Macroeconomic Prospects and Challenges

The ASEAN+3 region should remain resilient in the face of downside global risks and stronger headwinds in 2019. The maturation of business cycles in the G3 economies, the cyclical slowdown in tech and capex spending, and the ongoing uncertainties from trade frictions suggest that global growth drivers are expected to moderate over the course of 2019-2020. Since mid-2018, global markets have experienced renewed volatility on global trade uncertainties and higher interest rates, accentuated by financial turmoil in some emerging markets that intensified risk aversion. However, the recent monetary policy pivots in the major economies have led to an easing in global interest rates and should provide some support for growth. Current policy settings for most regional economies may need some recalibration, especially in the monetary and fiscal areas, but macroprudential policy is generally adequate.

1 Regional Outlook with Global Settings

The ASEAN+3 economies are confronted with dissipating tailwinds from external demand and headwinds from ongoing trade frictions, but are expected to remain steadfast. After an extended period of above-trend growth, economic activities in major G3 economies are reverting to their potential growth, while the global tech and capex cycle is moderating from its peak last year. The broad-based pullback in G3 growth could surprise on the downside, as the growth momentum could be dampened by idiosyncratic factors (such as softer business spending in the United States, the adjustments to the new vehicles emission law in Germany, and the impact from the planned consumption tax hike in Japan). Developments on the trade front could be the wildcard—notwithstanding the reported progress in the U.S.-China negotiations, uncertainties over the international trading regime and the specter of further tit-for-tat tariff increases between the United States and its major trading partners (China, Japan and the European Union) could become a drag on economic activity.

Global financial markets experienced renewed volatility in the second-half of 2018, largely driven by global trade uncertainties, and exacerbated by tighter monetary conditions in the United States. The robust U.S. economy and the strengthening U.S. dollar put a spotlight on vulnerable emerging markets with growing macroeconomic imbalances. The turmoil in Argentina and Turkey reverberated across emerging markets and intensified risk aversion against emerging markets with twin deficits, even those with sound macroeconomic fundamentals. More recently, concerns about a possible downturn in the United States and Europe, as well as the possibility of a sharp slowdown in China, have further unsettled markets.

In the near term, risks confronting the region are mostly external, reflecting both global risks and tail risk in China. In the Global Risk Map, the risk of an escalation in trade protectionism is maintained as a medium likelihood event, in view of the reported progress in the U.S.-China negotiations (Figure 1.1). The likelihood of growth in G3 economies falling short of expectations has also been shifted upwards (from low to medium likelihood) as the dampening effects from the idiosyncratic factors noted above could be prolonged. The probability of a (tail risk) sharp slowdown in China has been shifted from the medium-term to the short-term, given the strong headwinds to exports, which could be exacerbated by the domestic deleveraging process. Meanwhile, geopolitical risks have receded somewhat, from being a more immediate concern to a medium-term tail risk, while trade and financial risks take center stage.

The baseline is that the ASEAN+3 region will grow at only a slightly weaker pace. Notwithstanding the softer outlook, the underlying prospects of the region remain solid. Growth is forecast at 5.1 percent in 2019–2020, slightly below the 5.3 percent in 2018, incorporating the estimated short-term impact from the trade protectionist measures that have already been implemented, as well as the policy actions taken by some regional authorities (Table 1.1). However, greater uncertainty has been introduced to the region's growth trajectory in light of the slowing global growth momentum. Headline inflation is expected to be stable, at around 2 percent.

Encouragingly, most ASEAN+3 economies appear well-positioned, with little sign of a concentrated build-up of macroeconomic imbalances. Many remain in the mid-phase of the business cycle, where growth is near their respective long-term trends with output gap close to zero, and inflation within policy targets or at around their long-term averages (Figure 1.2).[1] Growth has been solid for the developing economies, particularly Cambodia and Vietnam. For some commodity exporters, notably Brunei and Myanmar, growth is gaining pace, but these economies are in the early part of the business cycle and inflationary pressures are relatively subdued. Japan is the only member economy assessed to be in late business cycle, with growth at around its potential, manifested in rising nominal wages amid tighter labor market conditions, with record-high jobs-to-applicants ratio. All economies are either in the recovery or slowing part of the credit cycle, suggesting little evidence of any credit bubble. Meanwhile, property valuations across the region are largely moderate, except for China and Hong Kong, where they are quite rich.[2]

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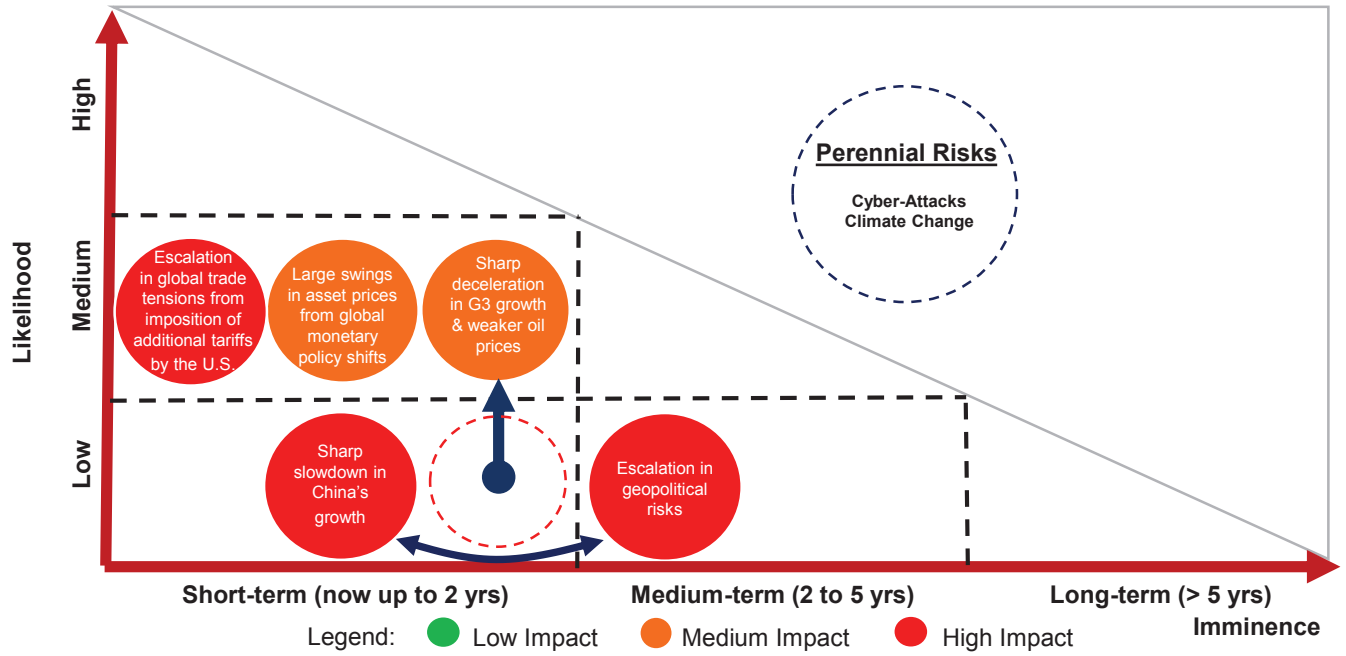
[1] See AMRO (2018a) for a discussion on the methodologies used to estimate the Business and Credit Cycles.
[2] See Section 4 for details on the Property Valuation Cycle and further discussion on the cycles in the context of AMRO staff's policy recommendations.

Figure 1.1. Global Risk Map
(Relative to April 2018)



Source: AMRO staff estimates.

Notes:

Short-term Risks

a. ***Escalation in global trade tensions from imposition of additional tariffs by the United States (medium likelihood; high impact).*** In the escalation scenario, a trade deal between the United States and its major trading partners is assumed to not be forthcoming. The United States then proceeds to raise the existing import tariffs from 10 to 25 percent on USD 200 billion worth of China imports, and an additional 25 percent tariffs on all remaining Chinese imports. In this scenario, the United States also imposes blanket tariffs on auto imports. The impact could be magnified, as the risk could interact with weaker growth in the G3 economies. However, we assess the likelihood of an escalation to remain unchanged given the reported progress in the ongoing negotiations.

b. ***Large swings in asset prices from global monetary policy shifts (medium likelihood; medium impact).*** The likelihood of large swings in asset prices amid monetary policy shifts in the advanced economies has decreased. Recent monetary policy pivots in the major economies should ease the pressure on capital outflows from the region. The pivot towards a dovish bias by the U.S. Federal Reserve and the European Central Bank—both of which had been on a normalization path—should be supportive for growth. At the March 2019 meeting, the Federal Open Market Committee predicted no more rate increase in 2019 and one in 2020, compared to the December 2018 meeting, when it indicated that it expected two rate hikes in 2019 and one in 2020. The 50 basis point swing in policy stance is the biggest since the U.S. Federal Reserve began providing policy projections early this decade. Separately, the European Central Bank has now delayed the timing of the first rate hike to end-2020, at the earliest.

c. ***Sharp slowdown in China's growth (low likelihood; high impact).*** Uncertainty over the near term export outlook, which could interact with the domestic deleveraging process, is a short-term tail risk for China's growth.

d. ***Sharp deceleration in G3 growth and weaker global oil prices (medium likelihood; medium impact).*** The probability that G3 growth could fall short of expectations, given the dampening effects from idiosyncratic risk factors, has increased, notably: dissipating tailwinds from fiscal stimulus (United States), extended weakness as a result of the drag from the new emission standards law in Germany (Eurozone), uncertainties over a possible cliff-edged Brexit (United Kingdom), and prolonged negative impact from the planned consumption tax hike in late 2019 (Japan). A sharper growth slowdown in China could also contribute to weaker global oil prices.

Medium-term Risks

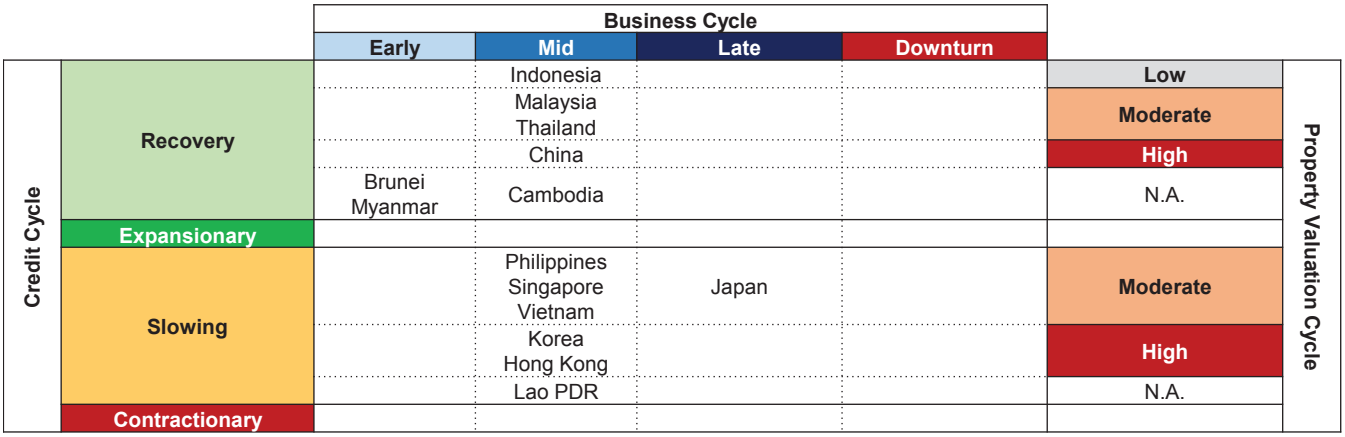
e. ***Intensification of geopolitical risks (low likelihood; medium impact).*** Geopolitical risks have moved from a short term tail risk to a medium term tail risk following the easing of tensions on the Korean Peninsula, and as the focus shifts to trade risks.

Table 1.1. Projections for GDP Growth and Inflation, 2019–2020

	Real GDP Growth (Percent year-on-year)			Headline Inflation (Percent year-on-year)		
	2018	2019 p/	2020 p/	2018	2019 p/	2020 p/
ASEAN+3 Region	**5.3**	**5.1**	**5.0**	**2.0**	**2.1**	**1.9**
Brunei Darussalam	0.1	2.1	2.0	0.1	0.4	0.5
Cambodia	7.2	7.1	7.0	2.5	2.8	3.0
China	6.6	6.3	6.2	2.1	2.2	1.8
Hong Kong	3.0	2.7	2.7	2.4	2.5	2.3
Indonesia	5.2	5.1	5.1	3.1	3.5	3.5
Japan (FY)	0.6	0.6	0.5	0.8	0.8	0.7
Korea	2.7	2.6	2.6	1.5	1.0	1.4
Lao PDR	6.5	6.6	6.9	2.0	2.1	2.5
Malaysia	4.7	4.6	4.7	1.0	1.6	2.2
Myanmar (FY)	7.3	7.3	7.4	5.0	4.5	4.5
The Philippines	6.2	6.4	6.6	5.2	3.0	3.0
Singapore	3.2	2.5	2.6	0.4	1.1	1.5
Thailand	4.1	3.8	3.7	1.1	1.0	1.0
Vietnam	7.1	6.6	6.7	3.5	3.8	3.7

Sources: National authorities; and AMRO staff estimates.
Note: For Japan, 2018, 2019 and 2020 real GDP growth data refer to fiscal year ending March 2019, 2020 and 2021, respectively. For Myanmar, starting from 2018, real GDP growth data refer to the new fiscal year starting in October. For economies where 2018 data are not yet readily available, the data refer to AMRO staff estimates. For Indonesia, headline inflation data refer to year-end figures.

Figure 1.2. ASEAN+3: Business, Credit and Property Valuation Cycles



Source: AMRO staff estimates.
Note: In Korea's case, the analysis on property valuations focuses on Seoul and its surrounding areas, which has recorded high year-on-year growth in prices.

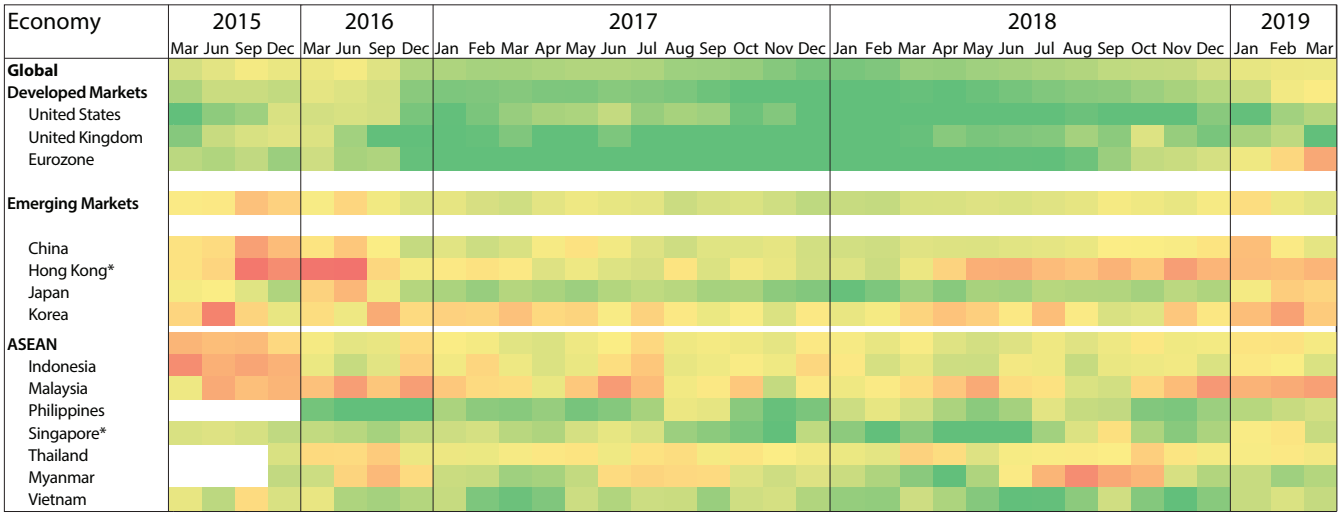
For the more open and trade-dependent economies, the drag from weaker external demand on regional growth could become more evident in 2019–2020. The strengthening of global growth since 2016 has benefited the region, with the positive trade impulse providing strong impetus for growth (Figure 1.3). The investment up-cycle in the G3 economies, in particular, boosted demand and consequently, the region's exports. Going forward, external demand is likely to weaken, not least due to the effects of tariff measures, but also reflecting the turning of the tech and capex cycle across the G3 economies (Figure 1.4).

One of the main concerns is the likelihood of an "export cliff" effect in 2019. High frequency Purchasing Managers' Index (PMI) surveys of the manufacturing sector point to this risk, as the high production/exports in 2018 partly reflect frontloading ahead of the potential escalation in trade tensions. Forward looking indicators of export orders and expectations of business conditions in the manufacturing sector have deteriorated since Q4 2018, heralding a much weaker outlook (Figure 1.5). Regional exports, in both volume and value terms, did indeed slow in November 2018, and contracted in December. However, exports rebounded slightly in January Figure 1.6).

With a slowing external sector, regional growth will be anchored by domestic demand. Regional domestic demand has continued to expand at around trend, following robust growth in 2017 (Box 1.1). Private consumption remains robust, driven by structurally stable labor markets and continuing income growth. And, despite some ongoing consolidation in current expenditures in several ASEAN economies, the public sector remains supportive (Figure 1.7). Investment in several emerging ASEAN economies has been supported by public infrastructure projects (e.g., mega infrastructure projects in Thailand; the "Build Build Build" program in the Philippines; and the infrastructure investment program in Indonesia), which, in turn, has helped to crowd-in private investment. In China, private domestic demand indicators are also holding-up (Figure 1.8).

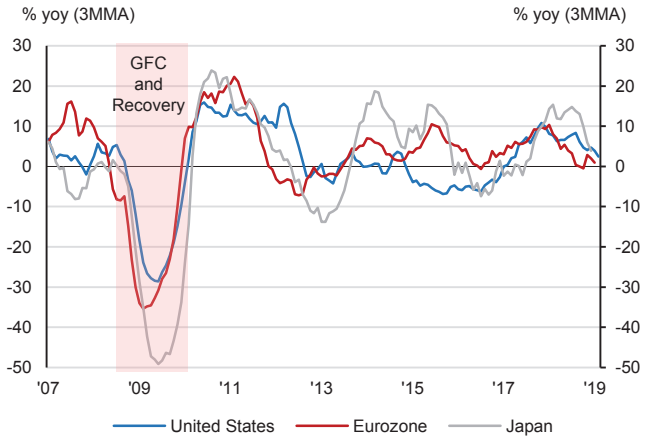
The current account positions of regional economies are expected to remain resilient in 2019–2020, despite softer export demand. The region's strong external sector has thus far helped to differentiate its emerging markets from those outside the region (AMRO 2018b). Thailand and Korea are expected to post healthy current account surpluses, while China and Malaysia should also record surpluses, albeit relatively small. Indonesia's current account deficit is forecast to narrow, underpinned by the implementation of measures to curb imports and facilitate exports, and expectations of lower prices for oil (of which it is a net importer); the current account deficit of the Philippines should be manageable, in contrast to the much wider external imbalances in Argentina, South Africa and Turkey (Figure 1.9). Separately, Japan should continue to maintain strong current account surpluses on the back of a solid primary income balance.

Figure 1.3. Monthly PMI Surveys of Global Economic Activity



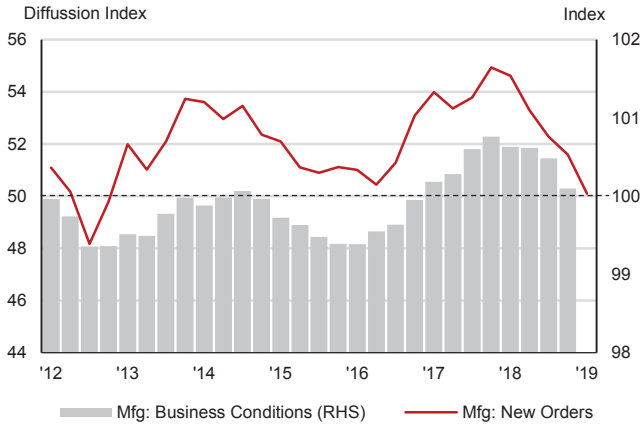
Sources: IHS Markit; and AMRO staff calculations.
Note: The colors represents how far the readings are away from 50 (the neutral point). The more red the readings, the further below 50; the greener, the further above 50. The PMIs for Hong Kong and Singapore refer to whole economy PMIs.

Figure 1.4. Global Capex



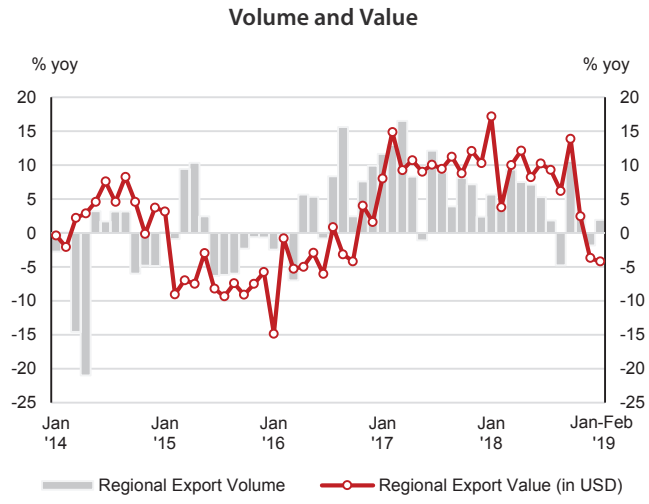
Sources: Haver Analytics; national authorities; and AMRO staff calculations.

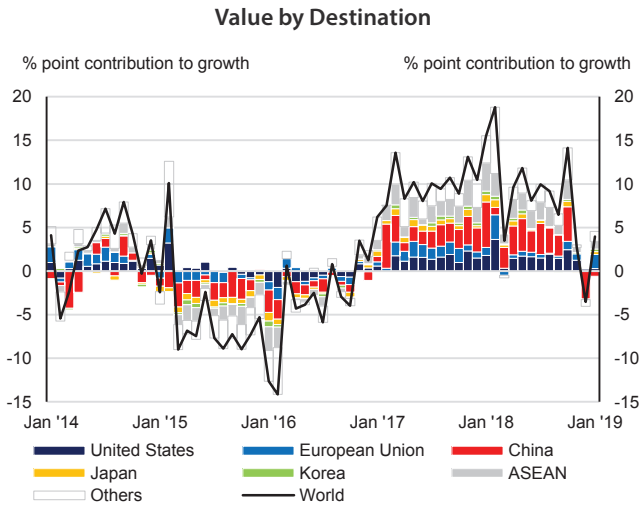
Figure 1.5. Global Manufacturing: New Orders and Expectations of Business Conditions



Source: Haver Analytics.

Figure 1.6. ASEAN+3: Export Performance





Sources: Haver Analytics; national authorities; and AMRO staff calculations.

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Figure 1.7. ASEAN-4 and Korea: Domestic Demand

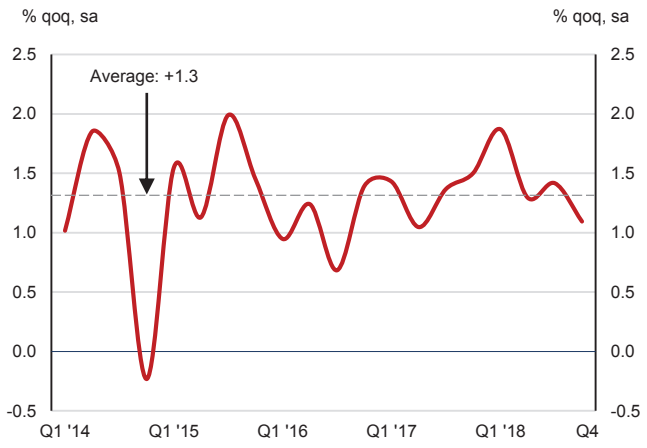
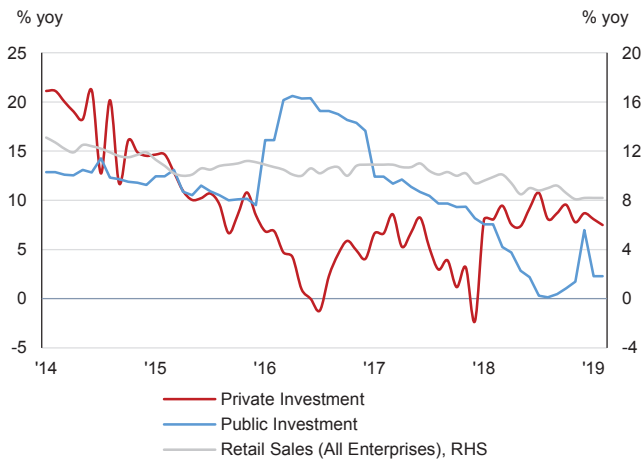


Figure 1.8. China: Domestic Demand



Sources: National authorities; and AMRO staff calculations.

Sources: National authorities; and AMRO staff calculations.

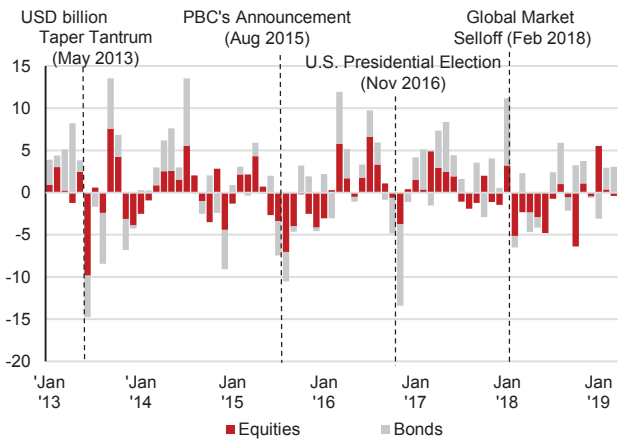
Figure 1.9. Selected Regional Economies: Current Account Balance Projections

Sources: National authorities; and AMRO staff estimates.

Regional emerging markets also recorded large non-resident net portfolio capital outflows in 2018. After receiving net foreign inflows of USD 35 billion in portfolio capital in 2017, ASEAN-5 economies and Korea experienced cumulative net outflows of USD 3.8 billion in 2018. These included cumulative net inflows of USD 17 billion into bond markets and net outflows of close to USD 10 billion from equity markets, from February to April, plus another USD 8.4 billion during the emerging market sell-off in late-April, before returning to net inflows in August (Figure 1.10). The outflows in equities were mainly triggered by portfolio rebalancing by investors, on fears of a steeper normalization path by the U.S. Federal Reserve in February 2018. It was exacerbated by the subsequent escalation in trade tensions and market turmoil in some emerging markets. In contrast, the capital flow situation in China was relatively resilient with sustained inflows into both equity and bonds, despite the trade conflict with the United States, in part attributable to China's announced weighting increase in the MSCI Emerging Asia Index, and inclusion in some JP Morgan and Bloomberg bond indices.

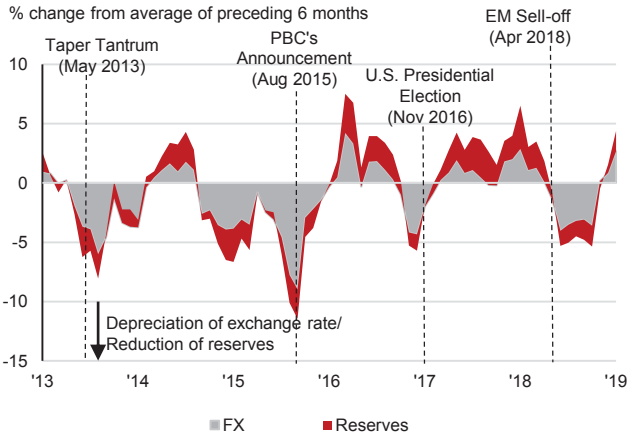
Regional economies should continue to build buffers against the more uncertain global environment ahead. The level of stress has thus far been comparatively lower than previous stress events, such as when the region experienced a sharp pullback amounting to USD 23.4 billion in portfolio funds in the months following the taper tantrum in 2013. The exchange market pressure index calculated for the ASEAN-4 and Korea suggests that the region responded to external shocks by allowing their exchange rates to adjust, with judicious use of reserves to smooth volatility (Figure 1.11).

Figure 1.10. ASEAN-5 and Korea: Non-Resident Net Portfolio Capital Flows



Source: National authorities; and AMRO staff calculations.

Figure 1.11. ASEAN-4 and Korea: Exchange Market Pressure Index [1/]



Sources: National authorities; and AMRO staff calculations.

[1/] The EMPI is the sum of percentage changes of both currency and foreign reserves of a particular month over the preceding six months.

Box 1.1

The Changing Drivers of Economic Growth in the Region

The ASEAN+3 region has achieved high economic growth, particularly over the past three decades, underpinned by rapid industrialization and integration into the global economy.[1/] However, economic growth has slowed from an average 6 percent annually to around 5 percent post-Global Financial Crisis (GFC), reflecting the more challenging global landscape and coinciding with a period of slower growth in China, which is undergoing rebalancing (Figure 1.1.1). So, what are the drivers of economic growth in this "new normal," in particular, the sources of demand and the structural changes taking place that will, in turn, have implications for future economic growth?

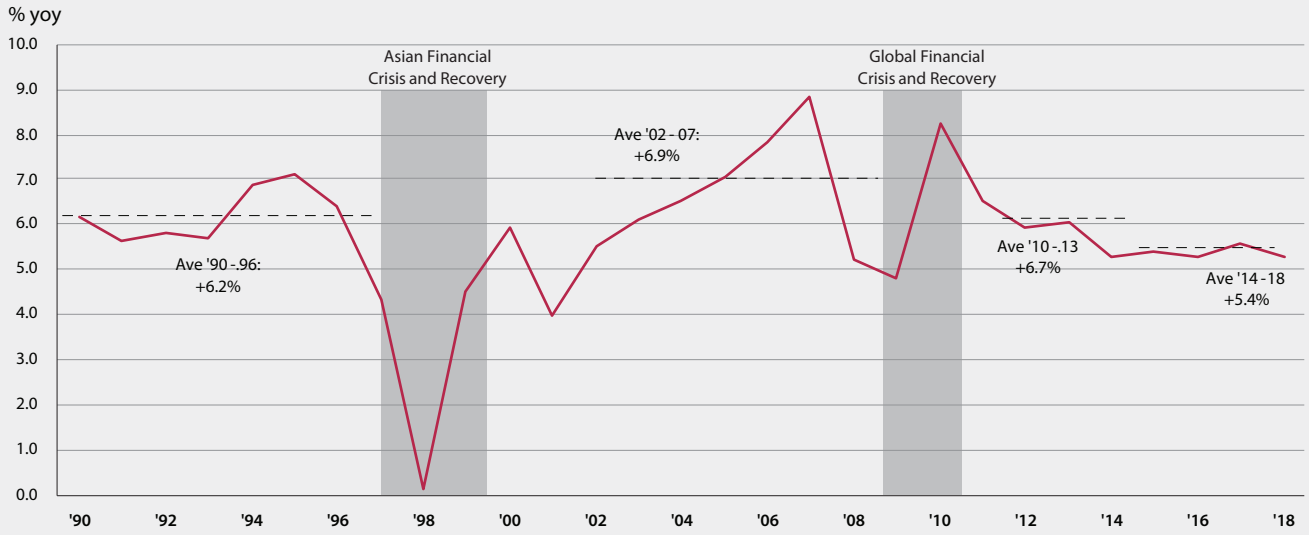
Conventional methods of national income accounting are often used to determine the drivers (or sources) of growth. They typically decompose GDP into contributions by private consumption, public consumption, gross fixed capital formation (investment) and net exports. The advantage of this method is that net exports highlight the net contribution of foreign trade to economic growth. The limitation is that it does not capture the true relative contribution of domestic and external demand in driving growth because imports that satisfy domestic demand are not netted out from each demand component, thereby overstating the contribution of domestic demand to total value-added. In this context, an alternative approach to estimating the net contribution of key demand components to GDP growth (known as the Import-adjusted Method) is used to more accurately identify the changing growth drivers in the region.

The input-output cumulative production structure (CPS) technique is applied to ASEAN-5 using the Input-Output (IO) Table. The approach by Kranendonk and Verbruqqen (2008) is applied.[2/] The CPS technique estimates the import content of the goods and services associated with each component of final demand for the economy. The difference between a particular final demand component and its import content is then used to derive the net contribution of each demand component to overall GDP. A comparison between the conventional method and the Import-adjusted Method clearly shows the significant differences between the conventional and import-adjusted methods in quantifying the role of domestic versus external demand in driving economic growth in the region (Figure 1.1.2).

Application of the Import-adjusted Method to the various demand components of growth results in the following findings:

- In the short-term, the global trade up-cycle beginning in mid-2016 has helped to boost growth with some easing of domestic demand. After an extended period of sluggish global trade, the recent cyclical upswing has benefited the region, given the high degree of trade openness. A good example is the case of Japan, where external demand contributed an estimated one-third share of total GDP growth in 2017, from an almost negligible share in 2016 (Figure 1.1.3). The global trade up-cycle has therefore contributed to more balanced growth in the region since 2017, helping to ease the pressure on domestic demand.

Figure 1.1.1. ASEAN+3: Historical Growth Performance, 1990-2018

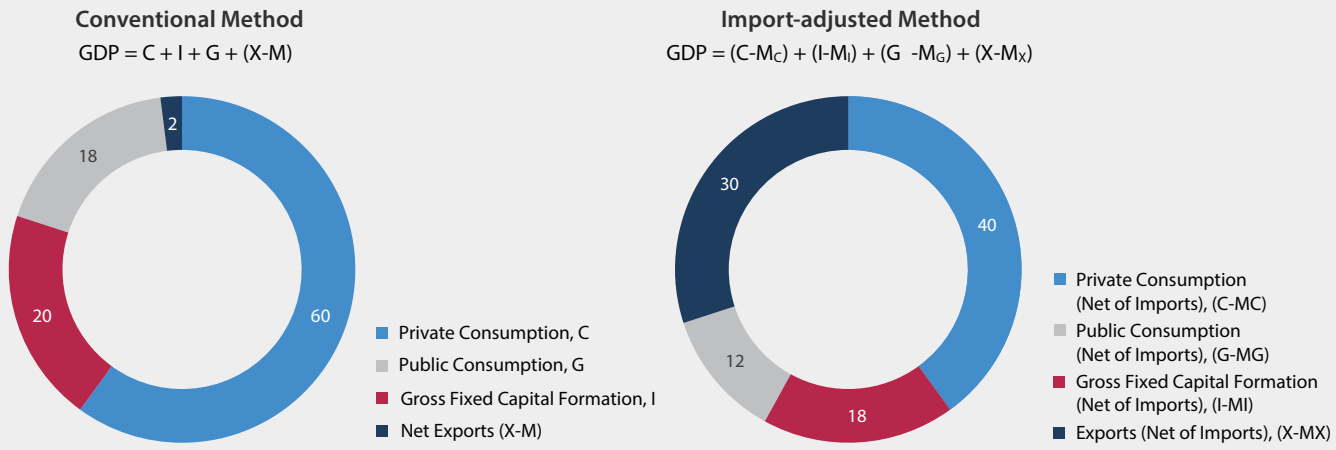


Sources: National authorities; and AMRO staff calculations.

1/ Excluding crises years of 1997-98 and 2008-09.

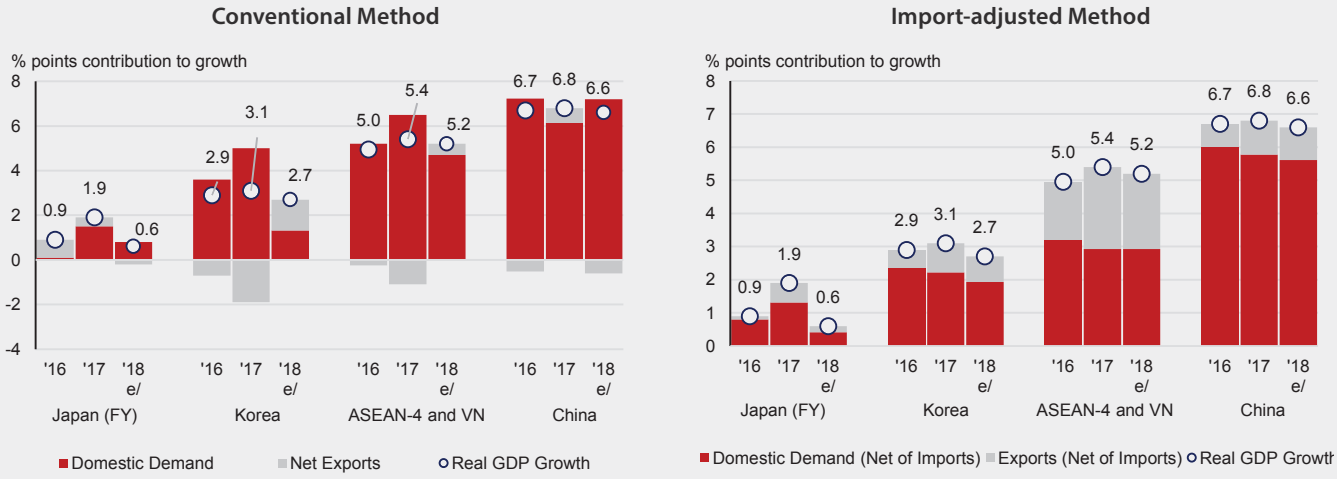
2/ The IO tables for this exercise are sourced from OECD. The preliminary results may differ from official IO tables from national authorities.

Figure 1.1.2. Drivers of Regional Growth: Conventional versus Import-adjusted Method of National Income Accounting, 2016
(Percentage of ASEAN+3 GDP)



Sources: OECD; and AMRO staff estimates.
Note: Changes in stocks are not shown.

Figure 1.1.3. Drivers of Regional Growth: Contributions to Real GDP Growth



Sources: OECD; and AMRO staff estimates.

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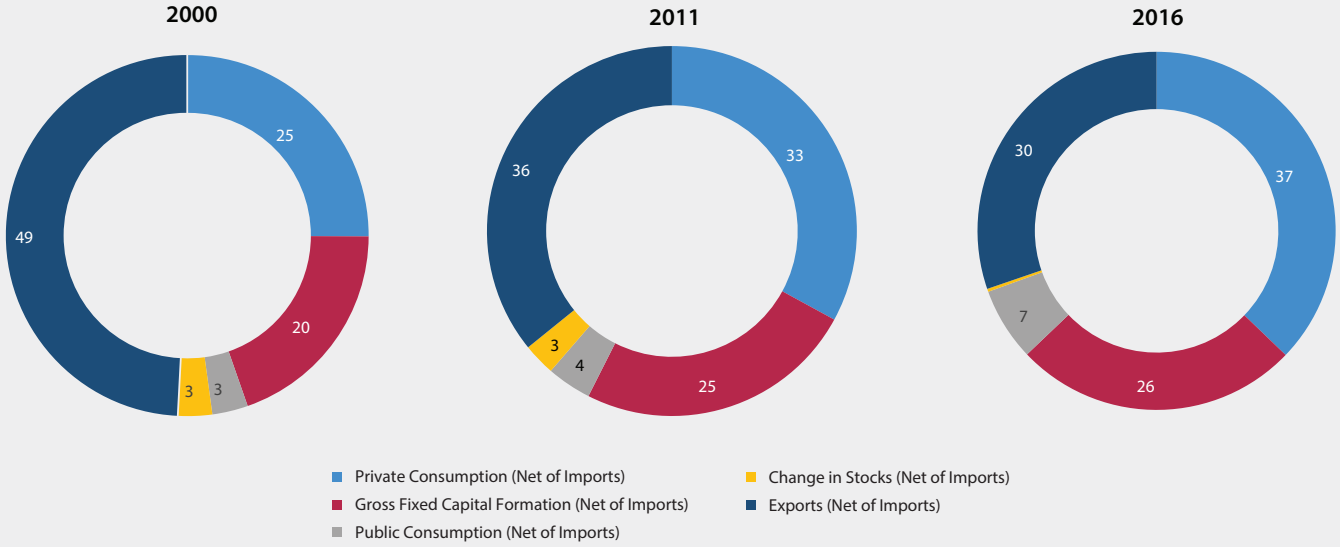
- Over the longer-term, the shift from external to domestic demand will be an important driver of growth in the region. Specifically:

  - While external demand remains an important growth driver, its contribution to value-added creation in the region has declined. The share of exports (net of imports) in total value-added increased sharply over the 2000-2010 period, peaking at around 40–50 percent, reflecting fast growth in global supply chains in the region. It fell markedly to an estimated 30 percent in 2017, as global trade collapsed in the wake of the GFC and the European Sovereign Debt Crisis. Based on trends, export-oriented firms (in particular small and medium entevrprises dependent on the export sector) could likely experience further slowdown in the future (Figure 1.1.4). The current global trade tensions, amid rising threat of protectionism, could result in additional headwinds for the export sector.

  - While escalating global trade tensions could negatively impact regional exports in the near-term, the rebalancing of growth drivers post-GFC towards greater domestic demand should help to anchor growth momentum in the region. In particular, private consumption and gross fixed capital formation (investment) has spurred growth in the ASEAN-5 economies in recent years (Figure 1.1.4). For example, mega project initiatives in Thailand (such as the Eastern Economic Corridor), and the "Build, Build, Build" program in the Philippines, aim to improve physical infrastructure while also promoting connectivity. Such rebalancing of growth towards domestic sources will be critical at a time when the external environment is less supportive.

The composition of exports has also changed over time, with final demand exports accounting for a growing share of regional value-added exports. The share of value-added exports destined for the region has grown steadily (from 35 percent in 2011 to 45 percent in 2016), reflecting the growing consumption in the region. The growing intra-regional demand and absorption of regional value-added exports could mitigate the impact of protectionism on global value chains that are oriented towards demand outside the region.

Figure 1.1.4. ASEAN-5: Evolution of GDP by Import-adjusted Components
(Percentage of ASEAN-5 GDP)



Sources: OECD; and AMRO staff estimates.

2 Spillovers from Trade Protectionism

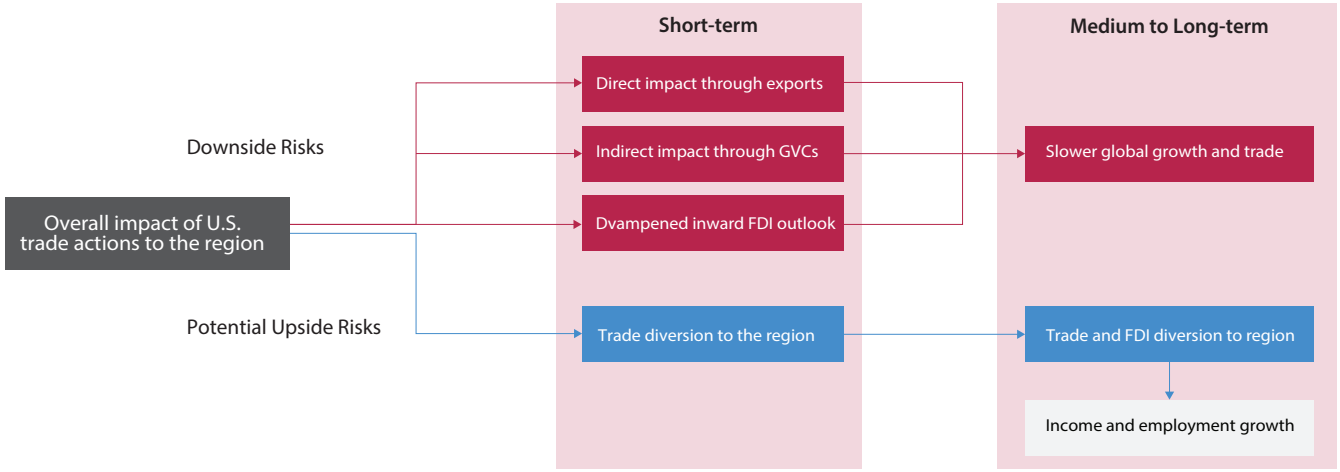
Global trade uncertainties will remain high amid the risk of further escalation in trade tensions which could potentially exacerbate a slowdown in the global economy. Tensions from U.S. trade protectionist measures eased recently following reported progress made in the Sino-U.S. trade negotiations.[3] However, the United States has yet to agree on new trade agreements with its other major trading partners, Japan and the European Union. Moreover, ratification of the November 30, 2018 U.S.-Mexico-Canada Agreement on trade by the respective countries' legislatures remains a challenge. Both Canada and Mexico have demanded that the existing tariffs on steel and aluminum imposed by the United States be lifted before any ratification process can begin. Moreover, President Trump has 90 days to decide on next steps following the submission to the White House on February 17, 2019 of the Section 232 auto tariff probe report by the U.S. Commerce Department, which might highlight strategic national interests.

The risk transmission from the U.S-China trade tensions to the region may be examined in terms of both short-term and medium- to long-term horizons. In the short-term, the channels of risk transmission are through (1) exports (direct channel), (2) global value chains (GVCs) (indirect channel) and (3) confidence (indirect channel). There is also upside risk in the short-term, stemming from potential substitution effects (or trade diversions effects) from China. These short-term effects could then be amplified by second-order effects in the medium and longer-term if both global trade and global growth were to slow (Figure 1.12). Combinations of short-term substitution effects, and medium to longer-term foreign direct investment (FDI) investment diversion effects to the region could nonetheless benefit some regional economies.

China's exports to the United States have already been negatively affected by the tariff measures. The first and second tranche of exports subject to tariffs (USD 34 billion list and USD 16 billion list, respectively) declined sharply after the respective tariffs came into effect (Figure 1.13). China's exports to the EU have also slowed considerably since Q4 2018 (Figure 1.14). At the start of the trade tensions last year, AMRO's preliminary assessment of the impact on the region using a Global Vector Autoregressive Model showed a small negative impact on both U.S. and China's economic growth of 0.2 to 0.4 percentage points over the following three years (AMRO 2018).

The slowdown in regional exports is broadening. Regional economies with larger direct export exposures to China, as well as indirectly via GVCs that are oriented towards demand outside the region, will be significantly more affected in the short-term (Figure 1.15). Exports from Korea have been adversely affected by China's export slowdown and other highly open and trade-dependent economies such as Hong Kong, Korea, Malaysia, Singapore and, to some extent, Vietnam, are particularly vulnerable. In contrast, Cambodia's direct exposure to China and through GVCs is relatively low.

Figure 1.12. Key Transmission Channels of Trade Protectionism in the Region

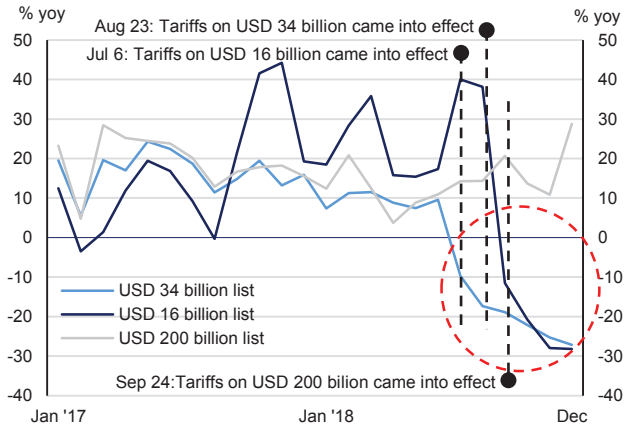


Source: AMRO staff.

[3] The U.S.-China trade tensions was heightened in mid-June 2018 with the United States announcing tariffs of 25 percent on USD 50 billion worth of imports from China. The first tranche (worth USD 34 billion) came into effect on July 6, 2018, while the second tranche (worth USD 16 billion) came into effect on August 23, 2018. It was followed swiftly by retaliatory announcements by China. On September 18, 2018, the United States finalized the list of USD 200 billion worth of Chinese imports for additional tariffs of 10 percent, effective September 24, 2018. In total, the United States has imposed tariffs on half of its imports from China. China's retaliatory rounds of additional tariffs on U.S. imports have brought its imposition of tariffs to 85 percent of its total imports from the United States. The United States had signaled a further increase in the tariff on USD 200 billion of imports implemented in September 2018 to 25 percent by January 2019, although this has now been put on hold following the 90-day truce between the two leaders from December 1, 2018.

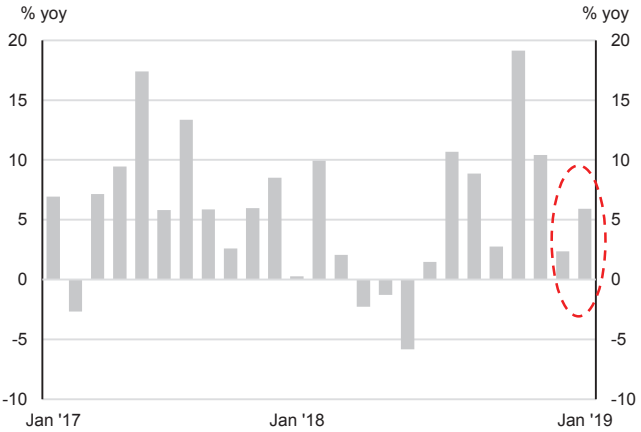
The impact on the region would be most significant in the initial rounds of U.S. tariffs on China owing to the region's high value-add in the targeted products, but should be relatively smaller in the later rounds. The transmission through GVCs to the region is significant given that China sources more than half of the value-added in electronics and one-quarter of the value-added in machinery exports to the U.S. from overseas, including from the region (Boxes 1.2 and 1.3). Less than half of the value-added to China's electronics exports is sourced within China, while one-quarter of value-added is sourced from Japan, Korea and ASEAN (Figure 1.16). In contrast, nearly three-quarters of machinery value-added is sourced domestically and one-tenth regionally. In the subsequent rounds of U.S. tariff measures, implemented in September, the domestic value-added from China is relatively higher (basic manufactures and commodities, such as textiles, plastics, wood and furniture), unlike those products targeted earlier.

Figure 1.13. China's Exports to the United States by Tariff Categories



Sources: USITC; and AMRO staff calculations.

Figure 1.14. China's Exports to the European Union



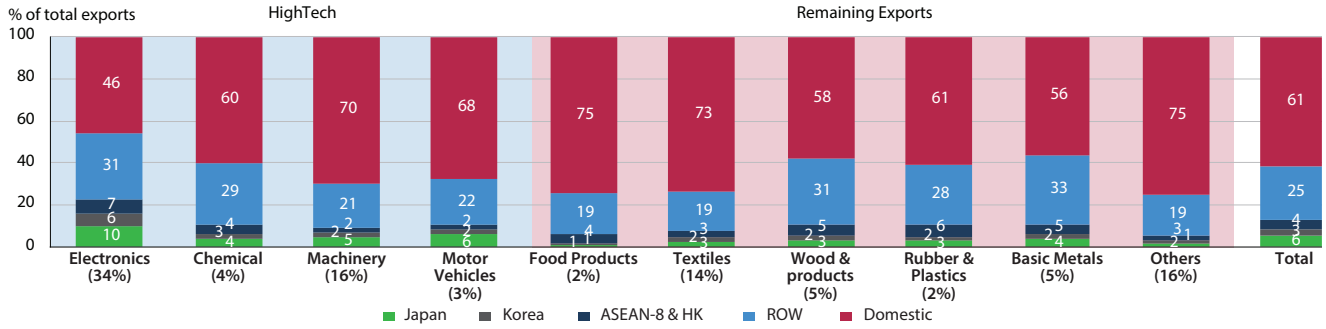
Sources: National authorities; and AMRO staff calculations.

Figure 1.15. Selected Economies: Regional Export Performance
(Percent year-on-year)

	2018												2019		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	
China															China
Hong Kong															Hong Kong
Korea															Korea
Japan															Japan
Malaysia															Malaysia
Singapore															Singapore
Thailand															Thailand
Philippines														-	Philippines
Indonesia															Indonesia
Vietnam															Vietnam

Sources: National authorities; and AMRO staff calculations.
Note: The colors represents how far the readings are away from mid-point. The more red the readings, the more negative reading; the more green, the more positive.

Figure 1.16. Origin of Value-Added of China's Exports to the United States



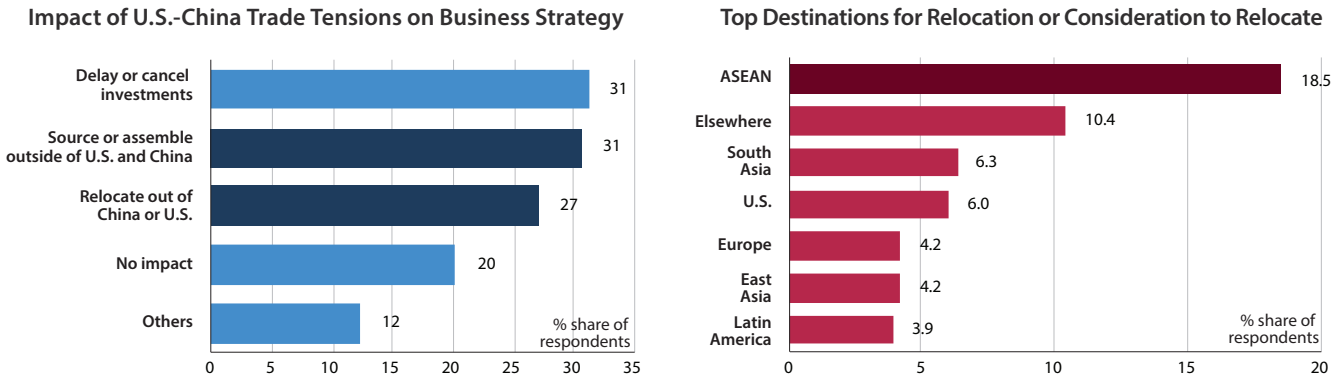
Sources: Haver Analytics; OECD TiVA; and AMRO staff estimates.
Note: Columns refer to the proportion of value-added by origin into China's exports in those sectors, with "domestic" referring to value-added from China. The percentage in parenthesis refer to the share of the product's exports to the United States in 2017.

Over the longer-term, adjustments to mitigate the tariffs would depend on whether producers in China are able to shift production outside the country. The response would have implications for regional supply chain restructuring/reconfiguration. They would likely depend on whether the tariff measures are permanent or temporary and, if the former, the extent to which they can be passed on to consumers or absorbed by producers. The latter would lead to lower profitability and weaker balance sheets for the producers, which may not be sustainable in the long-run. The overall impact of U.S. tariffs on the price competitiveness of China's exports may also be partially offset by a depreciation of the RMB. Alternatively, higher costs could also be passed onto regional suppliers, resulting in negative spillovers to these economies.

Surveys of U.S. and European companies in China show that the U.S.-China trade conflict has materially affected their investment plans in China, and ASEAN could be the beneficiaries. Some companies are making contingency plans to move production, with ASEAN as a top alternative destination. A recent survey by the American Chamber of Commerce in China showed that nearly one-third of U.S. firms operating in the country are planning to outsource or assemble outside of both the United States and China, or to relocate completely, again with ASEAN as a top choice (Figure 1.17). A similar survey by the European Union Chamber of Commerce in China also shows that more than 15 percent of surveyed European firms are intending to switch suppliers or move production out of the United States and China. Already, total investment in approved projects in Malaysia reached a record high in 2018. That said, full relocation is likely to be gradual and could take longer to materialize owing to the considerable uncertainty through which the adjustment process occurs.

AMRO's adverse scenario, which envisions an equal tit-for-tat escalation in trade tariffs, suggests that the impact would be mixed depending on the horizon under consideration. In this scenario, both the United States and China would impose tariffs of 25 percent on all imports from each other (Box 1.4). In the short run, the impact on the GDP growth of individual economies would be larger in absolute terms, estimated up to -1.0 percentage point. The absolute impact on growth would be relatively smaller for the United States (-0.3 percentage point) compared to China (-0.6 percentage point), over the 2019–2020 period, but the relative impact would be much larger for the United States (-13 percent of 2019–2020 average growth) compared to China (-9.6 percent). In the long-run, the likely re-configuration of the regional production/supply chain would see some countries—notably among ASEAN—benefit, while China would see some sectors shrink.

Figure 1.17. Surveys of U.S. and European Companies' Investment Plans in China



Sources: AmCham China; AmCham Shanghai; and AMRO staff calculations.
Note: Based on survey findings from 430 firms, conducted between August and September 2018.

Box 1.2

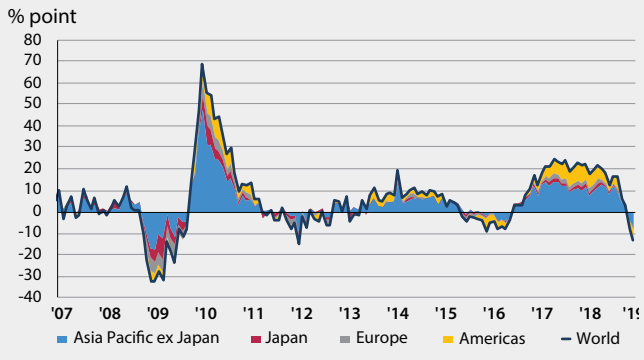
Performance of the Region's Electronics Exports and Challenges Ahead

The manufacturing and export sectors are important growth engines for Asia.[1/] Many Asian economies, through the export-led investment-fueled growth model, have benefited from the growth of vertical trade specialization, particularly in the electronics sector. The large share of electronics in the region's total manufactured exports (averaging 30 percent) underscores the importance of this sector. While the region has benefited from the global tech up-cycle since end-2016, the growth momentum of electronic exports has weakened in recent months:

- External growth drivers picked up strongly in mid-2016, following an extended period of sluggish growth. With the sustained cyclical recovery in major advanced economies, the much awaited upswing in global tech and capex cycle provided strong impetus for global trade to gain traction. Worldwide exports of electronics products,[2/] especially smartphone components and parts of electrical machineries, supported overall exports (Figure 1.2.1).[3/] The solid demand was underpinned by the strong smartphone sales by large international corporations, such as Apple Inc. ("Apple"), which resulted in significant positive spillovers to the region. Indeed, the region is the largest manufacturing base in the world for Apple, accounting for 44 percent of Apple's global suppliers in 2017, rising to 47 percent in 2018.[4/]
- However, since early-2018, the growth momentum of major electronics exports in the region have slowed sharply. The trend was observed across key regional players, but more notably in Korea, the Philippines, Thailand and Vietnam (Figure 1.2.2).[5/] While overall growth remains relatively healthy, coming off from a high base, continuing moderation are starting to have an effect on economic activity. As producers reined in, leading indicators such as the new export orders PMI sub-index for Asia's technology sector have moderated considerably in recent months, pointing to a more challenging outlook for producers and exporters (Figure 1.2.3).

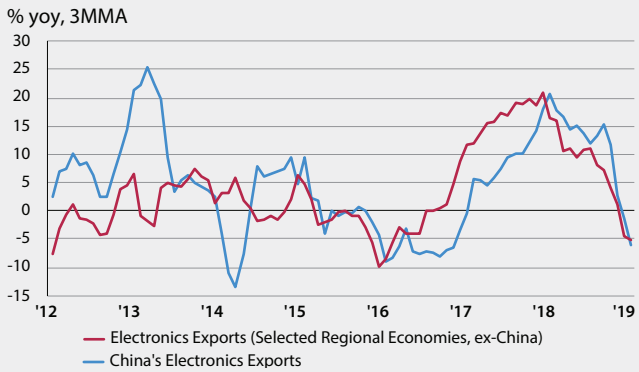
The immediate downside risk to this sector stems from rising trade protectionist actions. The imposition of tariffs on electronics goods (and related products) could potentially curb demand if those tariffs are passed on to consumers. High technology products are among China's exports targeted by the U.S. administration in its latest two rounds of trade tariffs, and electronics form the bedrock of these exports. Reduced demand for the region's electronics exports would have a direct impact on growth if firms were to cut back capital spending or postpone investments. As electronics exports are either highly concentrated in the overall exports of some economies (such as the Philippines, Singapore and Vietnam), or accounts for a large share of exports relative to their GDP (such as in Malaysia, Vietnam and Singapore), these economies could be susceptible to large demand shocks, including from second order effects (Figure 1.2.4).

Figure 1.2.1. Contribution to World Semiconductor Sales



Sources: World Semiconductor Trade Statistics; and AMRO staff calculations.

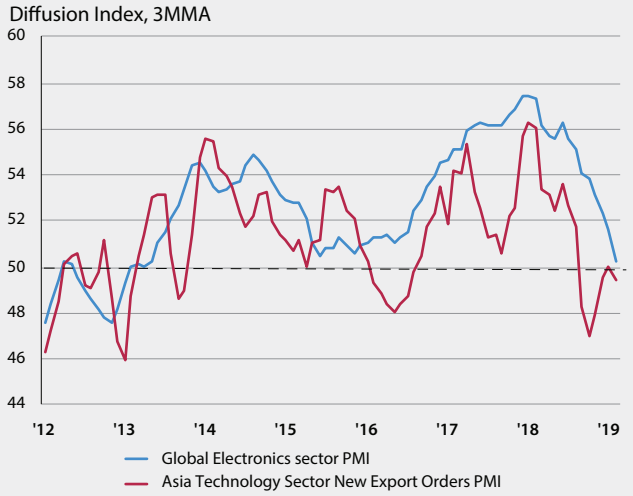
Figure 1.2.2. Selected Regional Economies: Electronics Exports



Sources: National authorities; and AMRO staff calculations.
Note: The selected regional economies comprise Japan, Korea, Malaysia, the Philippines, Singapore, Thailand and Vietnam.

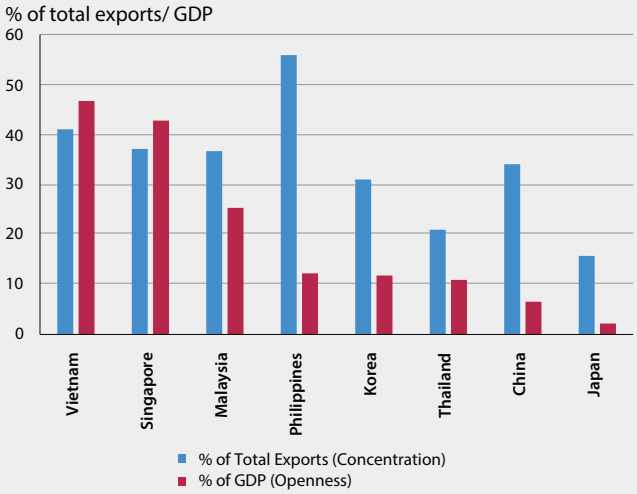
1/ Exports remain an important growth driver for most regional economies (see Box 1.1 on Drivers of Regional Growth). Based on import-adjusted value-added concept, exports contributed around 30-45 percent of GDP growth from 2016, regardless of the size of the economies.
2/ The classification of electronic products in this box refers to 4-digits HS codes 8471-8473 and 8501-8548 and applies across all exporters.
3/ According to the IMF (2018), the production of smartphone components accounted for 17.4 and 15.9 percent of Malaysia and Singapore exports respectively, at its peak in October 2017.
4/ According to Apple's 2017 and 2018 suppliers' lists, the region (including China, Hong Kong, Japan, Korea and Singapore) is the home of its 88 and 94 supplier headquarters, respectively. The total number of Apple's supplier headquarters remain at around 200 for both years.
5/ Main electronics exporters for the region refers to China, Japan, Korea, Malaysia, the Philippines, Singapore, Thailand and Vietnam.

Figure 1.2.3. Global Electronics and Asia Technology New Export Order PMIs



Sources: IHS Markit; and AMRO staff calculations.
Note: Breakeven=50; a reading above 50 indicates improvement over the previous month, while a reading below 50 indicates deterioration.

Figure 1.2.4. Regional Economies: Concentration in and Contribution from Electronics Exports, 2017

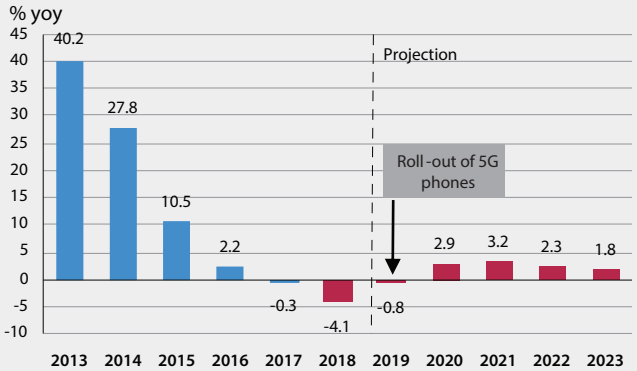


Sources: UN Comtrade; and AMRO staff calculations.

From a longer-term perspective, an extended period of trade tensions could potentially disrupt the supply chains within the region through the need to reorganize production and distribution chains. The negative effects of U.S. tariffs on China would reverberate along global value chains in the region owing to the significant regional content embedded in China's electronics exports. Take Apple's iPhone as an example—while it is designed in the United States, the product is manufactured and assembled mostly in Asian factories, which source intermediate parts from within the region. The regional global value chain participation indices are high, in particular for Korea (62), Malaysia (60) and Singapore (62).[6/] Hence, the supply chains, which are deeply integrated into China's electronics production, will be affected negatively should demand for China's exports fall.[7/]

Apart from the impact of trade protectionism, the saturation of global smartphone demand could, to some extent, further moderate the demand for electronic exports. International Data Corporation estimates that the growth of worldwide smartphone sales will contract by 4.1 percent this year and grow at around an average 1.9 percent per annum for the next four years, even with the roll-out of 5G phones this year (Figure 1.2.5). Over the longer term, however, there could be rising demand for new electronics products with the Industry 4.0 wave accelerated by the adoption of artificial intelligence, autonomous vehicles and internet of things. Under this scenario, the region could be a major beneficiary with its extensive and integrated end-to-end electronics supply chains. Hence, governments should continue to enact policies that will help equip their economies with essential infrastructure and skillsets to meet the rising trends of these technologies.

Figure 1.2.5. Global Smartphone Shipment Volume Projections



Sources: International Data Corporation; and AMRO staff calculations.

6/ Data for 2011. Source: OECD TiVA database, December 2016.
7/ See Box 1.3 for further discussion.

Box 1.3

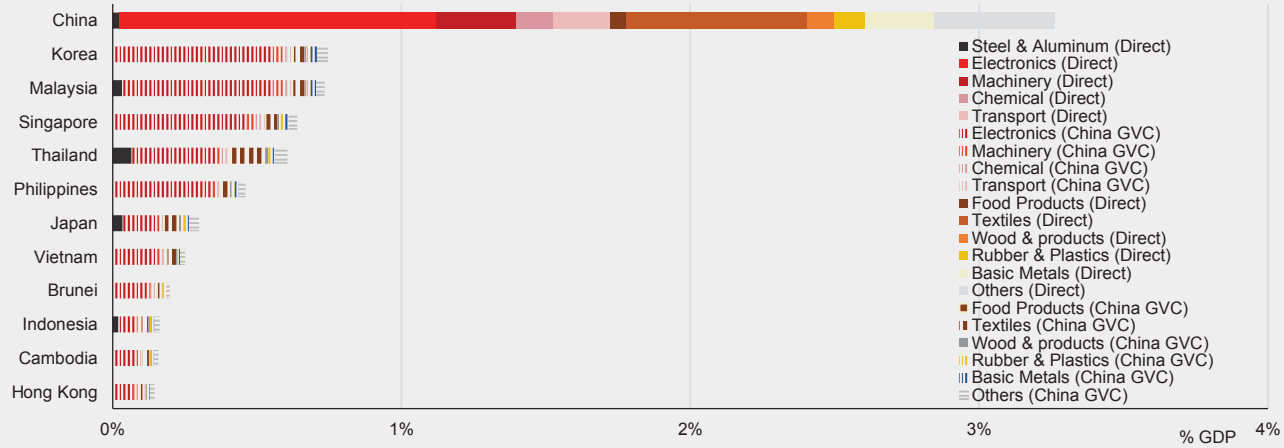
U.S.–China Trade Tensions: Impact on the Region through Global Value Chains

Global value chains represent an important (indirect) channel through which the U.S.-China trade frictions are felt by the rest of the ASEAN+3 region. The estimated impact of direct tariffs is combined with information on value-added to derive the spillover effects of U.S. actions on China's exports, on other countries (shaded bars in Figure 1.3.1). Simply put, the foreign value-added of targeted exports is deducted from total exports in order to derive the net impact of tariffs. For example, the direct impact of U.S. Section 301 investigations on China's exports (solid red bars) excludes foreign value-added of Chinese electronics, machinery, chemicals and some transport equipment exports. This foreign value-added, where they are sourced from the economies in the region, are added to the impact on the exports of those economies as spillovers through global value chains (GVCs).

The exports that are exposed to U.S. trade actions thus far account for, at most, one percent of respective regional economies' GDP (excluding China). Although total targeted Chinese exports are equivalent to 4.3 percent of China's GDP, China's domestic value-added in the group of targeted exports is estimated to be lower at 3.3 percent of GDP, once the foreign value-added in the exports is subtracted. Korea is likely to experience the highest impact on exports owing to its trade integration with China through GVCs, and through its exposure to targeted industries such as electronics and automobiles. Among the ASEAN countries, the impact is notably more severe for Malaysia and Singapore, but small for countries such as Cambodia and Indonesia.

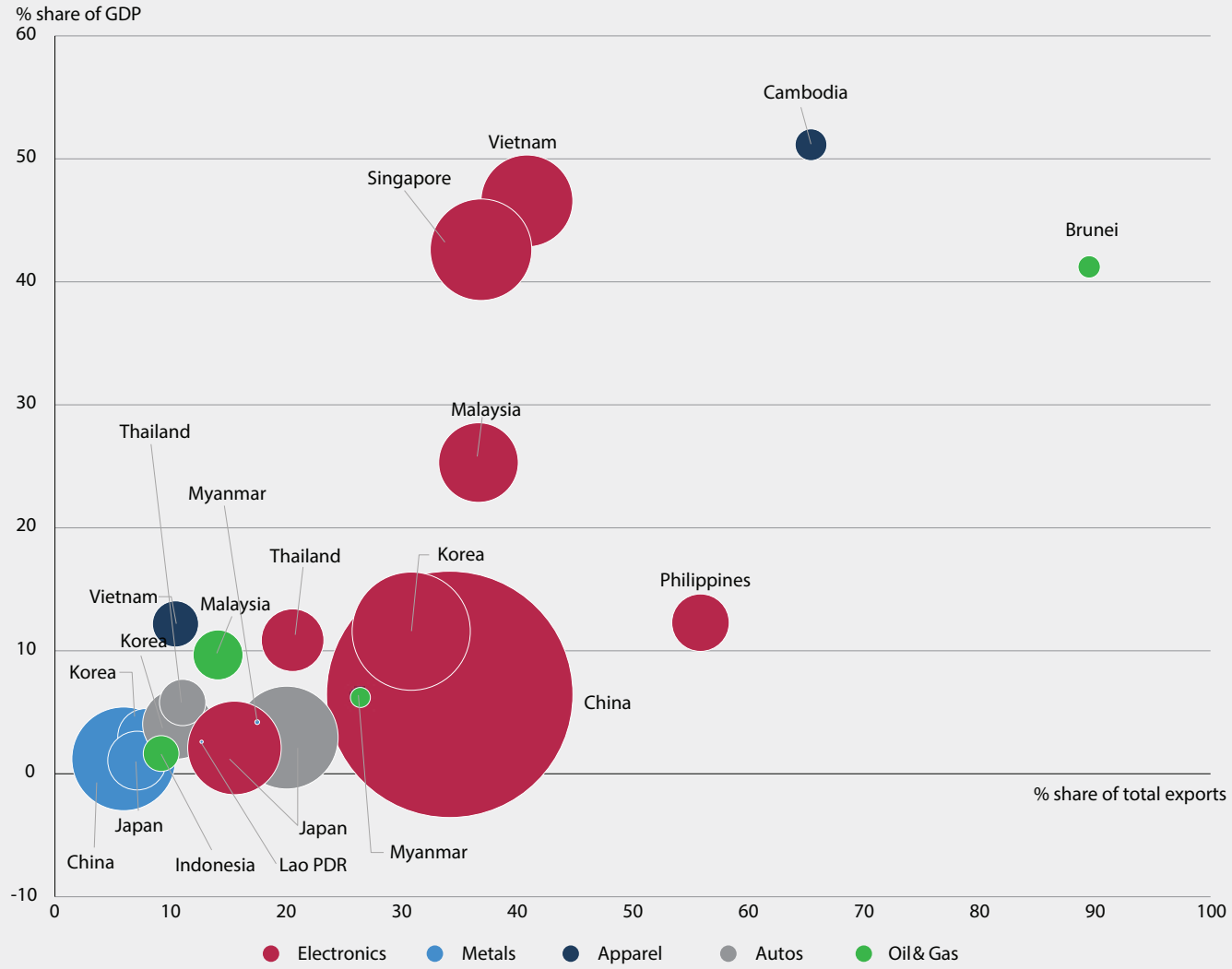
Among China's exports that are targeted by the United States, electronics and autos are the ones that have extensive GVCs throughout ASEAN+3, which could amplify the negative impact. Given China's pivotal role in the electronics production network, the impact of U.S. tariffs on Chinese electronics exports to the region could be significant. Electronics are also a key export for many countries—particularly Korea, Malaysia, Philippines, Singapore and Vietnam—and production linkages with Chinese electronics manufacturers are substantial (Figure 1.3.2). While not as significant as U.S. actions on China's electronics exports, U.S. actions on autos targeted at non-U.S. producers would likely have significant direct impact on Japan and Korea, and potentially through GVC linkages and second-round investor confidence effects on Thailand, a major hub for auto manufacturing in ASEAN.

Figure 1.3.1. Regional Export Exposures to U.S. Trade Actions Targeted Directly at China's Exports



Sources: OECD; and AMRO staff estimates.
Note: Exposures include impact via GVCs.

Figure 1.3.2. ASEAN+3: Key Exports, 2017 [1/]



Sources: UN Comtrade; and AMRO staff calculations.

[1/] Bubble colors represent different key exports; bubble sizes represent export amounts in U.S. dollars.

Note: The corresponding 4-digit HS codes for each product are: Electronics (8471-8548), Metals (7201-8113), Apparel (6101-6217), Autos (8702-8709), and Oil & Gas (2709-2713). The chart may reflect more than one key export per economy.

Box 1.4

U.S.–China Trade Tensions: Short– and Long–term Impact on Regional Growth

The potential short- and long-term impact on regional growth through interactions in investment and trade diversion are estimated. Separate simulations are run, using the Oxford Economics (OE) Global Economic Model and the Global Trade Analysis Project (GTAP) trade model:

- For the short-run estimates of up to two years, the OE model is used to estimate the impact of an "Adverse Trade Scenario," based on a combination of historical correlations and theoretical relations among key macroeconomic variables. The scenario assumptions are set out in Table 1.4.1.

- For the long-run estimates, the GTAP model allows for changing trade and production patterns in the region at the sectoral level that is based on a global input-output database. It takes into account the various feedback effects through the broader economy over the longer-term. [1/]

In the short-term, all economies would be negatively affected if the Adverse Trade Scenario were to materialize. Both the United States and China would stand to lose from the imposition of tariffs on each other, and potentially more if additional non-tariff measures were to be implemented; the region's other economies would not escape unscathed either. The short-term impact under the Adverse Trade Scenario is as follows:

- There would clearly be a negative impact on growth across economies, estimated up to -1.0 percentage point (Figure 1.4.1). The impact over 2019–2020 would be smaller for the United States (-0.3 percentage point) compared to China (-0.6 percentage point).

- Highly open and trade dependent economies such as Hong Kong and Singapore would be hardest hit under this scenario (between -0.6 to -0.9 percentage point of growth), followed by Korea (-0.4 percentage point of growth). The impact would be smaller on other ASEAN-5 countries, estimated at between -0.1 to -0.2 percentage points over 2019–2020.

- Regional economies with greater global value chain participation that is oriented towards final demand outside the region (in this case, the United States) would be more affected (Figure 1.4.2).

- Regional economic growth over 2019–20 would be 0.4 percentage point lower than the baseline (of 5.1 percent) at 4.7 percent.

Over the longer-term, there would be both winners and losers from the Adverse Trade Scenario arising from a regional production/supply chain re-configuration. The long-term impact under the Adverse Trade Scenario (Figure 1.4.3) is as follows: [1/]

- The upside from trade/investment diversion effects from China's exports to the region would be most evident in the electronics and machinery sector, which accounts for nearly half of total U.S.-China bilateral trade, and in the apparel sector.

- After the production of electronics and machinery has been relocated, the sector would shrink in China; U.S. production in this sector would make small gains; with larger gains in Singapore, Malaysia and Thailand.

- A small reduction in China's apparel production would be reflected in higher production in Vietnam and Cambodia.

- In other sectors, chemicals production would decline across the region, while services production would decline in the United States, China, Singapore and Cambodia, possibly due to second-round effects from dampened demand in the United States and China, and consequently from the rest of the world.

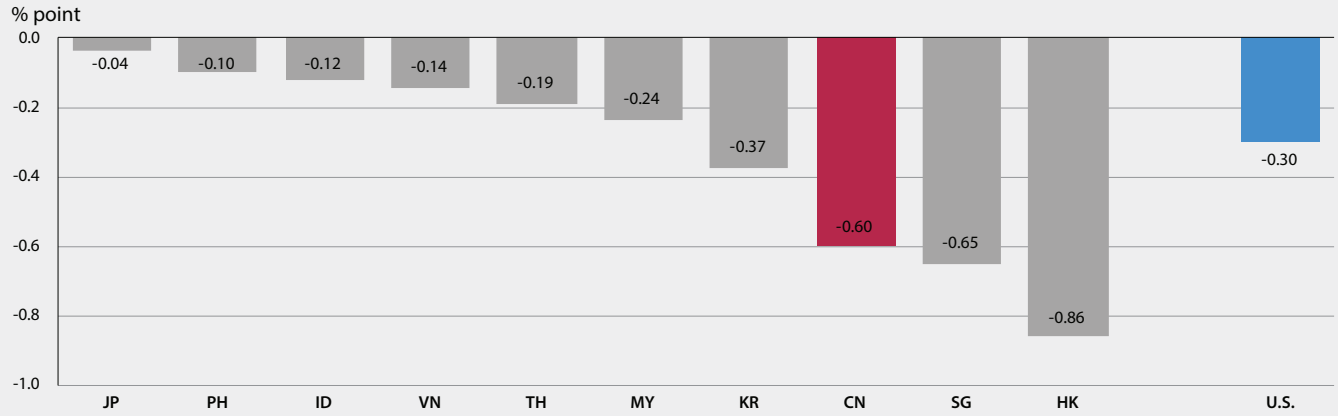
Table 1.4.1. Short-term: Adverse Trade Scenario Assumptions

Scenario	United States	China
Baseline (Current)	Imposes 25 percent tariffs on USD 50 billion plus 10 percent tariffs on additional USD 200 billion of imports from China	Imposes 25 percent tariffs on USD 50 billion plus 5–25 percent tariffs on additional USD 60 billion of imports from the United States
Adverse Trade Scenario	Imposes 25 percent tariffs on all imports from China	Imposes 25 percent tariff on all imports from the United States

Sources: Oxford Economics; and AMRO staff estimates.

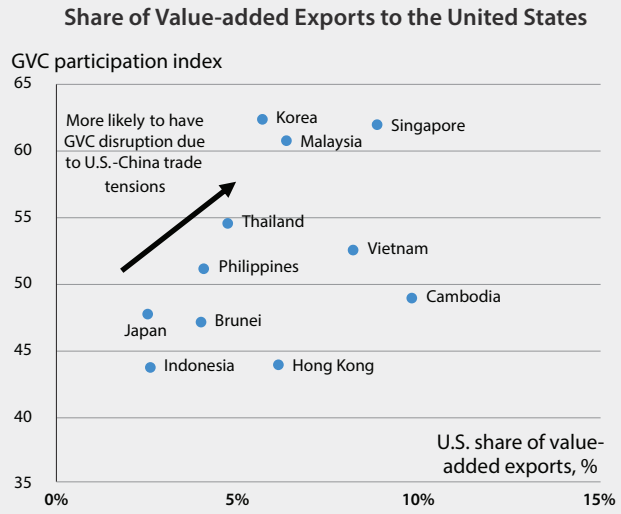
[1/] The "long-term" is a move from one steady state to another, and the time frame is variable depending on the response by producers and industries.

Figure 1.4.1. Adverse Trade Scenario: Estimated Absolute Impact on Real GDP Growth, 2019–2020 Average

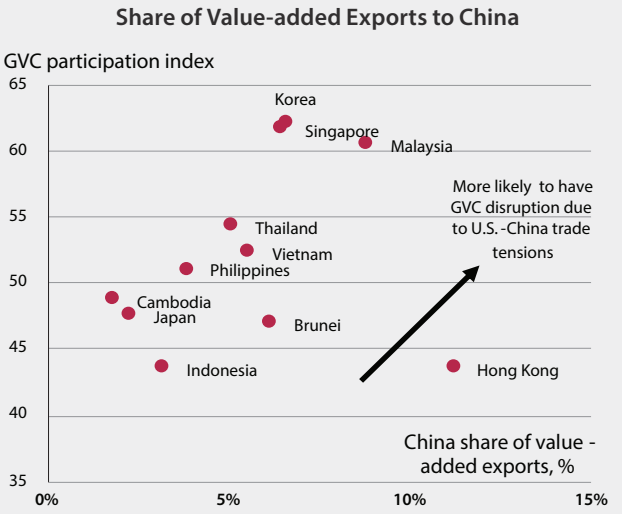


Sources: Oxford Economics; and AMRO staff estimates.

Figure 1.4.2. Region's GVC Participation and Share of Value-Added Exports to the United States and China



Sources: OECD TiVA; and AMRO staff estimates.
Note: GVC participation index is the sum of backward and forward linkages. The higher the number, the more integrated an economy is in GVCs.



Sources: OECD TiVA; and AMRO staff estimates.
Note: GVC participation index is the sum of backward and forward linkages. The higher the number, the more integrated an economy is in GVCs.

Figure 1.4.3. Baseline and Adverse Trade Scenarios: Estimated Long-term Impact on Real GDP Growth and Industrial Production by Sector

Economy	Change in Real GDP Growth (Percentage Points)		Change in Industrial Production, Selected Sectors (Percentage points)								
	Base	Adverse	Adverse Scenario								
	Long-term		Total	Electronics & Machinery	Automotive	Agriculture	Clothing	Chemicals	Metal	Services	Others
China											
U.S.											
Hong Kong											
Korea											
Japan											
Singapore											
Malaysia											
Indonesia											
Thailand											
Philippines											
Vietnam											
Cambodia											
Brunei											
Laos											
Rest of World											

Source: AMRO staff estimates using GTAP Version 9 Database.
Notes: Darker shades of red in the heatmap denote more significant negative impact, yellow shades denote neutral or little impact; while greener shades denote significant positive impact from the trade scenarios. The results are indicative, as the estimation uses the Global Input-Output table, which does not necessarily capture the latest changes in the economic structure of individual economies.

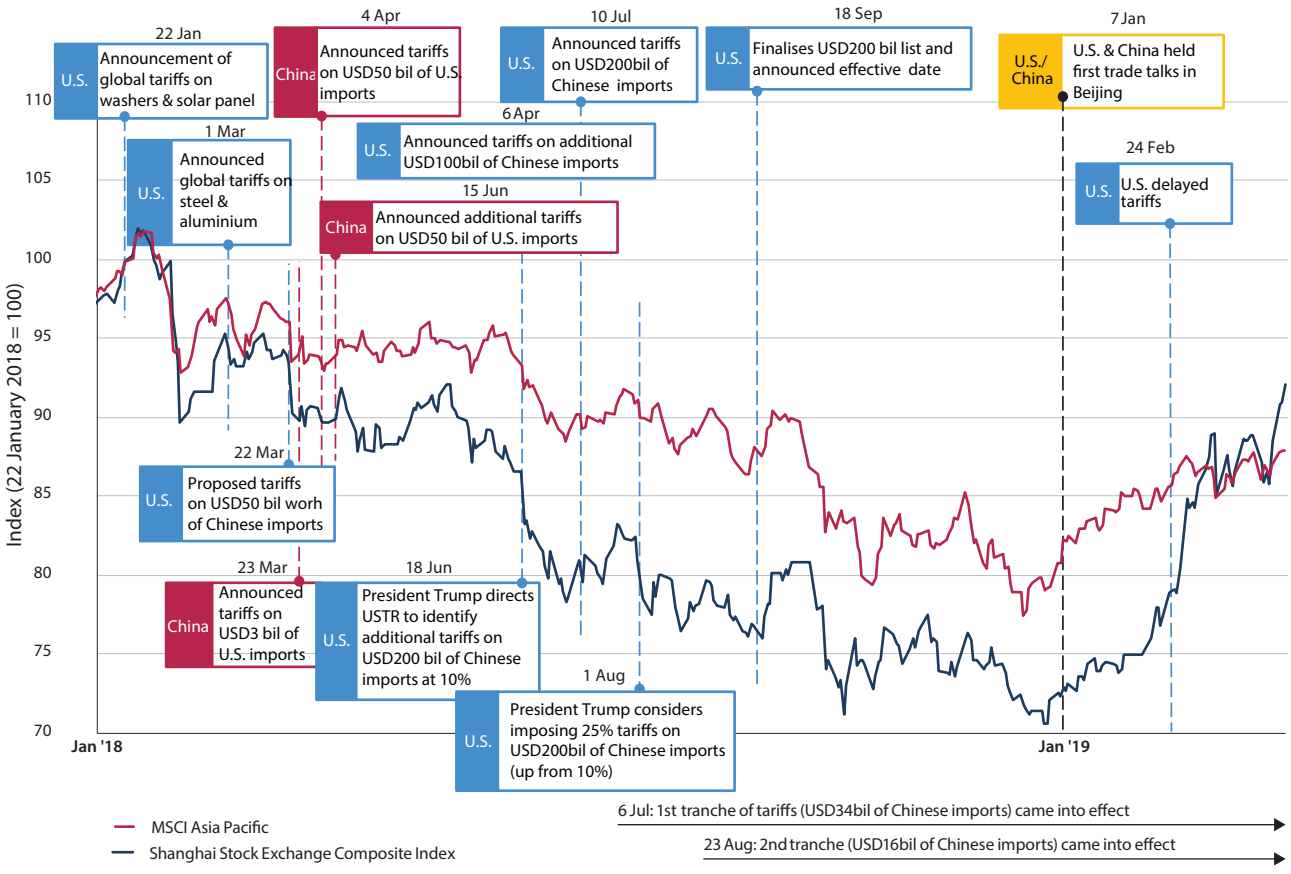
3 Support from Shift in Global Monetary Policy

The monetary policy pivots in the major economies should ease the pressure on capital outflows from the region. At the turn of 2019, weakening economic indicators and expectations of a broad-based slowdown in the global economy (including in China) further unsettled markets. The shift earlier this year towards a dovish bias by the U.S. Federal Reserve and the European Central Bank—which had been on a normalization path—also had the unintended effect of confirming fears over a synchronous global economic slowdown, which led to further market volatility. Going forward, however, the easing in global financial conditions should be supportive of growth as long as policy directions are well-signaled and markets are not constantly caught by surprise. The Bank of Japan's prolonged ultra-easy monetary policy is also helping to meet the large financing needs in the region through lending by Japanese banks.

Since mid-2018, renewed volatility in markets on the back of escalating global trade tensions has been accentuated by financial turmoil in some emerging markets. Announcements of new tariff proposals weighed on regional equities, which experienced an average drop of 100 basis points at each announcement (Figure 1.18). Fortunately, the time lag between tariff announcement and implementation has allowed markets to adjust, minimizing potentially large, sudden swings in asset prices. The strengthening of the U.S. dollar and steady gains in U.S. Treasury yields on the back of a robust U.S. economy contributed to tighter global financial conditions and heightened risk aversion, amid the turmoil in Argentina and Turkey (Figure 1.19).

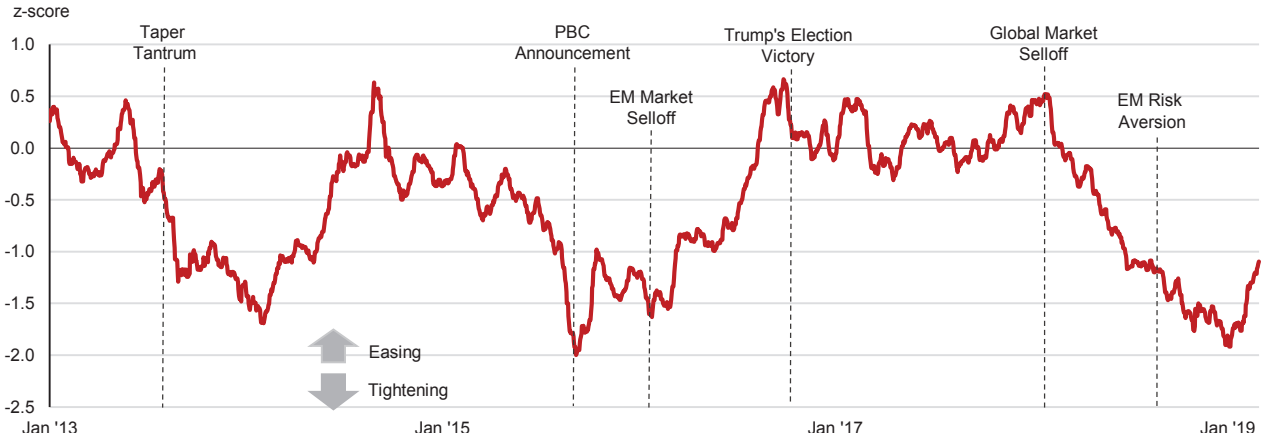
The financial stress experienced by emerging markets in 2018 reverberated around the region and several countries came under increased market scrutiny. The spillovers from tightening global financial conditions were felt strongly especially in Indonesia and the Philippines, which experienced sharp rises in borrowing costs in bond markets (Figure 1.20). Capital outflows from the region totaled USD 6 billion in September and October as foreign investors liquidated their portfolios. AMRO staff's Financial Stress Index (Poonpatpibul and others 2018) confirms that policymakers concurrently used the exchange rate and reserve levers to absorb market stresses, which have since receded (Figure 1.21). In terms of buffers, the region's foreign exchange reserves remain adequate by metrics of import and short-term external debt cover. As of December 2018, the region's reserves were able to cover eight months of imports and three times short term external debt, in aggregate, although coverage varied across individual economies especially on the debt front (Figure 1.22).

Figure 1.18. Selected Equity Indices: Reactions to U.S-China Trade Tensions



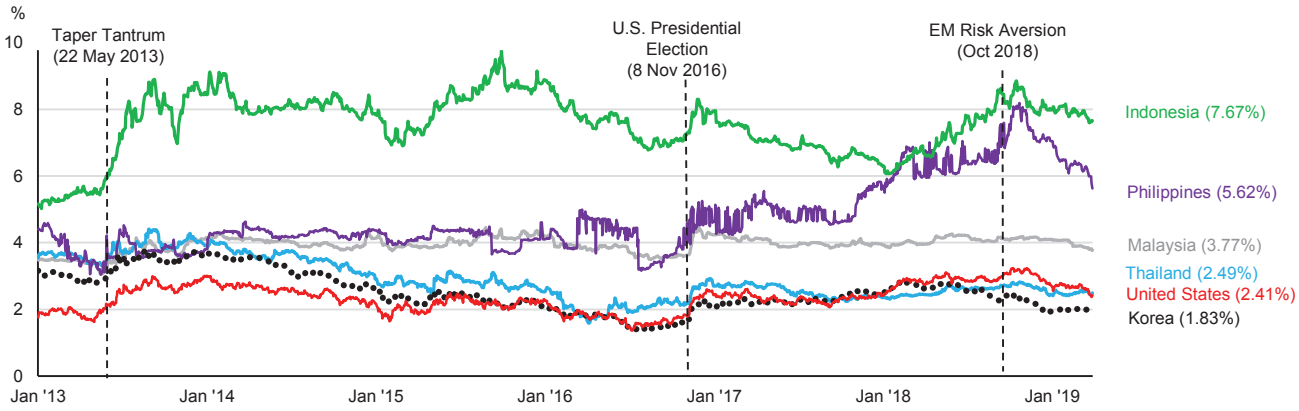
Sources: National authorities; and AMRO staff compilations.

Figure 1.19. Emerging Markets: Financial Conditions Index



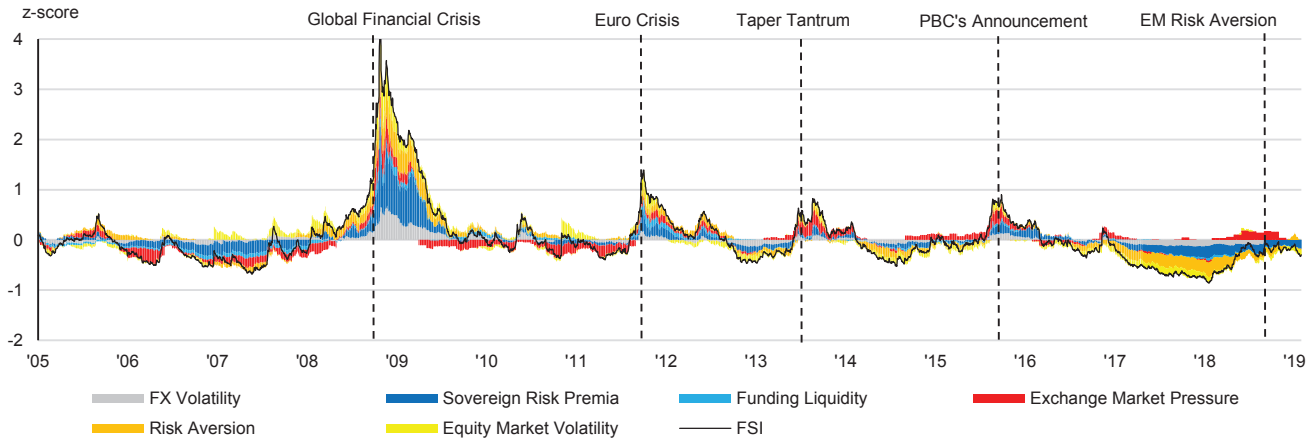
Sources: JPMorgan; and AMRO staff estimates.

Figure 1.20. Regional Emerging Markets: Long-term Borrowing Costs [1/]



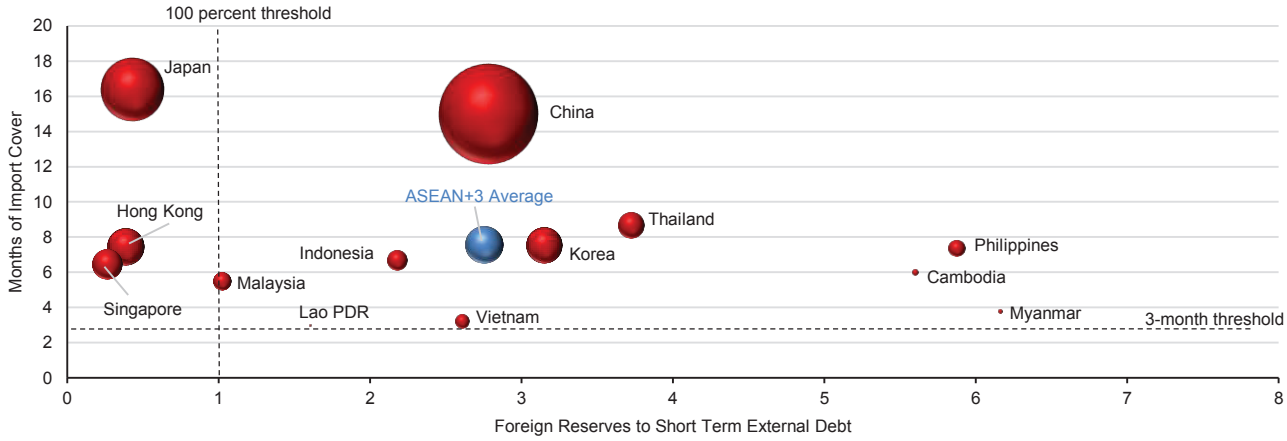
Source: National central banks.
[1/] 10-year local currency sovereign bond yields.

Figure 1.21. ASEAN+3: Financial Stress Index



Sources: National authorities; and AMRO staff estimates.

Figure 1.22. ASEAN+3: Adequacy of Foreign Exchange Reserves



Sources: IMF; national authorities; and AMRO staff calculations.
Note: Based on latest available data. Size of bubble denotes the relative amount of international reserves in U.S. dollars.

Policymakers appear to be realigning with market views, given the recent dovish shift by the U.S. Federal Reserve and European Central Bank. The risk aversion episodes around the turn of the year suggest that markets were ahead of the policy curve in pricing-in downside risks to the global economy—equity markets spiked and sovereign spreads widened as market volatility intensified during this period (Figure 1.23). However, both appear to have converged on the direction of interest rates for 2019, following the U.S. Federal Reserve's downward adjustment in its forward guidance at the March 2019 Federal Open Market Committee (FOMC) meeting (Figure 1.24). That said, most FOMC members still have an upward gradual rate hike trajectory in mind for 2020, while markets are expecting rate cuts.

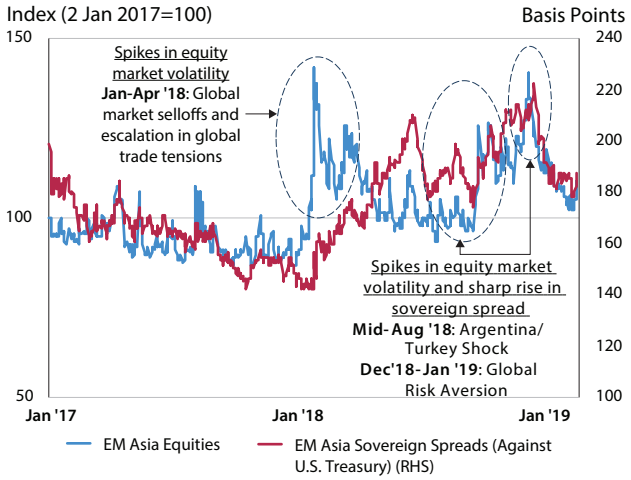
Regional policymakers should be able to better manage risks from any shift to global monetary policy this time around. Inflation in the United States has remained relatively benign, despite the above-trend growth and the tightening labor market. Consequently, long-term yields have been relatively low, thus helping to ease regional emerging markets into U.S. Federal Reserve policy adjustments; the low borrowing costs will also be important for supporting growth in the face of anticipated headwinds. Moreover, regional policymakers have developed more varied policy levers over time (e.g., the development of bond markets; coordination with macroprudential tools) and have some policy space in which to flexibly apply them. An obvious wild card would be the impact on global oil prices from sustained OPEC production cuts and U.S. sanctions on Venezuela.

Nonetheless, investor positioning in regional emerging markets expose some countries to volatility shocks and capital outflows. On the positive side, global investors appear to have become more discerning in differentiating emerging markets even prior to the 2013 taper tantrum, and the region's emerging markets have benefitted from efforts to strengthen their macro fundamentals (Figure 1.25). For instance, markets appear to be assessing individual countries' performances relative to their emerging market peers, with Indonesia representing a good example of improved perceptions (Figure 1.26). But, while regional emerging markets' external and fiscal sectors appear healthier than those of other emerging markets (Figure 1.27), the risk of sudden stops or reversals to capital flows remain. Regional emerging markets (ASEAN-5, China and Korea) have accumulated an average of USD 170 billion in foreign non-FDI (portfolio and banking) inflows annually between 2010–2017. Excluding China, the corresponding amount would be an average USD 60 billion annually (Figure 1.28).

On the one hand, regional stock market valuations are now less buoyant, reducing the risk of a major correction in this asset class in the future. Pre-Global Financial Crisis and in the run-up to the taper tantrum in 2013, emerging market equities, including in the region, were starting from a point of rich valuations, that is, above-trend coinciding with periods of exceptionally strong growth and capital inflows. Equity valuations have come off their cyclical peak, and are now around their historical long-term average, mitigating the risk of sharp adjustments (Figure 1.29).

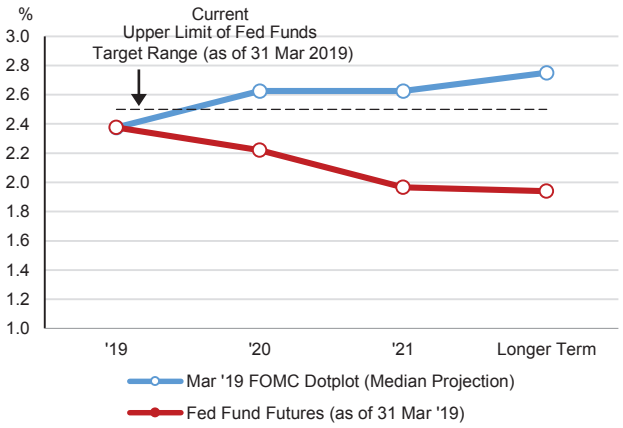
On the other hand, the region's sovereign debt markets, which have remained attractive to global investors unlike those in other emerging markets, could become a vulnerability. Although the ASEAN-5 economies and Korea experienced cumulative net outflows of USD 3.8 billion in 2018, on balance, inflows into debt markets have been largely resilient despite market volatilities (Figure 1.30). And while the concentration of foreign currency denominated debt in the region has decreased since the Asian Financial Crisis, the region has accumulated large stocks of local currency-denominated debt (both corporate and sovereign). Notwithstanding the easing in global financial conditions, any abrupt shift in sentiment and sharp rise in risk aversion could trigger a sharp re-pricing of risks through higher sovereign risk premia, even though economic fundamentals may remain largely unchanged.

Figure 1.23. Emerging Markets: Equity Volatility and Sovereign Spreads



Sources: Haver Analytics; and AMRO staff calculations.

Figure 1.24. The U.S. Federal Reserve's Forward Guidance versus Market Expectations of Monetary Policy Direction in 2019 and Beyond

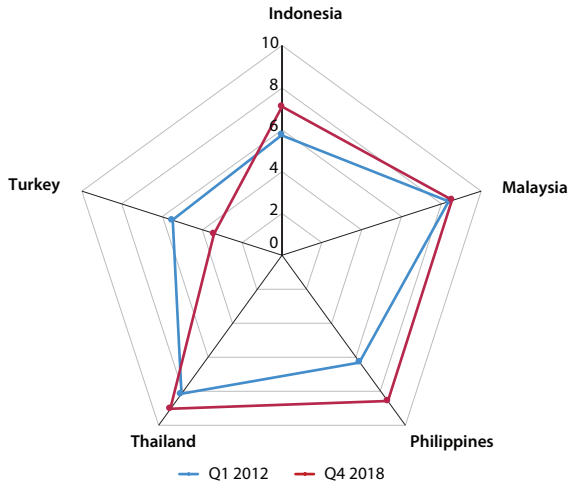


Sources: Haver Analytics; and U.S. Federal Reserve.

Figure 1.25. ASEAN-4 and Korea: Market Perceptions of Sovereign Risk[1/]

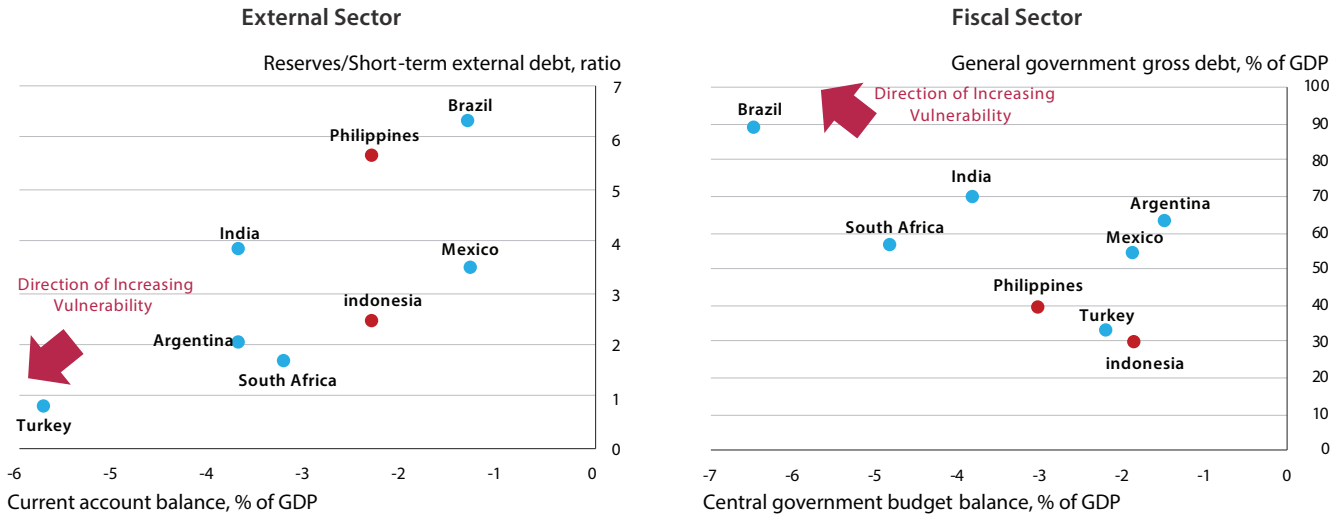
Source: Haver Analytics.
[1/] 5-year sovereign CDS spreads.

Figure 1.26. Selected Emerging Markets: ERPD Matrix Scorecard Criterion on Steady Sovereign Access to Capital Markets



Sources: ARTEMIS; and Haver Analytics.
Note: Each economy is benchmarked against the long-term average of a pre-defined group of emerging markets. The rank range is from 0–10 and is based on z-scores; the further away the rank is from the center (zero), the less risky the market perception of the economy.

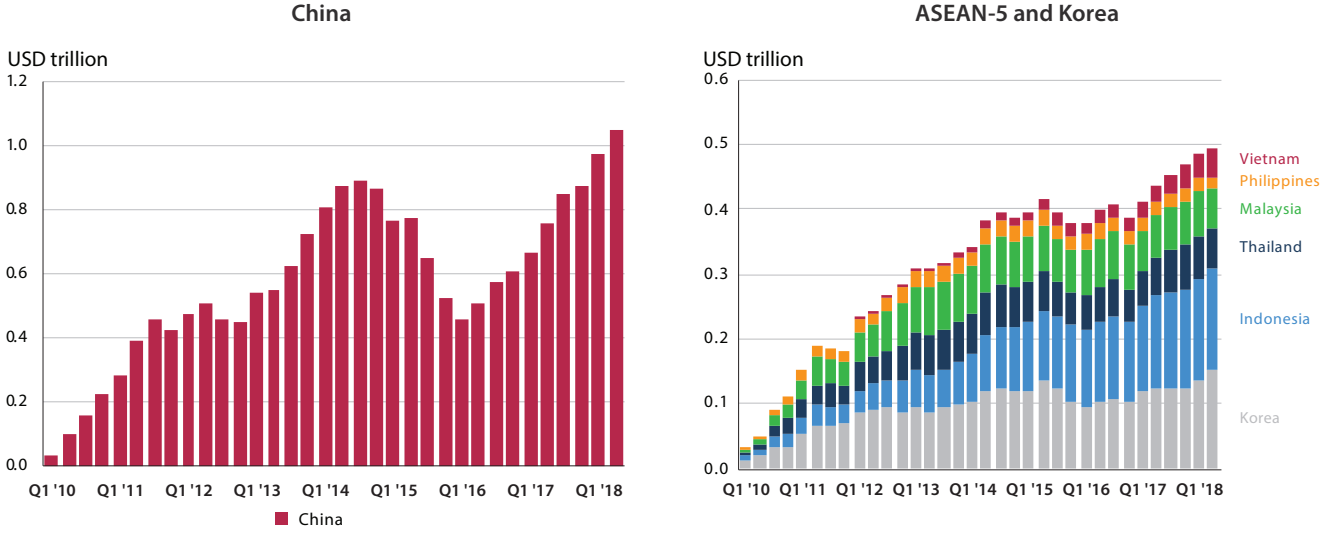
Figure 1.27. Emerging Markets: External Vulnerability and Fiscal Soundness, 2018



Sources: IMF; national authorities; and AMRO staff calculations.

Sources: IMF; national authorities; and AMRO staff calculations.

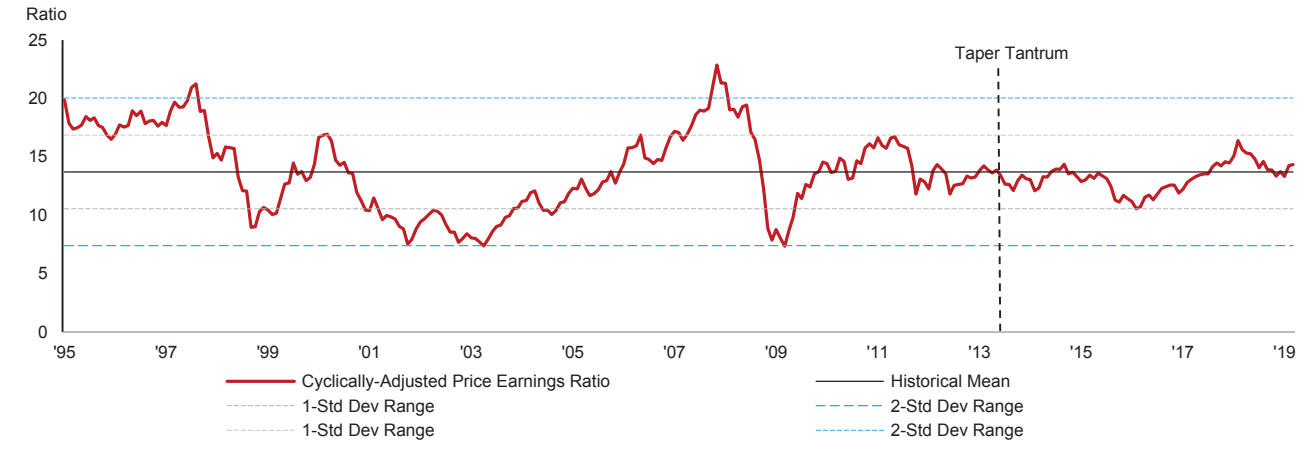
Figure 1.28. Regional Emerging Markets: Cumulative Foreign Non-FDI Gross Capital Inflows, from Q1 2010



Sources: Haver Analytics; and AMRO staff calculations

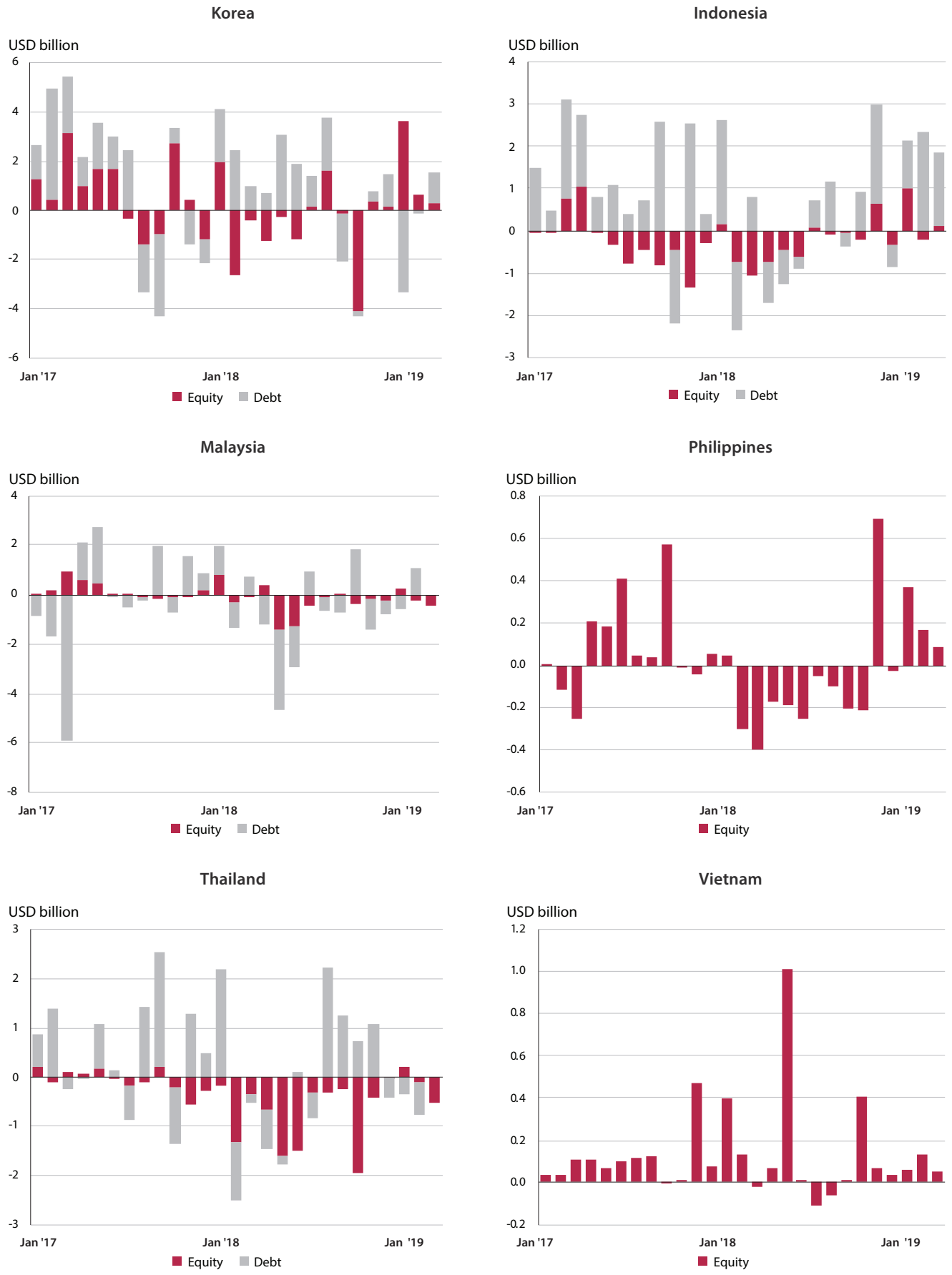
Sources: Haver Analytics; and AMRO staff calculations.

Figure 1.29. Emerging Markets: Stock Market Valuations
(Cyclically-adjusted price-earnings ratio)



Sources: Bloomberg L.P.; and AMRO staff estimates.

Figure 1.30. ASEAN-5 and Korea: Capital Flows into Regional Stock and Bond Markets



Sources: National exchanges; and AMRO staff calculations.

4 Policy Recommendations

On balance, the current policy settings for most regional economies require recalibration, especially in the monetary and fiscal areas. Macroprudential policy appears largely adequate, but monetary policy in some countries could be adjusted to be more supportive of growth. Similarly, fiscal policy in some countries could be more expansionary, subject to available fiscal space, but could bear some tightening in others, to reduce vulnerabilities in the face of the downside risks ahead.

Although regional economies have worked hard to improve their resilience, there is little room for complacency on the policy front. Learning from past experience, policymakers have adopted pre-emptive or frontloaded policy measures to help assuage market concerns (Figure 1.31). In some countries, monetary policy has been tightened to maintain external and domestic price stability and to stem the build-up of financial stability risks from a protracted period of low interest rates. Sound public finances have allowed fiscal policy to play an important countercyclical role, albeit to a limited extent, with fiscal space having generally narrowed across the region. Macroprudential measures, which have been generally tight aross the region, are being eased in some economies.

Analysis of the business, credit and property valuation cycles suggests that most regional economies are well-positioned to calibrate their policies in support of growth against the anticipated headwinds. With the majority currently in mid-business cycle, where output gaps are close to zero, and inflation is within target bands or around their long-term averages, policymakers have some flexibility to consider short-term pre-emptive policy measures to safeguard economic growth while preserving financial stability (Figure 1.2). Clearly, the policy strategy should also depend on where an economy stands in the credit cycle as well as its property valuations. About half of the ASEAN+3 economies are now in the slowing phase of the credit cycle, while property valuations are presently estimated as low or moderate, among at least as many economies (Box 1.5).

Beyond cyclical considerations, economic policy needs to focus on the structural aspects of the economy to support growth prospects and foster resilience over the medium- to longer-term. Policy objectives, such as building productive capacity and connectivity, and deepening domestic capital markets, should be a priority in the next phase of the region's growth trajectory. The region as a whole has prospered over the past two decades, with the "manufacturing for export" growth strategy as the main pillar in most countries. However, the transformation to services is inevitable and the issue of investment in areas needed to generate and sustain growth, in the face of ageing populations, will have to be addressed.

Figure 1.31. Policy Matrix: Assessment of Current Policy Stance and Recommendations

Member	Fiscal Policy		Monetary Policy		Macroprudential Policy		Member
	Current Policy Stance	Recommended Policy	Current Policy Stance/ Condition	Recommended Policy	Current Policy Stance	Recommended Policy	
China	■	↑	■	↑	■	↔	China
Japan	■	↓	■	↔	■	↔	Japan
Korea	■	↑	■	↔	■	↔	Korea
Hong Kong	■	↑	■	-	■	↔	Hong Kong
Singapore	■	↑	■	↔	■	↔	Singapore
Indonesia	■	↔	■	↓	■	↔	Indonesia
Malaysia	■	↓	■	↔	■	↔	Malaysia
Philippines	■	↓ Fiscal Rule	■	↓	■	↓	Philippines
Thailand	■	↑	■	↔	■	↔	Thailand
Brunei	■	↓	■	-	■	↔	Brunei
Cambodia	■	↔	■	-	■	↔	Cambodia
Lao PDR	■	↓	■	↔	■	↔	Lao PDR
Myanmar	■	↔	■	↓	■	↔	Myanmar
Vietnam	■	↔	■	↔	■	↔	Vietnam

AMRO staff assessment of current policy stance

- ■ Expansionary/ Accommodative
- ■ Neutral
- ■ Contractionary / Tight

AMRO staff recommendation

- ↑ Expand more
- ↓ Expand less
- ↔ Maintain current expansion / accommodation
- ↑ Tighten more
- ↓ Tighten less
- ↔ Maintain tightening
- ↑ Easing bias
- ↓ Tightening bias
- ↔ Maintain neutral

Source: AMRO staff estimates.

Fiscal Policy

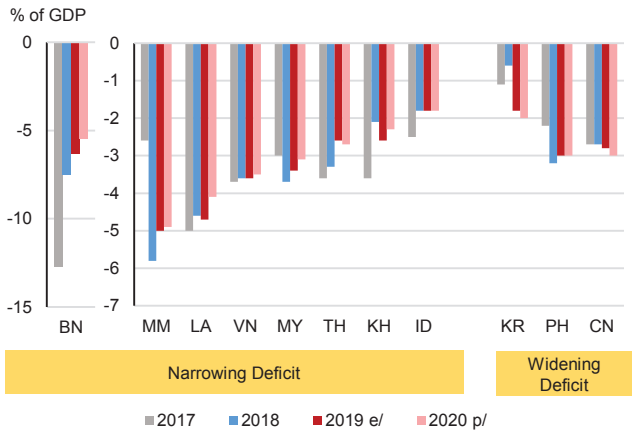
The ASEAN+3 have either adopted more expansionary fiscal policies or, where fiscal rules are binding, reprioritized expenditures to counter the slowing growth momentum. Most economies are expected to maintain their current supportive fiscal policy stance, although several are pursuing fiscal consolidation to contain debt, and will be shifting expenditure towards capital spending. The fiscal deficits across most regional economies have generally narrowed in 2018, compared to 2017, and are projected to narrow further in 2019–2020 (Figure 1.32).

Public finances in the region remain generally prudent. Although the general government debt-to-GDP ratios for most regional economies have generally risen over the past several years, the debt-to-GDP levels are still moderate by international standards. Compared to the respective benchmarks for low-income and middle-income developing economies, Lao PDR's and Vietnam's debt-to-GDP levels are relatively high, suggesting that fiscal consolidation is needed (Figure 1.33). In contrast, Cambodia, Indonesia, Korea, the Philippines and Thailand have debt-to-GDP ratios that are lower than their comparators, pointing to some available fiscal space.

That said, the use of fiscal policy could be constrained for economies with external vulnerabilities. For example, Indonesia and the Philippines are twin-deficit (current account and fiscal) countries and are likely to be subject to greater market pressures during periods of global risk aversion. With emerging headwinds to exports and constraints on the external position, authorities should perhaps consider more targeted, and temporary, fiscal policy (e.g., tax and income policy) to support growth.

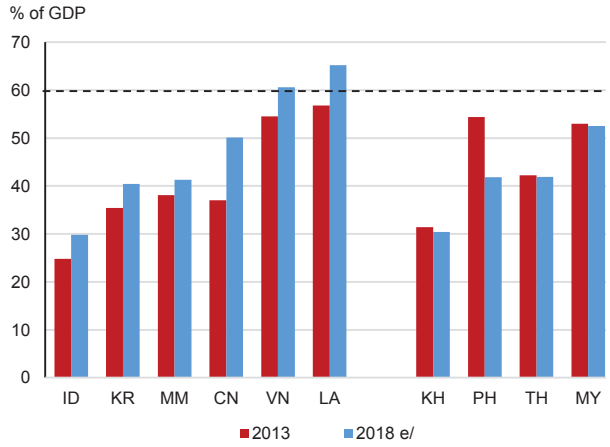
Economies with low revenue-to-GDP ratios and with difficulty in mobilizing revenue are constrained from using fiscal policy for cyclical stimulus and structural reforms. The challenge is compounded for the developing economies in the ASEAN+3 that currently rely heavily on concessional external borrowing to finance their development, as they may lose access to concessional funding when their economic status is eventually upgraded to middle income. For these economies, fiscal reforms are needed to widen the tax base and improve tax collection while containing current expenditures. Cambodia's reform efforts in revenue mobilization have yielded desired results, with sustained tax revenue growth via broad-based increases in both direct and indirect taxes, although continuing efforts are needed to improve spending efficiency.

Figure 1.32. Selected ASEAN+3 Economies: Fiscal Balance



Sources: National authorities; and AMRO staff estimates and projections.

Figure 1.33. Selected ASEAN+3 Economies: General Government Debt



Sources: IMF; National authorities; and AMRO staff estimates and projections.

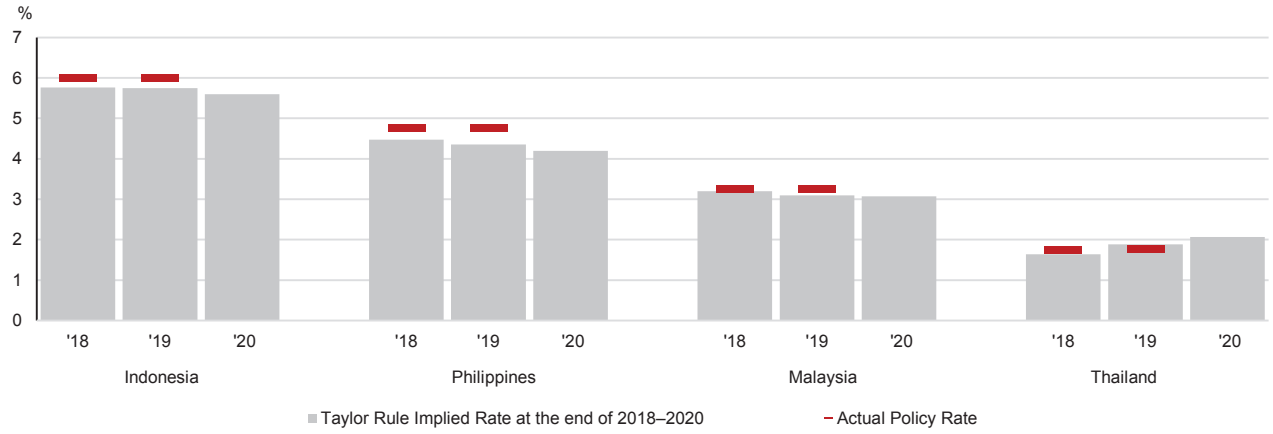
Monetary Policy

Regional emerging markets that have been confronted with strong external pressures and/or rising domestic inflation have pre-emptively tightened monetary policy to ensure financial stability. Indonesia and the Philippines are two key examples—the former has raised its policy interest rate six times since May 2018 by a cumulative 175 basis points, and the latter five times since May 2018 also by a cumulative 175 basis points. AMRO staff's preliminary Taylor Rule (Taylor, 1993) estimates indicate that the current policy rates of both countries are above those implied by the model (Figure 1.34 and Box 1.6). These policy responses have helped to bolster confidence, as evidenced by market reactions. All countries except the Philippines are comfortably at or below the mid-point of their respective inflation target ranges; inflation in the latter has slowed rapidly and is now within the target range. The easing of external financial conditions and domestic inflationary pressures have provided policymakers with some leeway to use monetary policy to support growth, if necessary.

For some economies, the degree of monetary policy accommodation has also been adjusted to stem the build-up of financial vulnerabilities from a protracted period of low interest rates. Policymakers in Malaysia pre-emptively raised its overnight policy rate by 25 basis points to 3.25 percent in January 2018—the first time since July 2014—citing concerns over a build-up in imbalances from sustained low interest rates. Similarly, Korea raised the Base Rate by 25 basis points to 1.75 percent in November 2018, to contain financial imbalances, including the accumulation of household debt. In contrast, China (which is in the recovery stage of the credit cycle) has eased the reserve requirement ratio (RRR) to increase banks' liquidity and boost lending.

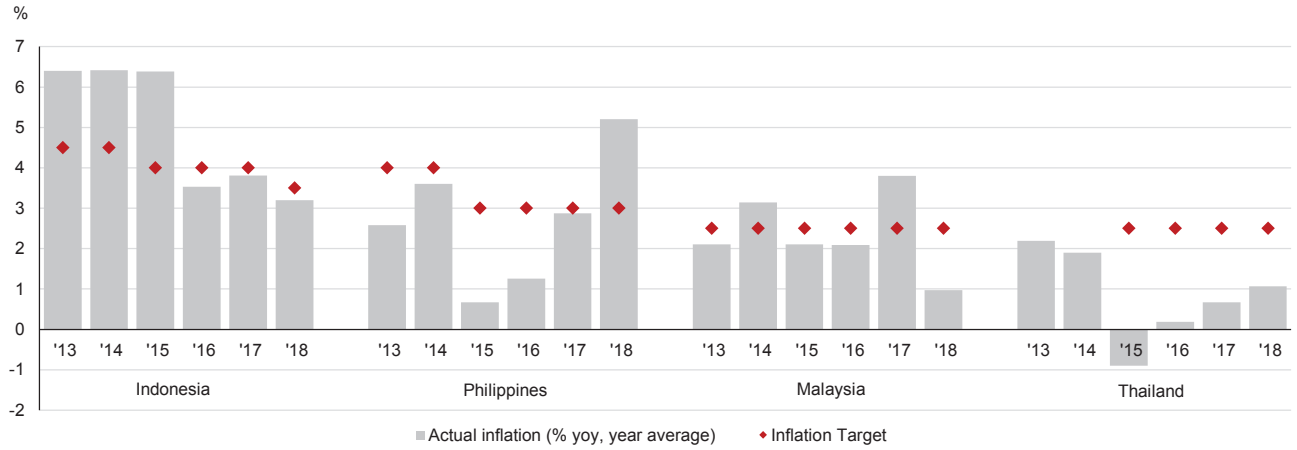
Going forward, regional economies that are more vulnerable to external shocks should maintain or tighten monetary policy to ensure investor confidence. However, the generally benign inflation environment and the recent easing in global monetary conditions suggest that they would have some room to loosen, if necessary, in the event that the external headwinds were to materialize (Figures 1.34 and 1.35).

Figure 1.34. ASEAN-4: Actual Policy Rates versus Taylor Rule Estimates



Sources: National authorities; and AMRO staff estimates and projections.
Notes: End-2018–2020 Taylor Rule implied rates are computed based on AMRO staff's GDP and inflation projections.
2018 actual policy rate refers to the latest policy rate announced in 2018: Indonesia (December 20), Malaysia (January 25), the Philippines (December 13), and Thailand (December 19). 2019 actual policy rate refers to the latest policy rate announced in early 2019: the Philippines (February 7), Malaysia (March 5), Thailand (March 20), and Indonesia (March 21).

Figure 1.35. ASEAN-4: Actual Inflation versus Inflation Target



Sources: National authorities; and AMRO staff estimates.
Note: Malaysia is a non-inflation targeting economy. The indicated inflation target for Malaysia is assumed to be the implicit target of long-term average inflation.

Macroprudential Policy

Regional policymakers have generally maintained tight macroprudential measures to contain the build-up in financial vulnerabilities but have made calibrations in order to support growth. In Indonesia, the authorities have taken advantage of being in the recovery stage of the credit cycle to relax the Loan-to-Value/Financing-to-Value ratios on mortgage facilities, while maintaining prudent standards overall, to boost credit growth to support the economy. Indonesia has used the RRR to incearse banks' liquidity and improve lending, by adjusting its composition and raising the average RRR to lower the fixed RRR so that banks are able to flexibly manage their daily liquidity. For economies where the households or corporate sectors have accumulated large debt stocks, such as China, Korea, Malaysia, Thailand and Singapore, policymakers should continue to maintain relatively tight—or further tighten—macroprudential policy.

Actions taken to moderate property prices have contributed to the credit slowdown in several economies. In Singapore, macroprudential measures to cool the property market have reduced growth in mortgage loans. Pre-emptive macroprudential policy tightening in Korea, to guard against financial stability risks from high property prices, has also slowed credit growth. Efforts to curb credit growth in China have shown some tentative results, as mortgage loan growth has slowed; nonetheless, property valuations remain high, and property prices may soon start to appreciate again in large cities, where supply is insufficient.

Box 1.5

Introducing the Property Valuation Cycle for the ASEAN+3 Economies

This AREO presents the Property Valuation Cycle as a complement to its Business and Credit Cycles, which were introduced in the 2018 issue. Property prices affect the broader economy through an entity's net worth, thus affecting its capacity to borrow, invest and spend (Claessens, Kose and Terrones 2011a). Property-related loans typically represent one of the biggest exposures on the balance sheets of financial institutions and, consequently, an important source of risk to financial stability, as evidenced by developments leading up to the Asian Financial Crisis and the Global Financial Crisis.

Close monitoring of business and financial cycles should be an indispensable part of macro-financial surveillance and policy design, given the important interlinkages. For example:

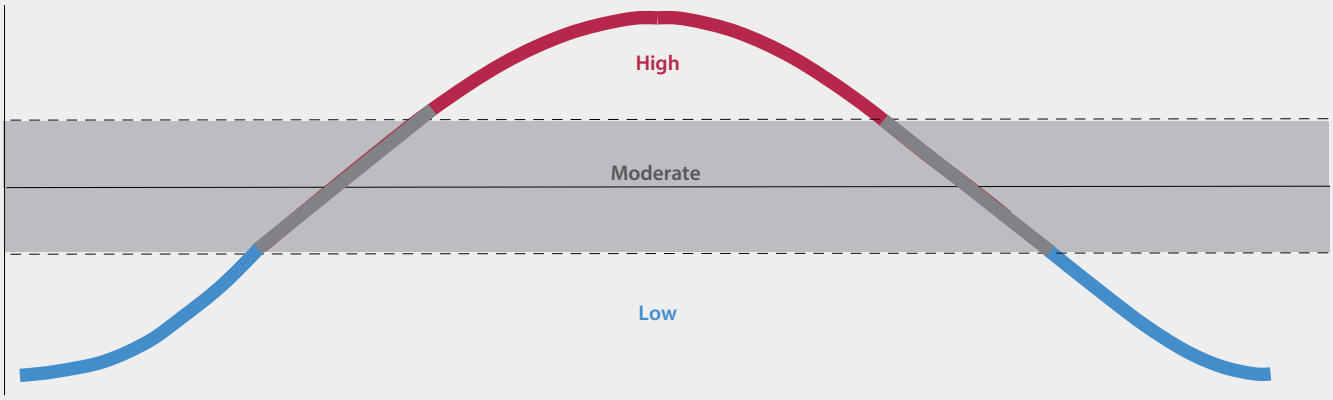
- Claessens and others (2011a, b) show that the cyclical behavior of credit and house prices are highly correlated, while Drehmann, Borio and Tsatsaronis (2012) find that financial cycles may be represented by the co-movement of medium-term cycles in credit and property prices. Arregui and others (2013) demonstrate that real house price growth has significant effect on the probability of a banking crisis during events of high credit growth, that is, rapid house price growth together with rapid credit growth tend to "end up badly."

- Helbling (2003) finds that housing price busts in advanced economies are associated with substantial negative output gaps, with the marked decline in real GDP growth typically resulting in recessions. Correspondingly, Claessens, Kose and Terrones (2011a) estimate that recessions that are accompanied by house price busts tend to be longer and much deeper than other recessions, while recoveries accompanied by credit or house price booms tend to result in stronger output growth.

One of the key characterizing factors of a financial boom—that is, rapid growth in real estate prices—may be assessed through estimating the valuations of those prices. AMRO staff's property valuation cycle applies a similar metric to that typically used for valuing stock markets, the Price-to-Earnings ratio. The corresponding indicator for the property market is the price-to-rent ratio.[1/] Where longer-term data are available, short-term volatility and variation over the business cycle are smoothed out by estimating the equivalent of Campbell and Shiller's (1998) Cyclically Adjusted Price-to-Earnings ratio, which in this case, is the ratio of the real property price divided by the average of real rent over the past 10 years. A filter is then applied to the data to determine valuations relative to the long-term trend. A stylized illustration of the property valuation cycle is shown in Figure 1.5.1.

The addition of the property valuation cycle enhances AMRO staff's analyses of members' macro-financial risks and attendant policy recommendations to mitigate those risks. Policymakers have several levers to pull to manage the risks to finance stability, in the form of monetary, fiscal and macroprudential policies. Their appropriate coordination and implementation could prevent overheating of the economy or growth in asset price bubbles, and any consequent and potentially substantial damage to growth.

Figure 1.5.1. Stylized Property Valuation Cycle



Source: AMRO staff.

1/ See Mayer (2011) for a discussion of the literature on the use of the price-to-rent indicator for assessing property valuations.

Box 1.6

Taylor Rule Estimates for the ASEAN-4

The objective of AMRO staff's Taylor Rule estimations is twofold. The aim is to first, analyze the main factors influencing monetary policy settings in ASEAN-4 in the past; and second, provide benchmarks for assessing current and future policy settings, given central banks' estimated reaction functions. These economies, with the exception of Malaysia, have explicit inflation targets, and while Malaysia does not have an explicit inflation target, it does aim to keep inflation at around the long-term average. These are also economies where global financial conditions are most likely to affect domestic monetary policy settings.

The standard Taylor Rule is augmented with several variables to take into account external and domestic factors. Given the openness of these economies to capital flows, the U.S. Treasury yield is used as a proxy for global financial conditions. On the domestic side, variables such as credit growth and the exchange rate are added to the estimated output gap and deviation of inflation from its target (or long-term average). Using these specifications, the estimated Taylor Rule results show adjusted R-squared of 87 percent for Malaysia and exceeding 90 percent for Indonesia, the Philippines and Thailand (Table 1.6.1).

The model estimates suggest that both external and domestic variables matter for monetary policy decisions. Inflation, the output gap and external financial conditions (U.S. treasury yield) are important for most economies (Table 1.6.2). The coefficient of U.S. treasury yield, is very significant for Indonesia and Malaysia. The lagged policy rate variable is also significant, suggesting a gradualist approach to monetary policy settings. With most of these economies in mid-business cycle, where the output gap is small and inflation is stable or stabilizing, external financial conditions are likely to play an important role for monetary policy in the year ahead.

Table 1.6.1. ASEAN-4: Taylor Rule Specifications

Countries	Adjusted R-squared	Domestic Variables						External Variables		
		Lagged policy rate	Inflation	Output	Credit growth	NEER	Exchange rate	U.S. treasury yield	Fed Fund rate	Measure of global uncertainty
Indonesia	0.925847	✓***	✓	✓ **			✓	✓***		
Malaysia	0.867388	✓***	✓ **	✓***				✓***		
Philippines	0.960827	✓ **	✓ **	✓ **			✓***	✓		✓*
Thailand	0.918000	✓***	✓***	✓	✓***				✓	

Source: AMRO staff estimates.
Note: Significance level using P-value (* at 10 percent, ** at 5 percent, *** at 1 percent). All variables are the deviation from trend.

Table 1.6.2. ASEAN-4: Estimated Results for Taylor Rule

Countries	Independent Variables	Coefficients	Period of Coverage
Indonesia	Lagged policy rate (-1)	0.6839***	Q2 2010 – Q4 2020
	Inflation	0.2504	
	Output (-1)	2.6664*	
	U.S. treasury yield (10 years)	1.5306***	
	Exchange rate (IDRUSD)	-0.0429	
Malaysia	Lagged policy rate (-1)	0.6828***	Q4 2005 – Q4 2020
	Inflation	0.1118**	
	Output (-1)	0.2762***	
	U.S. treasury yield (5 years)	0.4052***	
Philippines	Lagged policy rate (-1)	0.8504**	Q4 2005 – Q4 2020
	Inflation	0.9000**	
	Output (-1)	0.6968**	
	U.S. treasury yield (5 years)	1.1233	
	Measure of global uncertainty	-0.1187*	
	Exchange rate (PHPUSD)	-0.1192***	
Thailand	Lagged policy rate (-1)	0.5842***	Q1 2008 – Q4 2020
	Inflation	0.2269***	
	Output (-1)	-0.0162	
	Credit growth	0.0892***	
	Fed fund rate	0.1266	

Source: AMRO staff estimates.
Note: Significance level using P-value (* at 10 percent, ** at 5 percent, *** at 1 percent). Number in parenthesis is number of lags. Period after 2018 is based on staff projections.