalization quickens due to inflationary pressure. Since valuations in equity markets are simultaneously affected by both corporate fundamentals and interest rate levels, equity markets could be sensitive to changes in the interest rate path. When interest rates are expected to increase faster than originally believed, valuations will correct in response.

The recent stock market slide in early February revealed such a risk. Supported by robust gross domestic product growth and low unemployment, US equity markets had benefited from improved corporate earnings and investment sentiments despite rising interest rates (**Figures B1.2, B1.3**). The sharp drop in equity prices in early February was partly triggered by better-than-expected US nonfarm payroll and average hourly earnings data, which catalyzed concerns about rapidly rising inflation and thus faster-than-expected interest rate increases by the Federal Reserve. This fear fueled downward pressure in the US equity market and led to a fast, sharp price correction. (**Figure B1.4**).

However, in the short-term, such a price correction is not expected to evolve into another financial crisis and economic recession. This correction is less related to real economic activities and is more of a market correction after a long bull market, similar to Black Monday in September 1987. At that time, the US equity market was also in the midst of a phase of rising interest rates (**Figure B1.5**). The program trading strategy called "portfolio insurance" was believed to have contributed to the market slump by enabling huge selloffs by large investors.

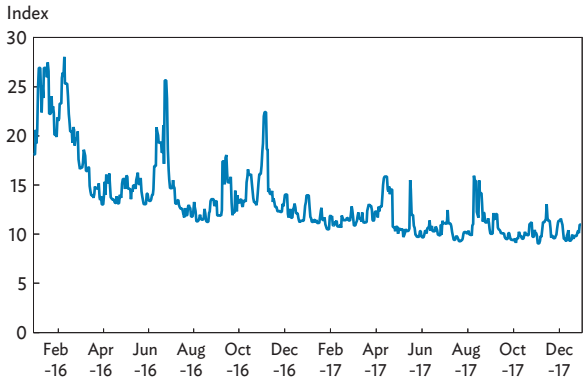
A closer examination of the current situation in the US equity market shows a similar picture with rising bond yields and the popularity of program trading exchange-traded funds.

Figure B1.1a: Price Changes in Global Stock Indexes, 31 December 2016 to 31 December 2017 *(%)*



Source: Bloomberg LP.

Figure B1.1b: Decreasing Volatility—Chicago Board Options Exchange Volatility Index



Note: Data as of 31 December 2017.
Source: Bloomberg LP.

[a] Shown in a dot plot at the Federal Open Market Committee meeting in December 2017. Available at https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20171213.pdf.

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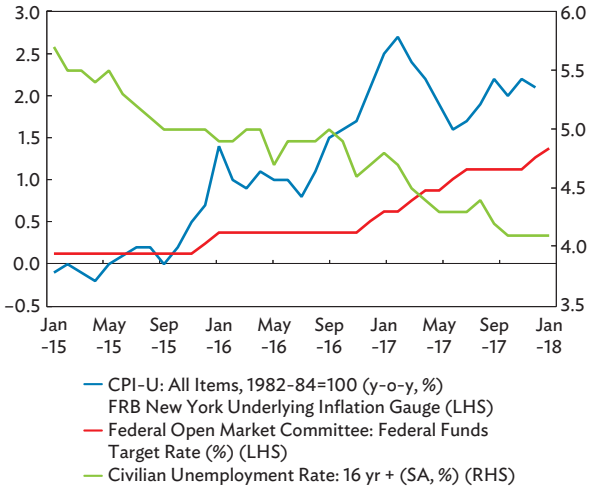
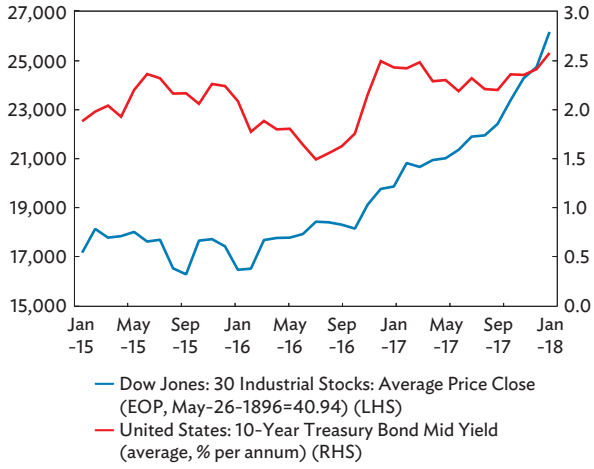
Box 1: United States Interest Rate Hikes and Possible Impacts on Global Equity Markets
continued

Figure B1.2: Economic Indicators in the United States



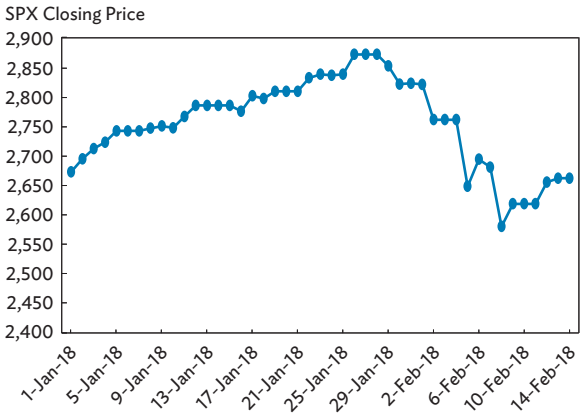
CPI-U = Consumer Price Index for all Urban Consumers, FRB = Federal Reserve Bank, LHS = left-hand side, RHS = right-hand side, SA = seasonally adjusted, yr = year, y-o-y = year-on-year.
Source: Haver Analytics.

Figure B1.3: United States Equity Index and 10-Year Bond Yield



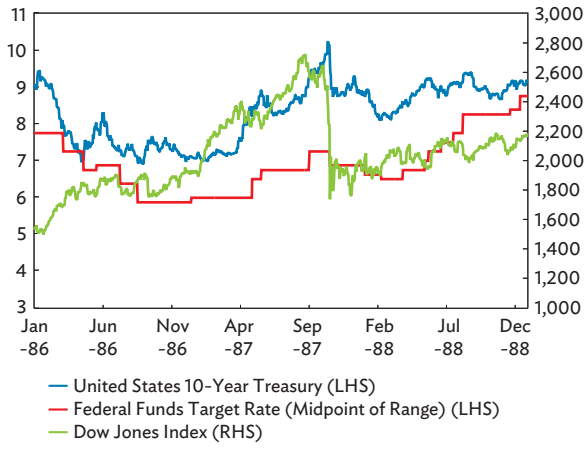
EOP = end of period, LHS = left-hand side, RHS = right-hand side.
Source: Haver Analytics.

Figure B1.4: Stock Market Correction in the United States, February 2018



SPX = S&P 500 Index.
Source: Bloomberg LP.

Figure B1.5: Stock Market Correction in the United States, September 1987



LHS = left-hand side, RHS = right-hand side.
Source: Bloomberg LP.

In contrast to human judgment, computers simply follow the preset trading rules. Once trading rules are triggered, stock prices may overreact due to a negative feedback loop. However, while the US economy still enjoys robust economic growth, such a price correction helps prevent stock valuations from deviating too much from the fundamentals. Nevertheless, contagion risk is worth noting. The contagion of a US equity market correction could spread to global equity markets, causing worldwide market turbulence, especially in markets that are undergoing deleveraging. In the short-term, this market correction might be beneficial since it

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Box 1: United States Interest Rate Hikes and Possible Impacts on Global Equity Markets
continued

could catalyze better communication between monetary authorities and financial markets regarding the pace of policy normalization, thereby preventing major volatility in financial markets.

Over the medium-term, however, as inflation gradually picks up, interest rates continue to rise, and central banks gradually unwind their balance sheets, the ongoing tightening global monetary stance will pose two types of challenges to emerging markets.

First, emerging financial markets may face downward pressure from a reversal in capital flows. As returns increase in advanced economies, the attractiveness of emerging market assets decline, which may result in fewer capital inflows or even net capital outflows. The reversal of capital flows puts pressure on currencies and assets in emerging Asia, especially in markets with high levels of leverage and/or a floating exchange rate regime.[b] Despite sound fundamentals, emerging Asian economies should monitor changes in liquidity situations, with special attention paid to sectors and industries with relatively high leverage and exchange rate risks.

Second, rising interest rates in advanced economies may spill over into emerging Asia, putting downward pressure on financial markets via higher interest rates and/or subdued economic activity. The spillover of tightening monetary stances in advanced economies would limit the scope of emerging Asian monetary policies to foster economic growth, which has thus far only been affected by interest rate hikes in advanced economies to a limited extent. While most emerging Asian central banks broadly maintained their monetary policy stance in 2017, the Reserve Bank of India, Bank Indonesia, and State Bank of Vietnam all lowered policy rates.[c] However, as inflation continues to pick up, the scope for monetary policy to support growth becomes more limited. It is thus an opportune time for emerging Asia to strengthen its financial sector stability through deleveraging and by further strengthening macroeconomic fundamentals to lay the foundation for medium-term growth.

Overall, the gradual and well-communicated nature of US monetary policy normalization, emerging Asia's solid economic fundamentals, and the general absence of monetary tightening in the region have limited the short-term impacts of the Federal Reserve's rate hikes on emerging Asian equity markets. Nevertheless, unlike the eurozone, which has undergone deleveraging in recent years and made good progress in reducing financial imbalances, many emerging Asian economies still have growing debt levels, which will pose a challenge when global liquidity starts to tighten. Emerging Asian economies should enhance financial sector resilience to prepare for higher interest rates in the future.

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

[c] Some monetary authorities did increase their policy rates, including the Hong Kong Monetary Authority, Bank of Korea, and Bank Negara Malaysia, albeit in a very limited and gradual way.

Box 2: Does Private Debt Buildup Jeopardize Emerging East Asia's Economic Stability?

Rapid accumulation of private debt is widely viewed as a major risk to financial and economic stability. The unsustainable buildup of public debt due to unsound fiscal policies has also led to many crises. The eurozone sovereign debt crisis was a recent fiscal crisis in advanced economies and there have been many past episodes of fiscal crisis in emerging market economies as well. While public debt often has a devastating impact on the financial system and real economy, the impact of private debt can be equally pronounced. The global financial crisis of 2008–2009, which was preceded by a rapid buildup of household debt in the United States (US), almost brought the global financial system and world economy to its knees. Prior to the 1997/98 Asian financial crisis, East Asian banks and companies borrowed US dollars in the short-term to finance investment projects that generated local currency revenues in the long-term. Recently, the private sectors of many emerging economies borrowed heavily during the low global interest rate environment that followed the global financial crisis. In emerging East Asia, large and rising household debt is a growing concern in the Republic of Korea, Malaysia, and Thailand, as is fast-expanding corporate debt in the People's Republic of China.[a]

The growth of private debt is not necessarily a cause for concern in and of itself, especially in emerging market economies with relatively underdeveloped financial sectors. Private debt expansion can simply reflect the development of the financial system from a low base. Nevertheless, the unsustainably rapid expansion of private debt can trigger financial instability and eventually harm economic growth. For example, excessive leverage by firms and households can inflate asset prices. When the bubble bursts, banks and other financial institutions will suffer a surge of bad loans and lend less, hurting investment and consumption. Since it generally takes some time for banks to repair their balance sheets, the disruption of credit to firms and households will persist for a while. Furthermore, firms and households will subsequently cut back on investment and consumption to repair their own damaged balance sheets. This is why recessions stemming from financial stress tend to be deeper and more persistent than other types of recessions, exacerbating the volatility of the business cycle.

Figure B2.1 illustrates the dynamics of private debt, household debt, and corporate debt as shares of gross domestic product for advanced economies and emerging market economies from 1990 to 2016. The figure in the upper left panel shows that advanced economies' private debt increased quite rapidly before the global financial crisis and then stabilized. While both household and corporate debt increased before the global financial crisis in advanced economies, the dynamics of household debt are more dramatic. It increased more rapidly in the leadup to the crisis and, in the post-crisis period, while corporate debt stabilized, household debt decreased. The dynamics of private debt in the US presented in the lower left panel show even more dramatic changes. Private debt increased rapidly before the global financial crisis and then decreased afterward. Such dynamics were mostly driven by household debt, which is consistent with the widely held view that a rapid increase in household debt in the US was one of the key causes of the global financial crisis.

Figure B2.1 presents the dynamics of private debt in emerging market economies in the upper right panel. Unlike advanced economies, emerging markets continued to accumulate private debt even after the global financial crisis. While corporate debt has increased, household debt has grown even more rapidly since the global financial crisis. Looking only at the four emerging East Asian economies hit hardest by the 1997/98 Asian financial crisis in the lower right panel—Indonesia, the Republic of Korea, Malaysia, and Thailand—private debt was most pronounced before the 1997/98 Asian financial crisis, largely driven by corporate debt. Significantly, the ratio of private debt to gross domestic product continued to expand in major emerging East Asian economies after the global financial crisis even though deleveraging reduced this ratio in the US and other major advanced economies (**Figure B2.2**). This is understandable since the global financial crisis originated in advanced economies and almost paralyzed their financial systems. The global low interest rate environment that prevailed after the global financial crisis lowered borrowing costs and contributed to the accumulation of private debt in the region.

In a recent study, Park, Shin, and Tian (2017) systematically and comprehensively assess the effect of private debt buildup on economic growth. They contribute to the existing empirical literature on the private debt–growth nexus in four important ways. First, they extend the data set to cover emerging market economies as well as advanced economies, and compare the effects of both household and corporate debt on output, consumption, investment, and asset-price growth. Second,

[a] 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.

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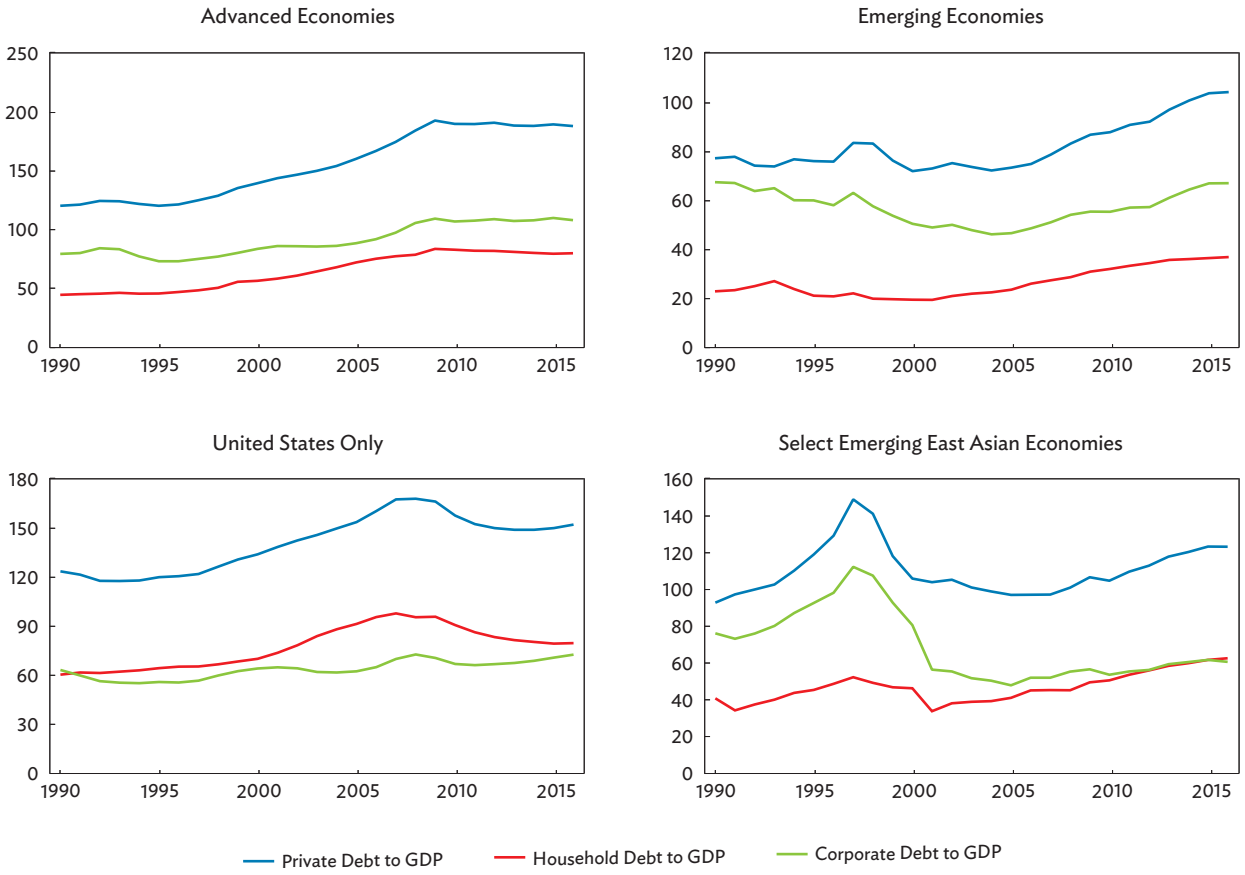
Box 2: Does Private Debt Buildup Jeopardize Emerging East Asia's Economic Stability?
continued

Figure B2.1: The Dynamics of Private Debt, Household Debt, and Corporate Debt in Advanced Economies and Emerging Market Economies



GD P = gross national product.
Notes: Debts are measured as shares of gross domestic product. The list of advanced economies and emerging market economies is in Appendix Table 1. The four emerging East Asian economies include Indonesia, the Republic of Korea, Malaysia, and Thailand.
Sources: Authors' calculations based on the Bank for International Settlements Debt Securities database.

to cover emerging market economies, they use the Hodrick–Prescott filter rather than the Bry and Boschan (1971) algorithm to date business cycle peaks and troughs. This is necessary because there are a number of business cycles in emerging economies that are not captured by the Bry and Boschan algorithm. Third, they define financial peaks, which are distinct from normal peaks, solely in terms of the speed of private debt accumulation rather than actual banking or currency crisis dates. In contrast, most studies define financial peaks as peaks that precede financial crises. Finally, they analyze financial peaks driven by either household or corporate debt to see whether there are any differences in recession dynamics.

Their empirical analysis yields a number of interesting findings. The level of household debt is smaller than corporate debt in both advanced economies and emerging market economies, but it increases slightly faster and is less volatile. They find that household debt accumulation is associated with higher output growth in the very short-term but lower output growth after 3 years. Corporate debt buildup, on the other hand, is not associated with higher output growth even in the short-term and is associated with lower output growth over 1–3 years. Around half of the negative growth effect of private debt buildup can be explained by asset-price inflation in advanced economies; much more than half can be explained by asset-price inflation in emerging market

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Box 2: Does Private Debt Buildup Jeopardize Emerging East Asia's Economic Stability?

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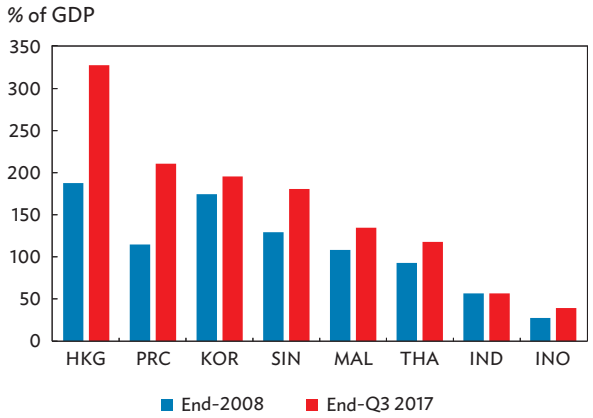
Figure B2.2: Ratio of Private Debt to Gross Domestic Product in Select Emerging Asian Economies



GDP = gross domestic product; HKG = Hong Kong, China; IND = India; INO = Indonesia; KOR = Republic of Korea; MAL = Malaysia; PRC = People's Republic of China; Q3 = third quarter; SIN = Singapore; THA = Thailand.
Note: Private debt refers to the sum of household debt and nonfinancial corporate debt.
Source: Institute of International Finance.

economies. Interestingly, they find that more financial peaks are driven by corporate debt rather than household debt in both advanced economies and emerging market economies. Furthermore, the damage from corporate-debt-induced financial recessions is similar to the damage from household-debt-induced financial recessions in advanced economies and larger in emerging market economies. Finally, their evidence indicates that a larger amount of excess credit to both households and corporations during expansions entails more painful recessions after financial peaks.

Such evidence has important policy implications. Above all, it points to a need for policy makers to closely monitor the growth of private debt, which can have significant negative effects on the real economy in addition to its potential for destabilizing financial systems. The evidence also suggests that policy makers should monitor both corporate and household debt, and further strengthens the case for monitoring asset-price inflation.

References

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