



# **ASEAN+3** REGIONAL ECONOMIC OUTLOOK (AREO) 2019

**Building Capacity and  
Connectivity for the  
New Economy**

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# Foreword

Building on our achievements so far, AMRO has continued to enhance its outreach and publication of our surveillance work and research activities. Following the inaugural publication of *AREO 2017* in May 2017 and the publication of the Annual Country Consultation Reports of several countries during that year, we have continued to publish country reports in 2018 with the support of AMRO's members. AMRO staff have also increased their thematic and other research activities with the aim of providing relevant and timely analysis to our stakeholders, as well as to inform the public. It is encouraging to note that the publication of the Monthly Updates of the AREO and staff blogs on selected topics on AMRO's website has been well-received.

We are continuing to improve our analytical frameworks and toolkits, to fulfill our mandate of contributing to the financial stability of the region through conducting regional economic surveillance and supporting the implementation of the Chiang Mai Initiative Multilateralization Agreement. In this issue, *AREO 2019*, we introduce the property market valuation cycle, as well as estimate the Taylor Rule model for selected ASEAN+3 regional economies, building upon AMRO's surveillance framework, which has been strengthened with the development and implementation of the Economic Review and Policy Dialogue Matrix framework. These new analytical tools enhance our assessment of risks to respective member economies, while enabling richer cross-country analyses. More importantly, they aid staff's assessment of the current policy stance and inform policy recommendations to member authorities.

Regional economic growth should remain resilient, although fundamental global growth drivers are slowing relative to 2018, and are expected to deliver less of a boost to the region in 2019–2020. With dissipating tailwinds from global trade, the drag from weaker external demand on regional growth could become more evident. However, recent monetary pivots in the advanced economies could mitigate this risk. Global markets experienced bouts of sharp volatility last year, reflecting the uncertainties in international trade, but monetary conditions have eased recently in the wake of the more dovish tone adopted by the U.S. Federal Reserve and the European Central Bank. Regional policymakers need to stand ready to mitigate the downside risks by using the available policy tools flexibly, and calibrating them in accordance with country-specific conditions and circumstances. Encouragingly, while the near-term prospects for the region are expected to be a shade softer, the longer-term economic fundamentals remain intact.

This year's thematic study is on "Building Capacity and Connectivity for the New Economy." It follows from the thematic chapter in *AREO 2017*, which assesses the economic consolidation and rebalancing in the region after the Asian Financial Crisis (AFC), and the one in *AREO 2018*, which focuses on the drivers of growth and the strategy that the region uses to maintain resilience and sustain growth. The region as a whole has prospered in the past two decades, with the "manufacturing for export" strategy as the main pillar in most countries. This AREO issue explores how ASEAN+3 members could embrace the New Economy and embark on their next phase of economic development by enhancing capacity and connectivity, the three major challenges in these areas and how to address them.

While the move up the technological frontier has been, and will continue to be, uneven, the transformation to services is inevitable, and will require a rethink of what capacity means and what connectivity is needed. The investments needed to generate and sustain growth will include: new technology; human capital to work with the new technology; and networks and connectivity for new value chains that are becoming more complex and international. At the same time, developing economies face three major challenges to building the infrastructure: funding gap arising from low saving rates; foreign exchange constraints from the need to build buffers against capital flow volatility; and factors gap reflecting the need to improve governance, human capital and connectivity. Finally we argue that the solution to many of the challenges can be met from within the region by leveraging on the rich and diverse resources of the region, and by enhancing capacity and connectivity through greater regional integration.

**Hoe Ee Khor**  
*AMRO Chief Economist*

# Acknowledgments

This report provides AMRO staff's assessment of the region's economic outlook in the short-term including the risks, vulnerabilities and challenges facing the region, and the policy responses by country authorities. The assessment is based on the analytical work of the Regional Surveillance Team and draws on the surveillance work of the country teams. It also presents staff's thematic study on longer-term structural issues confronting the region. It has also been submitted to the Executive Committee members for their discussion on economic developments and policy issues facing the ASEAN+3 region.

This report was prepared by the Regional and Financial Surveillance Teams led by Li Lian Ong, and reviewed and cleared by AMRO Chief Economist, Hoe Ee Khor. The report has benefited from the guidance of AMRO Director Junhong Chang and other AMRO Senior Management.

The primary contributors to the chapter, "ASEAN+3 Macroeconomic Prospects and Challenges," are Anthony Tan (lead), Edmond Choo, Vanne Khut and Justin Lim. The primary contributors to the thematic chapter, "Building Capacity and Connectivity for the New Economy," are Suan Yong Foo (lead) and Vanne Khut; San Ling Lam (AMRO Consultant) advised on the preparation of the chapter. Other contributors to the chapters are Malichanh Chiemsisoulath, Laura Grace Gabriella, Simon Liu, Wei Sun and Madeleine Vinuya.

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Finally, the views expressed in this report are those of AMRO staff and do not, in any way, implicate the members.

## Acronyms and Abbreviations

<b>ADB</b>	Asian Development Bank	<b>ODA</b>	Official Development Assistance
<b>AEs</b>	Advanced Economies	<b>ODI</b>	Outward Direct Investment
<b>AFC</b>	Asian Financial Crisis	<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>BIS</b>	Bank for International Settlements	<b>OPEC</b>	Organization of the Petroleum Exporting Countries
<b>BOJ</b>	Bank of Japan	<b>OTC</b>	Over-the-Counter
<b>BOT</b>	Bank of Thailand	<b>PBC</b>	People's Bank of China
<b>CAPEX</b>	Capital Expenditure	<b>PCE</b>	Personal Consumption Expenditure
<b>CPI</b>	Consumer Price Index	<b>PMI</b>	Purchasing Managers' Index
<b>CBO / CPB</b>	Congressional Budget Office / Netherlands Bureau for Economic Policy Analysis	<b>PPI</b>	Producer Price Index
<b>DBU</b>	Domestic Banking Unit	<b>RBA</b>	Reserve Bank of Australia
<b>DXY</b>	U.S. Broad Dollar	<b>SGP</b>	Stability and Growth Pact
<b>EMs</b>	Emerging Markets	<b>SITC</b>	Standard International Trade Classification
<b>EIA</b>	U.S. Energy Information Administration	<b>SOEs</b>	State-Owned Enterprises
<b>ECB</b>	European Central Bank	<b>UMP</b>	Unconventional Monetary Policy
<b>EPFR</b>	Emerging Portfolio Fund Research	<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>FCY</b>	Foreign Currency	<b>USMCA</b>	United States-Mexico-Canada Agreement on Trade
<b>FDI</b>	Foreign Direct Investment	<b>VAT</b>	Value-Added Tax
<b>U.S. Fed</b>	U.S. Federal Reserve	<b>WEO</b>	IMF World Economic Outlook
<b>FOMC</b>	Federal Open Market Committee	<b>WTO</b>	World Trade Organization
<b>FX</b>	Foreign Exchange		
<b>G3</b>	U.S., Euro area and Japan	<b>3MMA</b>	3 month moving average
<b>GDP</b>	Gross Domestic Product	<b>4wma</b>	4 week moving average
<b>GFC</b>	Global Financial Crisis	<b>bps</b>	Basis points
<b>GFCF</b>	Gross Fixed Capital Formation	<b>EBITDA</b>	Earnings before interest, tax, depreciation and amortisation
<b>GNI</b>	Gross National Income	<b>FY</b>	Fiscal Year
<b>GST</b>	Goods and Services Tax	<b>mb/d</b>	Million barrels per day
<b>GVC</b>	Global Value Chain	<b>m-o-m</b>	Month-on-month
<b>HICP</b>	Harmonised Index of Consumer Prices	<b>PPP</b>	Purchasing Power Parity
<b>ICR</b>	Interest Coverage Ratio	<b>q-o-q</b>	Quarter-on-quarter
<b>IEA</b>	International Energy Agency	<b>SA</b>	Seasonally-adjusted
<b>IIF</b>	Institute of International Finance	<b>s.w.d.a.</b>	Seasonally and working day adjusted
<b>ILO</b>	International Labour Organization	<b>SAAR</b>	Seasonally-adjusted Annualised Rate
<b>IMF</b>	International Monetary Fund	<b>y-o-y</b>	Year-on-year
<b>LCY</b>	Local Currency	<b>YtD</b>	Year-to-date
<b>MAS</b>	Monetary Authority of Singapore	<b>ASEAN</b>	Association of Southeast Asian Nations
<b>NAFTA</b>	North American Free Trade Agreement	<b>ASEAN (ex-SG)</b>	ASEAN excluding Singapore
<b>NEER</b>	Nominal Effective Exchange Rate		
<b>NFC</b>	Non-Financial Corporation		
<b>REER</b>	Real Effective Exchange Rate		

<b>ASEAN+2</b>	ASEAN plus China (including Hong Kong) and Korea
<b>ASEAN+3</b>	ASEAN plus China (including Hong Kong), Japan, and Korea
<b>ASEAN-4</b>	Malaysia, Thailand, Indonesia and the Philippines
<b>ASEAN-5</b>	Malaysia, Thailand, Indonesia, the Philippines and Vietnam
<b>ASEAN-6</b>	ASEAN-5 and Singapore
<b>ASEAN-8</b>	ASEAN, excluding Brunei and Singapore

<b>Plus-3</b>	China, Japan and Korea
<b>BCLM</b>	Brunei, Cambodia, Lao PDR and Myanmar
<b>BRICS / LatAM</b>	Brazil, Russia, India, China and South Africa / Latin America
<b>CLMV</b>	Cambodia, Lao PDR, Myanmar and Vietnam
<b>BN</b>	Brunei Darussalam
<b>CN</b>	People's Republic of China
<b>HK</b>	Hong Kong, China <sup>1/</sup>
<b>ID</b>	Indonesia
<b>JP</b>	Japan
<b>KH</b>	Cambodia
<b>KR</b>	Korea
<b>LA, Lao PDR</b>	Lao People's Democratic Republic
<b>MM</b>	Myanmar
<b>MY</b>	Malaysia
<b>PH</b>	The Philippines
<b>SG</b>	Singapore
<b>TH</b>	Thailand
<b>VN</b>	Vietnam

<b>AU</b>	Australia
<b>AT</b>	Austria
<b>CY</b>	Cyprus
<b>BE</b>	Belgium
<b>BR</b>	Brazil
<b>DE</b>	Germany
<b>EE</b>	Estonia
<b>ES</b>	Spain

<b>EU</b>	European Union
<b>FI</b>	Finland
<b>FR</b>	France
<b>IT</b>	Italy
<b>MX</b>	Mexico
<b>NL</b>	Netherlands
<b>PT</b>	Portugal
<b>RU</b>	Russia
<b>SK</b>	Slovakia
<b>SP</b>	Spain
<b>TR</b>	Turkey
<b>U.K</b>	United Kingdom
<b>U.S.</b>	United States of America
<b>ZA</b>	South Africa

<b>AUD</b>	Australian Dollar
<b>BND</b>	Brunei Dollar
<b>BRL</b>	Brazilian Real
<b>CHF</b>	Swiss Francs
<b>EUR</b>	Euro
<b>GBP</b>	Pound Sterling / Pound
<b>HKD</b>	Hong Kong Dollar
<b>IDR</b>	Indonesian Rupiah
<b>JPY</b>	Japanese Yen
<b>KHR</b>	Cambodian Riel
<b>KRW</b>	Korean Won
<b>MXN</b>	Mexican Peso
<b>MYR</b>	Malaysian Ringgit
<b>PHP</b>	Philippine Peso
<b>RMB</b>	Chinese Renminbi
<b>RUB</b>	Russian Ruble
<b>SGD</b>	Singapore Dollar
<b>THB</b>	Thai Baht
<b>TRY</b>	Turkish Lira
<b>USD</b>	U.S. Dollar
<b>VND</b>	Vietnamese Dong
<b>ZAR</b>	South African Rand

<sup>1/</sup> For brevity, "Hong Kong, China" is referred to as "Hong Kong" in the text.

# Highlights

## Macroeconomic Prospects and Challenges

We expect the ASEAN+3 region to remain resilient despite the balance of global risks shifting to the downside with stronger headwinds for emerging economies. 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 likely to moderate over the course of 2019–2020. For the more open and trade-dependent economies, the drag from weaker external demand could become more evident. However, most ASEAN+3 economies have worked hard to strengthen their fundamentals; and most are in the mid-phase of the business cycle, where growth is near their respective long-term trends with output gaps close to zero, and inflation within policy targets or at around their long-run trend. Although policy space has narrowed for most, policymakers should still be able to utilize various levers and accumulated buffers to mitigate headwinds and manage uncertainties brought about by macroeconomic interdependencies.

Markets experienced renewed volatility in the second-half of 2018, largely as a result of global trade uncertainties. The combination of higher borrowing costs and U.S. dollar appreciation contributed to financial stress in emerging markets, especially those with structural vulnerabilities, which intensified risk aversion and their sell-off in emerging markets. The tightening in global financial conditions was felt strongly in Asia, in particular, by Indonesia and the Philippines, which saw their borrowing costs rise sharply. Capital outflows from the region totaled USD 6 billion in September and October as foreign investors liquidated their portfolios.

Recent 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 about-face 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, leading to further market volatility. Going forward, however, the easing in global financial

conditions should be supportive for growth as long as policy directions are well-signaled and markets are not constantly caught by surprise.

Our baseline is that the ASEAN+3 region will grow at only a slightly slower pace in 2019–2020, compared to 2018, but with higher uncertainty over the growth trajectory. Notwithstanding the softer outlook, the underlying prospects of the region remain solid. Baseline regional growth is projected at 5.1 percent in 2019–2020 (5.3 percent in 2018) taking into account the estimated short-term impact from the trade protectionism measures that have been implemented so far. Headline inflation is expected to be stable at around the 2 percent level relative to 2018. We have revised China's growth forecast upwards, to 6.3 percent (compared to 6.2 percent in January 2019) for 2019, and 6.2 percent for 2020. Japan's growth is forecast to remain at 0.6 percent for the 2019 fiscal year before moderating to 0.5 percent in fiscal year 2020. Our growth forecast for the ASEAN region is maintained at 5.1 percent, picking up slightly to 5.2 percent in 2020.

The region will undoubtedly be tested amid growing headwinds from slowing global trade. Uncertainties surrounding trade remain high, and the risk of further escalation in trade tensions frictions cannot be discounted despite the reported progress made in the Sino-U.S. trade negotiations. The risk transmission from trade protectionism to the region would mainly be through exports and global value chains, which could be amplified by second-order effects as global growth slows. Regional economies with larger direct export exposures to China, as well as indirect ones via global value chains that are oriented towards demand outside the region, would be significantly more affected in the short-term. Highly open and trade-dependent economies such as Hong Kong, Korea, Malaysia, Singapore and, to some extent, Vietnam, are particularly vulnerable.

Our adverse scenario envisions an equal tit-for-tat escalation in trade tensions resulting in a 0.4 percentage point hit to the region's baseline growth. In this extreme situation, both the United States and China would impose tariffs of 25 percent on all imports between the



two countries. In the short-run, the estimated impact on growth for a particular economy in the region would be larger in absolute terms, of up to -1.0 percentage point. Not surprisingly, both the United States and China would stand to lose, and more so if additional non-tariff measures were to be implemented. The absolute impact would be relatively smaller for the United States (-0.3 percentage point) over the over 2019–2020 period, compared to China (-0.6 percentage point), but the relative impact would be larger for the former (13 percent of 2019–2020 average growth) relative to the latter (below 10 percent).

There is little room for complacency on the policy front, given that downside risks have become more pronounced. Some members have adopted pre-emptive or frontloaded policy measures that have helped assuage market concerns. In some economies, monetary policy has been tightened to maintain external and domestic price stability and to stem the build-up of risks to financial stability from a protracted period of low interest rates. Other measures, such as the suspension of import-intensive infrastructure projects, have also been

undertaken to ease pressure on the current account. On the fiscal front, sound public finances have allowed fiscal policy to play a limited but crucial countercyclical role. Members have either adopted more expansionary policies or, where fiscal rules are binding, reprioritized expenditures, even as fiscal space has generally narrowed across the region. After coming off a period of above-trend growth, buoyed by easy global financial conditions, several regional economies are now in the slowing phase of the credit cycle and some have eased macroprudential measures to support lending activities.

For the medium- to longer-term, more needs to be done to support the region's growth prospects and foster resilience. In particular, they include building productive capacity and connectivity, and deepening domestic capital markets. The region as a whole has prospered over the past two decades, with the "manufacturing for export" strategy as the main pillar in most countries. However, the transformation to services is inevitable and the issue of investment in the requisite areas to generate and sustain growth will need to be addressed.

## Theme: Building Connectivity and Capacity for the New Economy

Building capacity and connectivity will be a priority for the ASEAN+3 region as they embrace the “new economy” and embark on the next phase of their growth trajectory. The region as a whole has prospered in the past two decades, with the “manufacturing for growth” strategy as the main pillar in most countries. While the move up the technological frontier has been and will continue to be uneven, the transformation to services is inevitable, and will require a rethink of what capacity means, and what connectivity is needed. One key theme that is emerging is that underinvestment—if not addressed—will impinge on growth. The 2019 thematic chapter builds on the AREO 2017 narrative of economic consolidation and rebalancing in the region after the Asian Financial Crisis, and the AREO 2018 message of resilience and growth.

Three key drivers will shape capacity and connectivity priorities in the region over the short- to medium-term. First, the technological or Fourth Industrial Revolution (4IR) has led to automation, deindustrialization and the rise of the services sector. Second, maturing populations and a rapidly growing middle-class will underline the shift to more labor-saving, skills- and knowledge-based productive capacity, and spur intra-regional demand for consumer goods and services, including enhanced living spaces and new or reconfigured services, and the need for better connectivity. Third, western protectionism, coupled with growing regional affluence and final demand, will exert both push and pull on regional integration.

Developing economies, especially emerging markets, face complex challenges in investing for the long-term in areas that are not themselves self-financing. They include public infrastructure, human capital, and other intangibles that boost national productivity. Rapid economic growth in the ASEAN+3 region will generate new infrastructure demand and magnify the projected investment shortfall. Consequences of climate change put countries with weak infrastructure at higher risk of lower growth.

Three key gaps to capacity and connectivity are identified, namely, funding, foreign exchange and factors gaps. The “funding gap” is the shortfall between what is required for domestic investment (including public infrastructure) and what is available from domestic savings. The “foreign exchange gap” describes the financing constraint that emerging market and developing economies face because of the need to mitigate the risks of sudden capital outflows by accumulating large foreign exchange reserves. The “factors gap” captures the non-financial constraints. The ability to carry out infrastructure projects (when financing has been secured) hinges on effective project management, availability of requisite manpower, and the expertise and technology employed.

To bridge the gaps, there is a need to leverage on intra-ASEAN+3 investment, and rely on the regional financial safety net, while developing professional expertise, technology and institutions. There is scope for more long-term investments from ASEAN+3 economies to enhance capacity and connectivity across the region. ASEAN+3 emerging markets should also continue to benchmark against the best practices of the advanced countries, which remain the main drivers of investment in technology transfers and transitioning to the “new economy” for the region. The Chiang Mai Initiative Multilateralization is a regional public good that provides a financial safety net for ASEAN+3 economies. The diversity in the levels of development of human capital, expertise and technology in ASEAN+3 economies provides scope for closer cooperation and collaboration to meet the factors gap in the regional economies while optimizing the deployment and returns to the region's scarce resources. In particular, the region should push ahead with the various initiatives for closer regional integration and connectivity.

# 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).<sup>1</sup> 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.<sup>2</sup>

<sup>1</sup> See AMRO (2018a) for a discussion on the methodologies used to estimate the Business and Credit Cycles.

<sup>2</sup> 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.



**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**

		Business Cycle					
		Early	Mid	Late	Downturn		
Credit Cycle	Recovery		Indonesia Malaysia Thailand China			Low	Property Valuation Cycle
						Moderate	
	Expansionary	Brunei Myanmar	Cambodia			High	
						N.A.	
Slowing		Philippines Singapore Vietnam	Japan		Moderate		
		Korea Hong Kong Lao PDR			High		
					N.A.		
Contractionary							

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).

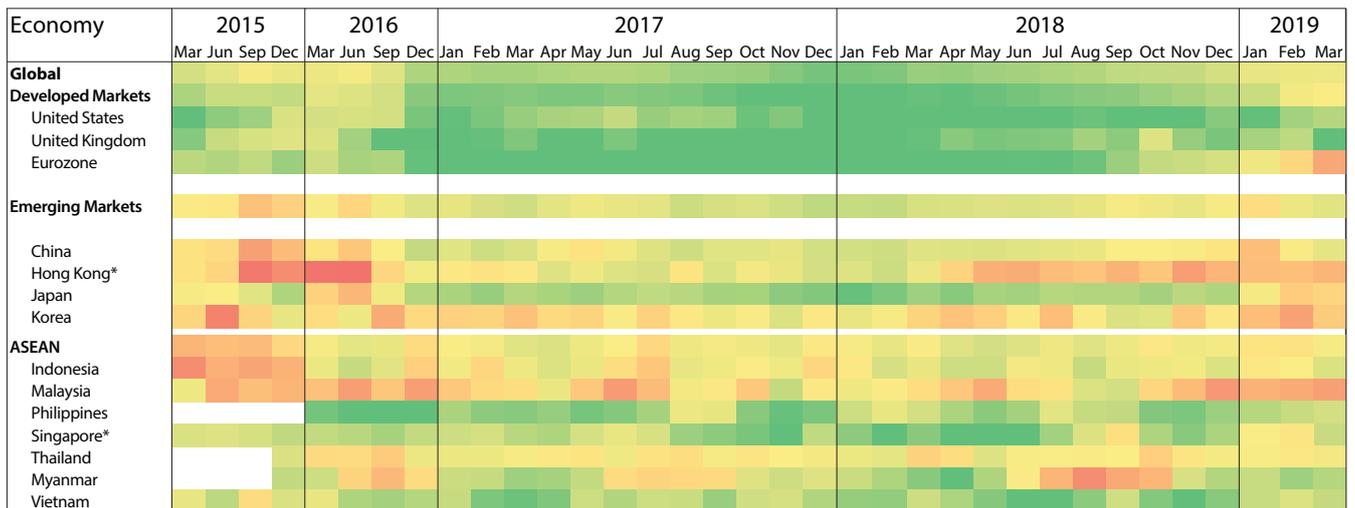
One of the main concerns is the likelihood of an “export cliff” effect in 2019. High frequency Purchasing Managers’ Index (PMI) surveys of the manufacturing sector point to this risk, as the high production/exports in 2018 partly reflect frontloading ahead of the potential escalation in trade tensions. 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.

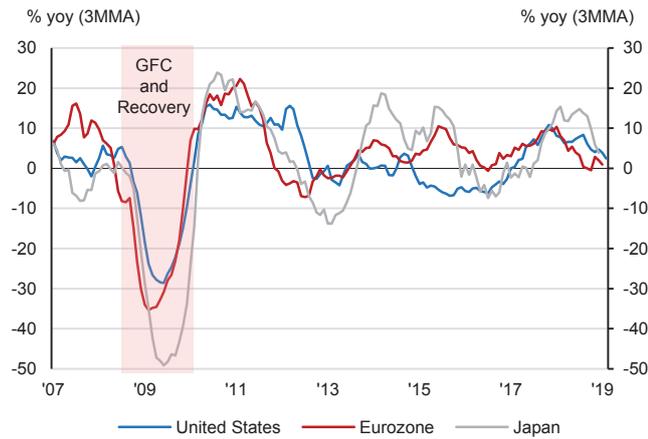
**Figure 1.3. Monthly PMI Surveys of Global Economic Activity**



Sources: IHS Markit; and AMRO staff calculations.

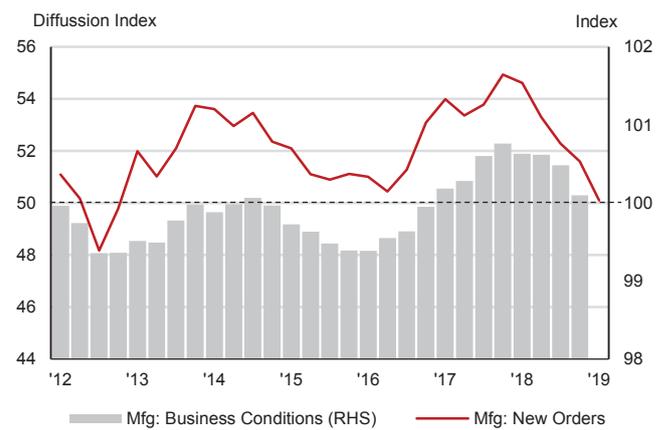
Note: The colors represent how far the readings are away from 50 (the neutral point). The more red the readings, the further below 50; the greener, the further above 50. The PMIs for Hong Kong and Singapore refer to whole economy PMIs.

**Figure 1.4. Global Capex**



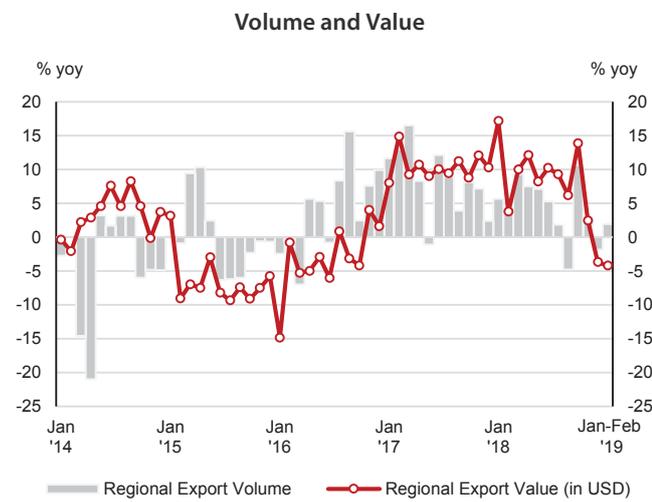
Sources: Haver Analytics; national authorities; and AMRO staff calculations.

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

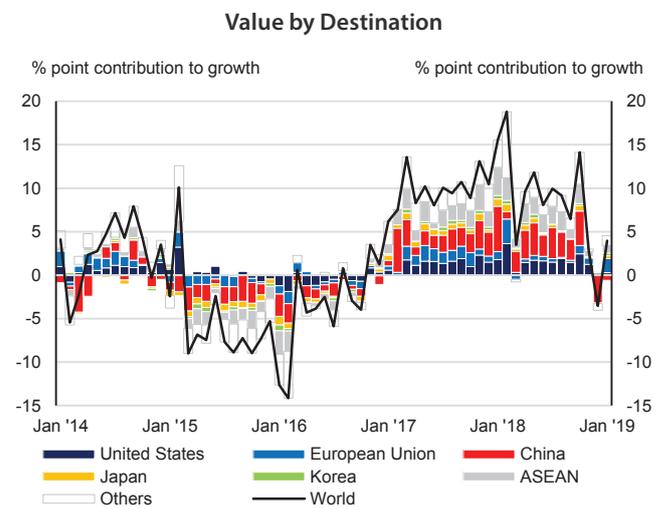


Source: Haver Analytics.

**Figure 1.6. ASEAN+3: Export Performance**



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



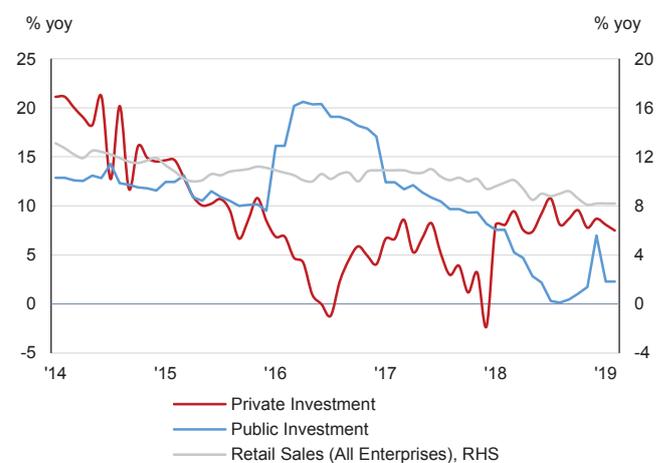
Sources: Haver Analytics; national authorities; and AMRO staff calculations.

**Figure 1.7. ASEAN-4 and Korea: Domestic Demand**



Sources: National authorities; and AMRO staff calculations.

**Figure 1.8. China: Domestic Demand**



Sources: National authorities; and AMRO staff calculations.

**Figure 1.9. Selected Regional Economies: Current Account Balance Projections**



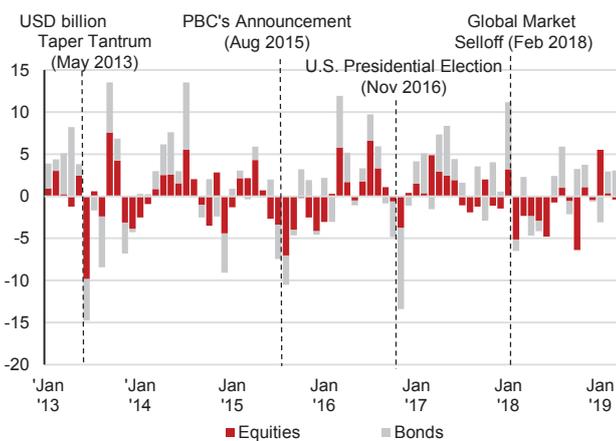
Sources: National authorities; and AMRO staff estimates.

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.

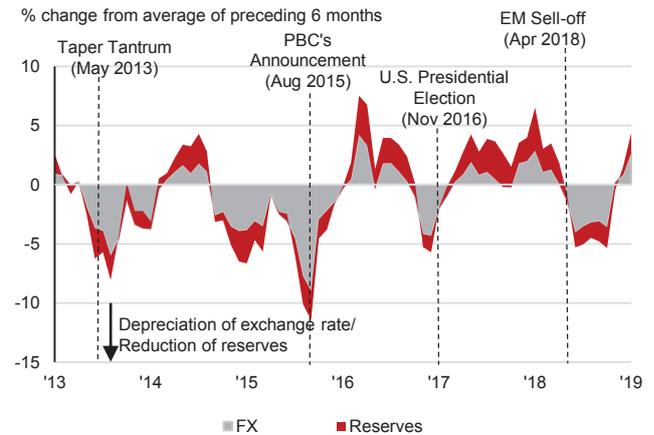
Regional economies should continue to build buffers against the more uncertain global environment ahead. The level of stress has thus far been comparatively lower than previous stress events, such as when the region experienced a sharp pullback amounting to USD 23.4 billion in portfolio funds in the 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 <sup>1/</sup>**



Sources: National authorities; and AMRO staff calculations.

<sup>1/</sup> 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.<sup>1/</sup> 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?

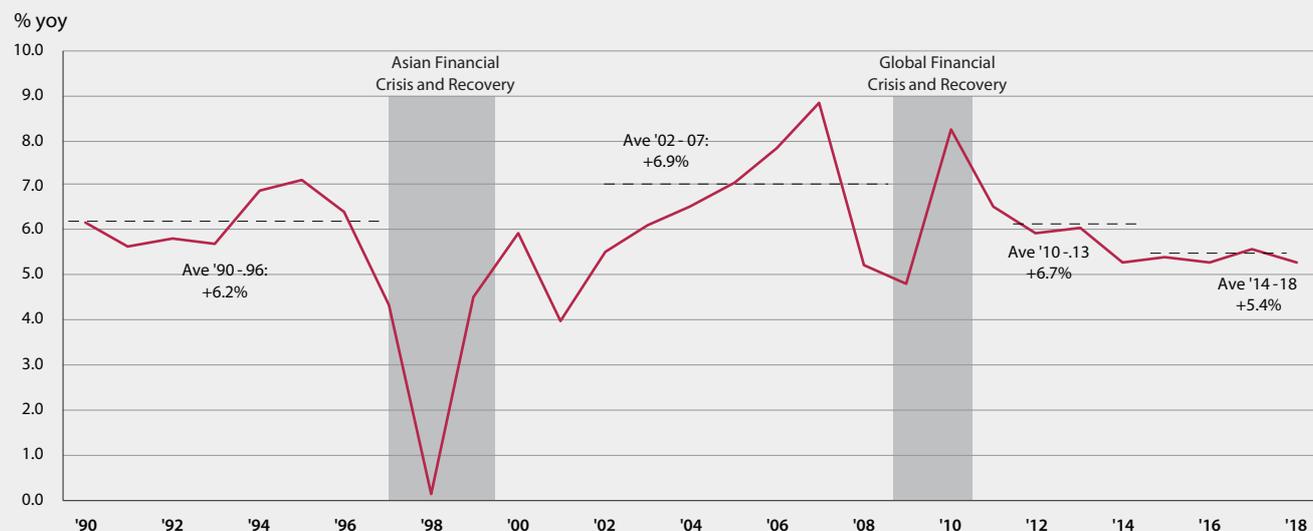
Conventional methods of national income accounting are often used to determine the drivers (or sources) of growth. They typically decompose GDP into contributions by private consumption, public consumption, gross fixed capital formation (investment) and net exports. The advantage of this method is that 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 Verbruggen (2008) is applied.<sup>2/</sup> 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**



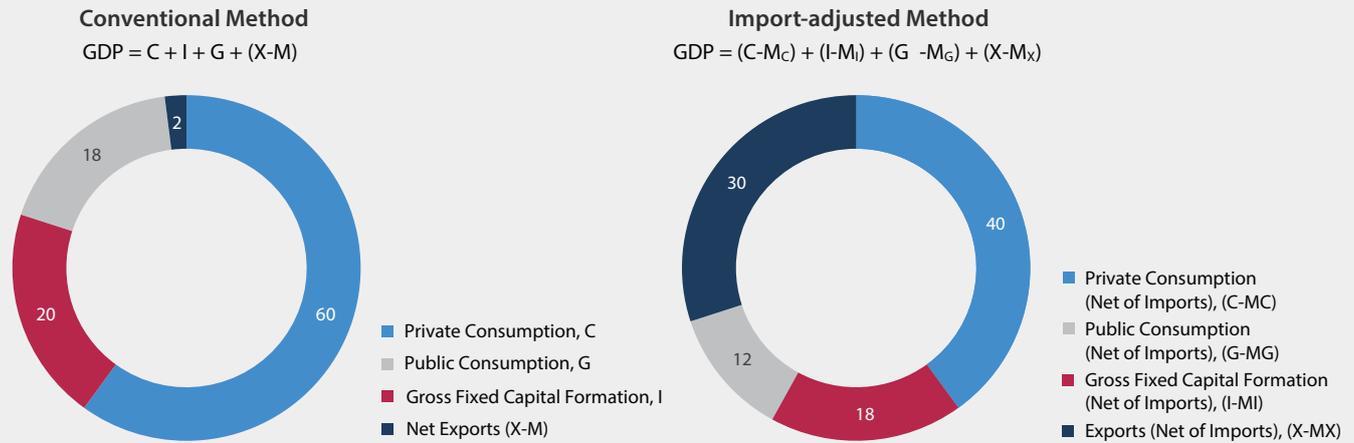
Sources: National authorities; and AMRO staff calculations.

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

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

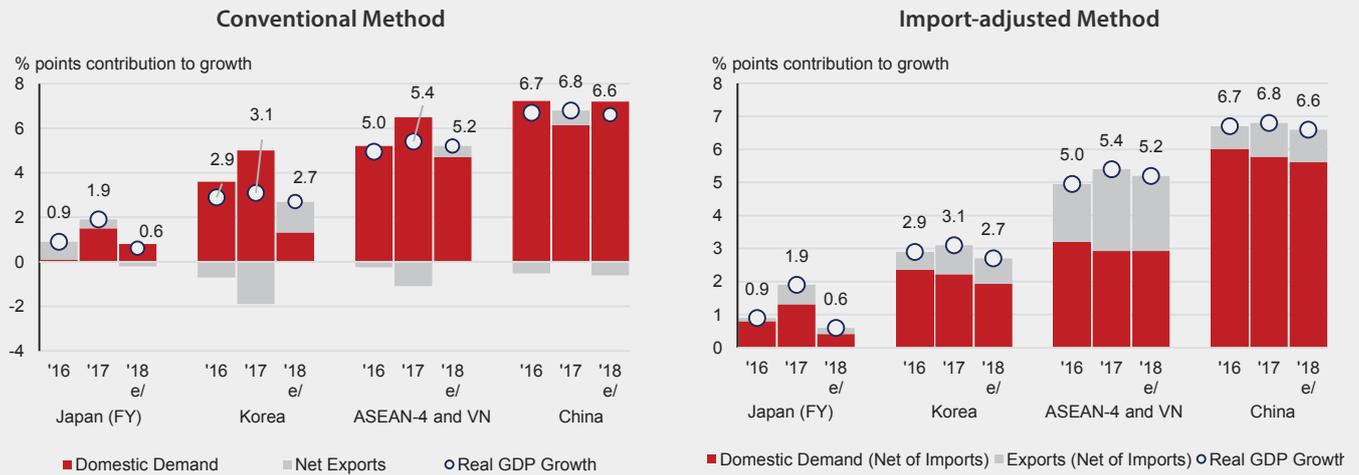
**Figure 1.1.2. Drivers of Regional Growth: Conventional versus Import-adjusted Method of National Income Accounting, 2016**

(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.

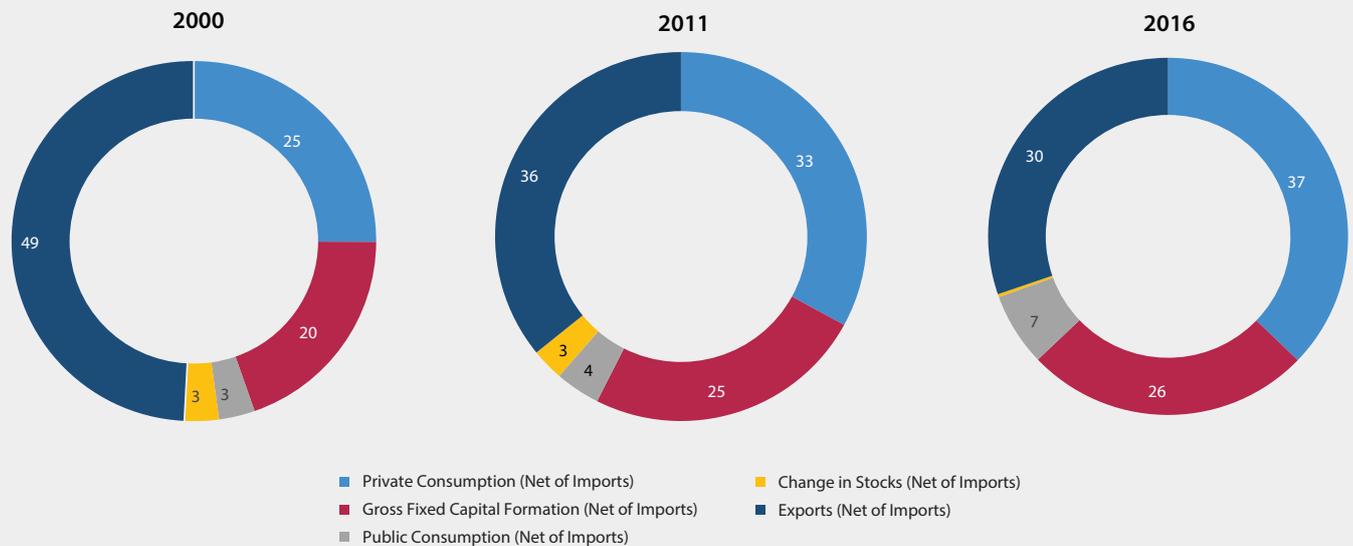
Sources: OECD; and AMRO staff estimates.

- 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 enterprises 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.<sup>3</sup> 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.

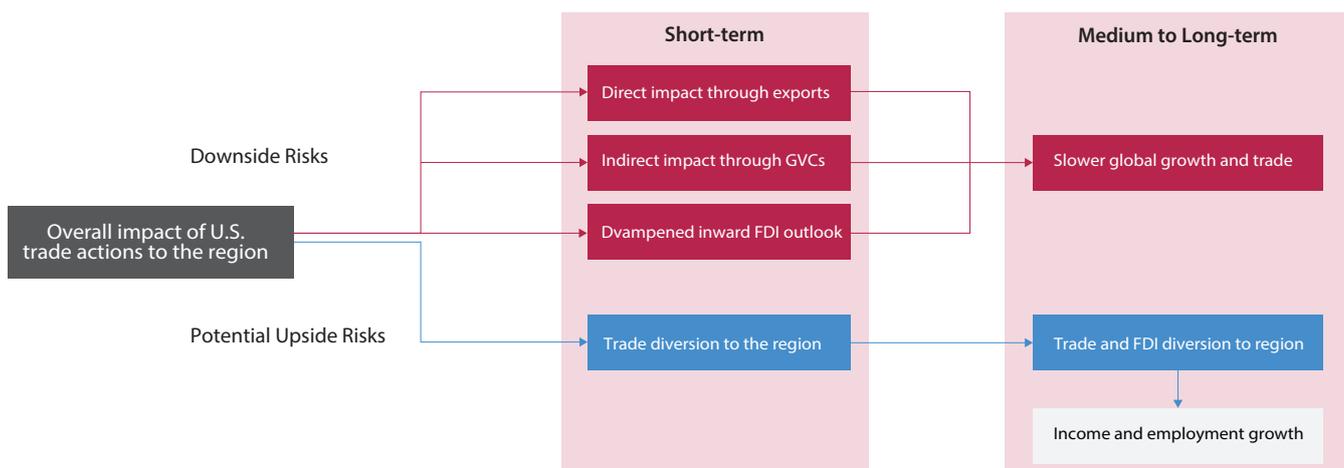
The risk transmission from the U.S-China trade tensions to the region may be examined in terms of both short-term and medium- to long-term horizons. In the short-term, the channels of risk transmission are through (1) exports (direct channel), (2) global value chains (GVCs) (indirect channel) and (3) 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**



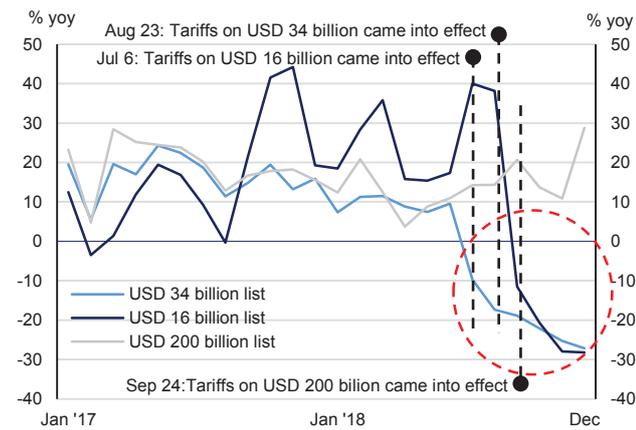
Source: AMRO staff.

<sup>3</sup> 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

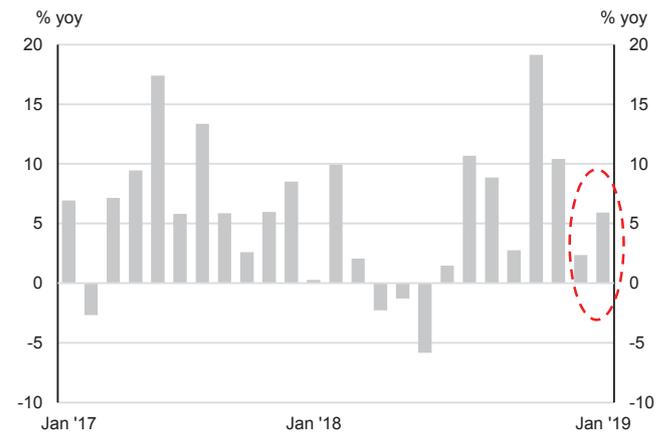
electronics exports is sourced within China, while one-quarter of value-added is sourced from Japan, Korea and ASEAN (Figure 1.16). In contrast, nearly three-quarters of machinery value-added is sourced domestically and one-tenth regionally. In the subsequent rounds of U.S. tariff measures, implemented 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.

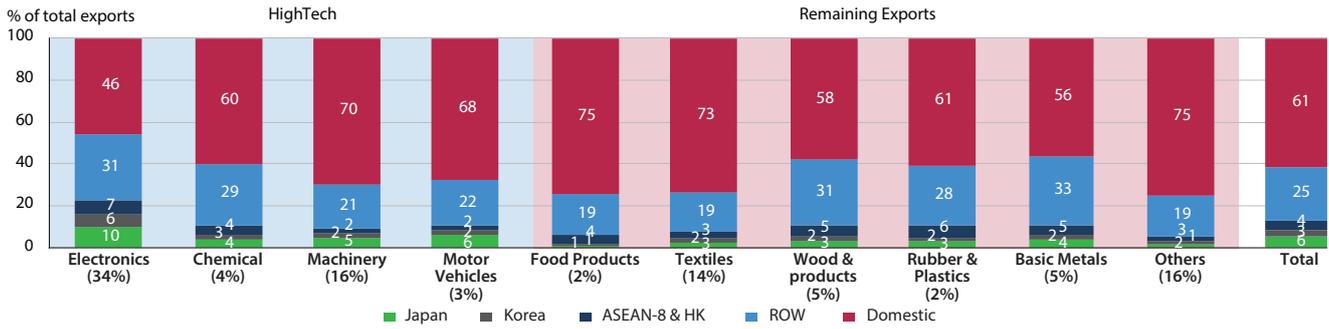
**Figure 1.15. Selected Economies: Regional Export Performance (Percent year-on-year)**

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

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.

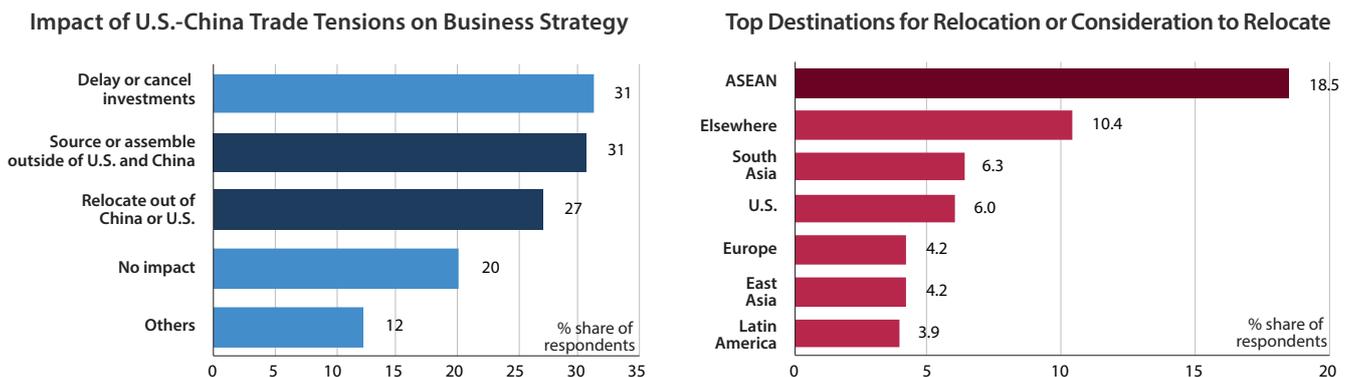
Over the longer-term, adjustments to mitigate the tariffs would depend on whether producers in China are able to shift production outside the country. The response would have implications for regional supply chain restructuring/reconfiguration. They would likely depend on whether the tariff measures 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**

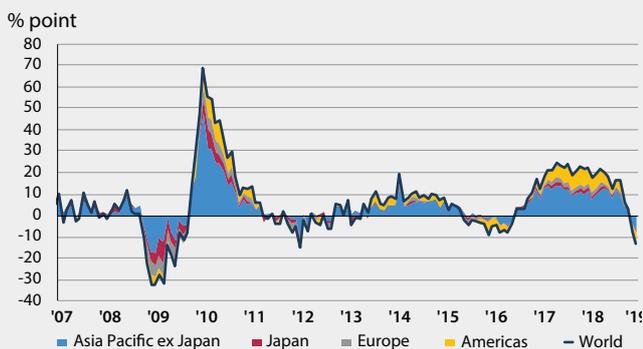
The manufacturing and export sectors are important growth engines for Asia.<sup>1/</sup> Many Asian economies, through the export-led investment-fueled growth model, have benefited from the growth of vertical trade specialization, particularly in the electronics sector. The large share of electronics 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,<sup>2/</sup> especially smartphone components and parts of electrical machineries, supported overall exports (Figure 1.2.1).<sup>3/</sup> 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.<sup>4/</sup>

- 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).<sup>5/</sup> 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).

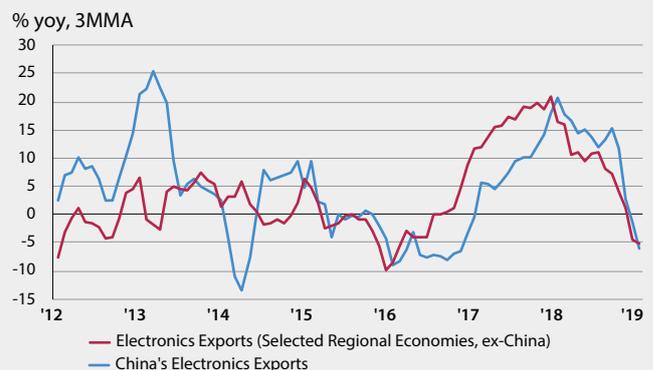
The immediate downside risk to this sector stems from rising trade protectionist actions. The imposition of tariffs on electronics goods (and related products) could potentially curb demand if those tariffs are passed on to consumers. High technology products are among China's exports targeted by the 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.

<sup>1/</sup> 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.

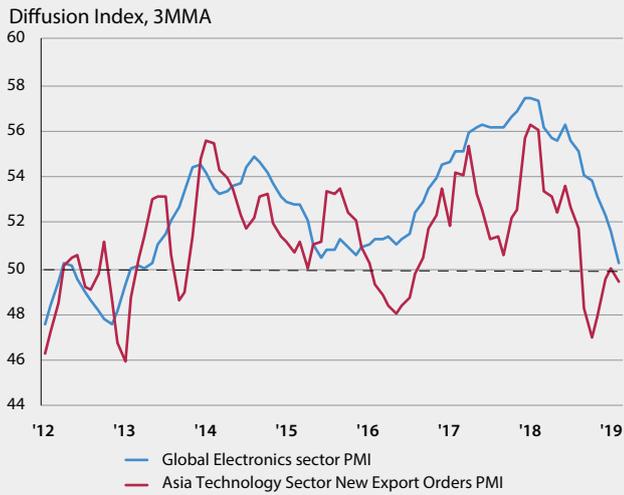
<sup>2/</sup> The classification of electronic products in this box refers to 4-digits HS codes 8471-8473 and 8501-8548 and applies across all exporters.

<sup>3/</sup> 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.

<sup>4/</sup> 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.

<sup>5/</sup> 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**

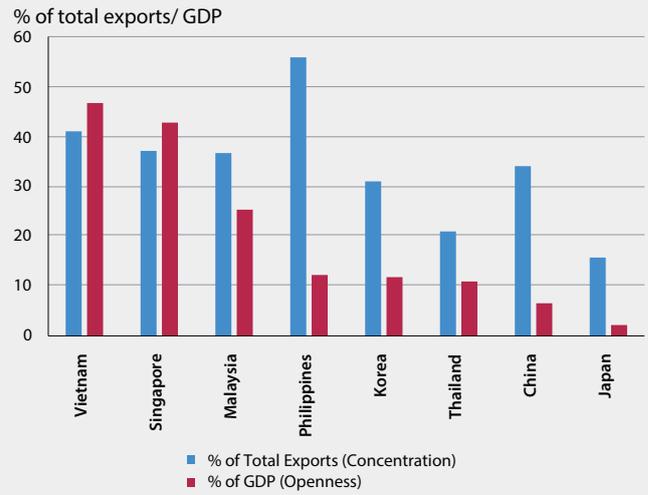


Sources: IHS Markit; and AMRO staff calculations.  
 Note: Breakeven=50; a reading above 50 indicates improvement over the previous month, while a reading below 50 indicates deterioration.

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).<sup>6/</sup> Hence, the supply chains, which are deeply integrated into China’s electronics production, will be affected negatively should demand for China’s exports fall.<sup>7/</sup>

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

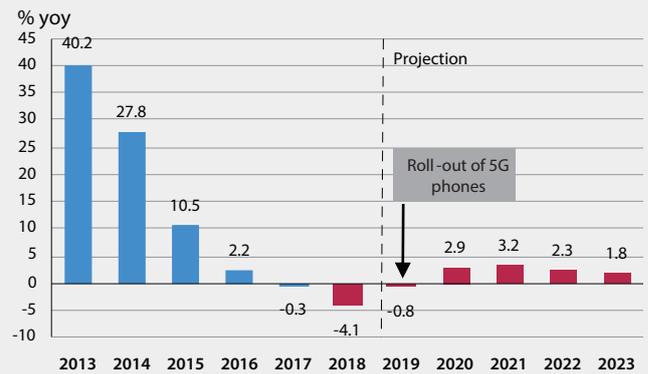
**Figure 1.2.4. Regional Economies: Concentration in and Contribution from Electronics Exports, 2017**



Sources: UN Comtrade; and AMRO staff calculations.

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.

<sup>6/</sup> Data for 2011. Source: OECD TiVA database, December 2016.

<sup>7/</sup> See Box 1.3 for further discussion.

**Box 1.3**

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

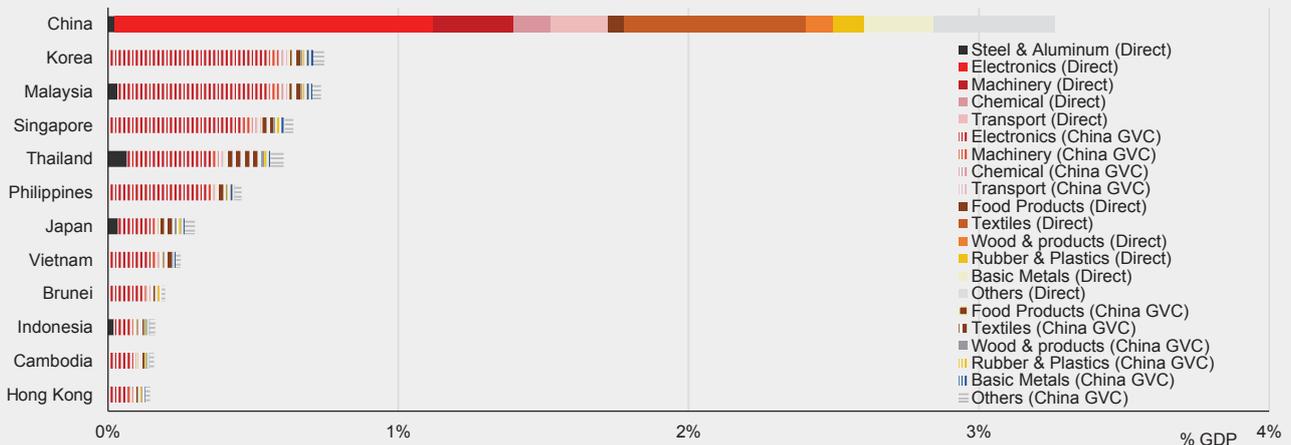
Global value chains represent an important (indirect) channel through which the U.S.-China trade frictions are felt by the rest of the ASEAN+3 region. The estimated impact of direct tariffs is combined with information on value-added to derive the spillover effects of U.S. actions on China’s exports, 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.

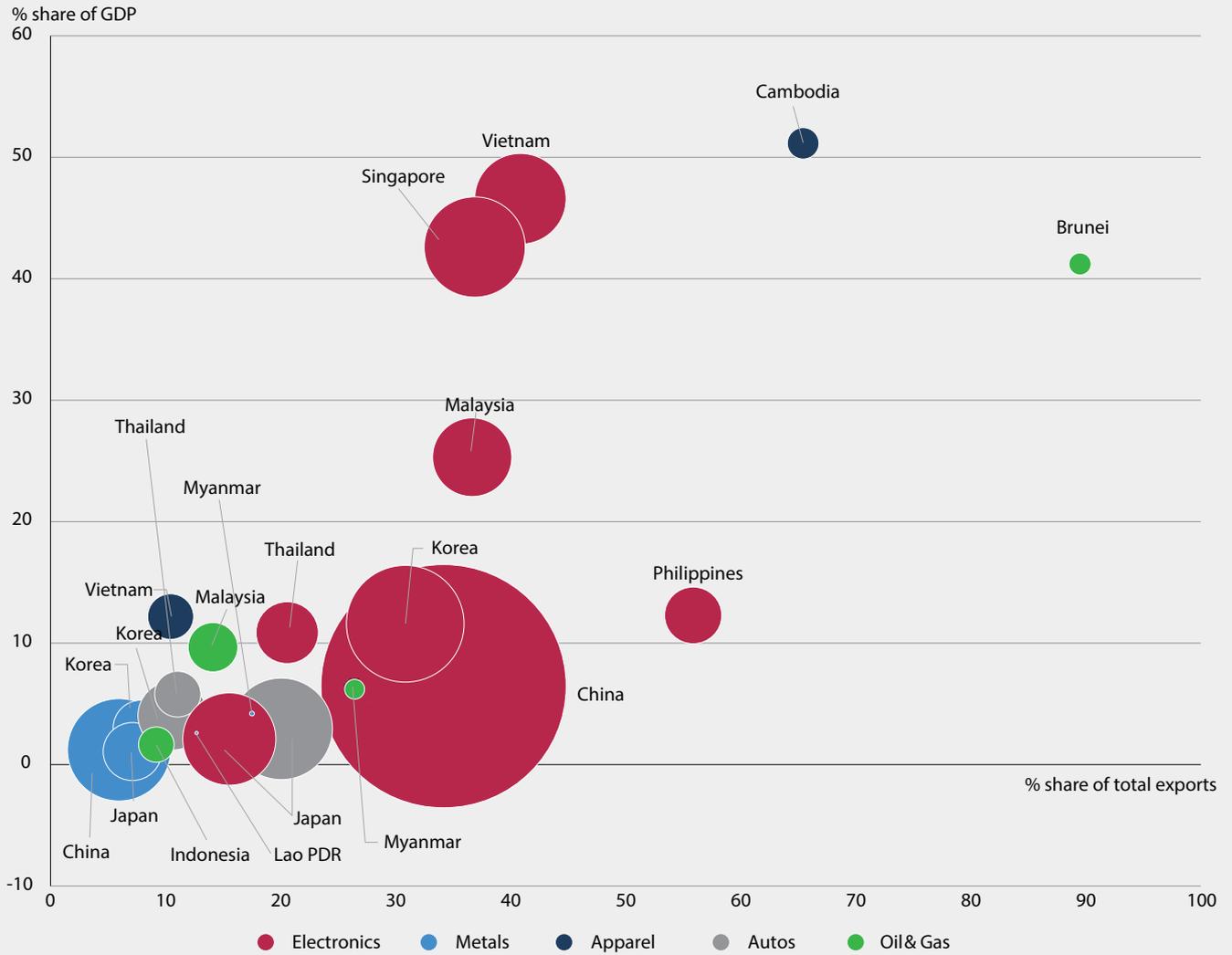
Among China’s exports that are targeted by the United States, electronics and autos are the ones that have extensive GVCs throughout ASEAN+3, which could amplify the negative impact. Given China’s pivotal role in the electronics production network, the impact of U.S. tariffs on Chinese electronics exports 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 <sup>1/</sup>**



Sources: UN Comtrade; and AMRO staff calculations.

<sup>1/</sup> 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.<sup>1/</sup>

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:<sup>1/</sup>

- 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.

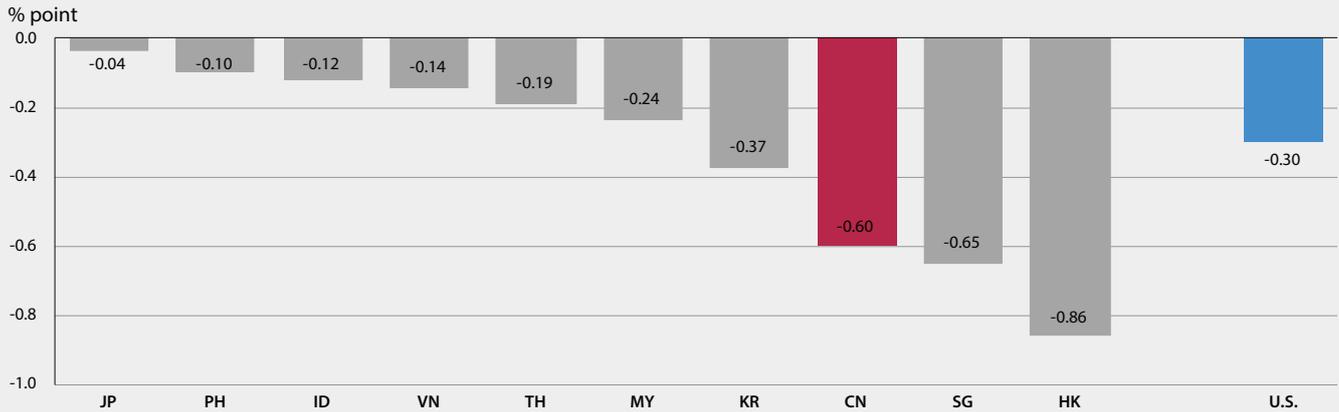
**Table 1.4.1. Short-term: Adverse Trade Scenario Assumptions**

Scenario	United States	China
<b>Baseline (Current)</b>	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
<b>Adverse Trade Scenario</b>	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.

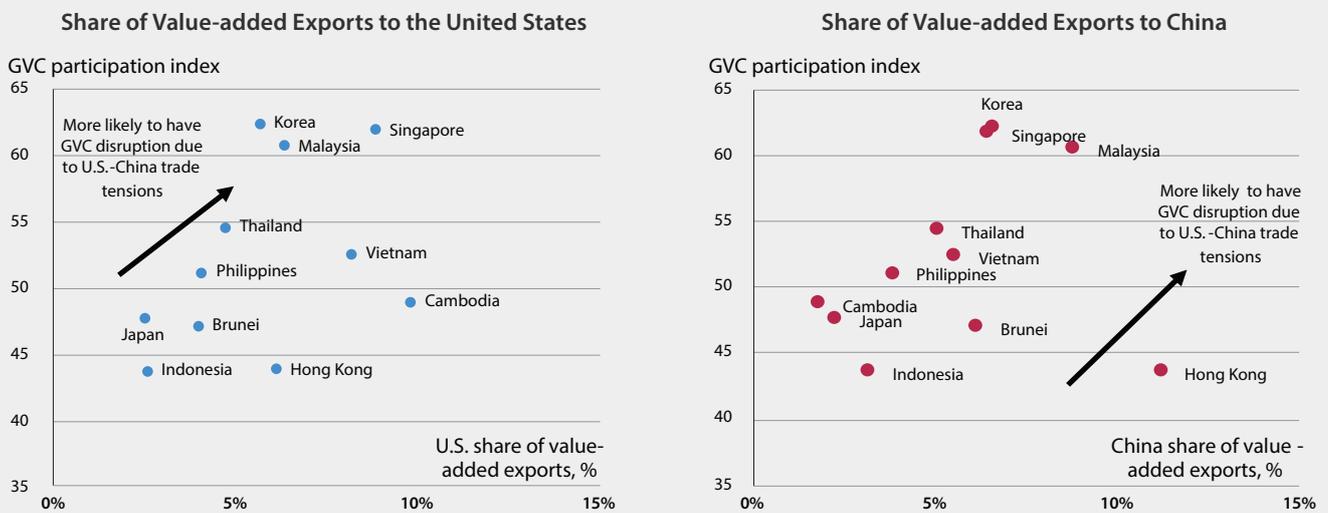
<sup>1/</sup> The “long-term” is a move from one steady state to another, and the time frame is variable depending on the response by producers and industries.

**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

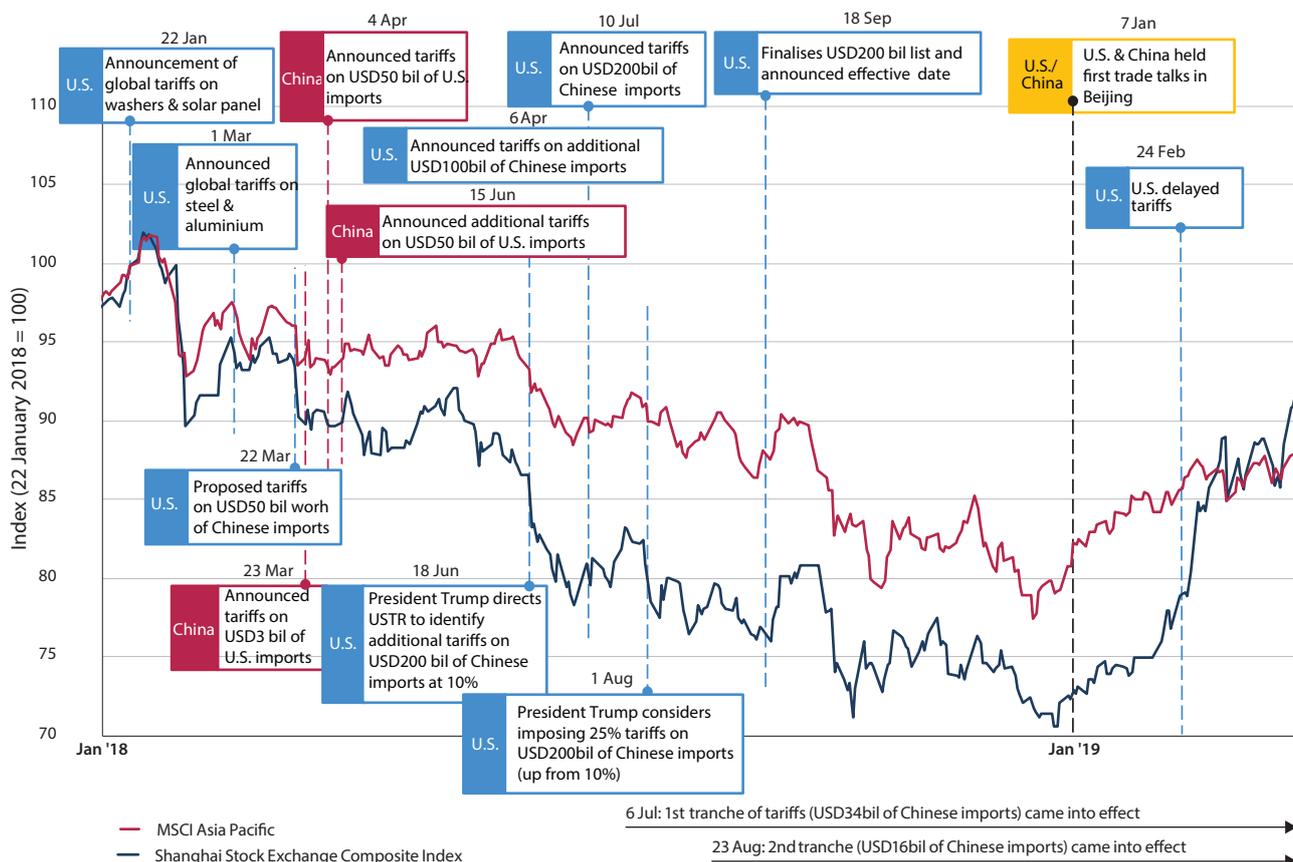
The monetary policy pivots in the major economies should ease the pressure on capital outflows from the region. At the turn of 2019, weakening economic indicators and expectations of a broad-based slowdown in the global economy (including in China) further unsettled markets. The shift earlier this year 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).

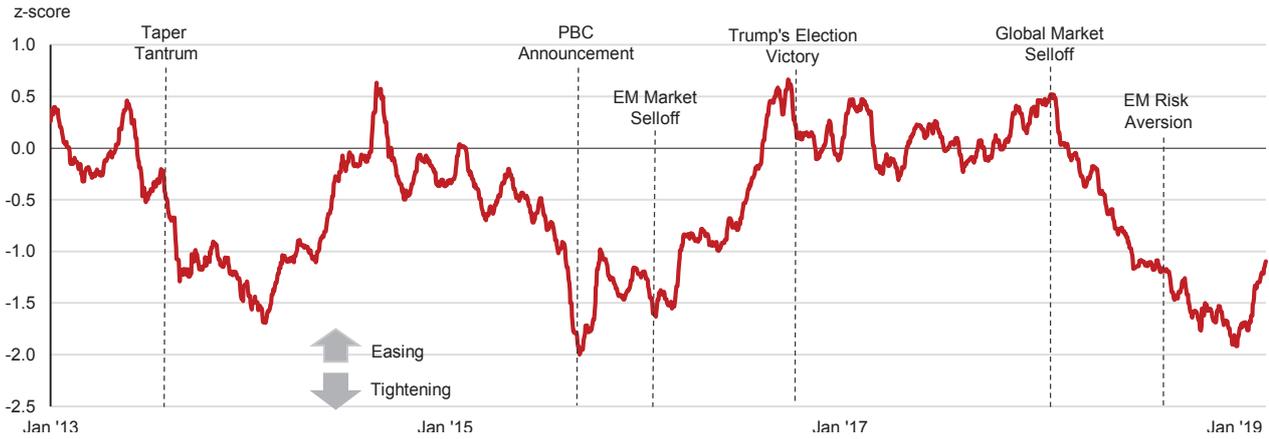
The financial stress experienced by emerging markets in 2018 reverberated around the region and several countries came under increased market scrutiny. The spillovers from tightening global financial conditions were felt strongly especially in Indonesia and the Philippines, which experienced sharp rises 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**



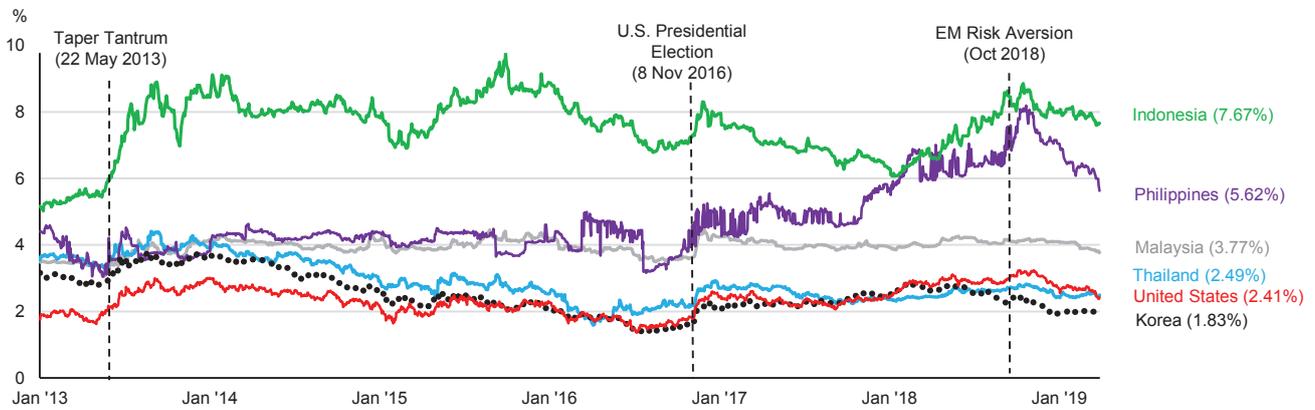
Sources: National authorities; and AMRO staff compilations.

**Figure 1.19. Emerging Markets: Financial Conditions Index**



Sources: JPMorgan; and AMRO staff estimates.

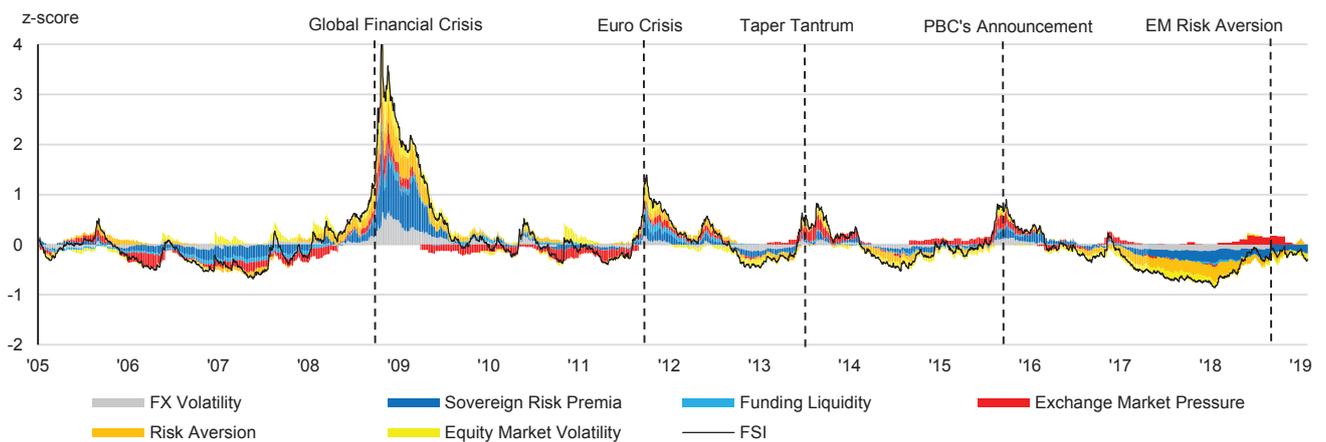
**Figure 1.20. Regional Emerging Markets: Long-term Borrowing Costs <sup>1/</sup>**



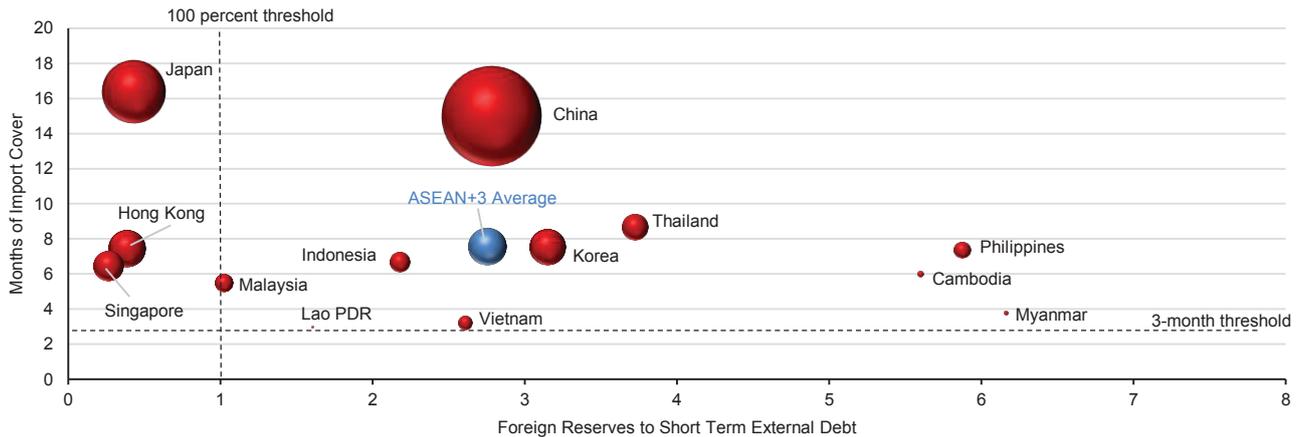
Source: National central banks.

<sup>1/</sup> 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.

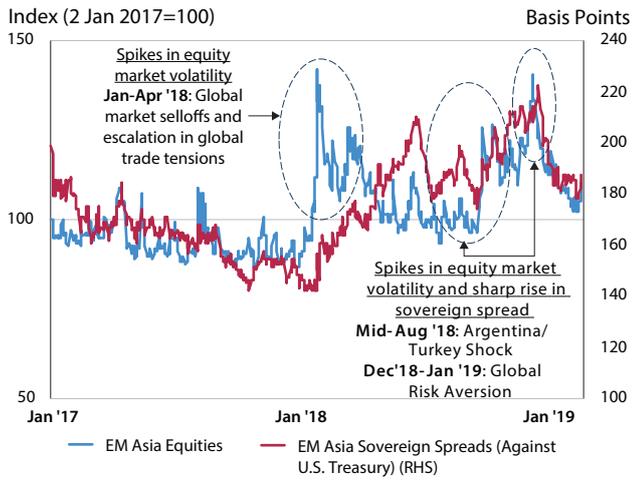
Nonetheless, investor positioning in regional emerging markets expose some countries to volatility shocks and capital outflows. On the positive side, global investors appear to have become more discerning in differentiating emerging markets even prior to the 2013 taper tantrum, and the region's emerging 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**



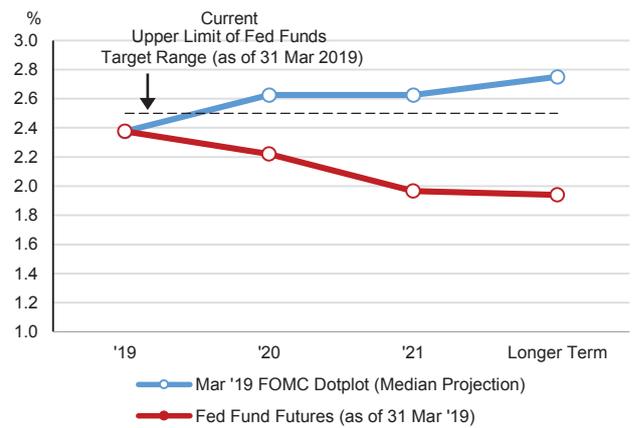
Sources: Haver Analytics; and AMRO staff calculations.

**Figure 1.25. ASEAN-4 and Korea: Market Perceptions of Sovereign Risk<sup>1/</sup>**



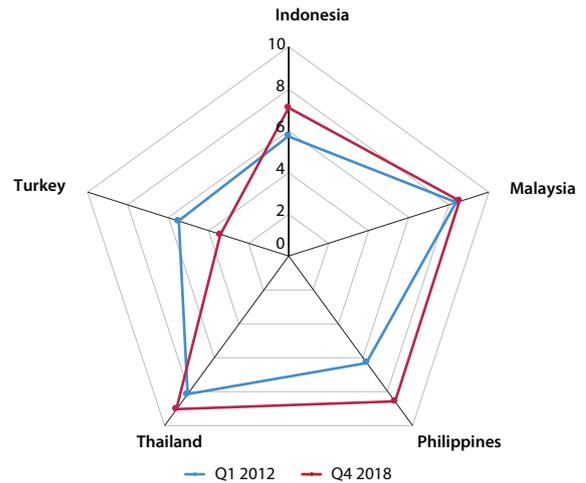
Source: Haver Analytics.  
<sup>1/</sup> 5-year sovereign CDS spreads.

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



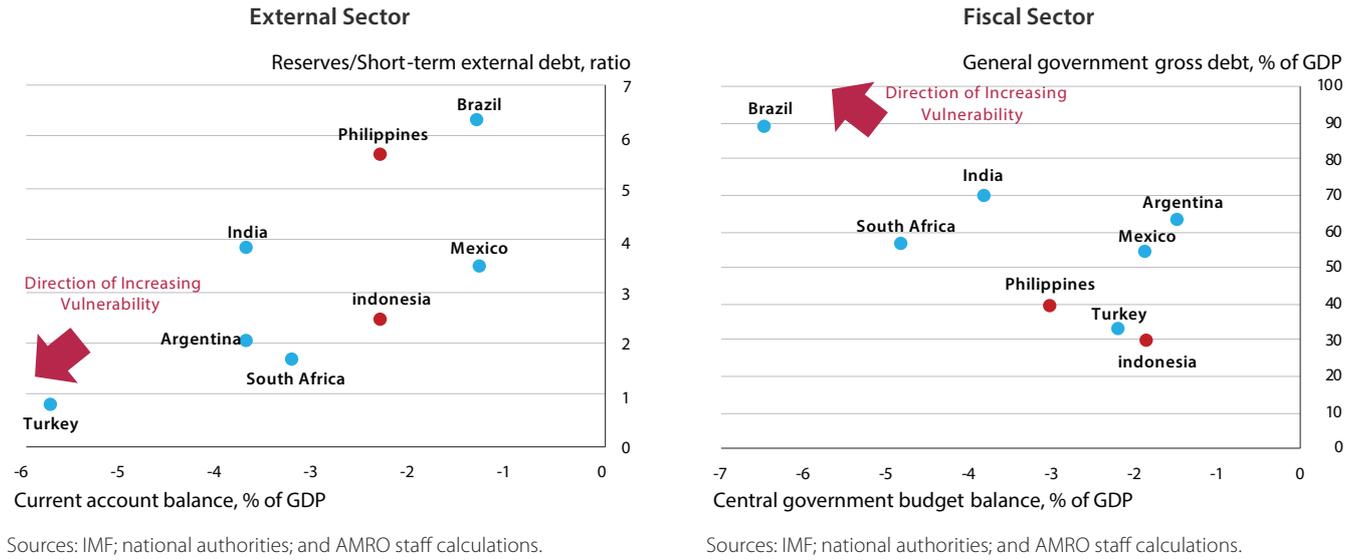
Sources: Haver Analytics; and U.S. Federal Reserve.

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

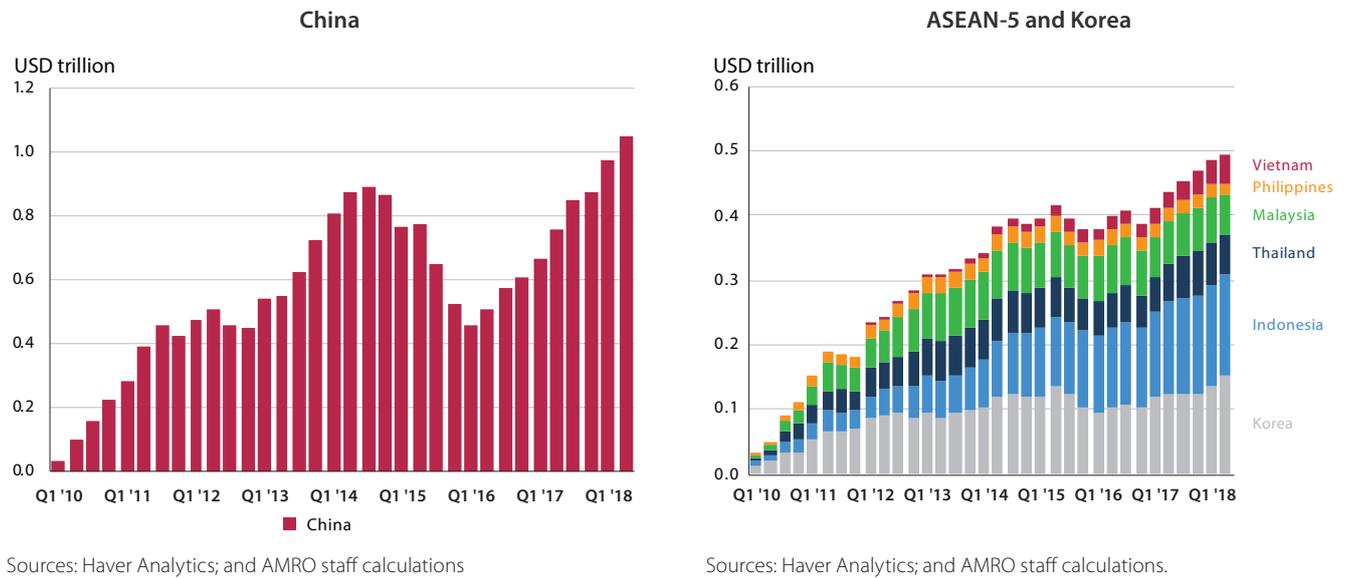


Sources: ARTEMIS; and Haver Analytics.  
 Note: Each economy is benchmarked against the long-term average of a pre-defined group of emerging markets. The rank range is from 0–10 and is based on z-scores; the further away the rank is from the center (zero), the less risky the market perception of the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

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



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

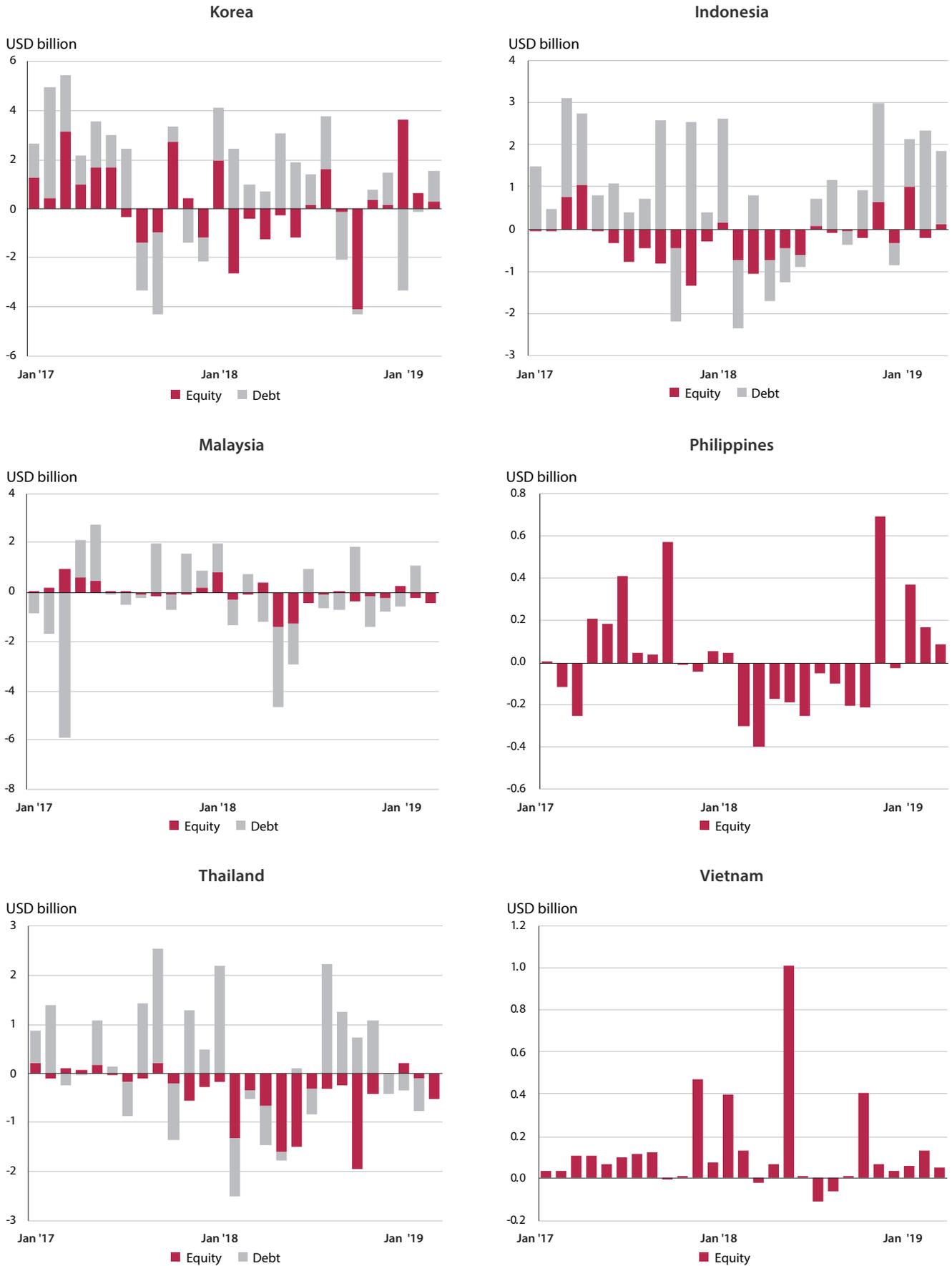


**Figure 1.29. Emerging Markets: Stock Market Valuations (Cyclically-adjusted price-earnings ratio)**



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 across 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	Expansionary/ Accommodative	Expand more	Expansionary/ Accommodative	Expand more	Contractionary / Tight	Maintain neutral	China
Japan	Expansionary/ Accommodative	Expand less	Expansionary/ Accommodative	Maintain current expansion / accommodation	Neutral	Maintain neutral	Japan
Korea	Expansionary/ Accommodative	Expand more	Expansionary/ Accommodative	Maintain current expansion / accommodation	Contractionary / Tight	Maintain tightening	Korea
Hong Kong	Expansionary/ Accommodative	Expand more	Expansionary/ Accommodative	-	Contractionary / Tight	Maintain tightening	Hong Kong
Singapore	Neutral	Easing bias	Neutral	Maintain neutral	Contractionary / Tight	Maintain tightening	Singapore
Indonesia	Expansionary/ Accommodative	Maintain current expansion / accommodation	Contractionary / Tight	Tighten less	Expansionary/ Accommodative	Maintain tightening	Indonesia
Malaysia	Expansionary/ Accommodative	Expand less	Neutral	Maintain neutral	Contractionary / Tight	Maintain tightening	Malaysia
Philippines	Expansionary/ Accommodative	Fiscal Rule	Contractionary / Tight	Tighten less	Neutral	Tightening bias	Philippines
Thailand	Expansionary/ Accommodative	Expand more	Expansionary/ Accommodative	Maintain current expansion / accommodation	Contractionary / Tight	Maintain tightening	Thailand
Brunei	Expansionary/ Accommodative	Expand less	Neutral	-	Expansionary/ Accommodative	Maintain tightening	Brunei
Cambodia	Expansionary/ Accommodative	Maintain current expansion / accommodation	Neutral	-	Contractionary / Tight	Maintain tightening	Cambodia
Lao PDR	Expansionary/ Accommodative	Expand less	Neutral	Maintain neutral	Neutral	Maintain neutral	Lao PDR
Myanmar	Expansionary/ Accommodative	Maintain current expansion / accommodation	Contractionary / Tight	Tighten less	Contractionary / Tight	Maintain tightening	Myanmar
Vietnam	Expansionary/ Accommodative	Maintain current expansion / accommodation	Neutral	Maintain neutral	Contractionary / Tight	Maintain tightening	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

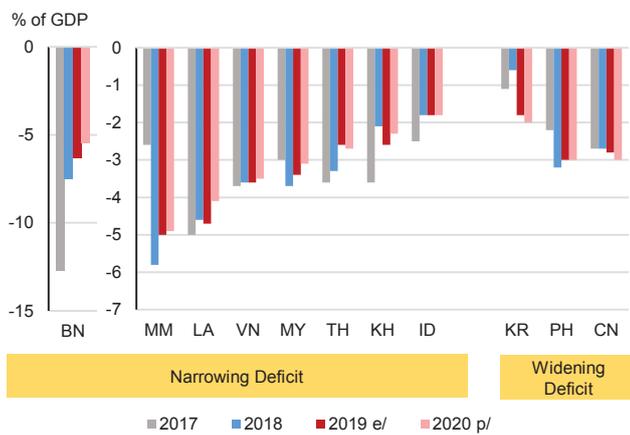
The ASEAN+3 have either adopted more expansionary fiscal policies or, where fiscal rules are binding, reprioritized expenditures to counter the slowing growth momentum. Most economies are expected to maintain their current supportive fiscal policy stance, although several are pursuing fiscal consolidation 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.

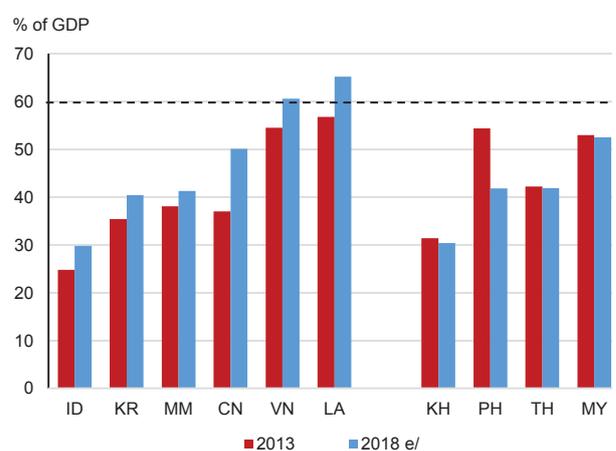
Economies with low revenue-to-GDP ratios and with difficulty in mobilizing revenue are constrained from using fiscal policy for cyclical stimulus and structural reforms. The challenge is compounded for the developing economies in the ASEAN+3 that currently rely heavily on concessional external borrowing 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.

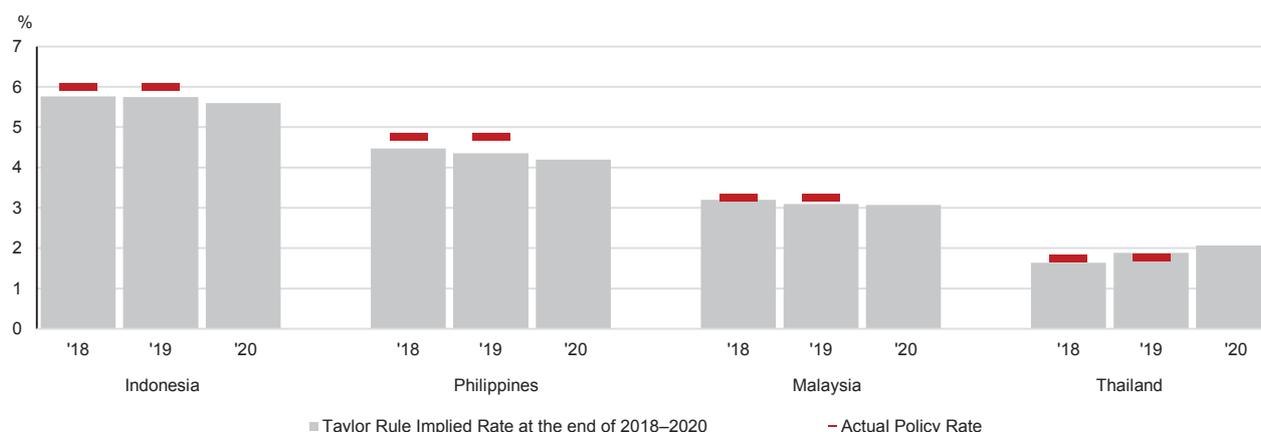
## Monetary Policy

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**

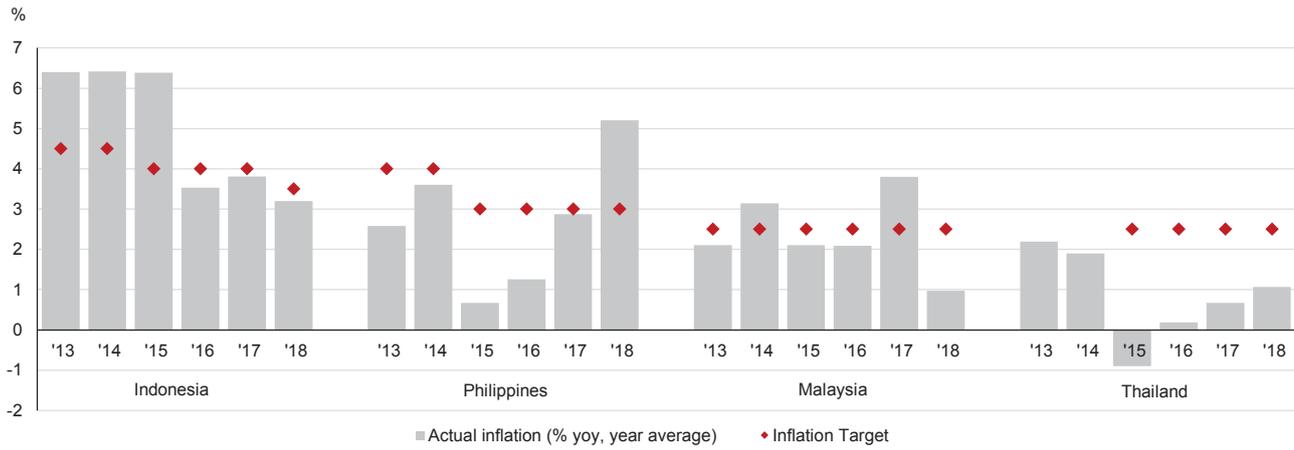


Sources: National authorities; and AMRO staff estimates and projections.

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 increase 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:

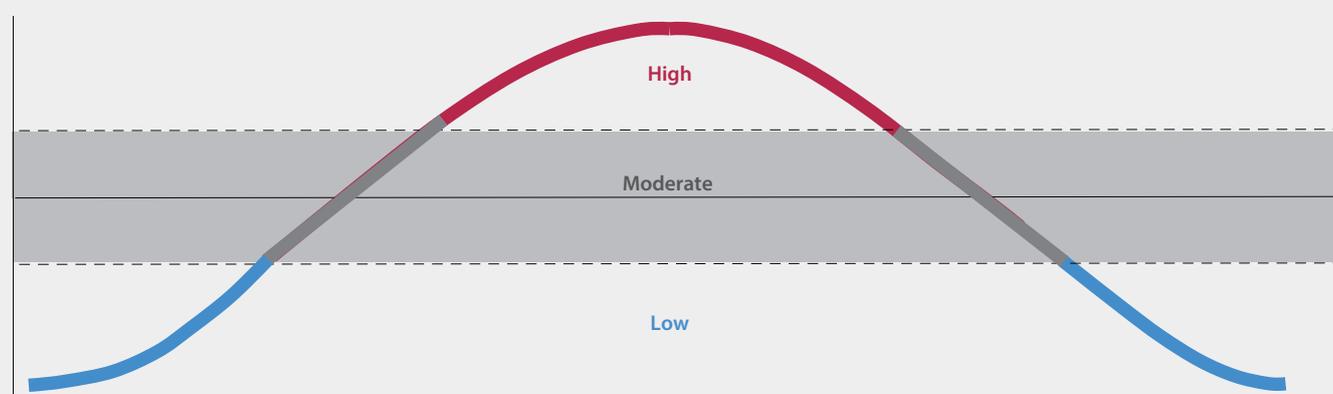
- Claessens and others (2011a, b) show that the cyclical behavior of credit and house prices are highly correlated, while Drehmann, Borio and Tsatsaronis (2012) find that financial cycles may be represented by the co-movement of medium-term cycles in credit and property prices. Arregui and others (2013) 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.<sup>17</sup> 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.

<sup>17</sup> 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*	
Thailand	Exchange rate (PHPUSD)	-0.1192***	Q1 2008 – Q4 2020
	Lagged policy rate (-1)	0.5842***	
	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.

## Appendix. Selected Key Macroeconomic Projections

	2017	2018e/	2019 p/	2020 p/
<b>Brunei Darussalam</b>				
Real GDP Growth (% year-on-year)	1.3	0.1	2.1	2.0
Headline Inflation (Period Average, % year-on-year)	-0.2	0.1	0.4	0.5
Current Account Balance (% of GDP)	16.8	12.6	13.5	13.5
Central Government Fiscal Balance (Fiscal Year, % of GDP)	-12.7	-7.5	-6.3	-5.5
<b>Cambodia</b>				
Real GDP Growth (% year-on-year)	7.1	7.2	7.1	7.0
Headline Inflation (Period Average, % year-on-year)	2.9	2.5	2.8	3.0
Current Account Balance (% of GDP)	-8.0	-9.1	-8.4	-7.7
General Government Fiscal Balance (Excluding Grants, % of GDP)	-2.7	-2.1	-2.6	-2.3
<b>China</b>				
Real GDP Growth (% year-on-year)	6.9	6.6	6.3	6.2
Headline Inflation (Period Average, % year-on-year)	1.6	2.1	2.2	1.8
Current Account Balance (% of GDP)	1.3	0.4	0.7	1.0
General Government Fiscal Balance (% of GDP)	-2.9	-2.6	-2.8	-3.0
<b>Hong Kong, China</b>				
Real GDP Growth (% year-on-year)	3.8	3.0	2.7	2.7
Headline Inflation (Period Average, % year-on-year)	1.5	2.4	2.5	2.3
Current Account Balance (% of GDP)	4.7	4.3	2.8	2.8
Central Government Fiscal Balance (% of GDP)	5.6	2.1	1.5	1.5
<b>Indonesia</b>				
Real GDP Growth (% year-on-year)	5.1	5.2	5.1	5.1
Headline Inflation (End Period, % year-on-year)	3.6	3.1	3.5	3.5
Current Account Balance (% of GDP)	-1.7	-3.0	-2.6	-2.3
Central Government Fiscal Balance (% of GDP)	-2.5	-1.8	-1.8	-1.8
<b>Japan</b>				
Real GDP Growth (Fiscal Year, % year-on-year)	1.9	0.6	0.6	0.5
Headline Inflation (Fiscal Year, Period Average, % year-on-year)	0.7	0.8	0.8	0.7
Current Account Balance (Fiscal Year, % of GDP)	4.0	3.8	3.7	3.5
Central and Local Government Fiscal Balance (Fiscal Year, % of GDP)	-3.6	-4.3	-4.0	-3.8
<b>Korea</b>				
Real GDP Growth (% year-on-year)	3.1	2.7	2.6	2.6
Headline Inflation (Period Average, % year-on-year)	1.9	1.5	1.0	1.4
Current Account Balance (% of GDP)	4.9	4.7	4.6	4.2
Central Government Fiscal Balance (Excluding Funds, % of GDP)	-1.1	-0.6	-1.8	-2.0

	2017	2018e/	2019 p/	2020 p/
<b>Lao PDR</b>				
Real GDP Growth (Fiscal Year, % year-on-year)	6.9	6.5	6.6	6.9
Headline Inflation (Period Average, % year-on-year)	0.8	2.0	2.1	2.5
Current Account Balance (% of GDP)	-7.0	-7.8	-7.0	-6.5
General Government Fiscal Balance (Including Grants, % of GDP)	-5.6	-4.6	-4.7	-4.6
<b>Malaysia</b>				
Real GDP Growth (% year-on-year)	5.9	4.7	4.6	4.7
Headline Inflation (Period Average, % year-on-year)	3.7	1.0	1.6	2.2
Current Account Balance (% of GDP)	3.0	2.3	2.1	2.1
Central Government Fiscal Balance (Excluding Funds, % of GDP)	-3.0	-3.7	-3.4	-3.1
<b>Myanmar</b>				
Real GDP Growth (Fiscal Year, % year-on-year)	6.8	7.3	7.3	7.4
Headline Inflation (Period Average, % year-on-year)	4.0	5.0	4.5	4.5
Current Account Balance (Fiscal Year, % of GDP)	-4.3	-3.6	-3.9	-4.0
Central (Union) Government Fiscal Balance (Fiscal Year, % of GDP)	-2.6	-6.2	-5.0	-4.9
<b>The Philippines</b>				
Real GDP Growth (Fiscal Year, % year-on-year)	6.7	6.2	6.4	6.6
Headline Inflation (Period Average, % year-on-year)	2.9	5.2	3.0	3.0
Current Account Balance (% of GDP)	-0.7	-2.4	-2.3	-2.0
National Government Fiscal Balance (% of GDP)	-2.2	-3.2	-3.0	-3.0
<b>Singapore</b>				
Real GDP Growth (Calendar year, % year-on-year)	3.9	3.2	2.5	2.6
Headline Inflation (Period Average, % year-on-year)	0.6	0.4	1.1	1.5
Current Account Balance (% of GDP)	16.0	17.7	18.0	18.5
Overall Budget Balance (% of GDP)	2.3	0.4	-0.5	-0.7
<b>Thailand</b>				
Real GDP Growth (Calendar Year, % year-on-year)	4.0	4.1	3.8	3.7
Headline Inflation (Period Average, % year-on-year)	0.7	1.1	1.0	1.0
Current Account Balance (% of GDP)	11.0	6.9	5.7	4.9
General Government Fiscal Balance (Fiscal Year, % of GDP)	-3.6	-3.3	-2.6	-2.5
<b>Vietnam</b>				
Real GDP Growth (Calendar Year, % year-on-year)	6.8	7.1	6.6	6.7
Headline Inflation (Period Average, % year-on-year)	3.5	3.5	3.8	3.7
Current Account Balance (% of GDP)	2.7	4.2	3.1	2.0
General Government Net Lending (% of GDP)	-3.5	-3.5	-3.6	-3.5

Sources: National authorities; and AMRO staff estimates

Note: e/ refers to estimates, p/ refers to projections. Data refers to calendar year, unless otherwise stated. Data for 2018 refer to AMRO staff estimates, for those data that are not available.

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# Theme: Building Capacity and Connectivity for the New Economy



The key to transforming the ASEAN+3 region into the “New Economy” is to enhance its capacity and connectivity. Three key drivers will shape capacity and connectivity priorities in the region over the short- to medium term, namely, the technological or Fourth Industrial Revolution (4IR), maturing populations and a rapidly growing middle class, and western protectionism, coupled with growing regional affluence and final demand. However, the region is still facing three key gaps hindering its connectivity and development: funding, foreign exchange and factors gaps. To address these gaps, the region needs to leverage on intra-ASEAN+3 investment and tap on the regional financial safety net (RFSN), while developing ASEAN+3 professional expertise, technology and institutions and accelerating initiatives on regional integration and connectivity.

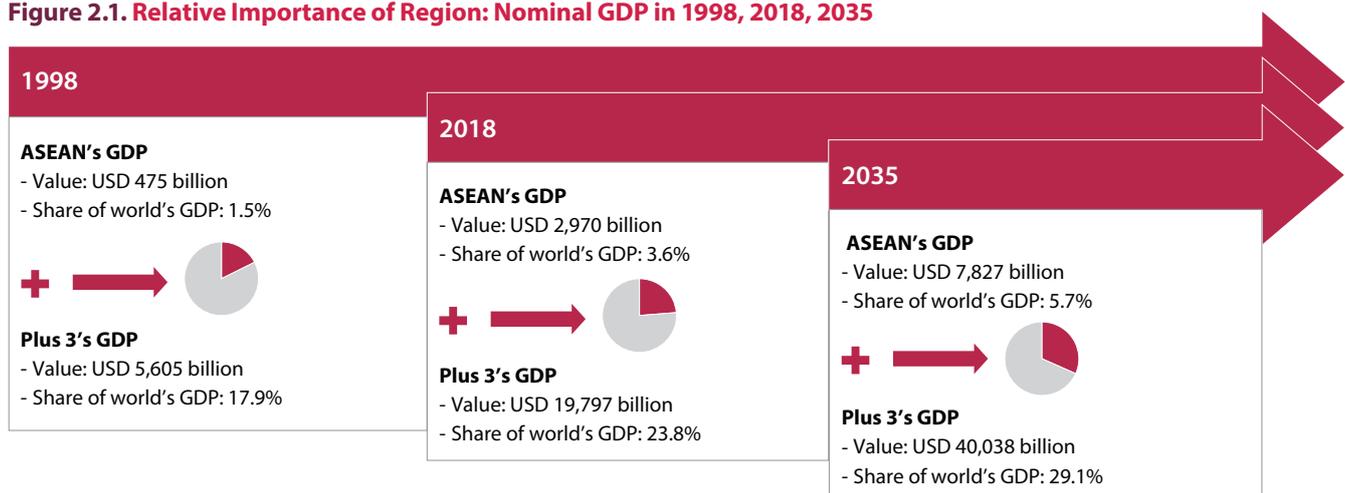
# 1 Rebalancing and Resilience after the Asian Financial Crisis: Poised for Take-off

ASEAN+3 economies have come a long way since the tumultuous events of 1997. The region's combined GDP has grown from USD 6 trillion (19.4 percent of world GDP) just after the Asian Financial Crisis (AFC), to USD 23 trillion in 2018 (27.4 percent), and is projected to reach USD 48 trillion (34.8 percent) by 2035 (Figure 2.1). This chapter builds on the *AREO 2017* (AMRO 2017) narrative of economic consolidation and rebalancing in the region after the AFC, and the *AREO 2018* (AMRO 2018a) message of resilience and growth. The focus is on enhancing capacity and connectivity as ASEAN+3 countries embrace the “New Economy” and embark on their next growth phase.

Building capacity and connectivity will be a priority for the next phase of the region's growth trajectory. The

region as a whole has prospered in the past two decades, with the “manufacturing for exports” strategy as the main pillar in most countries. While the move up the technological frontier has been and will continue to be uneven, the transformation to services is inevitable,<sup>1</sup> and will require a rethink of what capacity means and what connectivity is needed. One key theme that is emerging is that underinvestment—if not addressed—will impinge on growth. The investments needed to generate and sustain growth will include: new hardware and software to optimize production and distribution efficiency, a higher bar for human capital and skill sets to work with digital technology and demand for customized services, and network and connectivity for new value chains that are becoming more complex and cross-border.

**Figure 2.1. Relative Importance of Region: Nominal GDP in 1998, 2018, 2035**



Sources: National authorities; the World Bank; and AMRO staff calculations and projections.

<sup>1</sup> Notably, while it took centuries for the world's economies to shift from agriculture to manufacturing, the rise of the services sector is occurring more quickly—especially in low- and middle-income countries (Buckley and Majumdar 2018).

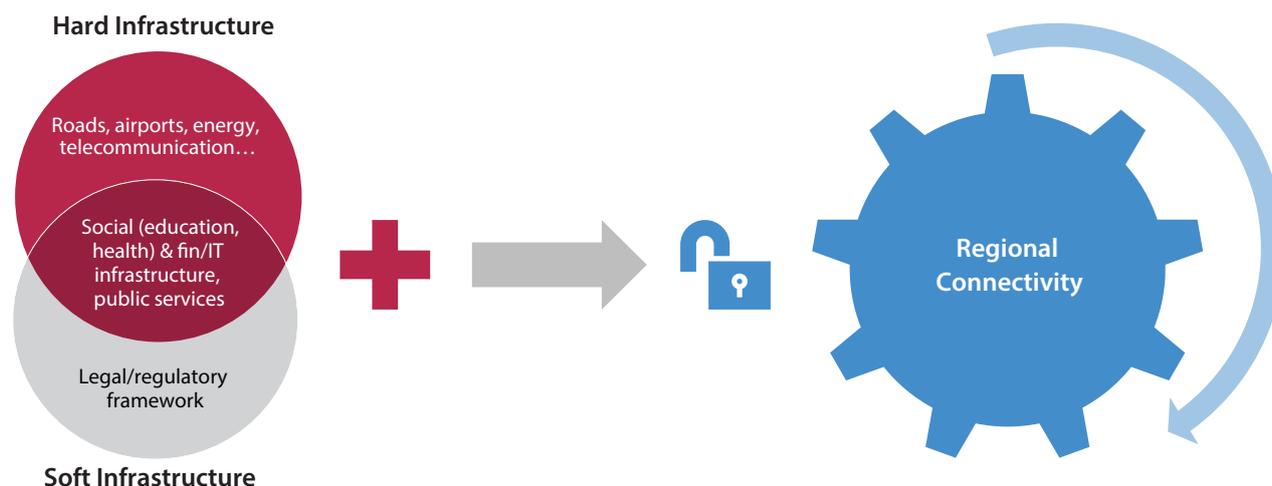
The chapter is organized as follows. Section 2 reviews three key developments driving capacity and development priorities in the region: the technological revolution leading to deindustrialization and the intensification of services in the new economy; maturing demographics and a rapidly growing middle class; and the expanding and deepening regional integration amid rising global protectionism. Section 3 identifies and assesses the three major challenges in achieving a more integrated and connected ASEAN+3: the funding, foreign exchange, and factors gaps. Section 4 examines the scope for region-wide initiatives to address some of these constraints. Section 5 concludes with some policy recommendations. Throughout the chapter, the countries are broadly categorized into:

- **High-income ASEAN+3 (“HI-A”)** economies that are least constrained by the three gaps: China, Japan, Korea, Brunei, Hong Kong and Singapore. For the mature HI-A economies, the three gaps provide opportunities to leverage on the region for growth as they adapt to and embrace the new economy. China is a high middle-income economy, but the world's largest economy in purchasing power parity terms, has a high saving rate and is technologically advanced,
- **Middle-income ASEAN (“ASEAN-4”)** economies that have overcome financial and non-financial constraints to arrive at where they are today, but the three gaps remain binding (to varying extents) on economic growth: Indonesia, Malaysia, the Philippines, and Thailand. Their graduation from low-income economies and mixed experience with the vagaries of financial globalization have created a policy bias that, rightly or wrongly, makes the gaps more biting than they should be.
- **Lower-income ASEAN (“CLMV”)** economies with the traditional developing country problems: investment needs exceeding what they can save for, and limitations in productive capacity (including labor, technology, institutions). Unlike earlier emerging economies, Cambodia, Laos, Myanmar, and Vietnam confront these development constraints at a time when globalization and access to foreign capital can help close the gaps, or wreak economic damage if financing is excessive.

## Steering the Course on Capacity and Connectivity: Headwinds and Tailwinds

Three key drivers will shape capacity and connectivity priorities in the region over the short- to medium-term. First, the technological or Fourth Industrial Revolution (4IR) has led to automation, lower capital intensity of industrial production and the rise of the services sector. The restructuring of global value chains (GVCs) under the “new economy” will redefine the infrastructure needs, within- and across national boundaries, that are critical for future growth. Second, maturing populations and a rapidly growing middle class will underline the shift to a more labor-saving, skills- and knowledge-based productive capacity, and spur intraregional demand for consumer goods and services, including enhanced living spaces and new or reconfigured services, and the need for better connectivity. Third, western protectionism, coupled with growing regional affluence and final demand, will exert both push and pull on regional integration. Over time, the pull from the region's own demand will outweigh the push from protectionist pressure to drive the need for greater intra-regional connectivity.

ASEAN+3 economies will need to expand both their “hard” and “soft” infrastructure. These include: physical structures to enhance transportation, telecommunication and the provision of public utilities; a sound and transparent legal and regulatory framework; IT infrastructure; and a stable financial system (Figure 2.2 and Table 2.1). Social institutions—education, healthcare and public housing services—round up a country's overall infrastructure. Regional connectivity encompasses both hard infrastructure for more efficient movements of goods and people, as well as soft infrastructure to facilitate the transmission or sharing of knowledge, services and other “intangibles” within and across countries. Regional connectivity includes institutions such as the ASEAN Economic Community (AEC), free trade agreements between ASEAN and China and with other major trading partners; ASEAN+3 Macroeconomic Research Office (AMRO), and the Chiang Mai Initiative Multilateralization (CMIM), that provide a framework for governments to collaborate on and enhance regional integration.

**Figure 2.2. Hard and Soft Infrastructure and Regional Connectivity**

Source: AMRO staff.

**Table 2.1. Required Infrastructure by Economic Sectors**

Sector / Economic Activity and Key Features	Infrastructure Required
Advanced manufacturing: automation, dematerialization	Production plants, industrial parks, power generators; frameworks for skills learning and IPR
Modern logistics and distribution: disaggregation	Space for automated sorting, packing & delivery; connectivity between logistics firms, manufacturers, sales platforms and payment system operators
Flexible timely transport services: digitalization	Office space, back-up sites for digital operations; sound regulatory framework, strong AI capacity
E-commerce and other online services using Big Data: disintermediation, digitalization	Office space with digital systems & cooling set-ups; logistic services
Tourism and hospitality: customized experiences	Airports, ports, roads, railways, hotels, restaurants, eateries, entertainment facilities
BPO/KPO: use of AI, key nodes in different countries	Office space with digital systems; language learning centers; subject content learning centers; telecommunication facilities
Urbanization + demographic shifts + rising affluence	"Smart city" ecosystem for professionals and expanding middle-class population, to "work and play seamlessly"; spaces for experiencing services rather than buying goods; physical facilities and professional knowhow to provide healthcare for the aged and lifecycle wellness therapy for the affluent; luxury apartments

Source: AMRO staff.

## Embracing the New Economy and Services

Improvements in capacity and connectivity will be a key determinant of future growth as countries move beyond the manufacturing-for-exports growth strategy and transition to the “new economy.” As supply chains evolve, digital tools and tech-savvy human capital will be needed for the production of new goods and services, and the delivery of these goods and services to consumers and businesses (Figures 2.3 and 2.4).

Services will feature prominently in the new economy as they become more sophisticated and tradable, and the lines between goods and services blur. Trade in services will require connectivity beyond physical modes of transport, as services exports – the supply and delivery of services to non-residents – take place without the supplier leaving the country. The WTO defines four modes of services trade (WTO 2015): cross-border trade (e.g. foreign consultancy services); consumption abroad (e.g. tourism and travel, students studying in overseas universities); commercial presence (e.g. the establishment of a foreign bank branch on local premises to provide financial services to residents); and movement of natural persons (e.g. foreign professionals travelling to provide services to residents). Value chains will evolve as products become indistinguishable from or are bundled with services, for example: computers and the software needed to run them; food and dining services; payment services that accompany both goods and services.

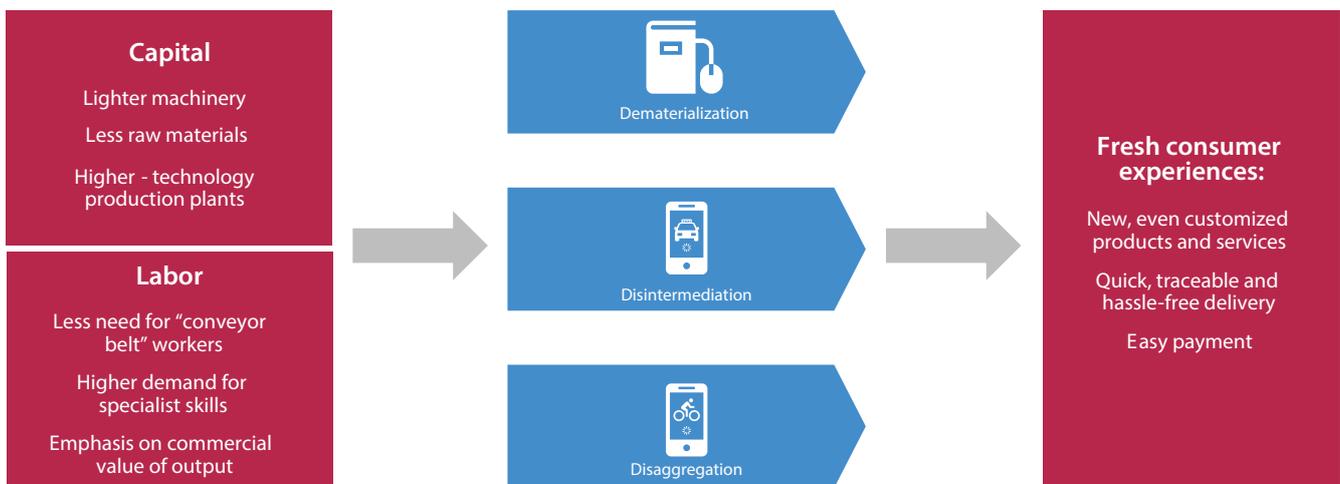
Services already account for more than half of *both* GDP and employment in some countries in the region and are rapidly catching up in the rest, the plus-3 countries, Hong Kong, Malaysia, the Philippines, and Singapore (Figure 2.5 and 2.6).<sup>2</sup>

Many sub-sectors within new services require higher-order skills to sustain innovation and remain competitive, so it is not surprising that economies with stronger human capital development have a larger services sector (Figure 2.7).

New economy services will require higher-order soft infrastructure and cross-country connectivity. A sound legal and regulatory framework, and efficient and secure payment systems – both within countries and across jurisdictions – are essential. There will be greater scrutiny of intellectual property rights (IPR), legal protection of business owners’ and investors’ rights, professional service standards, payment protocols, and cyber-security. Free trade agreements, investment treaties, and mutual recognition arrangements (MRAs) will have to be ironed out to expand cross-border value-chains and facilitate freer flow of quality FDIs, skilled labor and managerial professionals. For example, a sound IPR framework is vital for copyright-based industries (WIPO 2014).<sup>3</sup> According to WIPO (2014), these new services accounted for 9.9 percent of GDP and 6.2 percent of employment in Korea, followed by China (6.4 percent of GDP and 6.5 percent of employment), Singapore (6.2 percent of GDP and 6.2 percent of employment), and an average of 4.1 percent of GDP and 5.7 percent of employment in Brunei, Indonesia, Malaysia, Philippines and Thailand.

Services in the new economy include both traditional and new revenue generators. Examples include tourism (which is undergoing major changes), as well as new services that have been made viable and thrived under the digital economy, such as e-commerce and business process outsourcing (BPO).

**Figure 2.3. Schematic Illustration of “New Economy”: Producing and Delivering Goods and Services More Effectively**

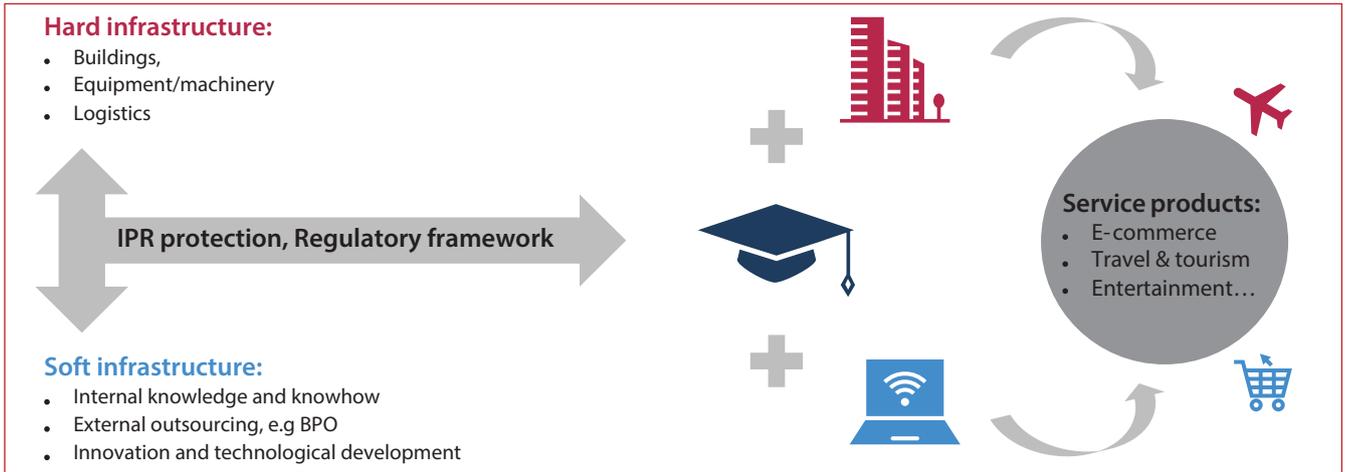


Source: AMRO staff.

<sup>2</sup> The share of services in the new economy may also increase as statistical methodologies and measurements of GDP and trade—best suited to accounting for goods produced and transported—are updated to reflect value add under the new economy.

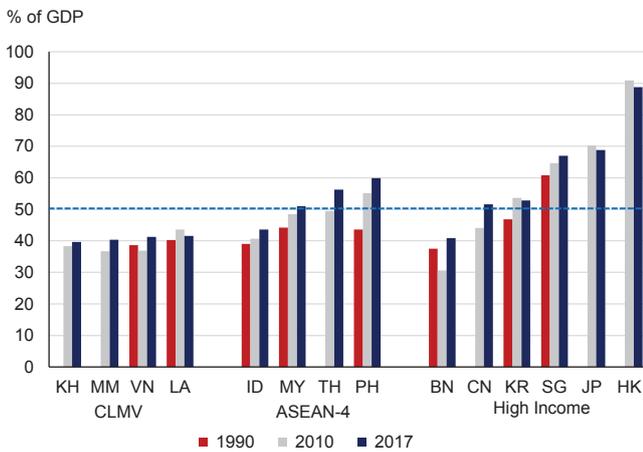
<sup>3</sup> According to WIPO, copyright-based industries include software and database, press and literature, music, theatrical productions, operas, motion picture, radio and television, photography, visual and graphic arts, advertising services, and copyright collecting societies.

**Figure 2.4. Services Value Chain**



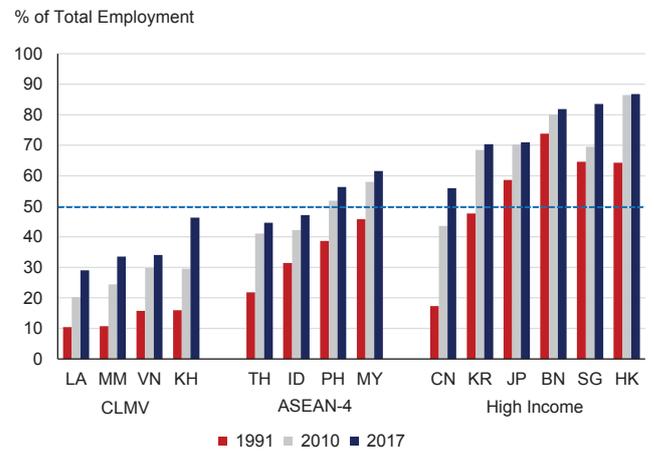
Source: AMRO staff.

**Figure 2.5. Services' Share of GDP**



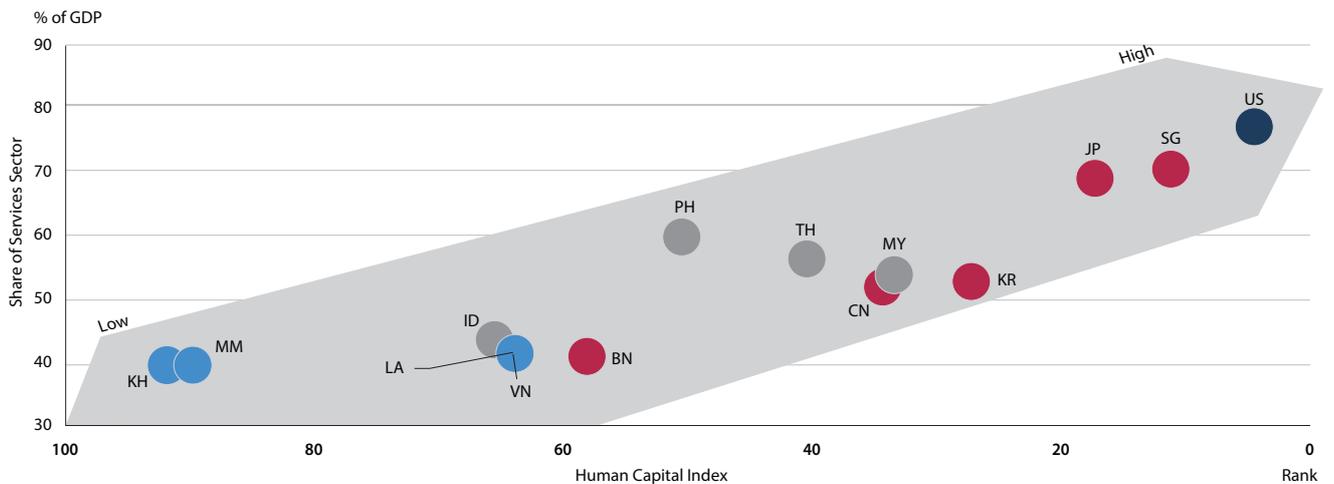
Sources: National authorities; and the World Bank.  
Note: Japan data are as of 2016.

**Figure 2.6. Employment in Services Sector**



Sources: National authorities; and the World Bank.  
Note: Employment data starts from 1991. Japan data are as of 2016.

**Figure 2.7. Relationship between Human Capital and Services Sector Development, 2017**



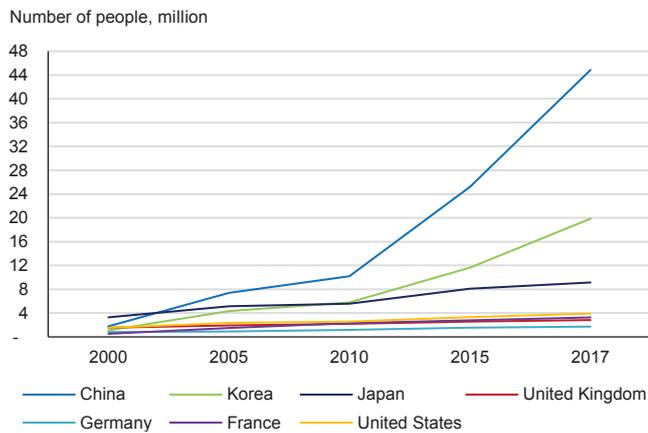
Source: World Economic Forum (2017).

The exponential growth in tourism (conventional tourism and tourism 2.0) will drive the demand for physical connectivity and tourism-related services. The goal would be to provide seamless travel and an enhanced customer experience. In addition, tourism allows cross-border value chains, such as a consumer physically located in Singapore buying an air ticket and booking a hotel using a China web platform to fly on a Japanese airline flight for a holiday in Thailand, during which s/he stays in an American-owned hotel and consumes goods and services of enterprises from Korea, Indonesia and Vietnam. Here, no single (type of) enterprise fully “owns” or dominates the whole value chain; instead the single most important factor for success would be intra-regional connectivity in both the physical world and digital world. The value chains, not unlike those in manufacturing, comprise elements such as: efficient air and land transport; interoperable payment systems; free(r)

trade regimes allowing for supply of services via different modes including commercial presence and movement of natural persons.

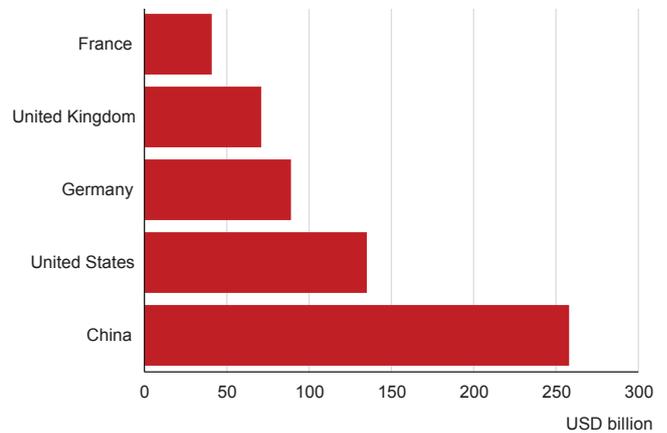
ASEAN+3 countries have become key contributors to both regional and global tourism. China is now the world’s top tourism spender, spending more than the United States and Germany combined (Figure 2.9). The number of Chinese tourists bound for ASEAN countries increased around fivefold in the last ten years, from 8.3 million in 2008 to 44.8 million in 2017, and is projected to increase by 2.3 times by 2035 (Poonpatpibul and others 2018). Likewise, Japan and Korea are also among the top visitors travelling to ASEAN countries (Figure 2.8), and the rising trend is expected to continue in the years to come. Similarly, ASEAN outbound tourism has increased sharply (Figure 2.10), reflecting the rapidly growing middle class in the region and the fall in cost of air travel.

**Figure 2.8. Tourist Arrivals to ASEAN by Country**



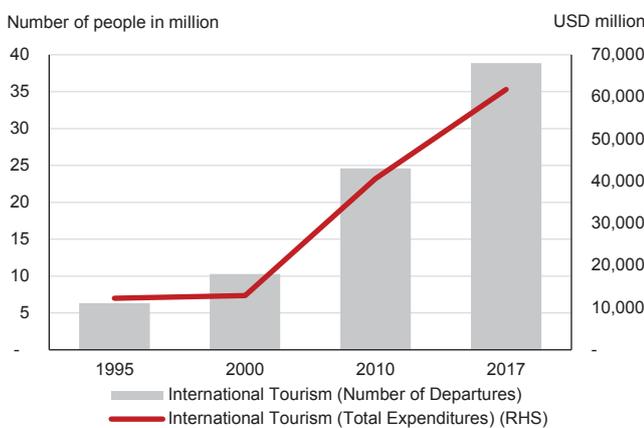
Sources: National authorities; and AMRO staff calculations.  
Note: Brunei data as of 2016. Data on Chinese tourist arrivals to Malaysia includes Hong Kong.

**Figure 2.9. World’s Top Tourism Spenders**



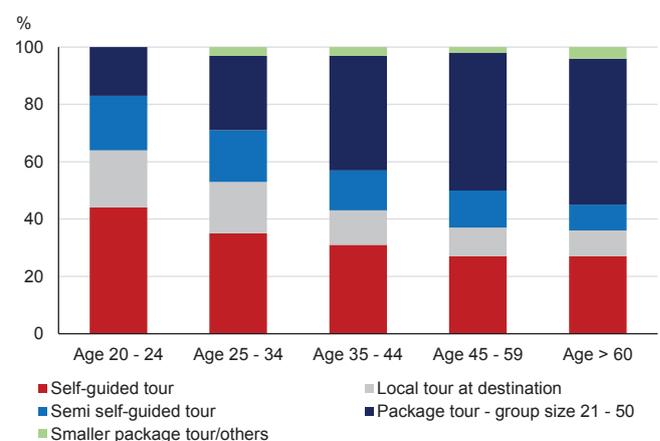
Source: UN World Tourism Organization.

**Figure 2.10. ASEAN Outbound Tourism**



Sources: The World Bank; World Tourism Organization; Yearbook of Tourism Statistic; and AMRO staff calculations.  
Note: Number of departures and total expenditures cover only Cambodia, Lao PDR, Indonesia, the Philippines, Thailand and Singapore. Data on number of departures for Brunei (2010), and the Philippines (2010 and 2017) are estimated.

**Figure 2.11. Younger Chinese Tourists Favoring Self-Guided or Semi Self-Guided Tours**



Sources: Maybank Kim Eng (2019); and McKinsey Global Institute.

ASEAN+3 economies are expanding their transportation infrastructure, including airports, ports, highways and railways to facilitate physical access for travelers, but bottlenecks remain. In many parts of the region, demand has continued to outpace the enhancements to capacity. In Indonesia, the Philippines and Thailand, airport utilization data in key cities suggest future growth in tourism could be curtailed if airport capacity and service efficiency are not improved. Indonesia has an ambitious program to develop more tourist resorts like Bali, as well as maritime transport to link all the islands. Cambodia, Laos and Vietnam also have plans to construct new airports to facilitate international travel and highways to link the major cities. Almost unique among ASEAN countries, Singapore has a comfortable airport utilization rate (Table 2.2), but is already planning ahead for Terminal 5 at its Changi Airport, which will double the existing capacity.

The growth in the tourism industry will require more than improvements in physical connectivity. The share of Chinese visitors travelling in tour groups will continue to decline as a younger generation of tech-savvy “independent tourists” opt for the self-guided, self-plan travel experience (Figure 2.11). “Tourism in the New Economy” will unbundle, reconfigure and customize the supply value-chain to shift from the company-centric model of standardized destination, travel and hotel, to a more customer-driven demand for differentiated pricing

structure and customization of experience (Laesser and Jäger 2019). Traditional marketing instruments will be replaced by services related to customer profiling and positioning. The new tourism industry will also spur growth in related services such as entertainment, healthcare and medical services.

Technology is making services such as BPO more tradable and commoditized, with potential gains for productivity. The Information, Communications and Technology (ICT) revolution over the past few decades, for example, has made the growth of the BPO service industry possible. Moreover, telecommunication costs have fallen sharply, allowing such services to be provided cheaply from abroad by countries with lower labor cost, which has benefited frontier and emerging economies with labor force of the requisite skills. Services in call centers, accounting, and other types of professional services, which previously could only be provided domestically—either for cost reasons or because face to face contact was important—can now be provided across borders and subject to international competition. The Philippines, for instance, has benefited tremendously from the ICT revolution with services now accounting for about 40 percent of total exports (similar to India) largely driven by the BPO sector. BPO employs more than 1 million workers with wages 3-5 times higher than the national average; and over the past decade, it has broadened from call centers to a broader set of functions and more complex services.

**Table 2.2. Major ASEAN Airports Operating Beyond Capacity**

Airport	City	Passengers (2017)		
		Actual (million)	Capacity (million)	Utilization (%)
Changi	Singapore	62.2	85.0	73.0
Kuala Lumpur	Kuala Lumpur	58.6	70.0	84.0
Soekarno-Hatta	Jakarta	63.0	60.0	105.0
Suvarnabhumi	Bangkok	62.8	45.0	140.0
Don Mueng	Bangkok	40.6	30.0	135.0
Ninoy Aquino	Manila	42.0	31.0	136.0
Tan Son Nhat	Ho Chi Minh City	35.9	25.0	144.0
Noi Bai	Hanoi	23.1	25.0	92.0

Source: Maybank Kim Eng (2019).

Note: Suvarnabhumi and Don Mueng data as of 2018.

Business services like BPO are exposed to technological disruption, which can also give rise to opportunities, although new skills will be needed to provide higher VA services. While the BPO sector is still growing quite well in the Philippines, there are challenges on the horizon, with technology eroding aspects of the current value proposition. Outsourcing service providers are expected to use new technological innovations to efficiently address market demand and challenges, enhance product and service and manage talent turnover while managing the operational costs with emphasis on process automation and social management tools. New technologies are poised to eliminate many call-center jobs and transform others. Artificial intelligence (AI)-enabled software or robots can perform tasks more quickly, work around the clock, and produce high-quality output. This technology can enable and incentivize firms to move away from an outsourcing model, and cost-effectively bring these functions back inside the firms. Nevertheless, there are still new opportunities arising from the rapid technological developments. For example, the emergence of cloud technologies which support Business Process as a Service (BPaaS) is a growth opportunity, opening up the small- and medium-sized enterprise market (as it can take a more tailored approach to purchasing BPO services, with reduced fixed costs). In addition, technology also allows BPO providers to offer new services to guard against the erosion of their existing business.

E-commerce is another example of specialization in services leading to higher VA “products”. The value chain central to e-commerce can be conceptualized as the platform provider interfacing with multiple value chains: suppliers, manufacturers, distributors, transporters, retailers, and “end demand” customers. The success of an e-commerce platform depends on it having an efficient (ideally seamless) touchpoint with each group of stakeholders, so that they can in turn lower their business costs and sell their products at lower prices to a bigger market. For example, e-commerce could link suppliers more directly to manufacturers; allow retailers to display products without the need for physical

shop space, and adjust prices dynamically; and provide for consumers a widened scope of search for their ideal product or service, at prices they are comfortable with. The key components of a successful e-commerce value chain must almost certainly include artificial intelligence and digital systems which are quick, reliable, and user-intuitive; data analytics to process and disseminate a vast amount of information; fraud detection and a robust framework for IPR and consumer protection; and highly-specialized personnel to stay on top of technological requirements.

Global e-commerce has grown markedly over the last decade. It has expanded from USD 495 billion in 2005 to USD 1,915 billion in 2016, according to estimates by the McKinsey Global Institute (MGI 2017). Within the ASEAN+3 region, e-commerce has expanded rapidly as a shopping norm. China has leapfrogged other economies to become the world’s leader in e-commerce and mobile payment, accounting for 42.4 percent of global e-commerce in 2016, from just 0.6 percent in 2005. The value of its mobile payments, at USD 790 billion in 2016, is 11 times higher than that of the United States (MGI 2017). Singapore earned USD 4.1 billion in revenue from e-commerce in 2018, up from USD 3.0 billion a year earlier, and the figure is projected to double to USD 8.5 billion by 2023.<sup>4</sup>

Tourism, BPO, e-commerce and other new or restructured services will set new norms for the level of capacity in human capital and “virtual” connectivity. Countries must upgrade to these new thresholds, or exceed them, if they are to seize the opportunity for higher services-led growth. As the Philippine experience with BPO shows, technology can erode a country’s existing value proposition, but it can also offer new avenues for higher VA services—with the appropriate infrastructure and upskilling of human capital (AMRO 2018a). BPO services in the Philippines are highly diverse and they have evolved from the simple call service centers to provision of analytical services for radiology and accountancy, production of videos and other multimedia services, and online gaming and its supporting services.

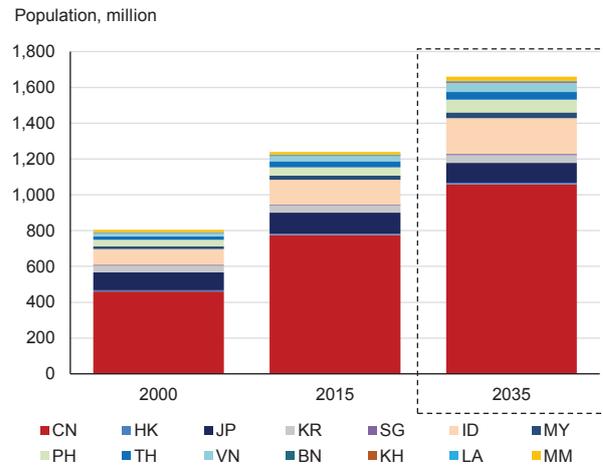
<sup>4</sup> Source from Statista (<https://www.statista.com/outlook/243/124/ecommerce/singapore>).

## Growing Cities, Maturing Populations

Urbanization and shifting demographic trends and social aspirations will drive the demand for a widening range of increasingly sophisticated services, and higher-end real estate. An estimated 69 percent of population in the ASEAN+3 region will live in cities by 2035, up from 60.4 percent in 2015 (Figure 2.13); China’s urban population alone will account for 63.9 percent of the region total by 2035 (Figure 2.12).

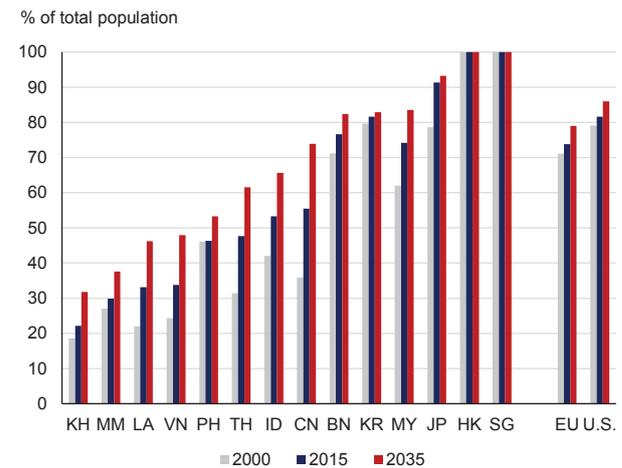
Urbanization implies the continuing need for massive investment in basic infrastructure. Examples include housing, sewerage, drainage, power generation, mass rail transit, highways, among others. However, in Asia, urbanization will also be accompanied by an expanding middle class and growing affluence. Projected spending by the middle class in the Asia Pacific will greatly exceed that of North America and Europe combined, by 2030 (Figure 2.14). Already, East Asia is the world’s largest market for automobiles, mobiles phones and other consumer durables, luxury products, and expensive wine and liquor. Consumers will be more discerning and tech savvy, and demand for goods and services will evolve: from food to dining experiences, from essential medical care to wellness therapy, and from picking basic consumer goods off the shelf to buying luxury toys on e-commerce platforms. They will seek out brand name education experiences, from the region or elsewhere, and tap into customized banking and financial advisory services wherever these may be.

**Figure 2.12. ASEAN+3: Urban Population**



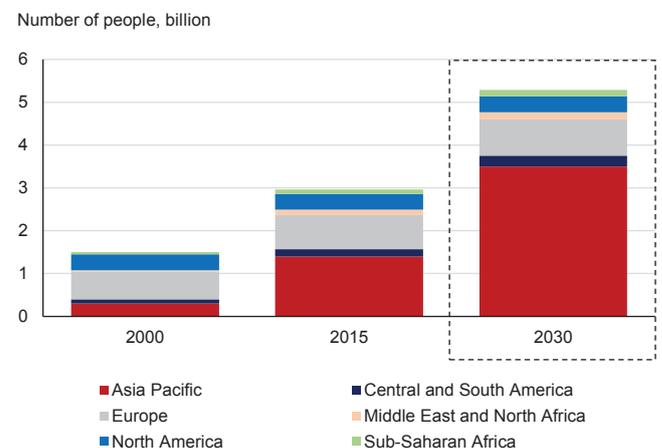
Source: World Urbanization Prospects.  
Note: 2035 refers to projection.

**Figure 2.13. Rate of Urbanization – Percentage of Population Residing in Urban Areas**



Source: World Urbanization Prospects.  
Note: 2035 refers to projection.

**Figure 2.14. Global Middle Class Population**

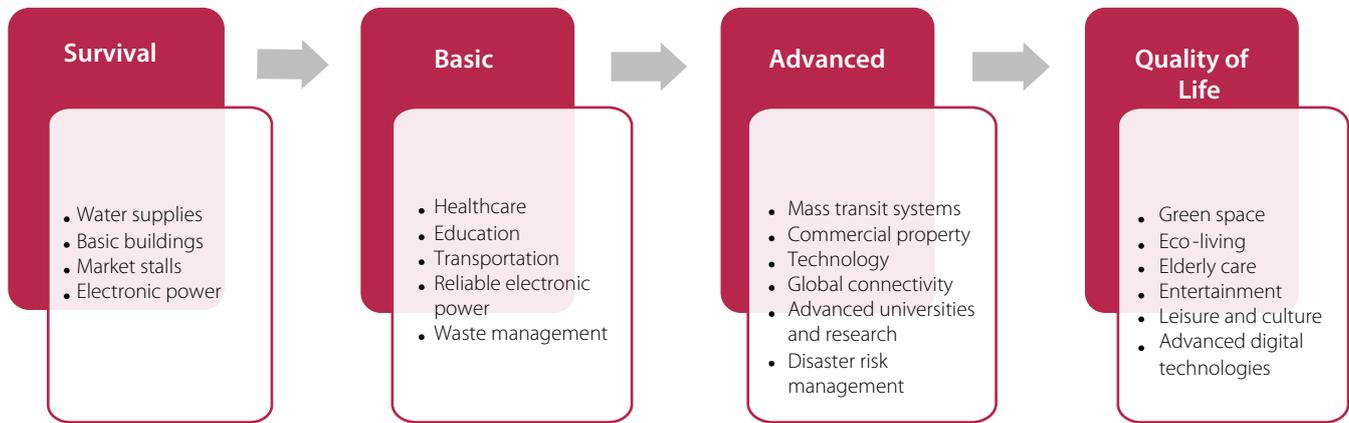


Source: Kharas (2017).  
Note: 2030 refers to projection.

The physical and social infrastructure in the ASEAN+3 region will reflect the new demographics and changing aspirations, an example being real estate (Box 2.1). The typology of real estate needs will shift from the utilitarian (basic housing, standard public utilities, health

and education) to high-end designer condominium complexes (green spaces, elderly-friendly, tech-ready, and globally connected), and from cookie-cutter housing units to customized properties with unique architecture and engineering (Figure 2.15).

**Figure 2.15. Rising Middle-class and Affluence: Typology of Real Estate Needs**



Sources: PwC (2013); and AMRO staff.

## Growing Regional Integration amid Rising Global Protectionism

Protectionist trade policies spiked in the immediate aftermath of the Global Financial Crisis (GFC), and have ratcheted up in the last two years reflecting a backlash against globalization and free trade in the United States and Europe. Rising protectionist tendencies may push the ASEAN+3 economies to reconfigure GVCs and redirect demand to the region. According to AMRO staff estimates, further escalation of tariffs by the United States could shave up to one percentage point off ASEAN+3 GDP growth over the next two years.<sup>5</sup> Economies most integrated with the global economy—Singapore, Hong Kong, Korea—will bear the brunt, but the impact on China and others will not be insignificant. However, the short term impact will fade over time as economies in the region restructure their production and trade to the more protectionist environment. Manufacturing firms in China will optimize by moving their production to countries that are not affected by the tariffs and the regional supply chains will be reconfigured. Countries will also diversify their markets and in the medium- to long-term, the region will become more integrated and less dependent on extra-regional demand.

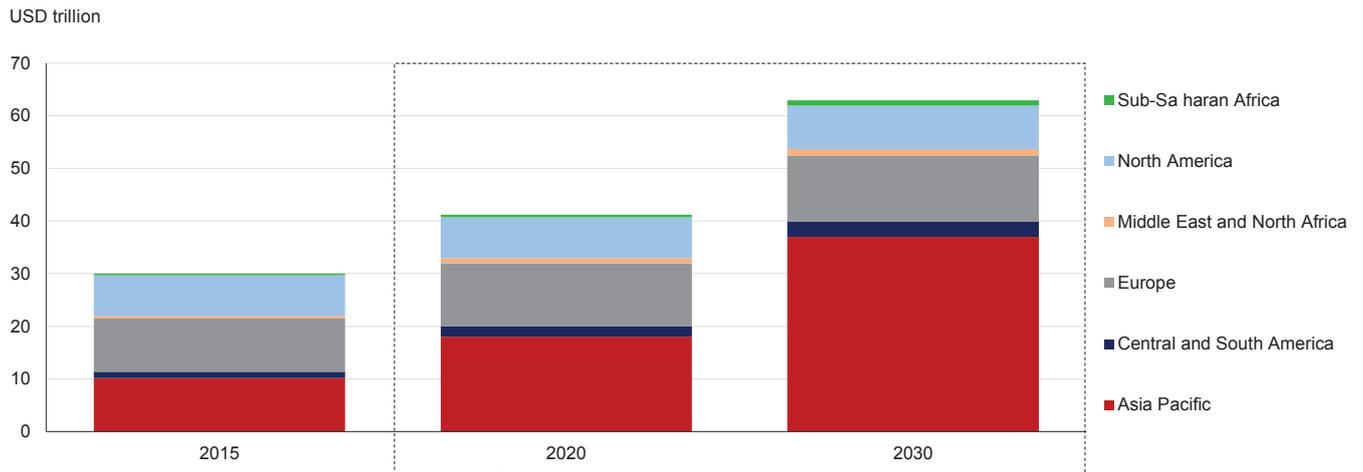
At the same time, rapid growth in final demand by ASEAN+3 economies will exert an increasingly strong pull for production and services to reside within the region. Already, in value-added terms, exports destined for final demand in the region have grown to nearly half of total regional exports (Figure

2.18). The center of gravity for globalization will continue to shift to Asia Pacific economies, as their productive capacity and consumption demand outpaces that of other regions (Figure 2.16). Projected spending attributed to the middle class in the Asia Pacific will exceed that of North America and Europe combined, by 2030.

China is already the biggest trading partner of ASEAN (after intra-ASEAN trade), with the EU and the United States a distant second and third respectively (Figure 2.17). In other words, China has anchored itself at the center of regional production networks as a result of its rapid growth, and ASEAN economies are feeding into these networks as they specialize in particular segments of the global value chains and develop their productive capacity. However, with growing affluence and the rise of the middle class, regional exports to China is increasingly driven by China's final demand for consumption and investment and less by re-exports to the United States, Europe and other countries. Similarly, intra-regional demand within ASEAN will make an increasing contribution to exports and growth over time and lead to greater economic integration. This combination of both push and pull factors towards ASEAN+3 integration will drive the need for greater regional capacity and intra-regional connectivity. Over time, the pull from the region's own final demand will predominate as those of the United States and Europe become smaller in relative terms.

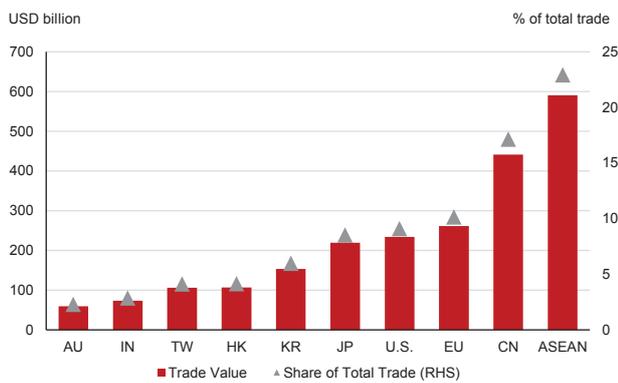
<sup>5</sup> Based on the Oxford Economics model.

**Figure 2.16. Middle Class Consumption Expenditure**



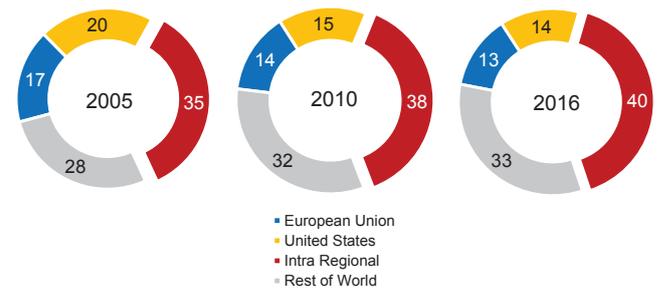
Source: Kharas (2017).  
 Note: 2020 and 2030 refer to projection.

**Figure 2.17. ASEAN's Top Ten Trading Partners**



Sources: ASEAN Stats Data Portal; and AMRO staff calculations.  
 Note: Data as of 2017.

**Figure 2.18. Share of ASEAN's Value-Added Exports Accounted for by Regional Final Demand**



Sources: OECD's TiVA database; and AMRO staff estimates.  
 Note: Numbers may not add up because of rounding.

## Box 2.1.

# Meeting the Needs of the New Economy, New Demographics and Services Sector

Real estate investment is an interesting and important area which has arguably received scant attention from investors and policymakers. The common narrative is overly simplistic and negative, that affluent expatriates and the higher-income segments of local professionals bid up prices and rentals of residential and commercial properties; and that governments' building of "green spaces" aims to enhance the attractiveness of countries as hubs to attract these talents.

In fact, "new economy" and "new demographics" needs and the rising services industries are dictating the changing nature of real estate investments in the region. They have become more focused on productive usage, more diversified in terms of design and purpose, and reflect an increasingly bottom-up approach to complement the traditional top-down macro driven approach. For example, the PwC (2019) survey findings suggest that although the broad sectors in which real estate investors are active or plan to be active in 2019 appear quite "plain vanilla" (Figure 2.1.1), efforts to meet highly-specialized needs which are rapidly emerging in the "new economy" and services industries are now driving investment decisions. These needs range from office and storage space for BPO services and e-commerce, housing facilities for the elderly and for student populations, to data centers for higher-technology economic activities and new holiday resorts for the booming travel and tourism sector (Figure 2.1.2).

There are multiple sources of value-add to be found in the coming years, including in the increasingly tradable and higher-technology services sector. Besides meeting the specialized needs of the economy and the people, there will likely be much greater emphasis on ensuring better "fit" with countries' broader urbanization efforts and urban renewal drive than in the past. Put simply, real estate investment and building will be more customized than before:

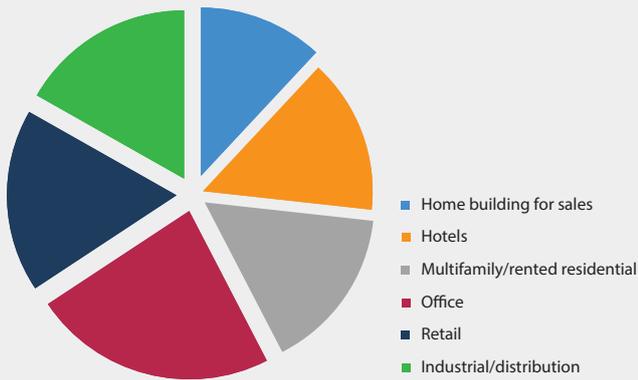
- "Smart City" development plans are a prime example. Well thought through "smart city" initiatives—such as Singapore's—aim to bring about coherence between multiple objectives which ought to be complementary rather than frictional. For example: (i) creating and deploying technologies, which are more advanced but also fairly easy to use, so that work productivity can increase and work-life balance can improve at the same time; (ii) investing more in building hard infrastructure (such as advanced fiber optics networks) in order to improve the quality of soft infrastructure (such as new possibilities for e-learning and more efficient seamless business operating processes for enterprises); and

(iii) enhancing socio-economic inclusiveness through targeted measures (for example, digital solutions for monitoring the health of elderly persons staying in their own homes). Notably, "smart city" pilot projects are proliferating across developing and emerging ASEAN+3 economies. The 26 pilot cities of the ASEAN Smart Cities Network (Table 2.1.1) aim to deliver a high quality of life to its 90 million citizens by 2030, and one of its focus areas is to build higher-technology, productivity-enhancing infrastructures (ASEAN 2018).

- Likewise sector-specific initiatives. For example, countries which aim to play big(ger) roles in either manufacturing or e-commerce are paying more attention to developing solutions for warehousing and logistics and "last mile" distribution facilities. The former involves substantial investment in building more high-technology infrastructures, which enable "just in time" linkages between production, storage, and transport. The latter entails investors exploring possibilities for acquiring real estate spaces which are at fairly good locations near to large concentrations of people but also underused and/or low-priced, and then converting them into nodes for delivering goods. Indeed, in the past five years, the number of such stations in the region has increased sharply, most notably—and unsurprisingly—in China (Figure 2.1.3). Alongside that, there is now increasing recognition that efforts are also needed to devise transportation solutions which maximize efficiency gains from the use of such delivery nodes. Yet another example is the Philippines' booming BPO sector, and how that has shaped investment in real estate in the country. Sources suggest that in Metro Manila, the BPO sector took up 42 percent of office space in the first three quarters of 2018, while the Philippine Offshore Gaming Operators (POGO) took up another 25 percent. And for residential real estate, anecdotal accounts suggest that 20–40 percent of condominium units are now sold to foreigners who are now coming to the Philippines in larger numbers to live, work and play.

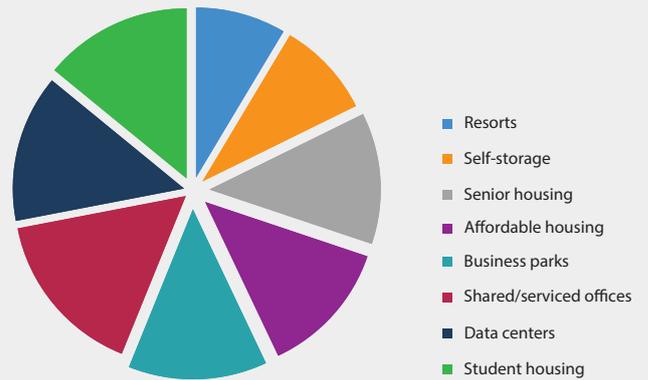
Sources of investment are showing signs of becoming more diversified even as cross-border flows increase rapidly. Between 2013 and 2018, FDI flows into the region's real estate sector tripled. However, even so, cross-border investments currently constitute only about 1/5 of total investments in real estate across major hubs in ASEAN+3 region. Within cross-border investments, intra-regional investments constitute the major share although the United States and Europe are also important, especially for Korea and Japan (Figures 2.1.4–2.1.6).

**Figure 2.1.1. Broad Sectors in which Real Estate Investors are or Plan to be Active in 2019 (Percent)**



Source: PwC (2019).

**Figure 2.1.2. Niche Sectors in which Real Estate Investors are or Plan to be Active in 2019 (Percent)**



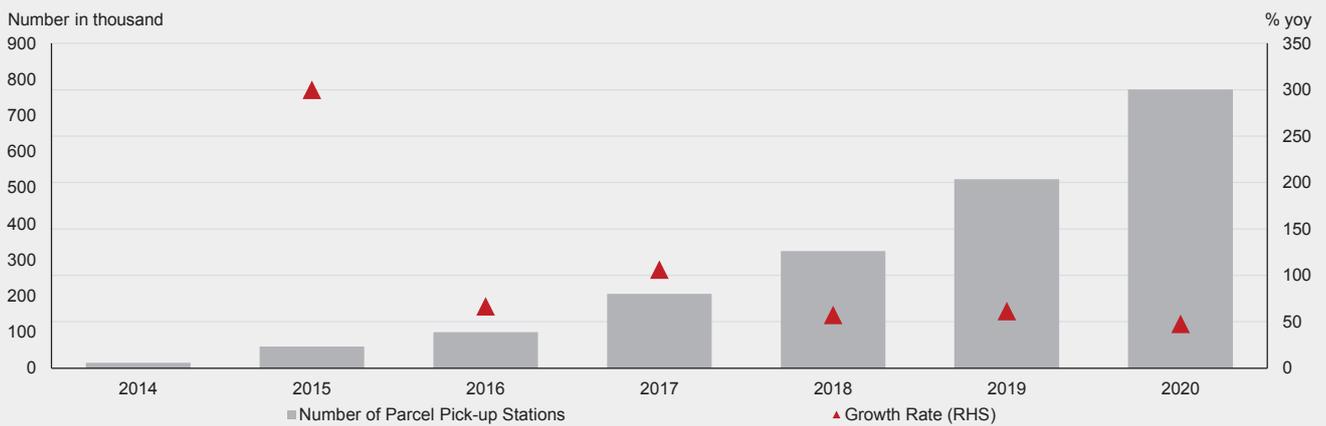
Source: PwC (2019).

**Table 2.1.1. Pilot Smart Cities of the ASEAN Smart Cities Network**

Countries	Cities			
Brunei	Bandar Seri Begawan			
Singapore	Singapore			
Lao PDR	Luang Prabang	Vientiane		
Cambodia	Battambang	Phnom Penh	Siem Reap	
Indonesia	Banyuwangi	DKI Jakarta	Makassar	
Myanmar	Mandalay	Nay Pyi Taw	Yangon	
Philippines	Cebu	Davao	Manila	
Thailand	Bangkok	Phuket	Chonburi	
Vietnam	Danang	Hanoi	Ho Chi Minh	
Malaysia	Johor Bahru	Kota Kinabalu	Kuala Lumpur	Kuching

Source: ASEAN Secretariat.

**Figure 2.1.3. "Last Mile" Parcel Pick-up Stations in China**



Sources: China Post; and iResearch (2018).

**Figure 2.1.4. FDI into the Region's Real Estate Sector**

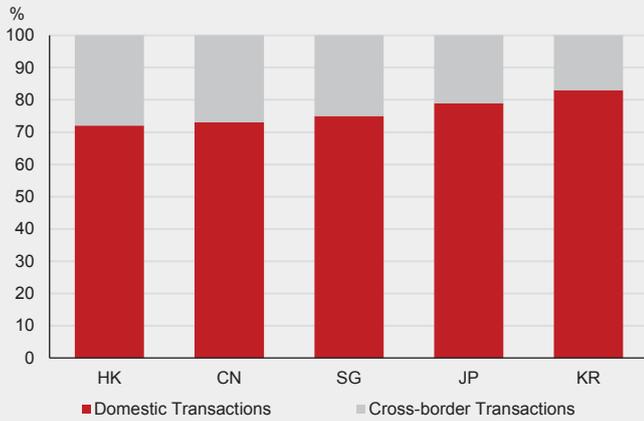


Rank	Route	Volume (USD Million)
1	United States to ASEAN	5,555
2	EU to ASEAN	2,330
3	United States to China	2,165
4	EU to China	1,621
5	Hong Kong to China	1,550
6	Japan to ASEAN	1,478
7	United States to Korea	1,370
8	ASEAN to ASEAN	1,232
9	United States to Japan	949
10	China to ASEAN	910

Sources: Orbis Crossborder Investment; and AMRO staff calculations.

Note: Data are based on deals with disclosed amounts, and only the ten largest inter/intra-regional flows in 2018 are reflected.

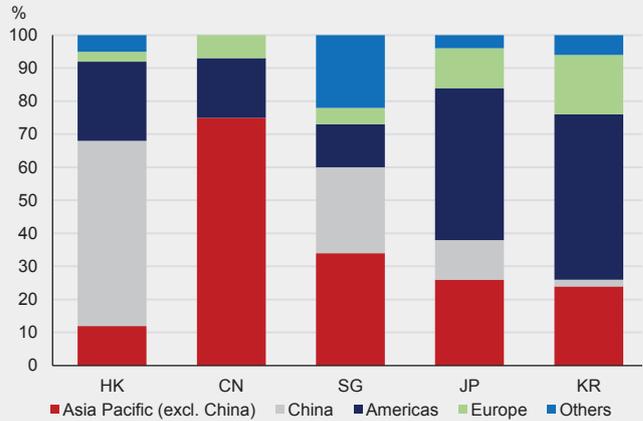
**Figure 2.1.5. Transaction Volume by Buyer Profile**



Sources: PwC (2019); and Real Capital Analytics.

Note: Average of 2012 to H1 2018.

**Figure 2.1.6. Cross-border Capital to Selected ASEAN+3 Economies**



Sources: PwC (2019); and Real Capital Analytics.

Note: Average of 2012 to H1 2018.

<sup>1/</sup> Singapore, Japan, Hong Kong and China have led the region's efforts in attracting foreign capital for building data centers, owing to the quality of their infrastructure (including important factors such as access to fiber optics and reliability of power supply). Meanwhile, "second wave" and "third wave" economies such as Malaysia, Indonesia and Cambodia are following suit by offering investors cheaper locations.

## 2 New Economy, Old Constraints? Three Gaps to Capacity and Connectivity

Developing economies, especially EMEs, face complex challenges in investing for the long-term. They relate to public infrastructure, human capital, and other intangibles that boost national productivity but are not themselves self-financing.

### Hard and Soft Infrastructure, Regional Connectivity

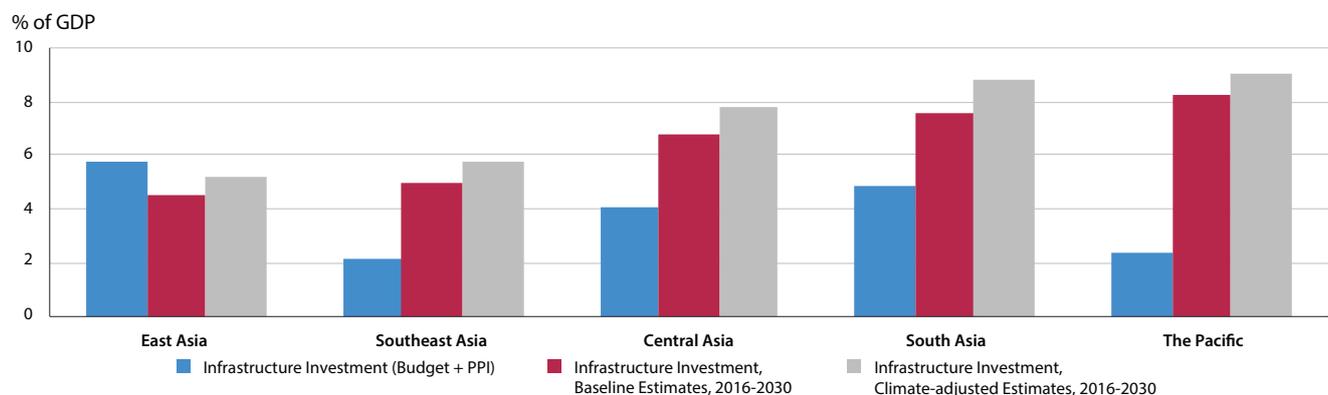
The ADB’s estimates of climate-adjusted infrastructure investment needs in developing Asia are not insignificant. The projected amount is about USD 26 trillion over the 15 years to 2030, or USD 1.7 trillion per year (Figure 2.19). These estimates cover physical infrastructure in transportation, energy, telecommunications, water and sanitation (ADB 2017). In Southeast Asia, the USD 3.15 trillion spending envisaged for that period would amount to 5.7 percent of GDP per annum. The region is currently only investing half of what is needed.

Rapid economic growth in the ASEAN+3 region will generate new infrastructure demand and magnify the projected investment shortfall. Several economies have in-country

infrastructure and connectivity that have not kept up with growth, and have fallen behind benchmarks for their stage of development. For example, between 2008 and 2018, Vietnam’s global ranking for quality of air transport infrastructure actually worsened from 89 to 103, while Thailand’s fell from 31 to 39 (Figure 2.20).

The consequences of climate change put countries with weak infrastructure at higher risk of lower growth. They will be more vulnerable to and suffer more damage from natural disasters, with unbudgeted spending on disaster relief and reconstruction putting further stress on already-burdened fiscal and external positions.

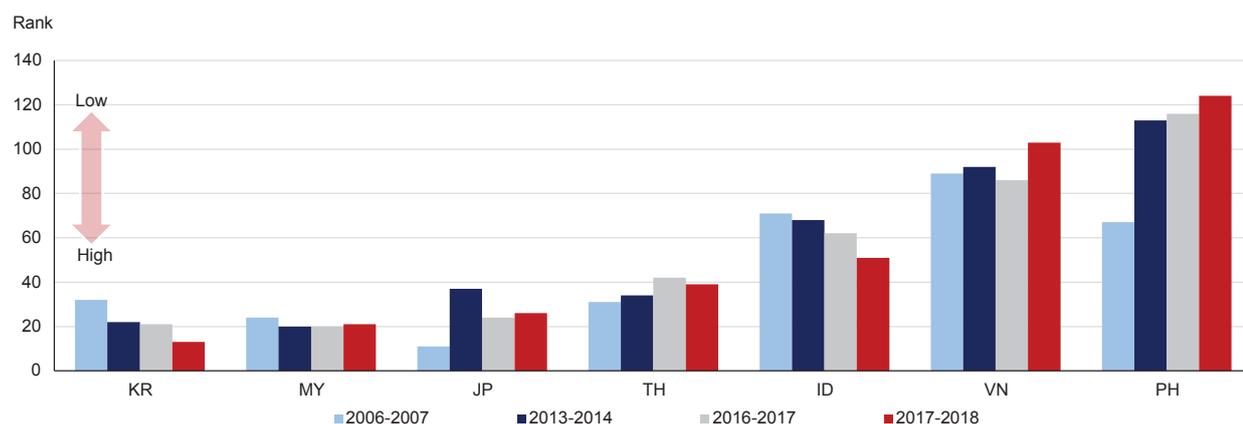
**Figure 2.19. Infrastructure Development Needs in ASEAN+3 Economies**



Source: ADB (2017).

Note: In this case, East Asia comprises China, Hong Kong, Taipei, China, Korea and Mongolia; Southeast Asia comprises Indonesia, Malaysia, Thailand, the Philippines, Singapore, Brunei, Cambodia, Lao, Myanmar and Vietnam.

**Figure 2.20. Selected ASEAN+3 Economies: Quality of Air Transport Infrastructure**



Source: World Economic Forum.

Soft infrastructure investment is equally important for unleashing the region's economic potential. Measurements of soft infrastructure, and investment spending needed to lift the quality of these intangibles, are harder to come by. The impact of soft infrastructure is probably most evident when it is lacking. Elements of soft infrastructure are closely connected, and intertwined with the effectiveness of hard infrastructure and productive capacity: for example, financial connectivity requires facilitative legal/regulatory framework for cross-border payments, and schools and hospitals go hand-in-hand with the education and healthcare systems respectively.

The regional public good (RPG) nature of transnational infrastructure—both hard and soft—exacerbates its underinvestment. The ADB has highlighted that cross-border (hard) infrastructure creates spillovers and externalities, and benefits that are difficult to attribute to specific countries and allocate costs to (ADB 2018a). Without collective action by countries, narrowly conceived national interests or the high costs involved will result in an undersupply of RPGs. In the area of soft infrastructure, government-level commitment to resolve cross-border issues—to facilitate services connectivity and value chains—is even more critical.

The CLMV countries, starting from a low base, have done very well in developing their economies based on the

traditional manufacturing-for-exports growth strategy but moving up the manufacturing value chain will be a challenge. The 4IR has pushed them further away from the technological frontier. In many sub-sectors of manufacturing, workers have difficulty upgrading to more technologically advanced methods. According to World Bank data, Cambodia's and Myanmar's experience with the textiles, clothing and footwear (TCF) sector is one example where high-skilled and technology-intensive manufactured goods account for very small shares of their manufactured exports (0.4 percent for Cambodia in 2016 and 6.1 percent for Myanmar in 2017).

Underinvestment in infrastructure has also started to impinge on growth in other ASEAN economies. In the Philippines, it has prompted the formulation and execution of the "Build Build Build" program, an ambitious undertaking to raise infrastructure investment by about 2 percentage points of GDP per annum between 2017 and 2022. Indonesia has been implementing an ambitious infrastructure-building program (222 National Strategic Projects and 3 programs) at an estimated cost of USD 303.1 billion or 29.1 percent of GDP over 2015–2019, although implementation could extend past 2020 (AMRO 2018b). Indeed, implementation has been constrained by macroeconomic stability considerations and has compelled the government to mobilize more fiscal revenue in order to fund the infrastructure investment program.

## Three Gaps, Three ASEAN+3 Clusters

There are three "gaps" that affect progress in infrastructure development. The most oft-cited difficulty in ensuring sufficient infrastructure investment is the financing constraint—represented by the traditional **funding gap**, and also what this chapter will refer to as the **foreign exchange gap**. The **factors gap** captures the non-financial constraints—the ability to carry out infrastructure projects (when financing has been secured) hinges on effective project management, availability of the requisite manpower, and the expertise and technology employed. Soft infrastructure is inextricably linked with human capital development, and impacts the country's ability to tap on the enhanced capacity for economic growth. The funding, foreign exchange, and factors gaps have affected ASEAN+3 economies differently, as a result of their different starting points and uneven progress in addressing the gaps (Khor, Poonpatpibul and Foo forthcoming).

### The Funding Gap

The funding gap is simply the shortfall between what is required for domestic investment (including public infrastructure), and what is available from domestic

savings. A funding gap can be bridged by capital inflows—in the form of foreign investment, or loans from abroad (at concessional or commercial terms). Its significance varies across the different groups of countries in the region.

The funding gap is less relevant in the HI-A economies as they have invested heavily in the past—both public and private spending—to build productive capacity. These economies have achieved levels of human capital and social development commensurate with their income status. They ran current account deficits in the early years of their development (1960s to 1980s, and up to 1990s in the case of Korea), but their national savings are now more than sufficient to fund domestic investment needs. However, there is an urgent need, even in these economies, to continue to invest in the new digital economy and adapt to an ageing population. Policymakers in these countries also grapple with the implications of technology and new value-chains for employment norms and social equity issues, and how to reconfigure public infrastructure and services for an ageing population.

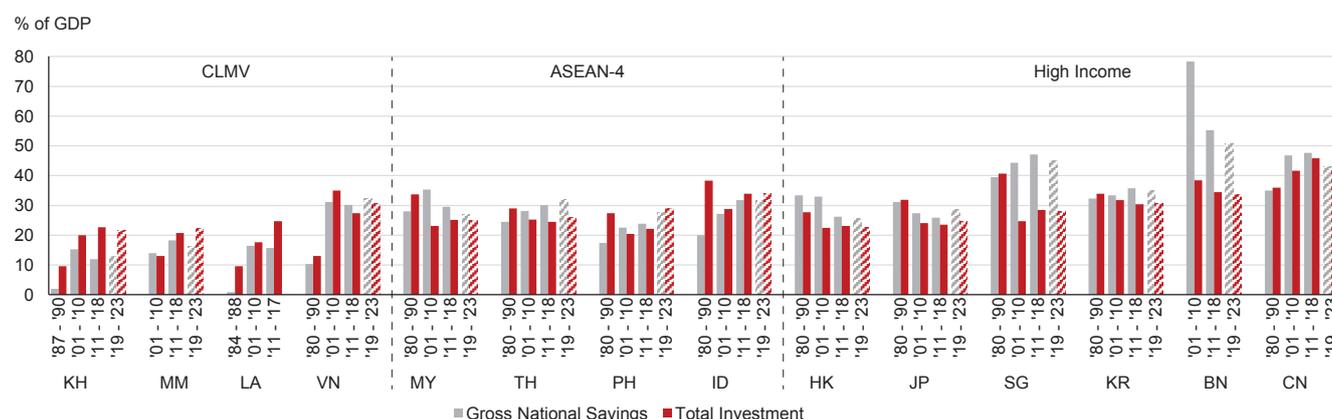
In the CLMV economies, low domestic saving rates impose a real funding constraint on infrastructure investment (Figure 2.21 and Box 2.2). These countries run relatively large current account deficits, reflecting their dependence on funding from abroad. As projects that cannot be financed will be deferred or shelved, the actual or ex ante impact of the funding gap on capacity building in the CLMV economies could be larger than is indicated by the observed or ex post savings-investment gap.

Aid financing that CLMV economies stand to receive from MDBs (World Bank, ADB) would address only a small fraction of their respective funding gaps. The financial resources of MDBs are grossly insufficient to meet the bulk of infrastructure building needs of developing economies, and many countries are wary of contributing more of their own finances to multilateral institutions despite recognizing that infrastructure generates shared benefits. For example, the ASEAN Infrastructure Fund (AIF), established by the ADB

and ASEAN members in 2011 to provide USD 300 million a year in loans for infrastructure projects, would barely make a dent in the estimated USD 600 billion funding gap for physical connectivity up to 2030.

The nature of public infrastructure projects—its long gestation period, and uncertainty over future cash flows—makes private financing particularly challenging for developing economies. The technical considerations of infrastructure projects add to the difficulty in securing financing through the planning, building, and operational phases, given that equity investors would typically require more information and expertise (Ehlers 2014) (Table 2.3). Not surprisingly, debt rather than equity is the predominant mode for infrastructure financing; equity participation rates in public-private partnership projects have typically ranged from 25 percent to 35 percent (ADB 2017; Ehlers 2014). Banks considering loans normally ask for government guarantees even for World Bank- or ADB-led projects.

**Figure 2.21. ASEAN Economies: Savings and Investment**



Sources: IMF; and AMRO staff calculations.

Note: Brunei's investment data are available from 1995. Cambodia's and Myanmar's savings and investment data are available from 1986 and 1998 respectively. Lao's data are obtained from the World Bank (without projection).

**Table 2.3. Financing and Technical Considerations: Different Phases of Infrastructure Projects**

Phase	Economic and Contractual Issues	Financial Characteristics	Potential Investors
Planning	<ul style="list-style-type: none"> <li>Tight written contracts</li> <li>Planning 10-30 months</li> <li>Credit ratings and guarantees are needed.</li> </ul>	<ul style="list-style-type: none"> <li>Need to find equity investors &amp; debt investors</li> <li>Debt investors who commit early demand high price.</li> </ul>	<ul style="list-style-type: none"> <li>Equity sponsors need to have high level of expertise – often constructors or governments.</li> <li>Debt investors tend to be banks.</li> </ul>
Construction	<ul style="list-style-type: none"> <li>Close monitoring is required.</li> <li>Effective dispute resolution mechanism is needed.</li> </ul>	<ul style="list-style-type: none"> <li>High-risk phase: risk of default and other adverse events</li> </ul>	<ul style="list-style-type: none"> <li>Hard to get refinancing or additional financing if gaps are found.</li> </ul>
Operational	<ul style="list-style-type: none"> <li>Ownership structure must be clear.</li> <li>Cash flow management is important.</li> </ul>	<ul style="list-style-type: none"> <li>Cash flows need to more than cover debt repayment.</li> </ul>	<ul style="list-style-type: none"> <li>Bonds are natural choice for refinancing needs.</li> </ul>

Sources: Ehlers (2014); and AMRO staff.

The hurdle rates (typically upward of 18 percent per annum) for equity participation by private investors would render most infrastructure projects commercially unviable. The CLMV economies have been able to access long-term financing at concessional (or partially concessional) terms from MDBs and donor countries, especially China and Japan—including under China’s Belt and Road Initiative (BRI) and Japan’s Partnership for Quality Infrastructure (PQI). However, while MDB and donor financing usually comes with below-market interest rates—including the 3–6 percent associated with the BRI projects, or Japanese aid financing at 0–3 percent—there is no certainty that the debt repayments can be recovered from actual revenue streams, even if the projected economic returns justify the investment.

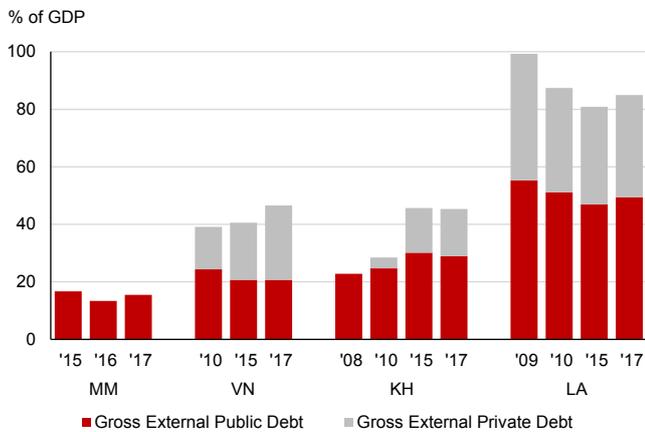
Some CLMV governments have been conservative in taking on additional foreign debt to finance infrastructure projects. They are mindful of the risks, and aware of the limitations imposed by their own economies’ absorptive capacity (elaborated later in the “factors” gap) (Figures 2.22 and 2.23):

- **Cambodia:** Gross long-term external debt at 45.3 percent of GDP in 2017 (of which external public debt accounted for 28.9 percent);<sup>6</sup> currently the “poster country” of foreign infrastructure financing.

- **Lao PDR:** Gross external debt at 84.9 percent of GDP (of which external public debt accounted for 49.5 percent), and some of this debt are bonds issued in the Thai capital market; much of the funding went into hydro dam projects with long (10–20 years) back-loaded revenue stream.
- **Myanmar:** External public debt accounted for 15.5 percent of GDP in 2017.
- **Vietnam:** Public debt close to ceiling of 65 percent of GDP and gross external debt at 46.6 percent of GDP (of which external public debt accounted for 20.7 percent); graduated to middle income status and losing access to concessional loans.

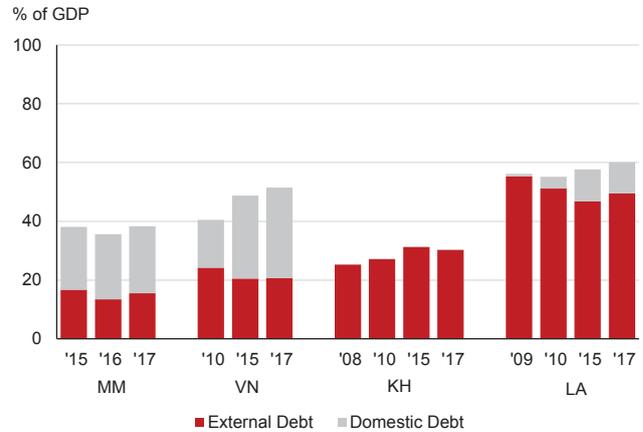
The ASEAN-4 economies generally save more than they invest and, prima facie, do not have a funding gap. Current account balances over the last 20 years in these countries showed an overall surplus, averaging 3.4 percent of GDP. The nature of the financing constraint faced by this group of countries is referred to in this chapter as the “foreign exchange gap.”

**Figure 2.22. Gross External Debt in CLMV**



Sources: National authorities; the World Bank; ARTEMIS; and AMRO staff calculations.  
 Note: Cambodia’s external debt in this chart refers to long-term external debt only, as total external debt does not have detailed breakdown. Each country’s period inconsistency is due to data constraint.

**Figure 2.23. Total Government Debt in CLMV**



Sources: National authorities; the World Bank; ARTEMIS; and AMRO staff calculations.  
 Note: Cambodia’s external debt in this chart refers to total external debt. Each country’s period inconsistency is due to data constraint.

<sup>6</sup> Given data constraints (lack of detailed breakdown of total external debt), data from the World Bank’s International Debt Statistics are used in Figure 2.22. However, according to the authorities’ data, external public debt was 30.2 percent of GDP in nominal terms or 21.4 percent of GDP in present value terms in 2017”.

### The Foreign Exchange Gap

The foreign exchange gap describes the financing constraint that emerging economies face because of the need to mitigate the risk of sudden capital outflows by accumulating large foreign exchange reserves. The ASEAN-4 economies are no longer eligible for concessional loans and grants from MDBs and official donor agencies, but they have ready access to FDI, and to capital markets and foreign loans to meet domestic funding gaps. Their open capital accounts and the small size of their domestic financial markets relative to global markets mean that they are more vulnerable to financial shocks compared to advanced economies with more sophisticated and deeper financial markets. Indeed, their checkered history during the AFC, coupled with the volatile nature of capital flows today, suggest—rightly or wrongly—that the MI-ASEAN economies are more financially constrained in public infrastructure spending than is warranted by the savings-investment gap.

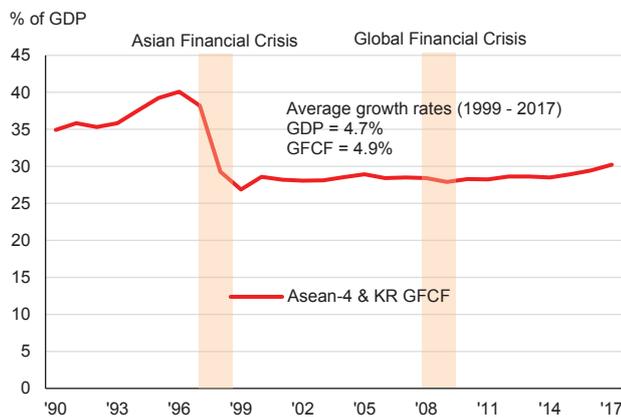
### Legacy of the Asian Financial Crisis: Save First, Invest Later

One immediate consequence of the AFC was the collapse in both public and private investment in the ASEAN-4 economies and Korea as governments, banks, and corporates

focused on repairing and strengthening their balance sheets. The affected countries—by IMF program design, or by choice—adopted policies that leaned towards boosting savings and investor confidence, even if this meant deferring much-needed investment spending (Figure 2.24). From probably too high levels of investment, particularly in real estate and mega projects in the years preceding the crisis—funded by mostly foreign-currency bank borrowing—the region has “undershot” for the past two decades. As a result, ASEAN economies went from incurring large current account deficits before the AFC to building up large surpluses after the crisis. They prepaid their debt to the IMF and other creditors and set out to build up foreign reserves as a form of self-insurance against future balance of payments crises (Figure 2.25). The result was significant underspending on infrastructure critical for long-term growth.

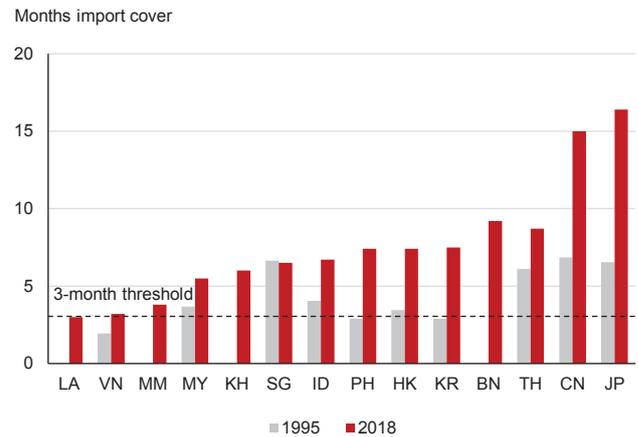
During the AFC, foreign currency loans in Korea and the ASEAN-4 crippled the economies when domestic currencies depreciated sharply against the U.S. dollar and debt repayment became unsustainable. Hence, one lesson from the AFC was that countries should minimize or mitigate currency mismatch risks when they need to borrow and to finance projects. Korea, Indonesia, Malaysia and Thailand have since made impressive strides in developing their domestic capital markets and successfully issued local-currency-denominated bonds to finance their fiscal deficits and fund development projects.

**Figure 2.24. ASEAN-4 and Korea: Investment as Percent of GDP**



Sources: World Bank; and AMRO staff calculations.

**Figure 2.25. Foreign Reserves Coverage of ASEAN+3 Economies**



Sources: National authorities; World Bank; and AMRO staff calculations.

### External Risks

However, the liquidity, maturity mismatch, and rollover risks inherent in project financing cannot be fully resolved. The risks are inherent as long as creditors and investors have the option to redeem or not roll-over the principal before the project becomes financially viable and able to service the debt. While these risks are present in any credit intermediation, including domestic bank lending, they are accentuated if the bonds are held by foreign portfolio investors who are out to maximize risk-adjusted returns. Not surprisingly, ASEAN-4 economies have focused on building up foreign reserves, beyond what is required for import cover. The question remains: how much is enough? Until countries can resolve financial stability concerns associated with foreign capital inflows, the answer may be that it is never enough.

The foreign exchange gap captures the tension between growth and stability that has persisted in the ASEAN-4 economies for the last 20 years, after the AFC. In other words, these countries saved—and continue to save—and run stronger current account balances than might be optimal from an investment and growth perspective. Commenting on the policy bias that equates economic stability with savings and current account surpluses, and war chests of foreign reserves, some ASEAN authorities have expressed exasperation at the “unfairness” of the market in demanding such a high standard of financial prudence. Others, who recall the painful post-AFC years of rebuilding confidence through fiscal prudence and shoring up foreign reserves, have echoed similar sentiments.

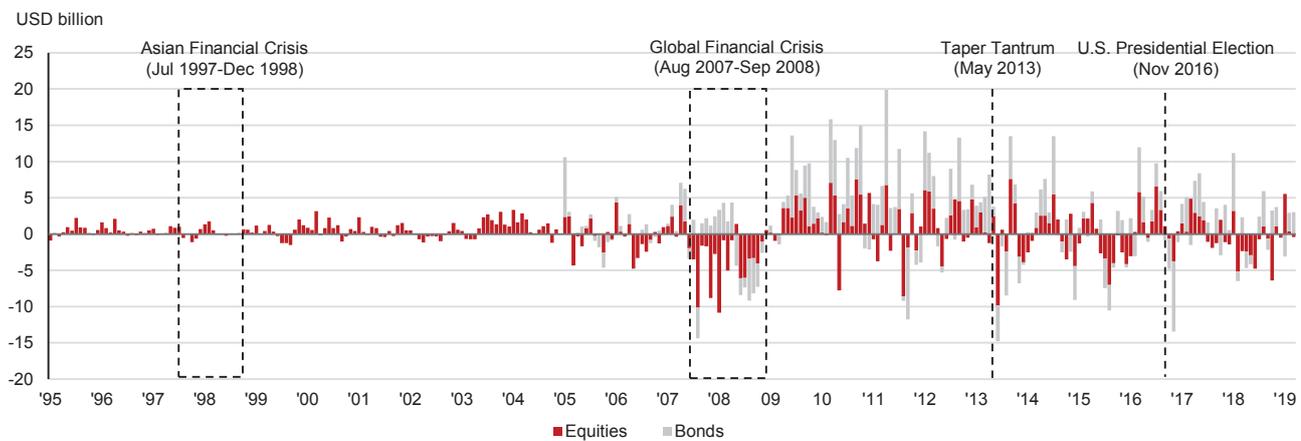
More broadly, the global financial environment in the past two decades has been unfavorable for long-term investments. The rapid growth of the asset management industry, and greater

volatility in investor sentiment and global capital flows, mean that emerging market and small open economies are highly vulnerable to the risk-on/risk-off behavior of portfolio investors who herd in and out of financial markets. Global financial markets have been quick to punish individual countries or entire (sub-) regions for not adhering to strict macroeconomic and financial policies by halting or reversing capital flows. Even a heightening in general risk aversion globally is often enough to trigger “sudden stops” in capital flows to emerging market economies, including those in the ASEAN region. The Taper Tantrum of 2013, the U.S. presidential election of 2016, and the global market sell-off of 2018 are cases in point. Each time, emerging market regions, including ASEAN, have experienced substantial shifts in capital flows (Figure 2.26).

In the CLMV economies, access to long-term project financing earmarked for infrastructure projects mitigates, for now, the foreign exchange gap. However, as they graduate from low-income to middle-income status, the lessons learned the hard way by their ASEAN-4 neighbors will not go unheeded, and may explain why the CLMV are even now taking a cautious approach to assuming additional debt.

The 2018 Report of the G20 Eminent Persons Group (EPG) recognizes that excessive volatility in financial markets “can lead to responses that hurt growth, both nationally and regionally” (Global Financial Governance 2018). Urgent reforms of the global financial architecture are needed for the developing world to fully utilize domestic financial markets and international capital flows to finance investments and growth. Until and unless an effective global financial safety net is in place, the incentive remains for countries to avoid or reduce current account deficits even when they are needed for investment and growth, and to “self-insure” by accumulating ever more reserves.

**Figure 2.26. Capital Flows to ASEAN-5 and Korea**



Sources: National authorities; and AMRO staff calculations.

## The Factors Gap

Financing is not the only constraint to building capacity and connectivity. The “factors gap” in the CLMV economies, and the ASEAN-4 economies to varying extent, discourages infrastructure investments in general, and impede the effective and timely implementation of infrastructure projects.

The G20 EPG Report has identified governance capacity and human capital as key constraints that must be addressed for a stronger investment climate. Leakages through waste and corruption undermine domestic resources and foreign funding that can be channeled to infrastructure projects. Project management without due regard to labor and skills requirements will run into difficulties. A factors gap could exacerbate the funding and foreign exchange gaps that host governments already face, if unbudgeted spending needs to be set aside to import workers and professionals, or to pay for foreign technology and equipment.

The gap in skilled labor is especially stark in the CLMV economies, which rank below the global-average in the World Economic Forum’s human capital development index (Figure 2.27). Particularly in Cambodia, Laos and Myanmar, low healthcare spending and chronic underinvestment in education, and the limited availability of skilled labor (Figures 2.28–2.30), are now impinging on these countries’ capacity for further growth catch-up and development. In response, efforts are now underway to ramp up investment in these areas significantly. In Cambodia for example, total expenditure on the social sector reached around 7.0 percent of GDP in 2018, up from 4.6 percent in 2013. Current expenditure on education increased from 1.6 percent of GDP in 2013 to 2.7 percent of GDP in 2017, and if capital expenditure is included, public spending

on education sector increased to 3.1 percent of GDP.<sup>7</sup> In contrast, Hong Kong, Korea, Japan, and Singapore have systematically upgraded and raised the quality of education throughout the past few decades.

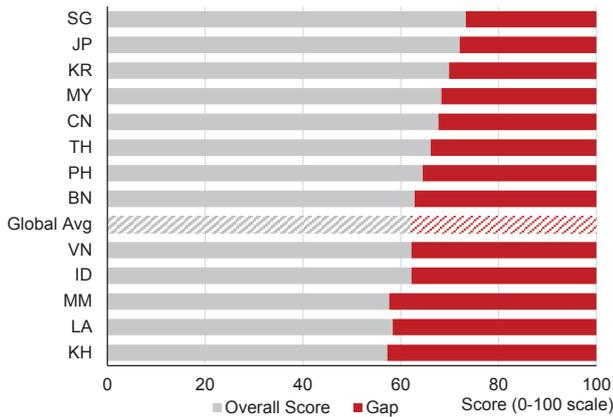
The overall regulatory framework, and the legal protection of IPR and owners’ and investors’ rights need to be strengthened for private debt or equity financing to take hold (Figure 2.31 and 2.32). This is the case not only in the CLMV, but also in ASEAN-4 economies that must look to private sector participation or partnership to meet funding and foreign exchange gaps. Recognizing the importance of IPR, ASEAN member states have adopted the ASEAN IPR Action Plan 2016-2025. It builds on the previous IPR action plans (2004 – 2010 and 2011 – 2015<sup>8</sup>), and has four strategic goals: (1) strengthening IPR Offices and building IPR infrastructures in the region; (2) developing regional IPR platforms and infrastructures; (3) developing an expanded and inclusive ASEAN IPR Ecosystem; and (4) enhancing regional mechanisms to promote asset creation and commercialization, particularly geographical indications and traditional knowledge.

Even after projects are completed, realizing the growth dividends from new infrastructure will not be straightforward if the factors gap remains unresolved. Labor, capital and expertise are required to maintain and run the facilities, and regional agreements and regulatory frameworks are needed for new services such as fin-tech and e-commerce to operate smoothly and expand, especially across borders. The ultimate success of infrastructure spending depends on the demand for the enhanced capacity, and the robustness of the project feasibility study, i.e. whether the cost estimates were adhered to and the revenue projections realistic.

<sup>7</sup> Cambodia has also launched the third health strategic plan 2016-2020 to provide quality, effective and equitable health services, and piloted the Skill Development Fund to improve the quality of skill training.

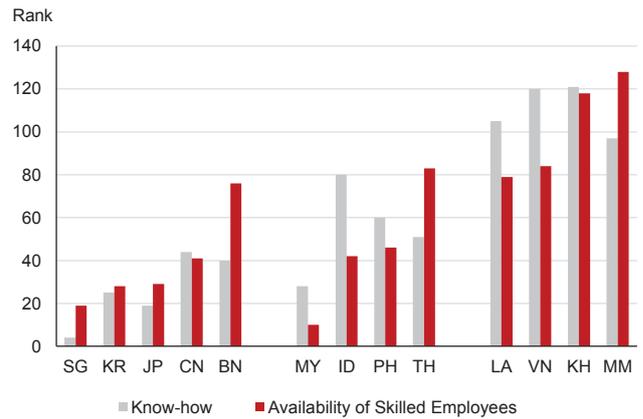
<sup>8</sup> According to a speech delivered by the Chief Executive of the Intellectual Property Office of Singapore as of March 21, 2016, more than 80 percent of the 108 deliverables (or 28 initiatives) in the ASEAN IPR Action Plan 2011-2015 have been completed. Additional updates from the Seminar on Trademarks and Madrid Protocol held in May 2015 indicated that Cambodia and the Philippines have become members of the Madrid Protocol, following Singapore and Vietnam – the only ASEAN countries which were members of the Protocol before 2011. Accession to the Madrid Protocol is one of the initiatives under the ASEAN IPR Action Plan 2011 – 2015.

**Figure 2.27. Gap in Human Capital Development, 2017**



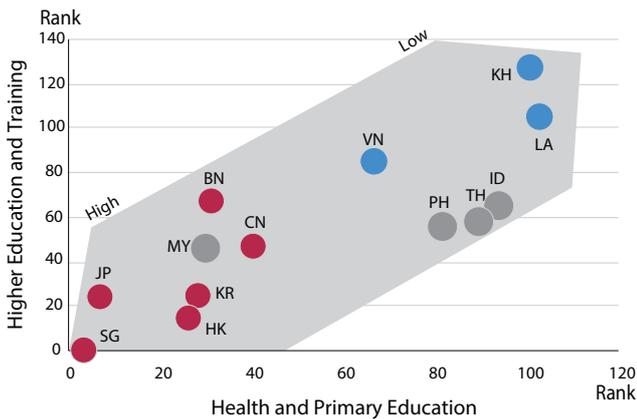
Source: World Economic Forum (2017a).  
 Note: Grey bar is the overall score of the human capital index. Red bar represents gap in human capital development, which is the “distance to the ideal state”, or to simply put the difference between the overall score and the ideal score of 100.

**Figure 2.28. Availability of Skilled Employees and Know-how Rankings, 2017**



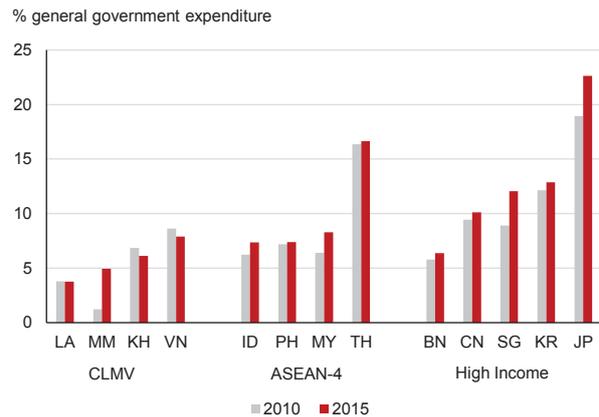
Source: World Economic Forum (2017a).  
 Note: Availability of skilled employees is business leaders’ perceptions of the degree to which in their country of residence companies on average are able to find the skilled employees. Know-how refers to the breadth and depth of specialized skills used at work.

**Figure 2.29. ASEAN+3: Global Rankings in Health, Education and Training, 2017–2018**



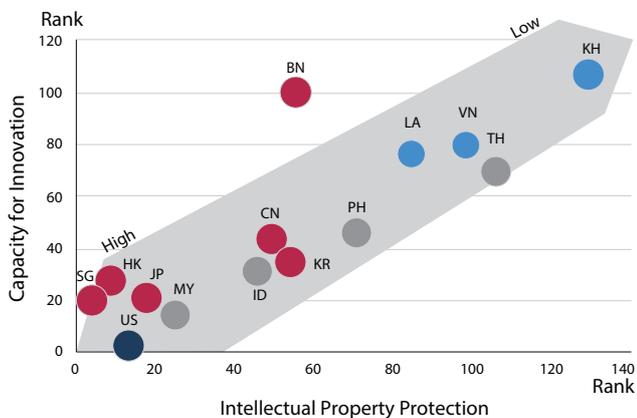
Source: World Economic Forum (2017b).  
 Note: No data are available for Myanmar.

**Figure 2.30. ASEAN+3: General Government Expenditure on Health**



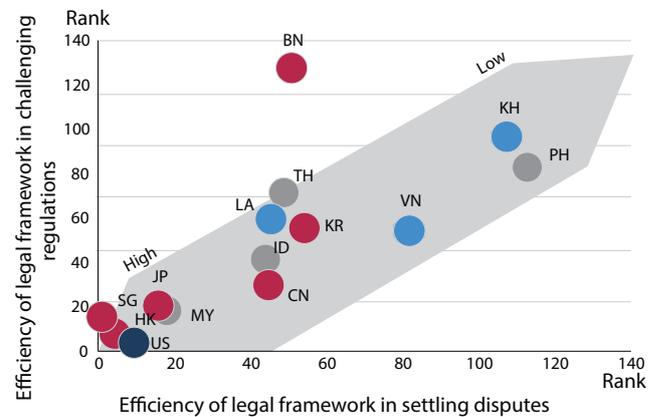
Source: World Health Organization.  
 Note: Japan data as of 2014, No data are available for Hong Kong.

**Figure 2.31. ASEAN+3 and Comparators: Capacity for Innovation and Intellectual Property Protection, 2017–2018**



Source: World Economic Forum (2017b).  
 Note: No data are available for Myanmar.

**Figure 2.32. ASEAN+3 and Comparators: Legal Framework, 2017–2018**



Source: World Economic Forum (2017b).  
 Note: No data are available for Myanmar.

## Box 2.2.

### Infrastructure Investments and Implications for Growth in the Region

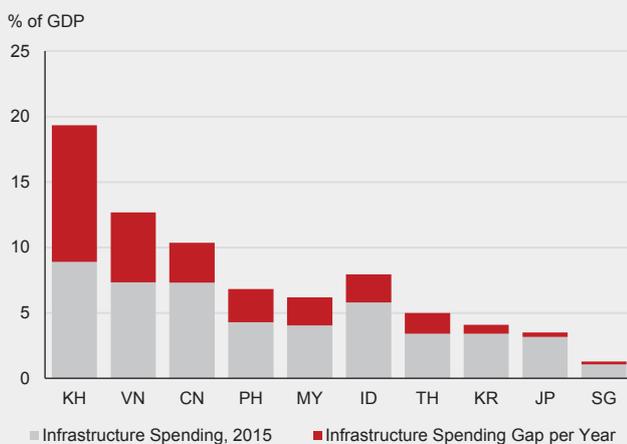
Infrastructure investments have played a critical role in enabling countries in the region to achieve high levels of growth over the past several decades. Increases in hard infrastructure investments, such as roads, railways and utilities, which entail additional government spending, directly improve GDP growth in the near-term. Over the longer-term, the infrastructure projects would also indirectly boost productivity by reducing commuting and transaction costs while enhancing the growth potential of the overall economy. In ASEAN, large infrastructure investments in the 1970s and 1980s—in tandem with sustained FDI inflows from Japanese firms and multinational corporations from the United States and Europe—helped catalyze their manufacturing-for-exports strategy, which has underpinned growth and development (AMRO 2019). The resulting knowledge spillovers and productivity-enhancing attributes of FDI would have also expanded the capabilities of the workforce and indigenous firms, further increasing the growth potential of these countries.

However, significant gaps in infrastructure spending remain, particularly among the developing economies. As a result of foreign reserves accumulation in the aftermath of the AFC, investment in infrastructure was cut and the resulting underinvestment has likely constrained the region's growth potential (AMRO 2019). A recent study by Oxford Economics (2017) into 7 sectors spanning 50 countries out to 2040 shows that the infrastructure spending needs in the region are significant but vary

across countries. The infrastructure spending gap per year over the next two decades is large for the developing countries such as Cambodia and Vietnam, but is relatively small for high-income countries, such as Korea, Japan and Singapore, which have benefited from sustained and ongoing high-quality spending (Figure 2.2.1). Meanwhile, the infrastructure needs for countries such as China and the ASEAN-4, which average 2 percent of GDP per year, mostly reflect the required spending on new railway and highway networks connecting urban centers both within and across border (AMRO 2019).

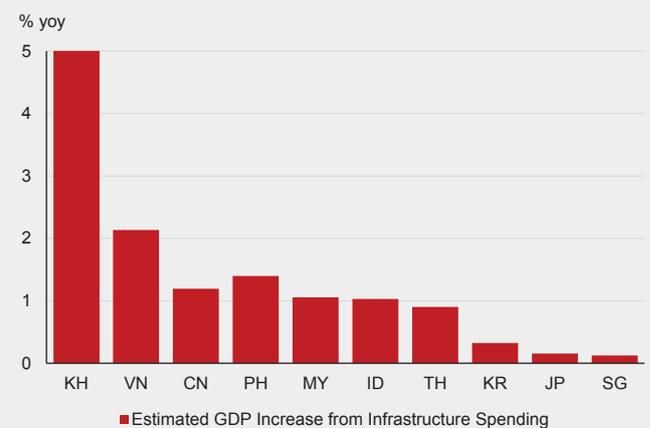
Over the longer-term, AMRO staff simulations show that regional countries' GDP would increase if countries' infrastructure spending gaps were addressed. Using the Global Trade Analysis Project model, AMRO staff simulations show that the total direct and indirect contributions from additional infrastructure investments to GDP would be significant assuming countries' infrastructure spending gaps were to be fully met. For example, the boost to GDP for Cambodia and Vietnam would be the largest among countries in the region, increasing by 5.0 and 2.1 above the current GDP baseline, respectively, over the longer-term. Meanwhile, the additional boost to growth for China and the ASEAN-4 would be smaller, ranging from 0.9–1.4 percent. Hence, concerted effort is needed to address these existing infrastructure gaps, including by leveraging on the financing options and expertise available in the region.

**Figure 2.2.1. Infrastructure Spending in 2015 and Gap per Year**



Sources: Oxford Economics; Global Trade Analysis Project; and AMRO staff estimates.

**Figure 2.2.2. Simulated Increase in GDP above the Baseline**



### 3 Bridging the Gaps: ASEAN+3 for ASEAN+3

The G20 EPG Report puts forward two key strategies to address the funding gaps for infrastructure investments in emerging economies. First, domestic savings provide the basis for long-term investments and financial resilience, and countries can improve domestic resource mobilization by strengthening public finance and tax collection. Second, private investment on a much larger scale is needed for infrastructure development. Given concerns about debt sustainability, greater emphasis should be given to risk mitigation and drawing on equity financing.

While there is some room at the margin to improve tax efficiency and increase domestic savings in the ASEAN+3, the greater challenge is how to effectively channel more funding into infrastructure projects. In the CLMV economies, the factors gap puts a constraint on their ability to translate concessional funding—when made available—to viable capacity-enhancing infrastructure projects. The ASEAN-4 economies have no funding gap per se, as they either have surplus savings or are able to borrow the requisite funds. However, they are constrained from directing more savings to long-term investments owing to very real concerns about the financial stability risks posed by potentially flighty capital inflows.

#### Leveraging on Intra-ASEAN+3 Investment to Meet Funding Gaps

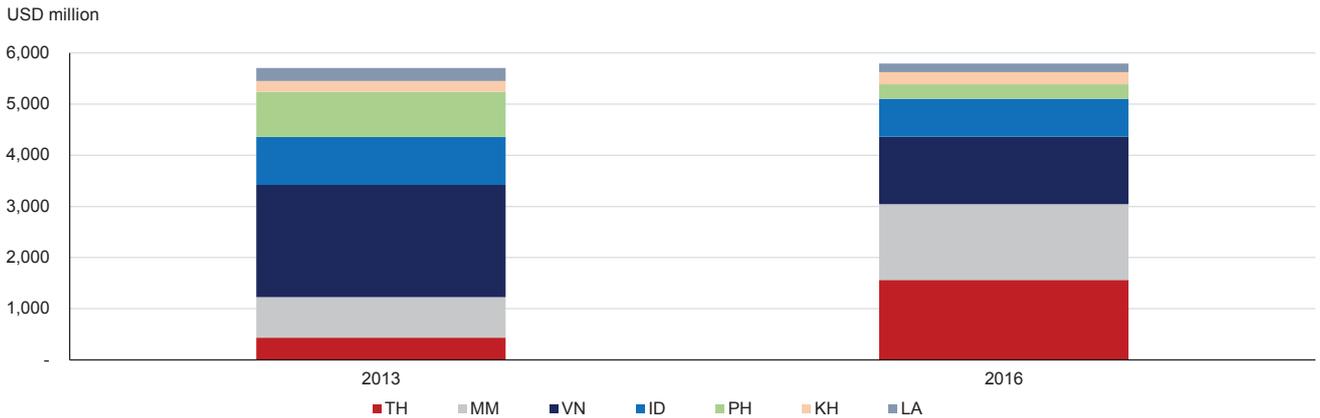
**There is scope for more long-term investments from ASEAN+3 economies to enhance capacity and connectivity across the region.** While there are pockets of funding gaps in the region, ASEAN+3 economies as a group ran a current account surplus averaging 2.3 percent of GDP over the 2011–2018 period. In the past, the region had been criticized for investing its surplus savings, in the form of reserves, in low-yielding financial assets in the United States and Europe, which are then channeled back to Asia by portfolio managers or investors in search of higher yields. Indeed, the HI-A economies place a substantial portion of their excess savings in portfolio investment in advanced economies, but they have also been investing in the region. China's BRI (Box 2.3), and Japan's PQI have helped to mobilize public and private resources for infrastructure projects in the region. Japanese development institutions, in particular, have provided funding for infrastructure investments in the regional countries for years, especially in Vietnam, and Myanmar is a major recipient of Japanese Official Development Assistance (ODA) (Figure 2.33). China has traditionally invested in natural resource and energy industries but more recently, has been investing in manufacturing and infrastructure projects (Figure 2.35).

The ASEAN+3 emerging market economies should continue to embrace the advanced countries which have remained the main drivers of investment in technology transfers and transition to the “new economy” for the region, especially the ASEAN-8 economies. It would be unwise

for the ASEAN+3 region to respond to trade and technology protectionism by enacting its own barriers to cross-border flows of economic and financial activity. Over the past five years, during which the 4IR has gathered momentum globally and the ASEAN+3 region had made significant progress in technological advancements, the United States and Europe have accounted for large shares of FDI into “new economy” sectors in the ASEAN-8 economies (Figure 2.36). In fact, the United States has substantially increased its overall FDI in ASEAN over the past decade (Figure 2.37). Within the region, Japan and Korea have been anchoring the bulk of FDI into these sectors, whereas China's outward direct investment to ASEAN has gone primarily to traditional “old economy” sectors and to infrastructure in CLMV economies (notably Cambodia and Lao PDR) (Figure 2.38). Much of Korea's substantial greenfield investments in the ASEAN-8 economies (Figure 2.39) have flowed to advanced manufacturing in Vietnam, while the United States accounted for half of all FDI in modern services in ASEAN in 2018 (Figure 2.36), with much of it going to Singapore, whereas its interest in traditional services in ASEAN is much more modest (Figure 2.40).

In addition to welcoming FDI from the United States and Europe and finding ways to keep flows coming from Japan and Korea, ASEAN economies should leverage more on the intermediation role played by regional hubs such as Singapore. On a direct basis, about 20 percent of the FDI to ASEAN economies has been from Singapore. It reflects, to a large extent, the preference of American and European firms to channel their investments via Singapore to ASEAN.

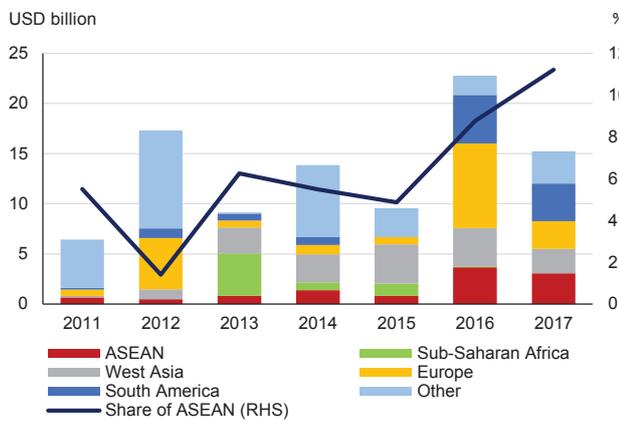
**Figure 2.33. Japanese Official Development Assistance**



Sources: National authorities; and AMRO staff calculations.

Note: ODA includes loan aid, grant aid and technical cooperation. Thailand data are as of 2015 and 2016; Lao data are as of 2013 and 2015.

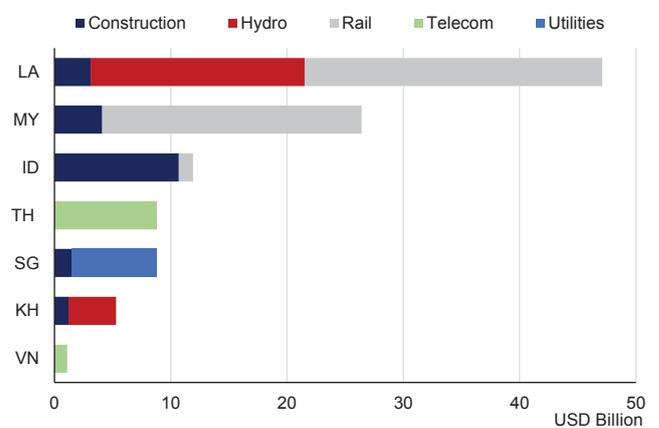
**Figure 2.34. China's Infrastructure Investment by Region**



Sources: American Heritage Foundation; and AMRO staff calculations.

Note: Immediate counterparty. Data for cumulative flows.

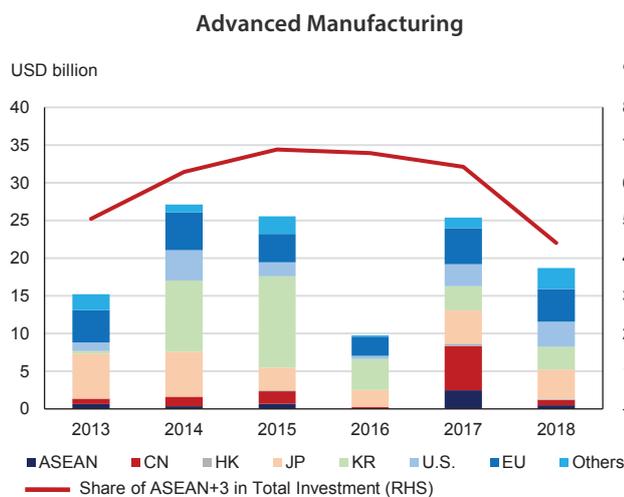
**Figure 2.35. China's Infrastructure Investment in ASEAN by Sector**



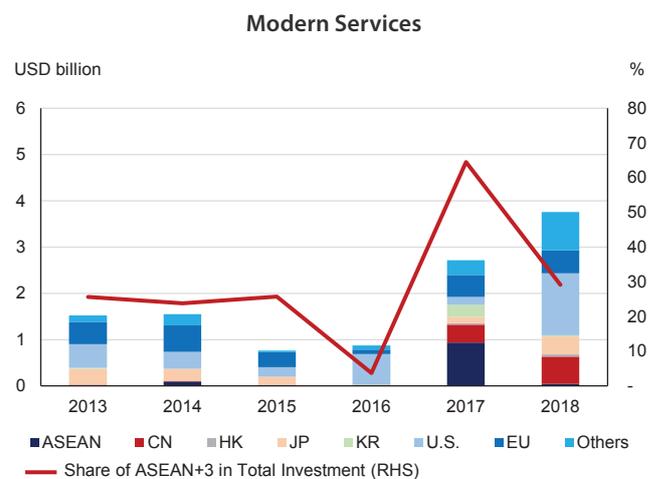
Sources: American Heritage Foundation; and AMRO staff calculations.

Note: Immediate counterparty. Data for cumulative flows from 2011 to H1 2018.

**Figure 2.36. Greenfield FDI into "New Economy" Sectors in ASEAN-8 Economies, by Source Country and Region**

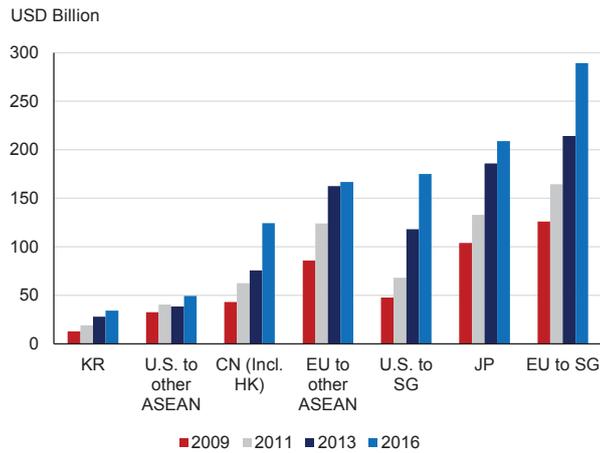


Sources: Orbis Crossborder Investment; and AMRO staff calculations.



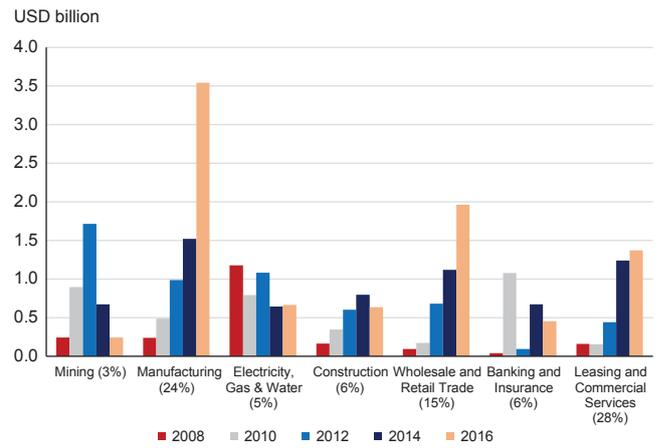
Sources: Orbis Crossborder Investment; and AMRO staff calculations.

**Figure 2.37. FDI into ASEAN Economies: Selected Source Countries and Regions**



Sources: IMF CDIS; and AMRO staff calculations.

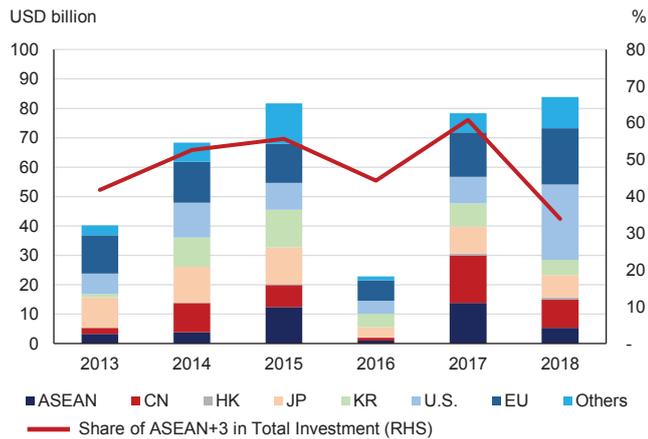
**Figure 2.38. China's Outward Direct Investment into ASEAN: Top Seven Sectors**



Sources: National authorities; and AMRO staff calculations.

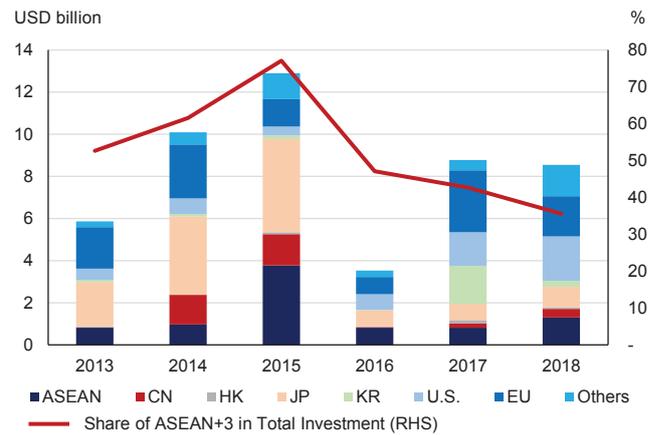
Note: The number in brackets for each sector, as shown on the horizontal axis of the chart, is the average share of that particular sector in China's total outward direct investment into ASEAN during the period 2014-2016/7.

**Figure 2.39. Greenfield Investments in ASEAN-8 by Source Country/Region: All Sectors**



Sources: Orbis Crossborder Investment; and AMRO staff calculations.

**Figure 2.40. Greenfield Investments in Traditional Services in ASEAN-8 by Source Country/Region**



Sources: Orbis Crossborder Investment; and AMRO staff calculations.

## Strengthening CMIM to Address the Foreign Exchange Gap

The G20 EPG Report highlights the need for an effective global financial safety net (GFSN), if developing countries are to benefit from capital flows while managing risks to financial stability. A standing liquidity facility to strengthen countries' ability to withstand short-term global liquidity shocks will help address constraints to infrastructure investment in the ASEAN+3 region due to the foreign exchange gap, that is, higher-than-optimal current account balances, and accumulation of reserves, as the price for being open to capital flows.

The CMIM is an RPG to provide a financial safety net for ASEAN+3 economies. Its predecessor, the Chiang Mai initiative (CMI), a loose network of bilateral swaps between central banks in the region, was established in 2000 after the AFC to supplement the facilities of the IMF, but was never called on. During the 2008–2009 GFC, Korea and Singapore entered into bilateral swaps with the U.S. Federal Reserve, while Indonesia secured funding with a consortium led by the World Bank. The CMIM evolved over time to become a regional self-managed reserve pooling arrangement. The bilateral swaps between central banks was multilateralized under a common agreement among all the ASEAN+3 central banks and the size of the facility expanded to USD 120 billion in 2011. A Stability Facility (CMIM-SF) was established in 2011 to provide short-term liquidity support to member economies, which are experiencing a temporary balance of payments difficulty or liquidity shortage. To support the CMIM, AMRO was established to undertake macroeconomic surveillance of regional economies and to provide analytical and policy advice in the event of a drawing on the CMIM

facility. The facility has since expanded to USD 240 billion, and a crisis prevention facility (CMIM-PL) was added in 2014 to provide a precautionary line of credit to countries that have relatively strong macroeconomic fundamentals but are at risk of being hit by a liquidity shock.

The CMIM's liquidity facility and crisis prevention role needs to be strengthened if it is to be a credible regional financial safety net. In particular, the facility must be ready and accessible at any time so that it is perceived by markets to be a credible and viable reserves buffer that can be used by countries to augment their reserves if necessary. Only then will it be effective in addressing the foreign exchange gap constraint faced by ASEAN emerging market economies. The first comprehensive review of the CMIM Agreement has just been completed by its members which will make the CMIM facilities more operationally ready when the revised CMIM Agreement comes into effect.

Strengthening AMRO's financial and macroeconomic surveillance is also critical in improving the readiness of the CMIM given that AMRO is required to provide an assessment of the macroeconomic performance of the requesting member. The role of AMRO in providing independent, professional and credible macroeconomic assessments of member economies is important in addressing the moral hazard concerns relating to the CMIM. Here, it is useful to remember the observation in the G-20 EPG report that "even well-run economies" are exposed to volatility risks and spillovers in today's highly interconnected global financial markets.

## Developing ASEAN+3 Professional Expertise, Technology and Institutions

The diversity in the levels of development of human capital, expertise and technology in ASEAN+3 economies provides scope for closer cooperation and collaboration to meet the factors gap while optimizing the deployment of and returns to the region's scarce resources. Increased mobility of professionals and skilled labor in the region will allow say, CLMV economies, to look to other ASEAN+3 economies to meet their skills and managerial gap, while providing fresh employment and career opportunities for professionals in slower-growing more advanced economies. This will require ASEAN to enhance mutual recognition agreements

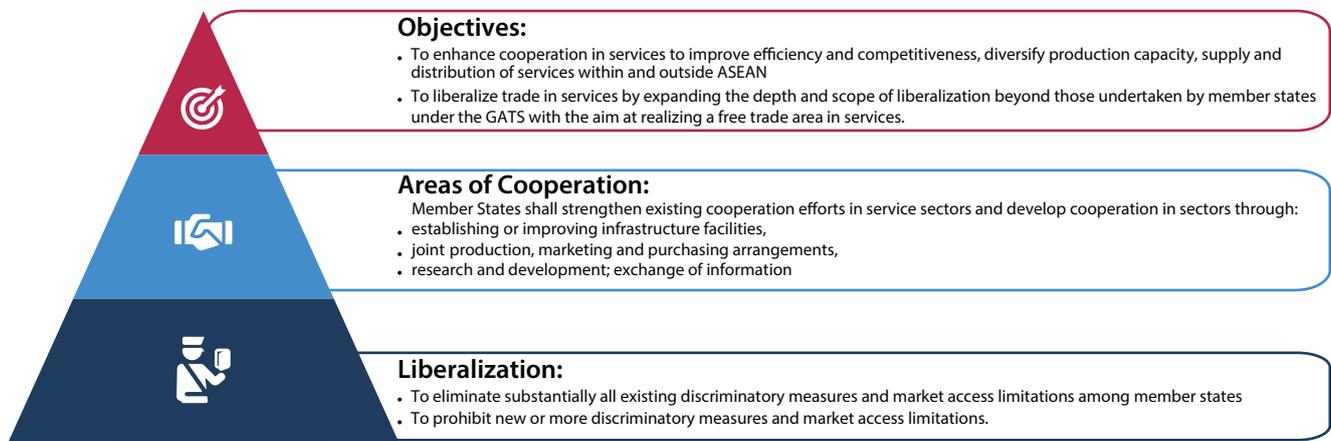
related to the movement of professionals. At the same time, the growth of freelance services in the internet economy gives a new meaning to skills mobility: professionals and technicians within the ASEAN+3 economies may be "matched" with the demand for their services without the need for physical mobility. As with physical cross-border movement of labor, the provision of services through the internet does not negate the need for governments to agree on a legal-regulatory framework to provide clarity on issues such as on minimum standards, licensing requirements, professional liability, and tax obligations.

The ASEAN Economic Community (AEC) Blueprint 2025 was adopted by ASEAN Leaders on 22 November 2015. It aims to promote, among other objectives, good governance, transparency, and responsive regulatory regimes, and wider ASEAN people-to-people, institutional, and infrastructure connectivity through projects that facilitate the movement of capital, skilled labor and talents (ASEAN 2015). The protocol to implement the tenth package of commitments under the ASEAN Framework Agreement on Services (AFAS) was signed on 29 August 2018, after more than two decades of painstaking efforts to deepen the liberalization of existing services and open up new services sectors for market access. The ASEAN Trade in Services Agreement (ATISA) (Figure 2.41) builds upon AFAS to enhance services integration in the region, and

when implemented, will make up the third and final part of the “troika” of ASEAN agreements to improve economic and sectoral integration—along with the ASEAN Trade in Goods Agreement (ATIGA) and the ASEAN Comprehensive Investment Agreement (ACIA).

While the United States continues to have a sizable technological leadership in the world, China, Japan, Korea and others in this region have made impressive advances. In a 2018 KPMG survey that saw the United States retain the top spot as the global tech innovation leader, China came in second; India was third, while the United Kingdom and Japan were joint fourth (KPMG 2018). Many ASEAN+3 brands have also become globally renowned (Figure 2.42).

**Figure 2.41. ASEAN Framework Agreement on Services**



Source: ASEAN Framework Agreement on Services (1995).

**Figure 2.42. ASEAN+3 Selected Brands**

ASEAN+3	Manufacturing	Services
	<ul style="list-style-type: none"> <li>• AAC Technologies</li> <li>• Anta</li> <li>• Dali Foods Group</li> <li>• Haier</li> <li>• Huawei</li> </ul>	<ul style="list-style-type: none"> <li>• Alibaba</li> <li>• Baidu</li> <li>• Tencent</li> </ul>
	<ul style="list-style-type: none"> <li>• Canon</li> <li>• Honda</li> <li>• Panasonic</li> <li>• Shiseido</li> <li>• Sony</li> </ul>	<ul style="list-style-type: none"> <li>• CyberAgent</li> <li>• Out-Sourcing!</li> <li>• Welcia</li> <li>• SMFG</li> </ul>
	<ul style="list-style-type: none"> <li>• Hyundai</li> <li>• Kia</li> <li>• LG Electronics</li> <li>• Posco</li> <li>• Samsung</li> </ul>	<ul style="list-style-type: none"> <li>• Amora Pacific Corporation</li> <li>• Lotte Confectionery</li> <li>• Netmarble Games</li> </ul>
	<ul style="list-style-type: none"> <li>• Batu Kawan Berhad</li> <li>• C.P. Group</li> <li>• Indofood</li> <li>• Petronas</li> <li>• San Miguel</li> </ul>	<ul style="list-style-type: none"> <li>• Capitaland</li> <li>• Grab</li> <li>• Singapore Airlines</li> <li>• Thegioididong</li> <li>• Vingroup</li> </ul>

Sources: AT Kearney; Forbes; and AMRO staff.

**Box 2.3.**

## ASEAN Connectivity and the Belt and Road Initiative: May A Hundred Flowers Bloom

The Master Plan for ASEAN Connectivity 2025 (MPAC), adopted by ASEAN heads of states/ governments in Vientiane in 2016, seeks to enhance physical linkages, institutional ties, and people-to-people exchanges towards achieving an integrated ASEAN community. Capacity and connectivity in this vision is built on five key elements: sustainable infrastructure, digital innovation, seamless logistics, regulatory excellence, and people mobility (Figure 2.3.1). Progress has been made in key areas, notably:

- The ASEAN Highway Network (AHN), which aims to establish efficient, integrated, safe, and environmentally sustainable regional land transport corridors linking all ASEAN Member States (AMS) and neighboring countries.
- The Singapore-Kunming Rail Link (SKRL), with the on-schedule implementation of the sections from Singapore to Phnom Penh.
- The ASEAN Power Grid (APG), with nine power interconnection projects already completed.
- The Trans-ASEAN Gas Pipeline (TAGP), with 13 bilateral gas pipelines.
- The ASEAN Single Aviation Market (ASAM).
- The ASEAN Single Shipping Market.

**Figure 2.3.1. Master Plan for ASEAN Connectivity 2025**

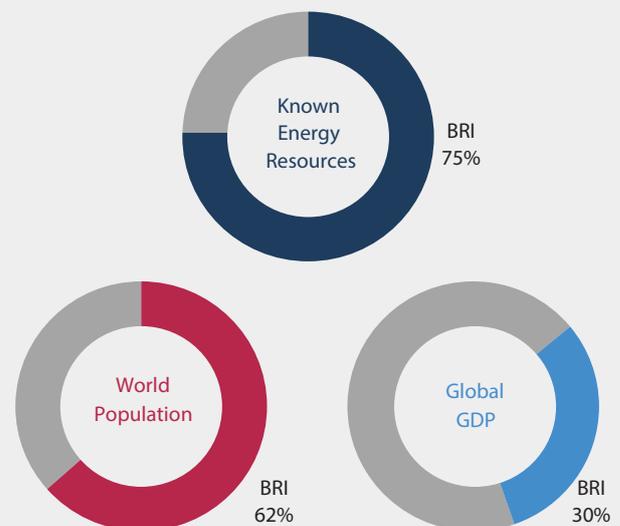


Source: ASEAN (2016).

However, the financial resources and technical knowhow to meet ASEAN’s infrastructure development needs over the next two decades remain daunting, and will exceed the capacity of individual countries.

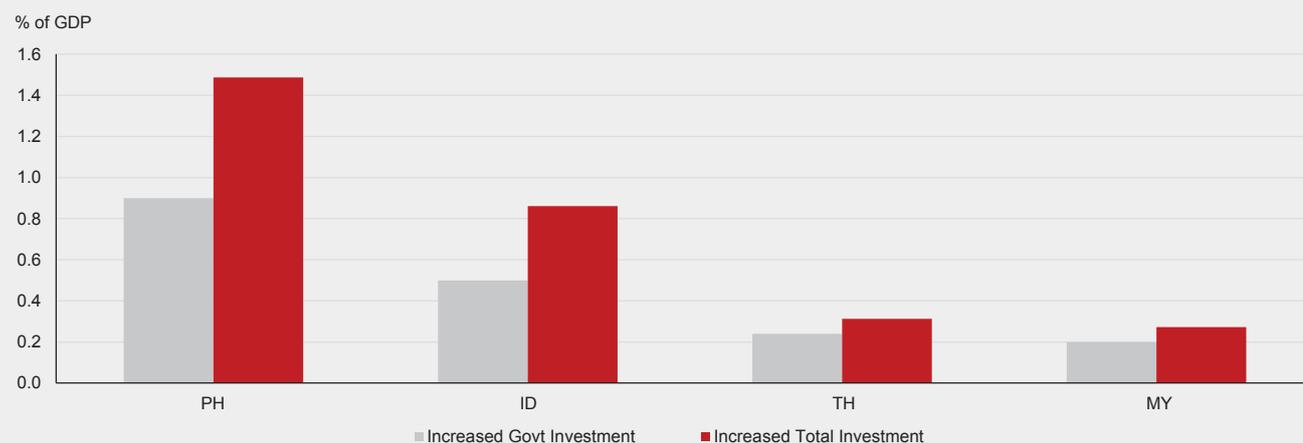
The Belt and Road Initiative (BRI) represents an audacious attempt by China to build infrastructure and connectivity with ASEAN and other developing economies. The geographic reach of BRI projects, according to World Bank estimates, covers about one-third of global GDP, two-thirds of world population, and three-quarters of energy reserves (Figure 2.3.2). BRI projects plug the savings-investment gap by bringing together or partnering regional financing hubs and IFIs, to create new opportunities for affordable financing. Additionally, there is evidence that BRI projects crowd-in private investments. Simulations for ASEAN-4 economies by AMRO staff suggest that BRI investments that close just 20 percent of a country’s infrastructure gap could crowd in private investment by as much as 0.3 percent of its GDP within the next two years. The crowding-in would be most pronounced in the Philippines and in Indonesia, where the investment gaps are also the largest (Figure 2.3.3).

**Figure 2.3.2. Coverage of BRI**



Source: The World Bank.

**Figure 2.3.3. Impact of Total Investment and Crowding-in of Private Investment in ASEAN-4, Change over 2019-2020 (Simulation)**



Sources: Oxford Economics; and AMRO staff estimates.

Notes: We assume that due to the BRI, government investment in these countries will exceed the investment gap shown in Figure K5 by 20 percent (page 74 in AREO 2018). This in effect, narrows the total investment gap by 20 percent. As shown by the red bar, Philippines and Indonesia have high gaps and their public investment, as a percentage of GDP will increase the most. The higher government investment will then push up private investment and GDP in the following period. The blue bars show the effect on total investment within the first two years.

More importantly, improved infrastructure and connectivity generate positive network effects on employment and economic activities. New roads, for example, result in significant movement of rural labor from agriculture into higher-wage jobs, with the effects most pronounced for villages sufficiently close to industrializing cities. The creation of cross-border transport infrastructure generates similar effects by facilitating labor mobility on a regional scale (Agenor, Canuto and Jelenic 2012).

The BRI, an ambitious attempt to enhance capacity and connectivity in EMEs by overcoming the financing and factors constraints, is not without its challenges. Host countries are understandably concerned with the implications for debt sustainability, and potential social disruptions associated with foreign-funded and foreign-managed projects, while China

too has to justify the projects in the context of its foreign policy and outward investment strategy. However, China and its many BRI partners are learning quickly. In its review of the BRI in 2018, the Chinese government has emphasized the importance of governance and sound execution, over expanding the scale and scope of BRI projects. The China Development Bank and the China Export-Import Bank have exercised prudence in their lending activities, and the Asia Infrastructure Investment Bank (AIIB) has demonstrated a high level of corporate governance and adherence to best practices.

Looking ahead, a possible approach for developing and sustaining infrastructure development initiatives in the region comprises three key limbs: identifying challenges, shaping sound governance, and using the experiences of successful projects to spur further development.

## 4 Summary and Policy Recommendations

Following on from the thematic chapters in AMRO (2017) and AMRO (2018a), this chapter focuses on within- and cross-country infrastructure needs for capacity and connectivity. It contemplates the priorities for regional integration and the need for a region-wide support mechanism that is conducive for financial stability and growth.

Three key drivers underscore this urgency. First, the technological revolution and concomitant deindustrialization and disintermediation provide the impetus for countries, including those that are currently on the manufacturing-for-exports growth strategy, to restructure and equip themselves for new services-driven value chains, or risk being left behind. Second, the region's own demographics—a maturing population, and rising middle class and affluence—necessitate a shift to more labor-saving, skills- and knowledge-based productive capacity, and will spur intraregional demand for consumer goods and services, enhanced living spaces, and better connectivity. Third, this growing final demand from within the ASEAN+3, coupled with rising protectionist sentiment in the United States and Europe, suggest that globalization will increasingly revolve around the ASEAN+3 economies, and a strategy to prioritize regional capacity and connectivity is both prudent and pragmatic.

Services will feature prominently in the new economy as they become sophisticated and tradable, and the lines between goods and services blur. Traditional services such as tourism will grow exponentially driven by the rising middle class. However, they will be transformed by the new technology and become more diverse and customized. New services such as BPO, e-Commerce, Uber, and Online gaming will emerge and develop into major industries. These old and new services will require both hard and soft infrastructure and higher order connectivity.

This chapter identifies three “gaps”—the funding gap, foreign exchange gap, and factors gap—that pose a challenge to countries committed to improving their infrastructure capacity:

- The “funding gap” arises from low saving rates of developing countries relative to their investment needs:
  - For developing countries, the “funding gap” for infrastructure projects is particularly daunting owing to the long gestation period, the highly technical aspects of the undertaking, and uncertainty over future cash flows. The hurdle rates for private equity participation are in the double-digits, and banks typically require government guarantees for the large quantum of syndicated loans involved—even for World Bank or ADB-led projects.
  - The funding gap is most acute among the CLMV economies, where domestic savings are insufficient for the necessary catch-up in infrastructure investment. They are understandably circumspect about taking on too much debt, as even long-term financing at concessional rates can be a problem if the gestation period of the projects is too long and the revenue flows uncertain. The ADB has estimated the infrastructure financing need in ASEAN economies at USD 139 billion annually, up to 2030.
- The ASEAN-4 economies have surplus savings or are able to secure financing. However, their vulnerability to the risk of sudden capital outflows has posed a foreign exchange constraint that leads them to accumulate reserves and underinvest in infrastructure critical for long-term growth, otherwise known as the “foreign exchange gap.”
- The “factors gap” captures the non-financial challenges that the ASEAN+3 economies confront when undertaking infrastructure projects that promise capacity enhancements, and the legal-regulatory framework—or lack thereof—that mire efforts to plug into new economy services and value chains. Weak governance and the shortage of labor with the right skills and expertise are but some of the difficulties.

ASEAN+3 economies can leverage more on their own resources to bridge the three gaps underlying under-investment in capacity and connectivity in the region. The region should remain open, and not respond to protectionism elsewhere by enacting its own barriers to cross-border economic flows and financial activity.

ASEAN+3 economies as a group run a current account surplus that is more than enough to close the pockets of funding gaps in the region. Japan and China have provided project financing at concessional rates through the ODA and BRI respectively, but there is scope to mobilize more private resources—especially equity financing—for infrastructure projects. Specifically, more surplus savings from the region could be channeled as direct investment to meet development needs within the region. This strategy would have the added benefit of mitigating the financial stability risks that portfolio investment would pose to regional economies if the surplus savings of the region are instead invested in low-yielding assets in the United States and Europe and then reallocated back to the region by portfolio managers.

The ASEAN+3 economies need to identify and address shortages in other critical factors that would set back capacity building efforts even if financing is forthcoming. The level of human capital, preconditions in soft infrastructure—a facilitative legal-regulatory framework, ease of payments and IT connectivity—and requirements of good governance, are even higher when globalization, and gains from globalization, are increasingly dominated by services. There is room to tap into professional and managerial expertise from within the ASEAN+3 economies to meet the skills gap in some parts of the region, and to enable or broaden the scope for technology sharing or transfer within the region. The AEC Blueprint provides a framework for inter-government collaboration to facilitate the seamless movement of goods, services, investment, capital and skilled labor within ASEAN.

The ASEAN+3 economies need to continue strengthening CMIM and bolster AMRO's surveillance capacity, to provide an effective and credible regional financial safety net and address the foreign exchange gap issue. Both AMRO and the CMIM, alongside the AEC and other institutions or frameworks to promote regional cooperation and collaboration are part of the "soft infrastructure" and regional public goods needed to catalyze economic transformation and growth in ASEAN+3 economies.

Table 2.3.1. Selected ASEAN Economies: Belt and Road Initiative Case Studies

Country	Project Description		Collaboration Mode	Status/Assessment
	Name	Project Cost		
Cambodia	<p><b>Expressway from Phnom Penh to Sihanoukville:</b></p> <ul style="list-style-type: none"> <li>Length: 190 km.</li> <li>Purpose: to improve both goods transportation and traffic along National Road 4, which has been frequently affected by floods leading to road closures.</li> </ul>	<p>USD 2 billion:</p> <ul style="list-style-type: none"> <li>BOT Investment Scheme by Cambodia PPSHV Expressway Co., Ltd.</li> </ul>	<p>Concession period of 54 years.</p>	<ul style="list-style-type: none"> <li>The project is officially inaugurated on 22 March 2019 and it is expected to be completed in 2023.</li> </ul>
	<p><b>Lower Sesan II Dam:</b></p> <ul style="list-style-type: none"> <li>Capacity: 400 mw.</li> <li>Purpose: to reduce power shortage, lower electricity costs, and promote social development.</li> </ul>	<p>USD 800 million:</p> <ul style="list-style-type: none"> <li>51 percent: China's Hydro Lancang International Energy.</li> <li>39 percent: Cambodian firm Royal Group.</li> <li>10 percent: Vietnam's EVNI.</li> </ul>	<p>Joint venture</p>	<ul style="list-style-type: none"> <li>Officially inaugurated on 18 December 2018.</li> <li>The dam is expected to share around 20 percent of the country's total electricity output, which is expected to help reduce power shortage, lower electricity cost, and promote Cambodia's social development.</li> </ul>
Indonesia	<p><b>Jakarta-Bandung Rail Line:</b></p> <ul style="list-style-type: none"> <li>Length: 140 km.</li> <li>Purpose: to connect Jakarta with Bandung in West Java, which could later be extended to Surabaya in East Java.</li> </ul>	<p>USD 5.3–6 billion:</p> <ul style="list-style-type: none"> <li>60 percent: a consortium of Indonesian SOEs.</li> <li>40 percent: China Railway International.</li> </ul>	<p>Loan by China Development Bank (CDB):</p> <ul style="list-style-type: none"> <li>Maturity: 40 years.</li> <li>Fixed interest rates: 75 percent of the project cost.</li> <li>Grace period: 10 years.</li> <li>No government debt guarantees.</li> </ul>	<ul style="list-style-type: none"> <li>Construction started in 2016, expected to be operational in 2019.</li> <li>Work progress: delayed because of issues with land acquisition and the need to compensate the landowners. Authorities are working through these issues systematically but in order for these issues to be addressed, the operational start date of the project might be adjusted from 2019 to 2021.</li> </ul>
	<p><b>Kayan hydropower project (Kalimantan):</b></p> <ul style="list-style-type: none"> <li>Purpose: to increase Indonesia's electricity generation capacity.</li> </ul>	<p>USD 17.8 billion.</p>	<p>Collaboration between:</p> <ul style="list-style-type: none"> <li>PT Indonesia Kayan Hydropower Energy.</li> <li>Power Construction Corporation of China (PowerChina).</li> </ul>	<p>According to North Kalimantan provincial government, the construction of the first phase of the project might start soon, following the signing of a contract between PT Indonesia Kayan Hydropower Energy and a Chinese partner, Power Construction Corporation of China (PowerChina) in April 2018.</p>

Table 2.3.1. Selected ASEAN Economies: Belt and Road Initiative Case Studies

Country	Project Description		Project Cost	Collaboration Mode	Status/Assessment
	Name				
Lao PDR	<b>Laos-China Railway:</b>	<ul style="list-style-type: none"> <li>Length: 414 km.</li> <li>Purpose: to connect China with ASEAN, with the Lao section of the railway commencing in Kunming and going through major cities in Lao PDR with a total of 32 stations.</li> </ul>	<p>USD 6 billion, of which:</p> <ul style="list-style-type: none"> <li>60 percent (USD 3.6 billion): debt via loans from Chinese banks to the joint venture company established by the Chinese and Lao governments.</li> <li>40 percent (USD 2.4 billion): equity, of which: <ul style="list-style-type: none"> <li>70 percent (USD 1.68 billion) contributed by equity from Chinese shareholders.</li> <li>30 percent (USD 0.72 billion) by Lao government, of which: 65 percent (USD 0.47 billion) loan from China EXIM Bank and 35 percent (USD 0.25 billion) by the government budget (USD 0.05 billion per year during 2017–2021).</li> </ul> </li> </ul>	A joint venture company established by China and Laos governments (with no guarantee of the debt by the Lao government).	<ul style="list-style-type: none"> <li>Construction: 20 percent complete, scheduled launch in December 2021.</li> <li>The project is expected to break even only after about 20 years, thus, the direct fiscal impact and contingent liabilities need to be carefully managed with a long-term view.</li> </ul>
	<b>Vientiane-Vang Vieng Expressway:</b>	<ul style="list-style-type: none"> <li>Length: 113.5 km.</li> <li>Purpose: to significantly cut down the travel time from the capital Vientiane to major tourist destinations in Van Vieng, and so ties in well with Lao PDR's push to develop the country further as a key tourist destination in the ASEAN region.</li> </ul>	<p>USD 1.3 billion:</p> <ul style="list-style-type: none"> <li>95 percent: China.</li> <li>5 percent: Lao government.</li> </ul>	A joint venture company called Laos-China Joint Expressway Development Company Limited.	<ul style="list-style-type: none"> <li>Construction of the Expressway commenced during the second half of 2018, and is expected to be completed in three years.</li> <li>A toll charge of between 45,000 to 56,000 kip (USD 5.25–6.50) is being proposed for traveling on the Expressway.</li> </ul>
Malaysia	<b>Second Penang Bridge:</b>	<ul style="list-style-type: none"> <li>Length: 24 km (one of the longest bridges in Malaysia and Southeast Asia).</li> <li>Purpose: built across South Channel of Penang, linking Batu Maung on Penang Island with Batu Kawan on the mainland.</li> </ul>	<p>USD 1.37 billion:</p> <ul style="list-style-type: none"> <li>60 percent: loans from China EXIM Bank: <ul style="list-style-type: none"> <li>Maturity: 20 years.</li> <li>Interest rate: 3% per annum.</li> </ul> </li> <li>40 percent: Malaysian government.</li> </ul>	Handled by China Highway Planning and Design Institute (HPDI), AECOM (consultant of China Harbour Engineering Company (CHEC).	<ul style="list-style-type: none"> <li>In operation: March 4, 2014.</li> <li>Economic benefits: areas, which were primarily plantations, became more developed and diversified townships and more connected to other parts of the country. The upfront and long-term costs were well within Malaysia's fiscal capacity.</li> </ul>
	<b>ECRL:</b>	<ul style="list-style-type: none"> <li>Length: 688 km.</li> <li>Purpose: to connect South China Sea in the east coast of Peninsular Malaysia with strategic shipping routes to the west.</li> </ul>	<p>USD 13.1–20 billion (re-estimated).</p>	Owned and operated by Malaysia Rail Link Sdn Bhd (MRL), a special purpose vehicle (SPV) wholly owned by MAMOF.	<ul style="list-style-type: none"> <li>Construction started in August 2017, but suspended in 2018 when a new government came into power and did a critical reassessment of the likely cost of the project – as part of a comprehensive national fiscal analysis.</li> <li>Project currently under review by the two governments.</li> </ul>

Table 2.3.1. Selected ASEAN Economies: Belt and Road Initiative Case Studies

Country	Project Description		Collaboration Mode	Status/Assessment
	Name	Project Cost		
Myanmar	<p><b>Gong Hai hydropower station (located on the Pang River):</b></p> <ul style="list-style-type: none"> <li>Capacity: 25 MW.</li> <li>Purpose: to increase hydroelectric power generation to meet the much-needed power demand (the government aims to provide electricity to the whole country by 2030).</li> </ul>	Not yet known.	To be handled by Shandong Water Conservancy Construction Group.	<ul style="list-style-type: none"> <li>Construction date: not yet known.</li> <li>In July 2018, Shandong Water Conservancy Construction Group Co., Ltd. was notified of winning the bid for the EPC project of Gong Hai hydropower station in Myanmar.</li> <li>The economic and social benefits for Myanmar could be very large, as the country has an electrification rate of only 31 percent and an annual demand growth of 15 percent.</li> </ul>
	<p><b>Kyaukpyu Port:</b></p> <ul style="list-style-type: none"> <li>Purpose: Connecting countries along the sea route, including China and Indian ocean.</li> </ul>	USD 9–10 billion (50-year term of the project) <ul style="list-style-type: none"> <li>70 percent: China.</li> <li>30 percent: Myanmar.</li> </ul>	Collaboration between China International Trust and Investment Corporation (CITIC) and Myanmar's Kyaukpyu Special Economic Zone management committee (SEZ).	<ul style="list-style-type: none"> <li>Construction date: not yet known.</li> <li>CITIC and SEZ signed an agreement on 18 November 2018.</li> <li>The project is expected to bring 100,000 jobs to the local community and generate substantial revenue.</li> </ul>
Thailand	<p><b>China-Thailand Railway:</b></p> <ul style="list-style-type: none"> <li>Length: 873 km.</li> <li>Purpose: to connect Thailand, Lao PDR and the Chinese province of Yunnan, to provide the missing link in the railway connectivity from Singapore to China, and to shorten the travel time between Bangkok and Nong Khai on the Thai-Lao border from 14 hours to just four hours, and further, to connect to Kunming in Yunnan.</li> </ul>	USD 12 billion.	Chinese state enterprises responsible for the engineering design of the project and the hiring of Chinese technical advisers.	<ul style="list-style-type: none"> <li>Construction: after some delays, started in December 2017, with the first phase of the project expected to be operational in 2021.</li> <li>This project fits well with Thailand's overall economic development, a significant part of which involves deepening sub-regional integration within the Lancang-Mekong area. In addition, Thailand's domestic stakeholders benefit substantially.</li> </ul>

Sources: Media reports; national authorities; and AMRO staff.

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# Annex: Developments in ASEAN+3 Economies



# Brunei Darussalam

After recording a strong rebound in 2017, Brunei's economic growth slowed to 0.1 percent in 2018. The economy started to recover in Q2 2017 and grew strongly in Q4 2017 for an overall expansion of 1.3 percent. However, the decline in oil and LNG production in 2018, despite the higher oil and LNG prices, resulted a slowdown in growth. Real GDP grew at 2.8 percent in Q1 2018 and contracted by 2.6 percent and 1.1 percent in Q2 and Q3 2018, respectively. The meagre economic growth was also caused by the contraction of the financial sector. GDP growth slowed to 0.1 percent in 2018, and then pick up to 2.1 percent in 2019, led by the start of Hengyi's refinery production in 2019 and the continuation of stronger foreign direct investment inflows.

Consumer price inflation returned to the positive territory in 2018, mainly driven by rising food prices. On average, CPI inflation rose from -0.2 percent in 2017 to 0.1 percent in 2018. The rise in inflation in 2018 was mainly attributable to supply-side factors, such as the increase in excise tax on food and beverage. Inflation is expected to remain positive at around 0.4 percent in 2019, in line with the expected strengthening in domestic demand.

The trade surplus for 2018 is estimated to have narrowed slightly reflecting a sharp increase of the import of capital goods for infrastructure and FDI projects. After widening in Q4 2017, as exports rebounded sharply on the strength of LNG production and prices, the trade surplus narrowed significantly in Q2 2018 following an unexpected decline in oil and LNG production. It is estimated to have improved slightly during the remainder of the year with the continued increase in oil and LNG prices. For the full year of 2018, the trade surplus is expected to be slightly smaller than in 2017 as import growth will exceed export growth. The current account surplus is anticipated to narrow in 2018, but should

rebound to a somewhat higher level in 2019. Overall, the external position remains strong with ample official reserves and foreign assets.

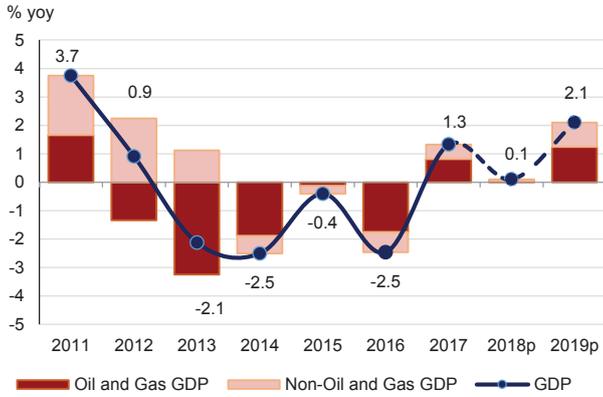
The banking sector remains sound. Banks continue to be well-capitalized and their risk exposures are relatively well-managed. As of Q4 2018, the capital adequacy ratio was 18.4 percent of risk-weighted assets. However, the gross non-performing loans (NPL) ratio rose from 4.4 percent in 2017 to 4.8 percent in 2018 while the net NPL ratio increased from 1.6 percent to 2.4 percent over the same period. The rising trend of the NPL ratio is attributable to the fragile economic recovery.

The government budget improved, but remained in substantial deficit. The budget deficit narrowed from 16.6 percent of GDP in the FY2016/17 to 12.7 percent of GDP in the FY2017/18, as a result of a significant increase in oil and gas revenue, as well as from the continuing restraint in total fiscal spending. The FY2018/19 budget targets a smaller deficit of around 9.0 percent of GDP. Based on revenue realization in the first-half of the fiscal year, the budget deficit will likely narrow to around 7.5 percent of GDP.

In the medium term, the major risks to the economy are mainly from domestic factors as result of the high reliance on the oil and gas sector. Following the price recovery since 2016, an unexpected shortfall in oil and LNG production in 2018 has affected economic growth. It will also hamper the government's ability to support the economy. On the external side, the major risk mainly stems from the possibility of a sharp decline in global oil and gas prices, while other external risks are expected to have a smaller impact to the economy. In particular, Brunei is less susceptible to spillovers from the global trade conflicts given its relatively low engagement in the global value chain.

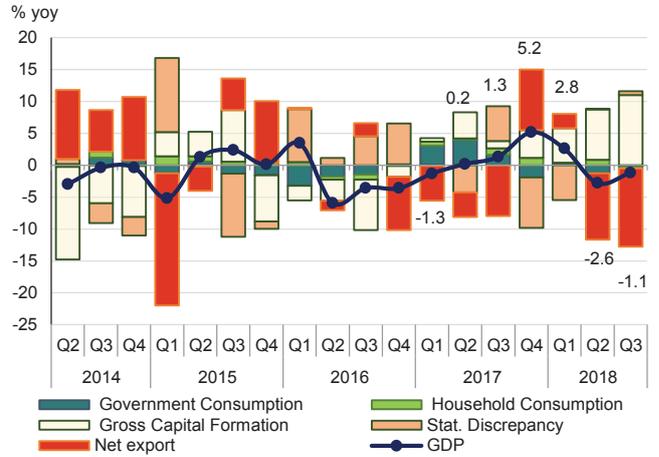
## Brunei Darussalam: Selected Charts

Brunei's economic growth is expected to decline in 2018, dragged down by moderate oil and LNG production.



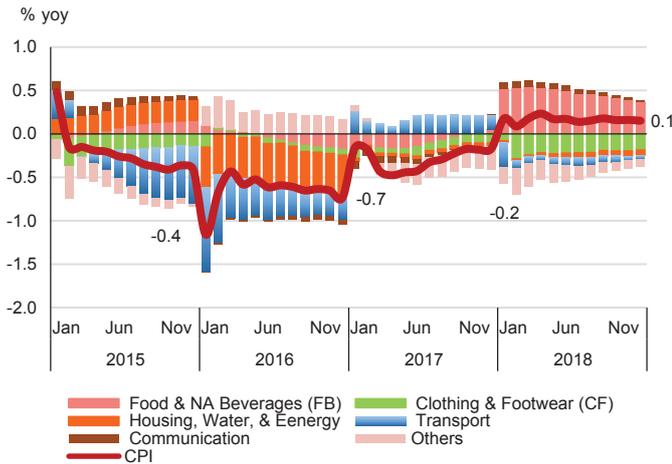
Sources: Department of Economic Planning and Development; and AMRO staff estimates.

The slower GDP growth in 2018 was underpinned by the sluggish growth in net exports, while investment growth continued to increase.



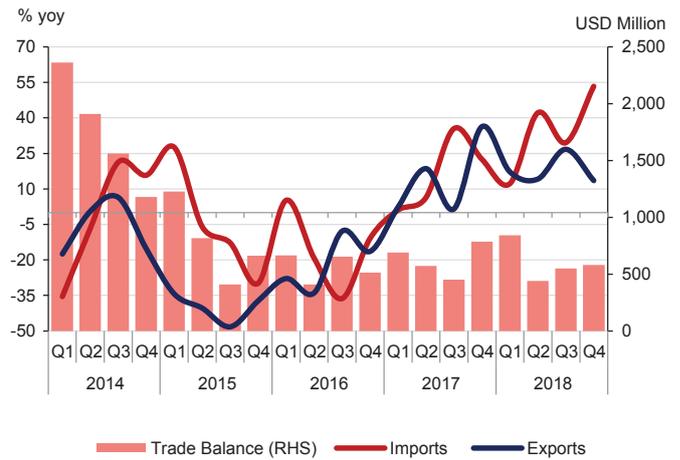
Sources: Department of Economic Planning and Development; and AMRO staff calculations.

Consumer price inflation has been rising to positive territory in 2018, mainly driven by rising food prices and communication costs.



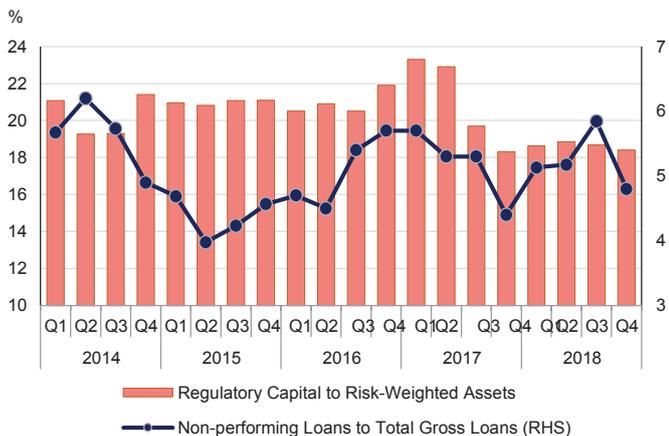
Sources: Department of Economic Planning and Development; and AMRO staff calculations.

Trade account will remain in surplus, but is expected to narrow as exports decline while imports rise.



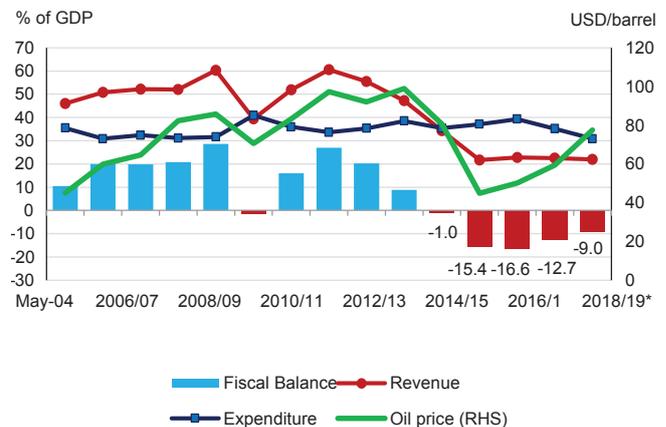
Sources: Department of Economic Planning and Development; and AMRO staff calculations.

The banking sector remains sound and well capitalized.



Sources: Autoriti Monetari Brunei Darussalam; and AMRO staff calculations.

Despite improving, the government budget continued to show a sizable deficit in FY2017/2018.



Sources: Ministry of Finance and Economy; and AMRO staff calculations. Note: \*) Budget data.

## Brunei Darussalam: Selected Economic Indicators

	2015	2016	2017	2018 <sup>1)</sup>
<b>National income and prices</b>	(In percentage change unless specified)			
Real GDP	-0.4	-2.5	1.3	0.1
Final consumption	0.0	-4.2	5.9	-
Private sector	5.2	-1.3	4.1	-
Public sector	-3.6	-6.5	7.4	-
Gross capital formation	6.6	-11.1	8.0	-
Exports of Goods	-10.8	-1.9	-2.7	-
Imports of Goods	-11.7	2.7	1.3	-
Prices				
Consumer price inflation (average)	-0.4	-0.7	-0.2	0.1
<b>External sector</b>	(In USD million unless specified)			
Current account balance	2,157.0	1,470.0	2,020.0	1,559.0
(In percent of GDP)	16.6	12.9	16.7	12.6
Trade balance	2,910.0	2,153.0	2,403.0	2,028.0
Overall balance	72.0	144.0	-282.0	74.0
Gross official reserves	3,367.0	3,489.0	3,488.0	3,562.0
(In months of imports of goods & services)	8.3	9.8	7.4	6.9
<b>Central government <sup>2/</sup></b>	(In percent of GDP)			
Total Revenue	21.7	22.7	22.5	26.6
Oil and Gas Revenue	16.2	16.2	17.5	21.3
Non-Oil and Gas Revenue	5.5	6.5	5.0	5.3
Total Expenditure	37.1	39.3	35.2	34.2
Current Expenditure	29.2	31.2	30.0	29.0
Capital Expenditure	8.0	8.1	5.2	5.2
Budget Balance	-15.4	-16.6	-12.7	-7.5
<b>Monetary and financial sector</b>	(In percentage change unless specified)			
Domestic credit <sup>3/</sup>	28.5	-21.3	-14.2	5.9
Of which: private sector	4.9	-8.4	-3.3	-3.0
Broad Money	-1.8	1.5	-0.4	3.8
<b>Memorandum Items</b>				
Exchange rate period avg. (In BND/USD)	1.37	1.38	1.38	1.35
Exchange rate end of period (In BND/USD)	1.42	1.45	1.34	1.37
Nominal GDP (In USD million)	12,390.0	11,400.0	12,136.0	13,567.0
Nominal GDP (In BND million)	17,664.0	15,748.0	16,747.0	18,301.0

Sources: Brunei authorities; and AMRO staff projections

Note: <sup>1/</sup> Figures for 2018 are based on AMRO staff projection except for inflation.

<sup>2/</sup> Figures are for fiscal year that run from April to March.

<sup>3/</sup> Domestic credit is based on Domestic claims data in Monetary Survey.

# Cambodia

Cambodia's economy continued its robust growth trajectory in 2018. The economy grew steadily at 7.0 percent in 2017, at par with the previous two years. A moderation in garment manufacturing in 2017 was offset by strong construction activity, solid growth in tourist arrivals and better agriculture production. Helped by stronger export growth, a high number of tourist arrivals and buoyant domestic demand—in particular, government consumption and investment—growth is expected to have accelerated to 7.2 percent in 2018, but to inch slightly lower to 7.1 percent in 2019, reflecting weaker global economic growth.

Headline inflation has remained relatively subdued. It averaged 2.5 percent in 2018, compared to the 2.9 percent recorded in the previous year. Upward pressure from rising energy prices in the first-half of 2018 was moderated by administrative measures by the government. Towards the end of 2018, falling energy prices, in tandem with better supply conditions, had brought down transportation cost and food prices, two main components of CPI. Both components recorded deflation in November and December, in month-on-month terms.

The overall external position continued to strengthen, benefiting from sustained foreign direct investment inflows. Although the current account deficit remained sizable and is estimated to have widened in 2018 as import outpaced export growth, it would have been more than offset by the surplus in the capital and financial accounts on the back of strong FDI inflows. As a result, the overall balance of payments should have remained in surplus, leading to a further build-up in foreign reserves. Gross international reserves went up to USD 10.1 billion as of December 2018, sufficient to cover almost six months of goods and services imports.

Financial sector indicators have remained generally sound. Amidst the implementation of prudential regulations including new minimum capital requirements and liquidity coverage ratios, bank lending to private sector moderated from 19.8 percent in 2016 to 18.5 percent in 2017. As of Q3 2018, however, credit had started to pick up again, growing at 21.3 percent, on the back of relatively stable domestic

conditions following the general election and underpinned by stronger economic activity. The loan-to-deposit ratio inched higher as credit growth accelerated faster than deposit. Overall, the financial sector remained well-buffered with the capital adequacy ratios of both commercial banks and other monetary financial institutions remaining above the required regulatory minimum.

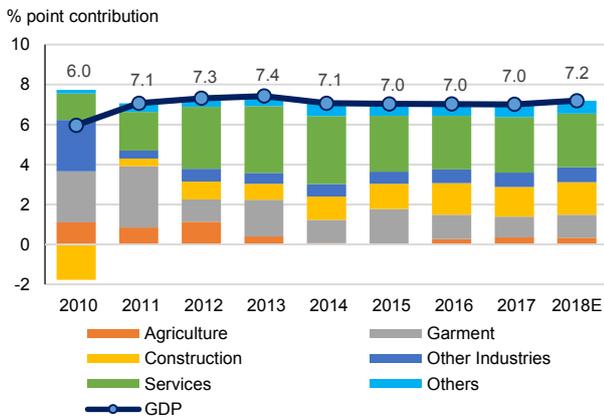
The fiscal position improved amid continued strong revenue performance. The preliminary data for 2018 showed that domestic revenue collection was nearly 12 percent above the target. On the other hand, disbursement of spending, in particular, capital spending, slowed, resulting in a significantly lower overall fiscal deficit than budgeted. Fiscal balance in 2018 registered a deficit of 2.1 percent of GDP, down from the initial 5.8 in the Budget. The current budget surplus inched up higher to 5.1 percent of GDP in 2018 from 4.3 percent, helping the government build up deposits that can be used as fiscal a buffer and for financing public investment projects.

Headwinds to the growth outlook are mainly from external factors. Given its high reliance on the EU market under the Everything But Arms (EBA) preferential trade arrangement, a suspension of the EBA scheme could substantially weaken its export competitiveness in that market. Another external risk arises from the possible escalation of the U.S.-China trade war—where it would result in weaker growth momentum in these two economies and intensify the global trade protectionism sentiment. In addition, given China's increasing investment in Cambodia, FDI inflows—in particular into the real estate sector—have become more susceptible to any sudden policy change by China.

In order to sustain a high growth potential in the medium-term, Cambodia needs to continue its efforts to enhance external competitiveness and economic diversification. Improving infrastructure and human resources, as well as trade facilitation, are critical to enhancing competitiveness and productivity. In addition, given a relatively narrow growth base, continuing efforts to diversify growth are also essential, and the tourism-related service sector shows great potential.

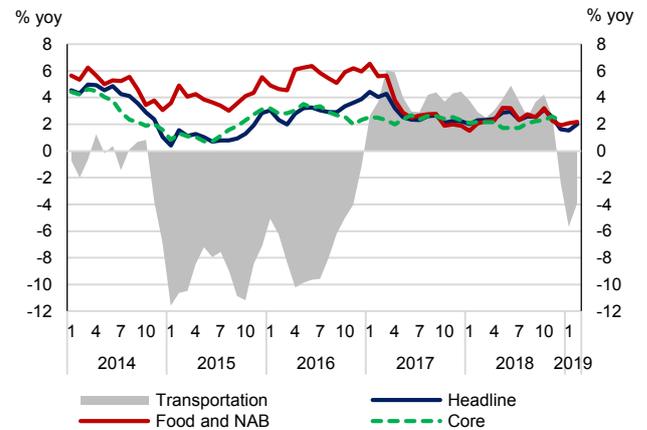
## Cambodia: Selected Charts

Cambodia's economy continued its high growth trajectory supported by strong construction activity, garment manufacturing and tourism related services.



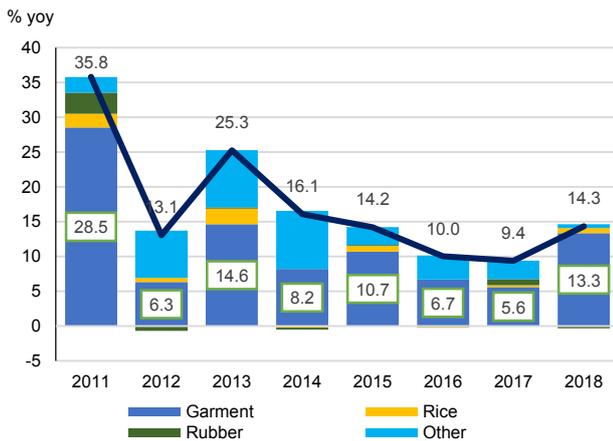
Source: National Institute of Statistics.  
Note: 2018E refers to AMRO staff estimates.

Headline inflation remained subdued with improved food production and falling energy prices towards the end of 2018.



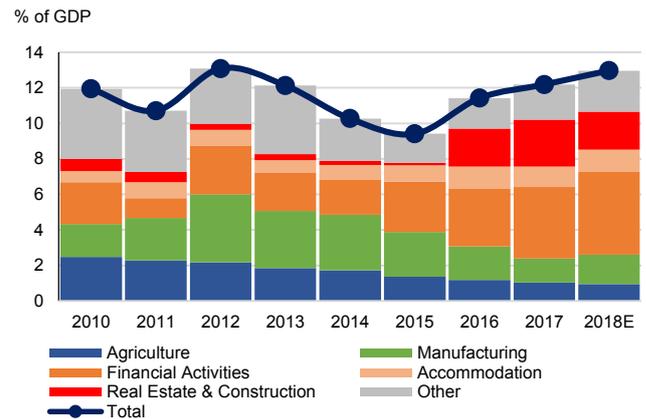
Source: National Bank of Cambodia.

Exports growth rebounded in 2018 with a strong increase in garment exports.



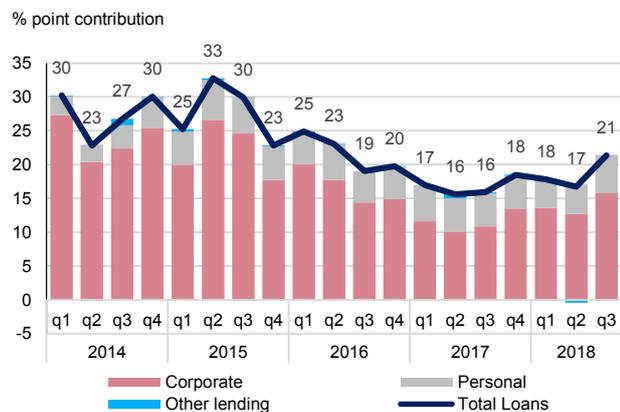
Source: National Bank of Cambodia.

FDI inflows remained strong, especially in the financial sector and real estate related activities.



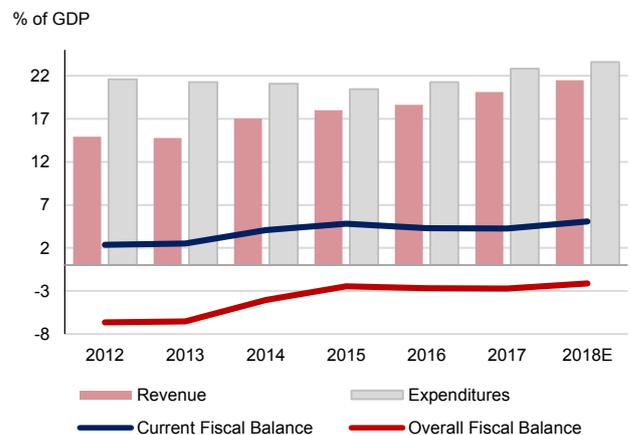
Source: National Bank of Cambodia.  
Note: 2018E refers to AMRO staff estimates based on data for the first three quarters.

Domestic credit growth from commercial banks to the private sector started to pick up in H2 2017, especially credit to corporate sector.



Sources: National Bank of Cambodia; AMRO staff projections.

The fiscal position continued to strengthen in 2017, but is estimated to post a larger deficit in 2018 owing to increases in capital and public wage spending.



Source: Ministry of Economy and Finance.  
Note: 2018E refers to AMRO staff estimates based on the preliminary budget implementation (TOFE) up to December 2018.

## Cambodia: Selected Economic Indicators

	2015	2016	2017	2018
<b>National income and prices</b>	(In percentage change, unless specified)			
Real GDP	7.0	7.0	7.1	7.2
Agriculture	0.2	1.3	1.7	1.8
Construction	19.2	21.8	18.0	17.9
Garment Manufacturing	9.8	6.7	5.8	6.4
Private Consumption	5.9	6.7	4.6	4.7
Government Consumption	4.4	5.7	6.5	6.1
Gross Investment	9.9	10.0	6.0	6.8
Consumer price inflation (average)	1.2	3.0	2.9	2.5
<b>Balance of payments</b>	(In USD million, unless specified)			
Trade balance	-3,948.8	-3,846.5	-4,278.0	-5,258.6
Services, Net	1,712.3	1,602.4	1,878.4	2,345.3
Current account balance	-1,567.4	-1,687.5	-1,782.4	-2,230.2
(In percent of GDP)	-8.7	-8.4	-8.0	-9.1
Overall balance	830.7	872.6	1,434.6	1,380.6
Gross international reserves	5,093.3	6,730.8	8,757.9	10,138.5
(In months of imports of goods & services)	3.9	4.9	5.8	5.6
External Debt	8,693.5	9,754.3	11,438.4	12,704.5
(In percent of GDP)	48.2	48.7	51.6	51.9
<b>General government</b>	(In percent of GDP)			
Revenue and grants	19.9	20.9	22.0	22.8
of which: tax revenue	15.8	15.9	17.3	18.7
Expenditure	20.4	21.3	22.8	23.6
Current Expense	13.0	14.2	15.7	16.2
Net Acquisition of Non-Financial Assets	7.4	7.1	7.2	7.4
Current Net Lending/Borrowing	4.8	4.3	4.3	5.1
Net Lending/Borrowing	-2.4	-2.7	-2.7	-2.1
Government Debt	31.2	29.2	30.1	30.9
<b>Monetary sector</b>	(In percentage change, unless specified)			
Domestic credit	24.3	21.9	15.6	21.1
Private sector	27.1	22.5	18.5	23.2
Broad money	14.7	17.9	23.8	24.0
<b>Memorandum items:</b>				
Nominal GDP (In KHR billion)	73,422.7	81,241.9	89,753.6	99,102.3
Nominal GDP (In USD million)	18,050.0	20,016.7	22,158.2	24,501.0
GDP per capita (In USD)	1,163.2	1,269.9	1,384.4	1,489.5
Exchange rate (KHR/USD, average)	4,067.8	4,058.7	4,050.6	4,044.8

Sources: Cambodia authorities; and AMRO staff estimates.

# China

China's economic growth has continued to soften. Investment, exports and consumption have slowed since Q3 2018 as a result of the strong impact of financial deleveraging in the economy and the U.S.-China trade conflict. In particular, infrastructure fixed asset investment has moderated significantly. Exports have weakened considerably since December 2018, while private consumption has also slowed. Calibrated policy measures have been rolled out to support growth. The Chinese authorities have actively engaged with the U.S. administration in trade negotiations, which has lifted market sentiment and contributed to some improvement in the outlook for exports. Corporate confidence and investment are expected to improve as a result of the value-added tax cut, as well as the proposal to lower the social security premium contributed by employers. Personal tax cuts and other targeted measures, such as subsidies on new energy vehicles, have been deployed to support corporate activity and consumption.

Policy measures have also been taken to boost credit in the system. The accelerated issuances of new local government bonds and the immediate injection of funds into investment projects should help narrow the funding gap. Monetary policy measures, such as cuts to the reserve requirement ratio and the targeted medium-term lending facilities, are expected to enable more lending to the real economy.

Leading indicators have shown improvement following the introduction of the policy measures. Total social financing rebounded strongly in the first two months of 2019; as did the official and Caixin PMI. The improved funding conditions and the recently approved infrastructure projects should further support investment.

The unemployment rate has stayed low, owing to the buoyant services sector. In December 2018, the surveyed unemployment rate stood at 4.9 percent in urban areas, with services employment remaining resilient.

Inflation has been subdued. CPI inflation stood at 1.5 percent in February 2019 and is expected to remain low and stable. PPI inflation was at 0.1 percent in February 2019, trending down from high levels in 2017, which had affected upstream industrial profits and investment.

Going forward, China's economic growth is expected to moderate further amid structural adjustments, financial deleveraging and elevated external risks. Growth is projected to moderate from 6.6 percent in 2018 to 6.3 in 2019 and to 6.2 percent in 2020, due to the impact of the trade conflict and the moderate and calibrated stimulus package. Risks to economic growth are tilted to the downside given that the trade conflict could escalate and the effects of financial deleveraging could linger.

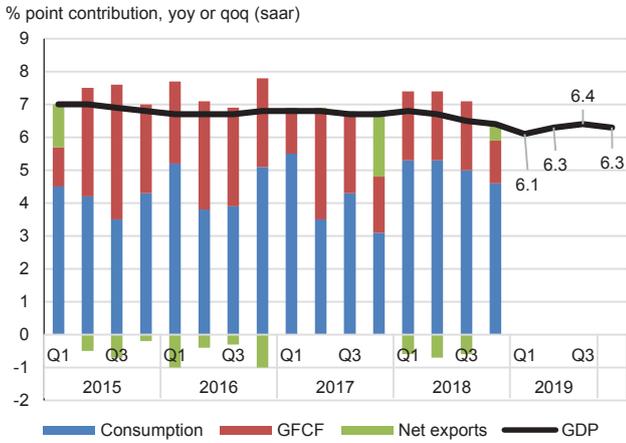
In AMRO staff's adverse trade scenario, China's GDP growth could slow significantly in 2019. Although inward foreign direct investments and portfolio investments have been strong, and China's foreign reserves have continued to be stable, sentiment in the domestic stock market remains fragile. If the trade conflict were to escalate, China may face pressure from renminbi depreciation and capital outflows. Based on a model simulation, the negative impact on China's GDP growth, if the tariffs were to be raised to 25 percent for all Chinese exports is assessed at about 0.5–0.7 percentage point each, in 2019 and 2020.

Some banks will need to raise a sizable amount of capital in a cautious capital market. The strengthened regulation and deleveraging efforts, in particular on shadow banking activities, have reduced the risks to the financial system. However, capital adequacy ratios of joint stock banks, city commercial banks and rural commercial banks are all only slightly above 12 percent. To comply with more stringent future requirements, these banks will need to raise a sizable amount of (costly) capital in order to be able to extend loans to the economy.

It is imperative for China to continue with its structural economic reforms while addressing the near-term headwinds. Corporate leverage remains high albeit declining. Household debt has also risen rapidly. The stimulus should continue to be fine-tuned to avoid a build-up of risks. Further reforms to state-owned enterprises (SOEs) are necessary to reduce the high debt levels and address the pockets of vulnerable sectors. The endeavor to provide a "level playing field" across SOEs, private and foreign firms would further shore up confidence in the private sector, attract foreign capital, reinforce SOE reform and unleash productivity.

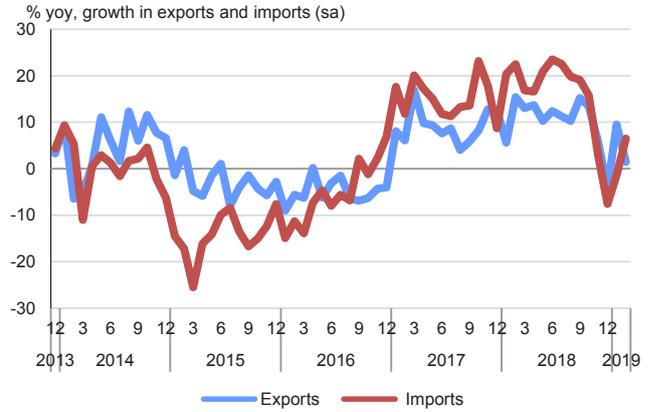
## China: Selected Charts

China's GDP growth has been moderating, albeit still at a respectable level.



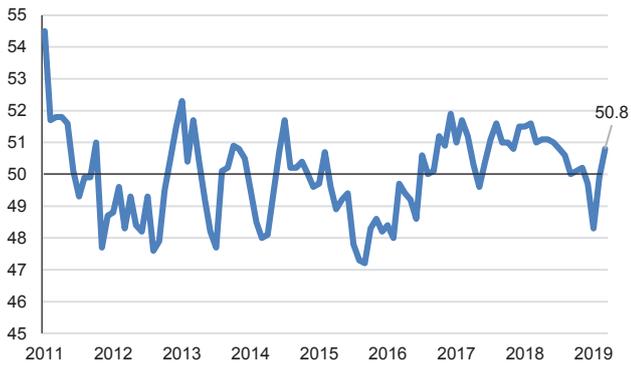
Sources: National Bureau of Statistics; Wind; and AMRO staff estimates.

Trade declined as higher tariffs kicked in and global demand for mobile phones fell.



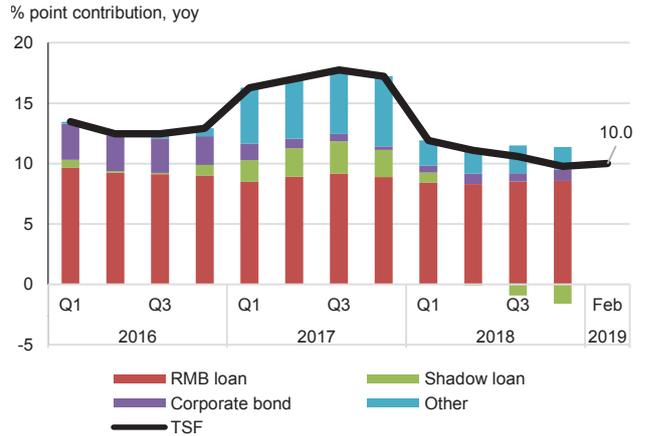
Sources: General Administration of Customs; and AMRO staff calculations.

Supported by proactive policy measures, leading indicators, such as the Caixin PMI, show some tentative signs of improvement.



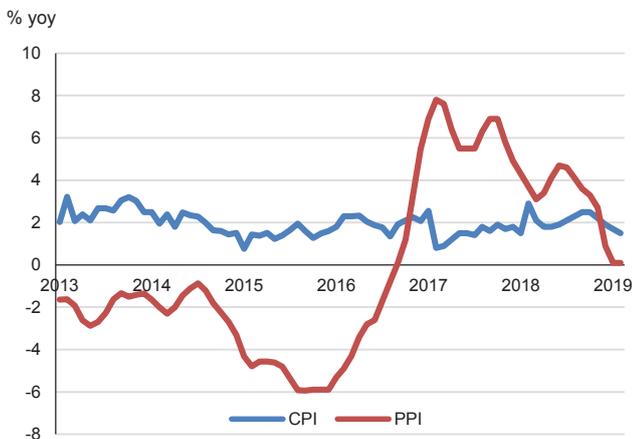
Source: National Bureau of Statistics.

In addition, total social financing growth rebounded in January 2019.



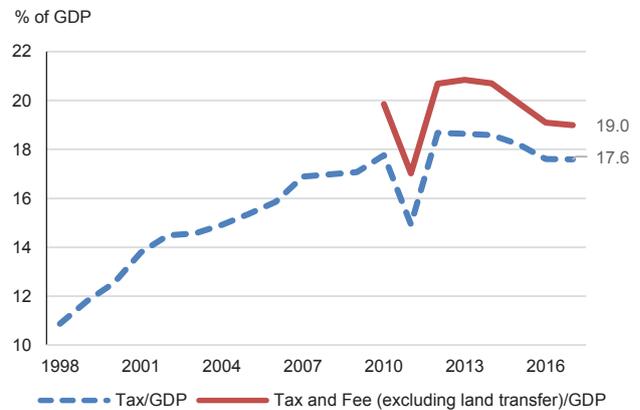
Source: People's Bank of China.

CPI inflation has remained low and stable, but PPI inflation has slowed sharply.



Source: National Bureau of Statistics; and AMRO staff calculations.

With a supportive fiscal policy, the ratio of tax and fees to GDP has declined as a result of reforms to reduce tax and fees.



Source: Ministry of Finance.

## China: Selected Economic Indicators

	2015	2016	2017	2018
<b>National income and prices</b>	(In percentage change unless specified)			
Real GDP	6.9	6.7	6.8	6.6
Consumption	7.8	8.3	7.2	9.2
Gross capital formation	6.0	6.0	4.8	4.6
PMI (Mfg)	49.9	50.3	51.6	49.4
PMI (non-Mfg)	53.6	53.7	54.6	55.6
Labor Market				
Average Registered Unemployment Rate: Urban, percent)	3.6	3.7	3.7	3.8
Average Wages	10.1	8.9	10.0	10.0
Prices				
Consumer price inflation (period average)	1.4	2.0	1.6	2.1
Producer Price Index (period average)	-5.2	-1.4	6.3	3.5
<b>External sector</b>	(In USD billion unless specified)			
Current account balance	304.2	202.2	164.9	49.1
(In percent of GDP)	2.8	1.8	1.4	0.4
Financial account balance	-434.1	-416.4	148.5	59.6
(In percent of GDP)	-4.0	-3.7	1.2	0.4
Foreign direct investment	135.6	133.7	136.3	135.0
Outward direct investment	145.7	196.1	120.1	121.1
External Debt, Gross	1383.0	1415.8	1710.6	-
Foreign Reserves	3330.4	3010.5	3139.9	3072.7
Exchange Rate (Against USD, Period Average)	6.23	6.64	6.75	6.62
<b>General government</b>	(In percent of GDP unless specified)			
Revenue (In percent yoy)	5.8	4.5	7.4	6.2
Expenditure (In percent yoy)	13.2	6.3	7.6	8.7
Revenue	22.1	21.5	20.9	20.8
Expenditure	25.5	25.2	24.6	24.6
Overall Balance	-2.4	-2.9	-2.9	-2.6
Central Government Debt	15.5	16.2	16.4	16.7
<b>Monetary and financial sector</b>	(In percentage change unless specified)			
Aggregate Financing	12.6	16.6	13.4	9.8
Total Loan	14.5	12.8	12.1	12.9
Shanghai Stock Exchange Composite Index (Index)	3539.0	3104.0	3307.0	2494.0
Shanghai Interbank Offered Rate, Overnight (In percent)	2.0	2.2	2.8	2.6
10 Year Treasury Bond Yield (In percent)	3.4	2.9	3.6	3.6
Banking Capital Adequacy Ratio (In percent)	13.5	13.3	13.7	14.2
NPL Ratio (percent)	1.7	1.7	1.7	1.9
<b>Memorandum Items</b>				
Nominal GDP (In RMB trillion)	68.6	74.0	82.1	90.0
Nominal GDP (In USD trillion)	10.9	11.1	12.2	13.6

Sources: China authorities; and AMRO staff estimates.

# Hong Kong, China<sup>1</sup>

Hong Kong's economic growth momentum has slowed, due in large part to the U.S.-China trade conflict and China's growth moderation. AMRO staff's 2019 forecast of 2.7 percent is lower than the 2018 growth outturn of 3 percent. In Q4 2018, exports plunged while fixed investment turned negative. Consumption growth has remained fairly buoyant, in line with firm wage increases, but looking ahead, could be affected by external uncertainties and the property market downshift. Higher-frequency indicators point to continued growth deceleration in early 2019. PMI readings and trade indicators remain in the contractionary range.

Inflation remains firm but inflationary pressures could be subdued in the period ahead, in tandem with the moderation in the property market. Private housing rental has accounted for about 40 per cent of headline inflation. As momentum in the housing market moderates, disinflation could take place with a lag. Inflation was at 2.5 percent year-on-year in December 2018 and 2.4 percent in January 2019, and fell further to 2.1% in February. Private housing accounted for the bulk of the dip. Counterbalancing that is firm wage growth, with median household income having risen strongly in successive quarters.

Credit expansion is likely to decelerate owing to the above factors. In brief, it could be caused by (i) trade conflict-related uncertainty; (ii) slower overall growth; and (iii) property market moderation. The growth in total loans and advances has slowed through 2018, with expansion in recent months being well below 10 percent year-on-year. The softening has been broad-based across most economic sectors.

The property market moderated in the second half of 2018, with some stabilization in early 2019. Residential property prices in February 2019 were about 7.5 percent lower than the peak in July while office space prices dipped in late-2018 and early-2019.

Hong Kong's fiscal position remains very strong. Surpluses continue to be expected for 2019 and 2020, given authorities' conservative assumptions for policymaking, including about the contribution of land premium to revenue.

The U.S.-China trade conflict and a sharp slowdown in China's growth are the top risks for Hong Kong, given the likelihood of significant spillovers. Should the United States impose higher tariffs on all imports of Chinese goods, and

China were to retaliate, the spillovers to Hong Kong could be very significant. Based on AMRO staff estimates, up to 1.0 percentage point could be shaved off Hong Kong's GDP in 2020. The transmission of the shock would largely be through Hong Kong's trade-related services, including offshore trade and non-trade services exports, of which a significant portion of demand comes from China and the United States. The trade conflict, together with corporate and financial deleveraging, could lead to a sharp slowdown in China and affect Hong Kong through weaker demand and market sentiment.

The moderation in the property market could be a healthy development. A gradual downshift could be beneficial if seen in the context of: (a) buoyant residential property prices in 2018, (b) banks having strong buffers in terms of LTV ratios; and (c) an opportunity for new homebuyers to take on less leverage. However, if the property market enters a sharp downturn, it could weaken private consumption considerably and exert a domestic drag on growth, which is already facing external headwinds. A slower economy could in turn affect wages, leading to second-round effects.

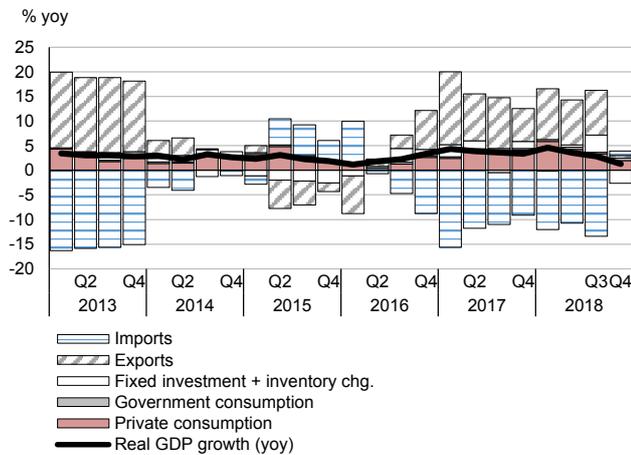
Policymakers are addressing the issue of how best to soften the impact of the U.S.-China trade conflict on Hong Kong's services sector and the broader economy, and have introduced useful measures including increasing SME financing guarantees. Further fiscal measures could be deployed to support the economy through higher public investment and financial support for lower-income groups. It may also be useful to consider how to further increase the value-add of different types of services exports even though Hong Kong's services sector is already highly developed. Policies to diversify trade and investment to other regions such as ASEAN could help mitigate the impact.

Authorities are open to adjusting property market measures if price corrections show signs of being potentially destabilizing. It would be desirable if any change in property market momentum were to be gradual to avoid a large drag on already-slowing economic growth.

Fiscal policy remains sound and well-considered. Efforts to use fiscal resources to enhance growth potential and address population ageing challenges, while maintaining fiscal prudence, continue to be the appropriate policy direction.

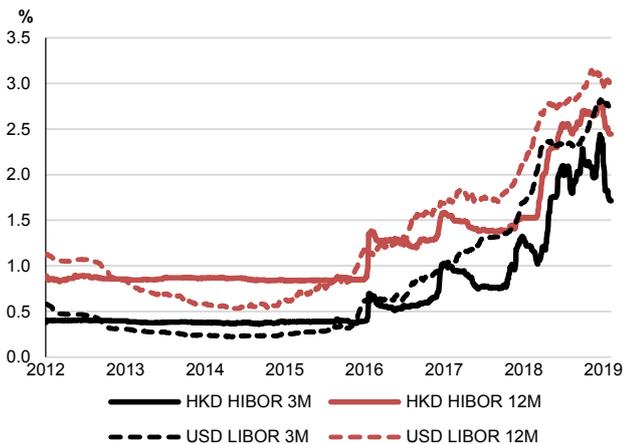
## Hong Kong, China: Selected Charts

Hong Kong's growth momentum has slowed, largely as a result of the U.S.-China trade war.



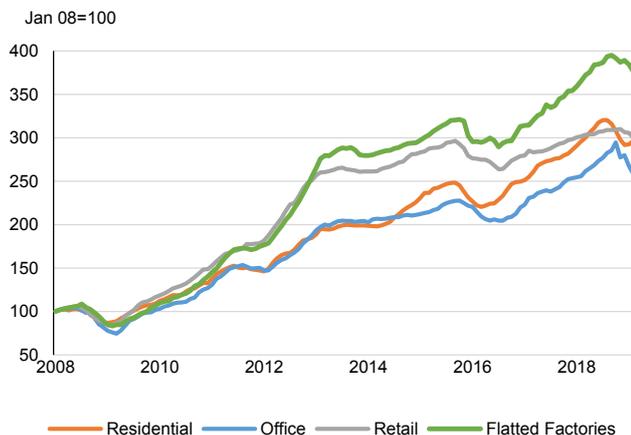
Sources: CEIC; and AMRO staff estimates.

The Hong Kong dollar HIBOR has been rising and catching up with the U.S. dollar LIBOR due to various factors including IPOs, seasonality and prime rate hike talks. But the gap has widened recently.



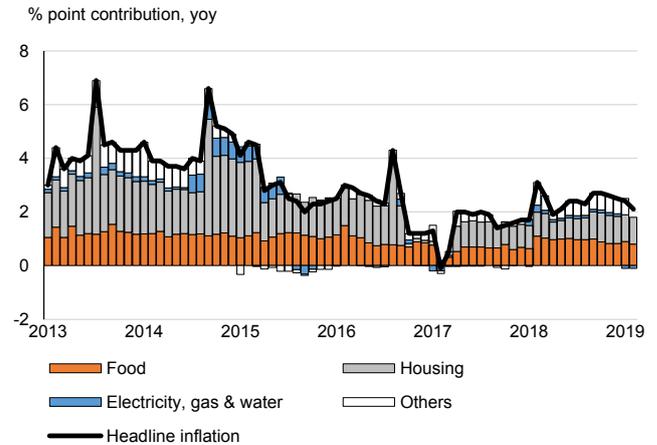
Sources: CEIC; and AMRO staff calculations.

Property prices have started to fall, which could be a healthy development, but the risks associated with a possibly sharp correction are considerable.



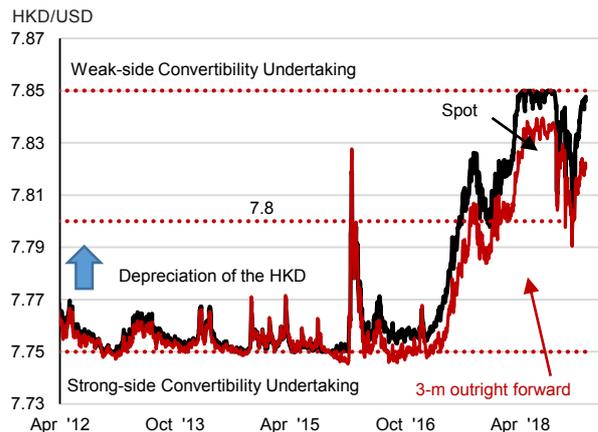
Sources: CEIC; and AMRO staff calculations.

Inflation remains firm but price pressures could become more subdued in the period ahead.



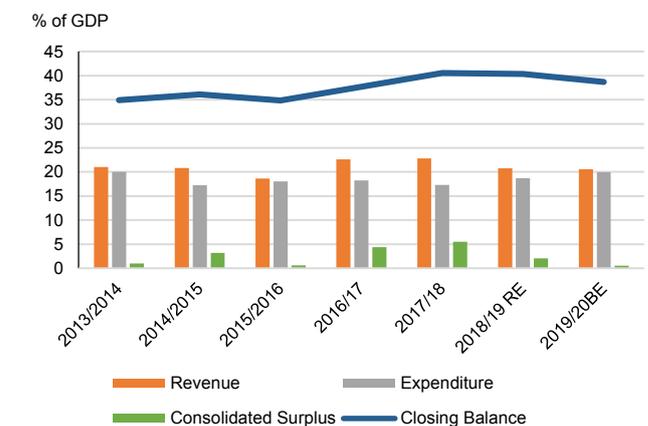
Source: CEIC.

The renewed divergence of interest rates has increased arbitrage activity again, and the Hong Kong dollar has depreciated.



Sources: CEIC; and AMRO staff calculations.

The government's financial position continues to be strong, and expectations are of continuing budget surpluses and a further buildup in fiscal reserves.



Sources: Financial Services; and the Treasury Bureau.

## Hong Kong, China: Selected Economic Indicators

	2015	2016	2017	2018
<b>Real Sector and Prices</b>	(In percentage change unless specified)			
Real GDP	2.4	2.2	3.8	3.0
Private consumption	4.8	2.0	5.5	5.6
Government consumption	3.4	3.4	2.8	4.2
Gross domestic fixed capital formation	-3.2	-0.1	2.9	2.2
Exports	-1.4	0.7	5.9	3.8
Goods	-1.7	1.6	6.5	3.5
Services	0.3	-3.5	2.9	4.9
Imports	-1.8	0.9	6.6	4.5
Goods	-2.7	0.7	7.3	4.9
Services	5.0	2.0	2.1	2.2
GDP deflator	3.6	1.6	3.0	3.7
<b>Labor Market</b>				
Unemployment rate (In percent, period average)	3.3	3.4	3.1	2.8
<b>Prices</b>				
Headline inflation (Period average)	3.0	2.4	1.5	2.4
Underlying inflation (Period average)	2.5	2.3	1.7	2.6
<b>External Sector</b>	(In USD billion unless specified)			
Current account balance (In percent of GDP)	3.3	4.0	4.7	4.3
Trade balance (In percent of GDP)	2.4	2.3	1.1	0.1
Exports, f.o.b	494.0	502.0	532.0	547.0
Imports, cif	515.0	518.0	554.0	577.0
Overall balance	36.0	1.1	32.0	1.0
(In percent of GDP)	11.8	0.4	9.4	0.3
Gross official reserves excluding net forward position	358.8	386.2	431.0	425.0
(In months of retained imports of goods)	32.1	36.0	36.8	32.7
Total external debt	1,300.3	1,357.0	1,579.0	1,691.0
Short-term external debt (In percent of international reserves)	251.3	237.3	244.0	266.0
<b>Fiscal Sector (General Government)</b>	(In percent of FY GDP)			
Revenue	18.8	23.0	23.3	-
Expenditure	18.2	18.6	17.7	-
Consolidated budget balance	0.6	4.5	5.6	-
Public debt	0.1	0.1	0.1	-
<b>Monetary and Financial Sector</b>	(In percentage change, period end)			
Total loans	3.5	6.5	16.1	-
Total loans (In percent of GDP)	314.2	322.1	349.8	-
Loan to deposit ratio (In percent)	70.1	68.4	73.0	-
Classified loan ratio (In percent)	0.69	0.72	0.56	-
Capital adequacy ratio (In percent)	18.3	19.2	19.1	-
Three-month Hibor (In percent, end of period)	0.4	1.0	1.3	-

	2015	2016	2017	2018
<b>Memorandum Items</b>	(In percentage change unless specified)			
Exchange rate (In HKD/USD)	7.75	7.76	7.79	-
Exchange rate (In HKD/USD)				
GDP (In HKD billion)	2,398.3	2,490.6	2,662.5	2,845.3
GDP (In USD billion)	309.4	320.9	341.6	363.0
GDP per capita (In USD)	42,431.9	43,736.0	46,216.0	48,717.0
Asset prices				
Hang Seng Index (end of period, 1964=100)	21,914.4	22,000.6	29,919.2	25,846.0
(In percent yoy)	-7.2	0.4	36.0	-13.6
Residential property prices (end of period, 1999=100)	285.0	307.4	352.9	368.0
(In percent yoy)	2.4	7.9	14.7	1.9

Sources: Hong Kong authorities; and AMRO staff estimates.

# Indonesia

Indonesia's economic growth in 2018 was supported by a pick-up in domestic demand. Real GDP growth increased from 5.1 percent in 2017 to 5.2 percent in 2018, driven by stronger consumption and investment. Net exports, meanwhile, turned into a drag on overall growth, as export growth slowed on lower external demand alongside elevated imports. High-frequency data point to solid domestic consumption and investment into 2019, which are expected to continue supporting growth amid ongoing external headwinds.

Inflation has been well-anchored within Bank Indonesia's target band of 3.5±1 percent. Headline inflation stood at 3.1 percent (year-on-year) as of December 2018, while core inflation increased slightly to around 3.1 percent. Headline CPI eased to below 3 percent in early 2019, driven by lower food and energy inflation. Core CPI, meanwhile, remained relatively stable at about 3.0 percent, as of March 2019.

A deteriorating trade balance weighed on the current account deficit. The current account deficit increased to close to 3 percent of GDP in 2018, up from 1.6 percent in 2017. Higher oil prices amidst growing domestic demand in the first 9 months of 2018 drove the oil and gas (OG) trade deficit higher. The non-OG trade surplus, meanwhile, contracted on weakening commodity exports amid robust imports related to increased domestic economic activity. On a positive note, service and primary account deficits narrowed, reflecting higher receipts from rising tourist arrivals and lower profit repatriation overseas. The recent decline in oil prices, coupled with the ongoing implementation of policy measures, such as the B-20 policy and trade and export facilitating measures, are expected to help contain the current account deficit going forward.

Shifting external dynamics have eased downward pressure on the rupiah and renewed foreign investors' appetite for rupiah-denominated assets. Indonesia's financial markets experienced volatility in the first 10 months of 2018, reflecting foreign investors' pullback from emerging markets, driven by a stronger U.S. dollar, coupled with continued U.S. Federal Reserve rate hikes and escalating global trade tensions. Foreign investors have, however, returned to net-purchases of government bonds and equities, following a recent pause in the Fed's rate hike cycle. The rupiah, having depreciated

by about 10 percent to IDR15,178 per U.S. dollar, on average, in October 2018, rebounded to about IDR 14,211 per USD in March 2019. A stronger rupiah and the return of capital inflows supported Bank Indonesia (BI) in replenishing its gross foreign reserves from USD 114.8 billion in September 2018 to USD 124.5 billion, as of March 2019. BI has also put its policy rates on hold, after six hikes totaling 175 basis points between May–November 2018.

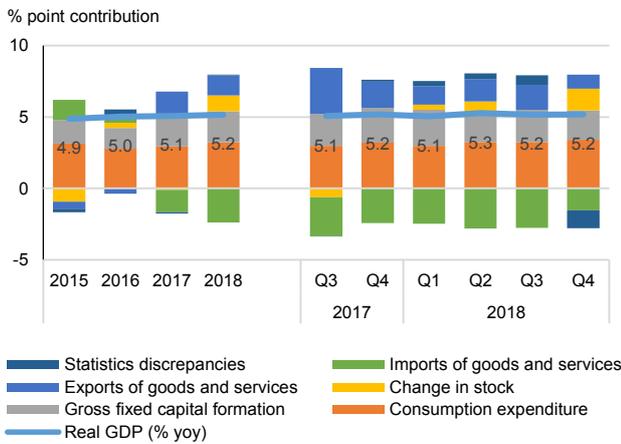
Monetary conditions have tightened somewhat. Broad money growth accelerated to 6.0 percent in February 2019 from 5.5 percent in January, albeit having moderated from around 8 percent a year earlier. Domestic credit, having peaked to 13.3 percent in October, held up at 12.0 percent, as of February 2019. Banks have lifted deposit rates in response to policy rate hikes, while lending rates have been kept relatively stable. The overall banking sector remains sound, supported by strong capital buffers, moderating non-performing loan ratios, and improving profitability.

Budget realization improved in 2018. The overall fiscal balance narrowed to 1.8 percent of GDP, driven by increased revenue. Budget revenue has risen to 13.1 percent of GDP for the first time since 2015, benefiting from an oil windfall and strengthened non-OG tax revenue on the back of a broader tax base and tax administration enhancement. Tax revenue collection is expected to remain robust in 2019, supporting an expansion in expenditure in the election year and a stable deficit of 1.8 percent of GDP.

Shifts in external dynamics remain Indonesia's key risks to the downside. In light of elevated foreign holding of local currency assets, including government bonds and equities, Indonesia is still vulnerable to risks of capital flow volatility. A sharper-than-expected slowdown in global demand, particularly from major trading partners such as China, could weigh on the price and demand for Indonesia's major export commodities. In light of ongoing external uncertainties, the authorities are expected to continue recalibrating its policy mix to maintain economic stability and strengthen resilience against external shocks. On the upside, the recent moderation in fuel prices may provide some respite for Indonesia's widening current account deficit and provide room for necessary adjustments to the current fuel subsidy policy.

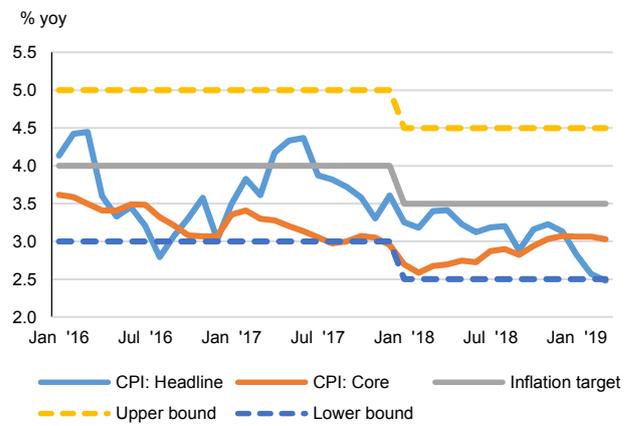
## Indonesia: Selected Charts

Strengthened domestic demand supported a pick-up in growth last year, amid external headwinds.



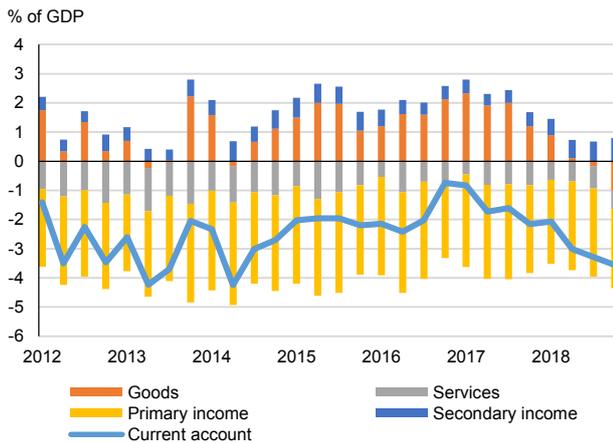
Source: Statistics Indonesia.

Inflation continued to be anchored within Bank Indonesia's target band.



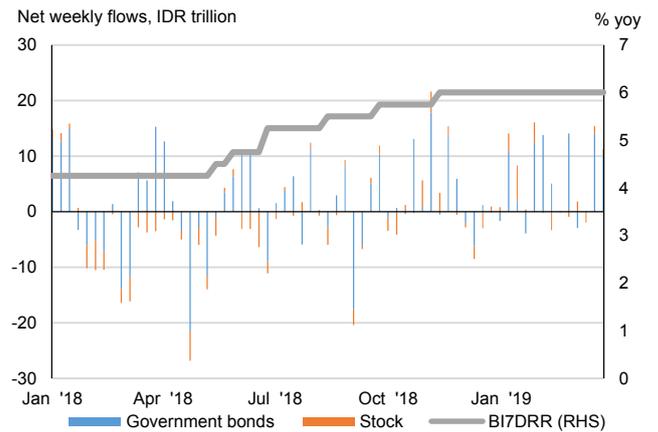
Source: Statistics Indonesia.

A deteriorating trade balance weighed on the current account deficit.



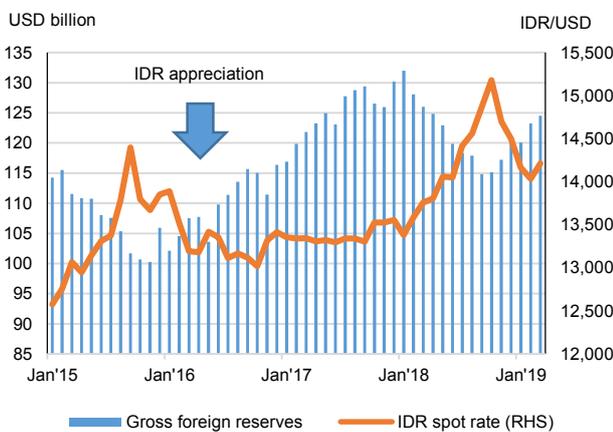
Source: Bank Indonesia.

On the back of the recent return of net capital inflows, Bank Indonesia has put policy rates on hold, following six hikes between May-November 2018...



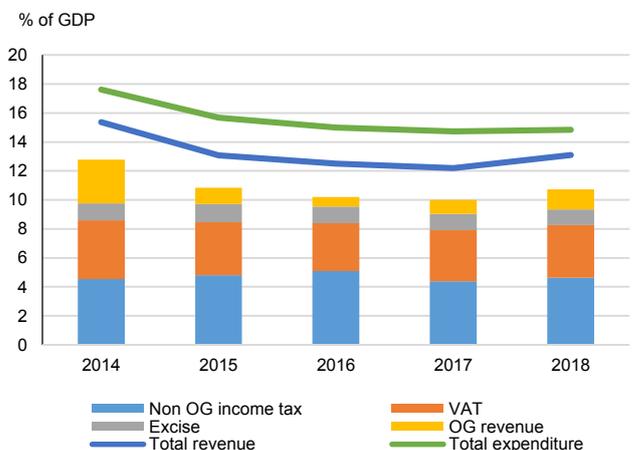
Sources: Bank Indonesia; and Ministry of Finance.

...and replenished its gross foreign reserves in recent months.



Source: Bank Indonesia.

An oil revenue windfall and strengthened tax collection supported fiscal consolidation.



Source: Ministry of Finance.

## Indonesia: Selected Economic Indicators

	2015	2016	2017	2018
<b>National Income</b>	(In percentage change)			
Real GDP	4.9	5.0	5.1	5.2
Household consumption	5.0	5.0	4.9	5.0
Government consumption	5.3	-0.1	2.1	4.8
Gross fixed capital formation	5.0	4.5	6.2	6.7
Export	-2.1	-1.7	8.9	6.5
Import	-6.2	-2.4	8.1	12.0
<b>Balance of payments</b>	(In percent of GDP)			
Current account balance	-2.0	-1.8	-1.6	-3.0
Trade balance	1.6	1.6	1.9	0.0
Oil and gas	-0.7	-0.5	-0.7	-1.1
Non-oil and gas	2.2	2.1	2.5	1.1
Financial account balance	2.0	3.1	2.8	2.4
Foreign direct investment (net)	1.2	1.7	1.8	1.3
Portfolio investment (net)	1.9	2.0	2.1	0.9
Other investment (net)	-1.2	-0.6	-1.1	0.2
Overall balance	-0.1	1.3	1.1	-0.7
<b>Central government</b>	(In percent of GDP)			
Revenue and grant	13.1	12.5	12.3	13.1
Expenditure	15.6	15.0	14.7	14.9
Budget balance	-2.6	-2.5	-2.5	-1.8
Central government debt	27.0	28.0	29.4	28.9
<b>Monetary and Financial Sector</b>	(In percentage change)			
Broad money	9.0	10.0	8.3	6.3
Private sector credit	8.9	9.3	7.7	12.6
<b>Memorandum Items</b>	(In USD billion, unless specified)			
Headline inflation (yoy, end of period)	3.4	3.0	3.6	3.1
BI policy rate (In percent p.a.)	7.50	4.75	4.25	6.00
Exchange rate (In IDR/USD, period avg)	13,392.0	13,307.0	13,384.0	14,246.0
International reserves	105.9	116.4	130.2	120.7
External debt (In percent of GDP)	36.1	34.3	34.7	36.2
Nominal GDP	861.0	932.0	1015.0	1042.0

Sources: Indonesia authorities; and AMRO staff estimates.

# Japan

In 2018, the Japanese economy continued to grow at around its potential, while quarterly GDP fluctuated widely. The volatility in growth has been largely due to one-off factors, such as bad weather and natural disasters. In Q4, GDP growth rebounded by 1.9 percent, partially recovering from the sharp contraction (-2.4 percent) in Q3. In 2018, private consumption picked up, albeit with volatility, supported by increases in household income amid a tight labor market. Business fixed investment remained firm, backed by strong demand for labor-saving types of investment. Export growth remained positive, while imports continued to see moderate growth. Although exports have shown some weakness in 2019, owing to the slowdown in overseas markets, Japan's economy is expanding moderately led by domestic spending.

Looking ahead, real GDP is expected to maintain moderate growth of 0.6 percent in FY2019, before easing slightly to 0.5 percent in FY2020.<sup>1</sup> Growth in FY2019 would be mainly driven by domestic demand, while being constrained by slow external demand and negative spillovers from the U.S.-China trade conflict. The scheduled consumption tax hike in October 2019 and moderating investment, with the completion of projects relating to the 2020 Tokyo Olympics, will be a drag on growth.

Consumer price inflation continues to remain below 1 percent. During the first two months of 2019, CPI (less fresh food) rose by 0.8 percent, edging down from the 0.9–1.0 percent range in the previous months. Despite strong labor market conditions, core CPI (less fresh food and energy) inflation stayed low, within the 0.3–0.4 percent range in H2 2018. Meanwhile, medium-term inflation expectations remained around 1.0 percent. Going forward, consumer price is expected to rise moderately by 0.8 percent in FY2019 and 0.7 percent (excluding the effects of the consumption tax hike) in FY2020. That said, it is unlikely that inflation will reach the Bank of Japan's 2 percent target in the near- to medium-term.

The external position remains strong, given the sizable current account surplus. In 2018, the current account surplus declined to 3.5 percent of GDP from 4.0 percent of GDP in 2017. The goods trade surplus shrank to JPY1.2 trillion in 2018 from JPY5.0 trillion in 2017, as imports grew faster than exports due to oil price surge throughout the year. The

primary income surplus remained firm at JPY20.8 trillion, reflecting Japan's large accumulated overseas investments. Meanwhile, capital outflows continued to be driven by residents' outward investments in search of higher returns and backed by the sizable current account surplus.

Fiscal consolidation has lagged behind schedule and fiscal policy has been more expansionary than planned. The overall fiscal deficit has been reduced, largely driven by strong tax revenue collection owing to robust economic growth and declining interest expense on JGB bonds. Amid continued expansionary fiscal policy, however, the primary deficit of the central and local governments has remained significantly wider than the medium-term fiscal consolidation plan announced in 2015 with the target to achieve a primary surplus by FY2020.

Downside risks to the near-term outlook have intensified, mainly due to external risk factors. These include a further escalation of the U.S.-China trade conflict, a sharper economic slowdown in major trading partners, and a recurrence of emerging market crises or heightened geopolitical tensions. Domestically, the scheduled consumption tax hike in October 2019 may cause demand fluctuations, although mitigating measures will be implemented.

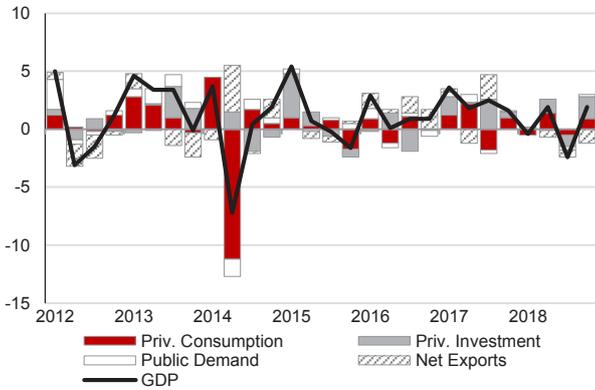
Japan's structural challenges could critically undermine the economy's long-run growth and stability. First, rapid population aging and low birth rates will reduce the labor force and lower the economy's growth potential in the long-term. Moreover, the associated increase in social security-related spending and shrinking tax bases could bring about a deterioration in the fiscal balance. Second, the repeated delays in fiscal consolidation could negatively affect fiscal discipline, leading to a further build-up in public debt and financial vulnerabilities. Third, the prolonged easing in monetary policy has led to a reduction in the net interest margins of financial institutions and forced them to take more risks, especially regional banks, pension funds and insurance companies. It has also impaired the market's functioning in the Japanese Government Bond markets. Downward pressure on regional banks' profitability due to tight interest margins and the consequent build-up of risky portfolios may impede their financial intermediation function should a negative shock occur.

<sup>1</sup> Our baseline projection has not considered the potential effect of temporary offsetting measures, including temporary fiscal stimulus (worth JPY2 trillion). If these measures are successfully implemented, they may pose upside risks to the growth outlook in FY2019.

## Japan: Selected Charts

In 2018, real GDP grew by 0.8 percent, while showing a highly volatile growth trajectory.

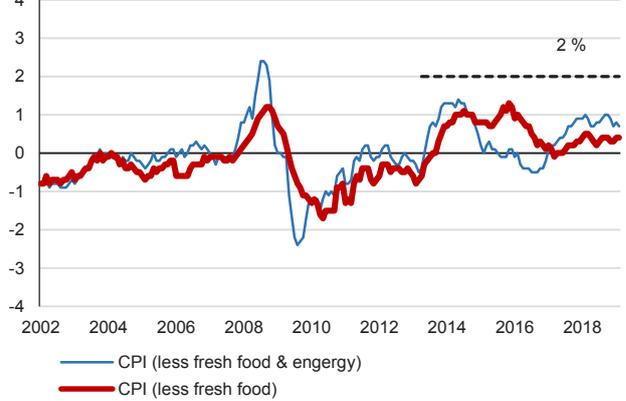
% points, qoq (saar)



Source: Cabinet Office.

CPI inflation has increased gradually, but remains stubbornly low, short of the 2 percent target.

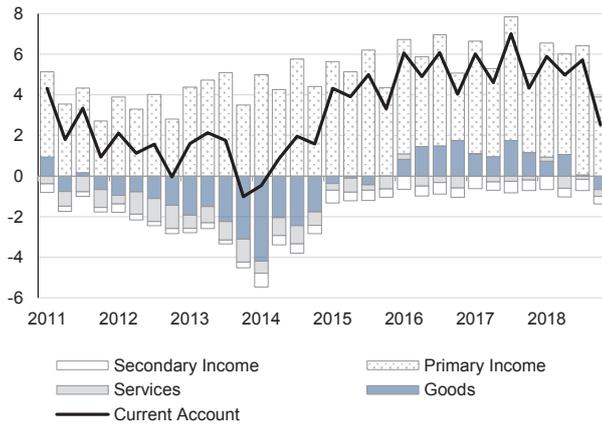
% yoy



Source: Ministry of Internal Affairs and Communications.

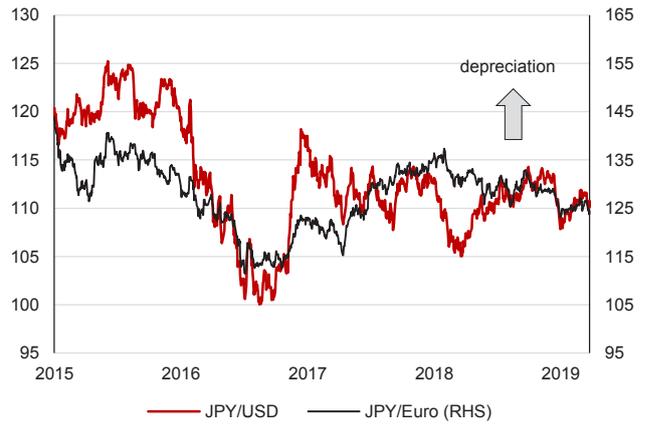
The current account surplus remained sizable at 3.5 percent of GDP in 2018.

JPY trillion



Source: Ministry of Finance.

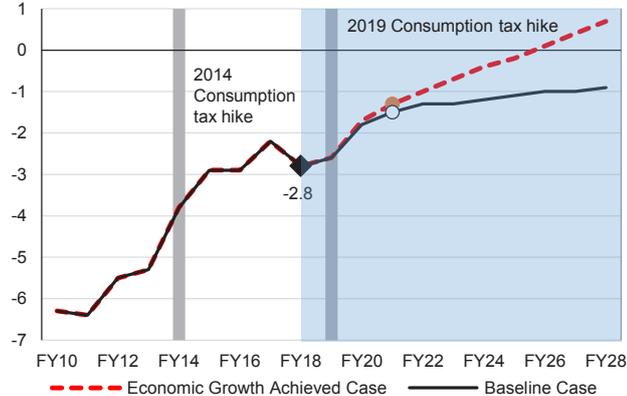
Since the beginning of 2019, the Japanese yen has depreciated gradually against the U.S. dollar amid easing trade tension.



Source: Bank of Japan.

The primary balance in terms of GDP is projected to remain in deficit until FY2026.

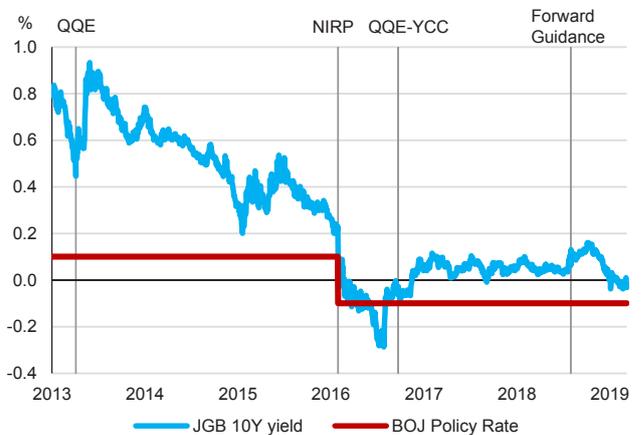
% of GDP



Source: Cabinet Office (January 2019).

Note: The primary balance is for central and local government.

10-year JGB yields has fallen to around zero although the BOJ allowed for a wider band in July 2018.



Source: Bank of Japan.

## Japan: Selected Economic Indicators

	FY2015	FY2016	FY2017	FY2018 Projection
<b>Real Sector and Prices</b>	(In annualized percentage change, unless specified)			
GDP growth	1.3	0.9	1.9	0.6
Private consumption	0.7	0.0	1.1	0.7
Private non-residential investment	1.6	-0.5	4.6	3.5
Private residential investment	3.7	6.3	-0.7	-4.4
Government consumption	1.9	0.7	0.4	1.1
Public investment	-1.6	0.6	0.5	-3.3
Net exports (ppts)	0.1	0.8	0.4	-0.2
Exports of goods and services	0.8	3.6	6.4	1.9
Imports of goods and services	0.4	-0.9	4.0	3.2
Labor market	(Average of monthly data)			
Unemployment rate (In percent, sa)	3.3	3.0	2.7	2.5
Ratio of job offers per one applicant (sa)	1.23	1.39	1.54	1.60
Prices	(Average of monthly data)			
CPI (all items)	0.2	-0.1	0.7	0.8
CPI (less fresh food)	0.0	-0.2	0.7	0.8
CPI (less fresh food and energy)	1.0	0.3	0.2	0.4
<b>External Sector <sup>1/</sup></b>	(In JPY trillion, unless specified)			
Current account balance	18.3	21.0	21.8	20.9
Percent of GDP	3.4	3.9	4.0	3.8
Trade balance, customs cleared	-1.1	4.0	2.4	1.5
Exports of goods, customs cleared	74.1	71.5	79.2	80.7
Imports of goods, customs cleared	75.2	67.5	76.8	79.3
Primary income balance	21.3	18.7	19.9	20.0
Financial account balance	24.3	24.7	19.6	21.0
International reserves (In USD billion, period end)	1,262.0	1,230.0	1,268.0	-
<b>Fiscal Sector (Central and Local Governments) <sup>2/</sup></b>	(In percent of GDP)			
Primary balance	-2.9	-2.9	-2.2	-2.8
Fiscal balance	-4.4	-4.4	-3.6	-4.3
Outstanding debt	185.2	187.6	188.2	189.2
<b>Monetary Sector <sup>3/</sup></b>	(In percentage change, unless specified)			
Monetary base	32.3	23.4	14.2	7.2
Overnight call rate (In percent)	-0.002	-0.060	-0.068	-0.066
<b>Memorandum Items <sup>3/</sup></b>				
Exchange rate (In JPY/USD, FY-period average)	120.1	108.3	110.8	111.3
Exchange rate (In JPY/USD, end of March)	112.4	111.8	106.2	110.4
Nikkei 225 (In JPY, end of March)	16,758.7	18,909.3	21,454.3	20,014.8
JGB 10 year yield (In percent, end of March)	-0.049	0.067	0.043	0.013
Non-performing loan ratio (In percent, end of March, Major banks)	0.97	0.87	0.66	-
Nominal GDP (In USD billion, FY)	4,437.0	4,955.0	4,940.0	5,003.0
Nominal GDP (In JPY trillion, FY)	533.0	536.8	547.4	550.3

Sources: Japan authorities; and AMRO staff estimates.

Note: <sup>1/</sup> The BOP data in external sector follow the IMF BPM6 standard.

<sup>2/</sup> FY2018 figures are based on AMRO staff projections.

<sup>3/</sup> FY2018 figures reflect the data up to the end-December 2018 (except for monetary base up to the end-Sep 2018); Fiscal year-based nominal GDP in the U.S. dollar is based on AMRO staff estimates.

<sup>4/</sup> Based on fiscal year, unless otherwise mentioned.

# Korea

Korean economic growth was moderate in 2018. GDP growth declined to 2.7 percent from 3.1 percent in 2017, driven by subdued investment. Domestically, a correction in investment continued throughout 2018, along with the suppressing effects from tighter measures on the real estate market. Meanwhile, private consumption continued to grow on the back of rising household income, despite weaker consumer sentiment in the second-half of the year. Government spending also expanded to maintain growth momentum. Externally, exports posted solid growth, driven by strong global demand for information technology and petrochemical products.

Employment remained fragile. Slow employment growth in 2018 was underpinned by slower hiring in the trade, hotels and restaurants, business facilities, as well as manufacturing sectors. The unemployment rate stayed at 3.8 percent, on average, while the youth unemployment rate was 9.5 percent. Subdued employment was due to corporate restructuring, an aging population, more use of automation and, to some extent, the 16.4 percent increase in the minimum wage in early-2018.

Headline inflation stayed below the Bank of Korea's 2 percent target. Notwithstanding the 2 percent inflation recorded from September to November, headline inflation hovered around 1.0–1.5 percent throughout 2018, as agricultural, livestock and marine products, and public service prices stabilized. Demand-side pressures were subdued with stable core inflation.

The external position remained strong. In 2018, the current account surplus amounted to a sizeable USD 76.4 billion, equivalent to 4.7 percent of GDP, on the back of a large merchandise trade surplus and a smaller service account deficit. The substantial surpluses tended to be invested abroad as evidenced by rising overseas portfolio investment, mainly led by pension and insurance companies. Market concerns over any adverse impact from global trade protectionism on the Korean economy manifested through non-resident flows. Inflows to the Korean bond market lessened, while the stock market experienced outflows in Q4 2018.

Korea's financial sector was generally stable. Credit to the private sector expanded at a slower pace in 2018. Household loan growth decelerated gradually as a result of tightened macroprudential measures, while

corporate loans continued to increase modestly. The quality corporate loans by the banking sector improved, as reflected in the declining proportion of substandard-and-below loan categories. However, financial institutions remained generally well-capitalized with high capital adequacy ratios. The rise in house prices in Seoul and surrounding areas moderated after the government tightened measures on multiple-home ownership in September 2018.

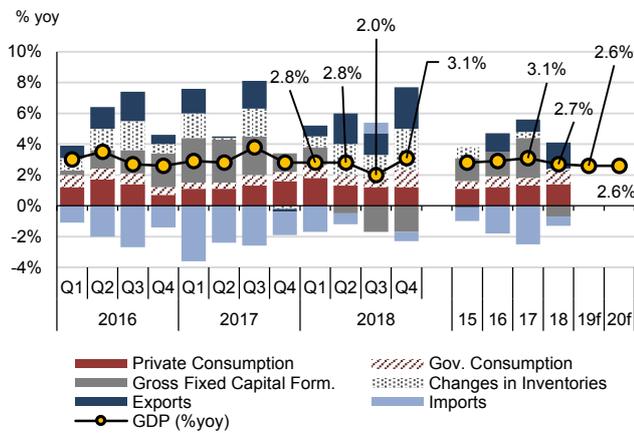
Despite increased fiscal spending to support growth, fiscal buffers remain ample owing to strong revenue collection. In 2018, central government spending was expanded to 24.3 percent of GDP, rising from 23.7 percent in 2017. The spending focused on the government's policy priorities, namely, job creation and social welfare. Meanwhile, revenue collection continued to grow, underpinned by strong corporate earnings and increased property-related tax rates. Managed fiscal balance deficit registered at -0.6 percent of GDP, narrowing from -1.1 percent in 2017. Central and local government debt was relatively low, at 38.2 percent of GDP. In 2019, budget expenditure was expanded further, to 25.1 percent of GDP, amidst heightened risks from the slowdown in global trade and economic activity.

Going forward, the growth rate is likely to slow further but remain around its potential. The Korean economy is projected to grow at 2.6 percent in 2019 on the back of a weak investment climate and a slowdown in exports. Headline inflation is expected to decline to 1.0 percent from weakening global oil prices and soft demand. Headwinds to the growth outlook would be in the form of any adverse spillover effect from the as-yet unresolved global trade conflicts, U.S. tariffs on auto imports, a faster-than-expected slowdown in the global information technology industry and moderating growth in regional economies. Tailwinds would come from expansion in fiscal expenditure.

From a longer-term perspective, the key challenges for the economy focus on declining potential growth. Besides an aging population, the labor market is also facing structural challenges from high youth underemployment. Moreover, excessive concentration in the ICT industry may result in the Korean economy being susceptible to shocks arising from a global ICT downturn. In addition, expansion of overseas outsourcing of main manufacturing sectors such as ICT and automotive sectors will weaken domestic employment and investment.

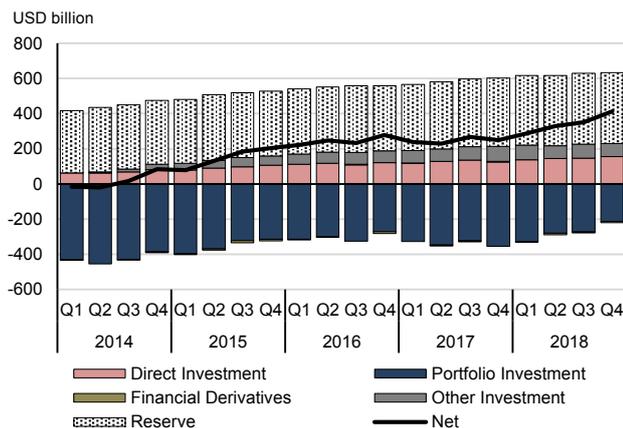
## Korea: Selected Charts

The Korean economy is expected to grow at a moderate pace in 2019.



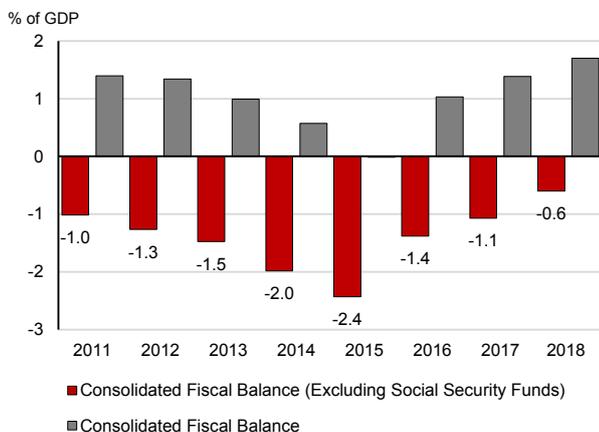
Sources: Bank of Korea; and AMRO staff estimates.

In tandem with a large current account surplus, Korea's overseas assets have been growing since 2012.



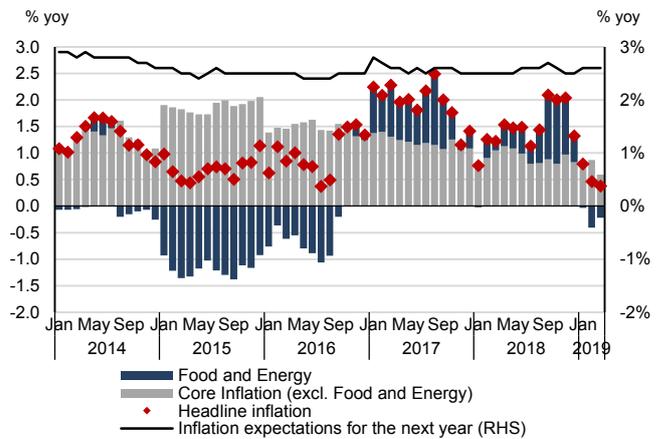
Sources: Bank of Korea; and AMRO staff calculations.

The managed fiscal deficit (overall fiscal balance excluding Social Security Fund) narrowed in 2018.



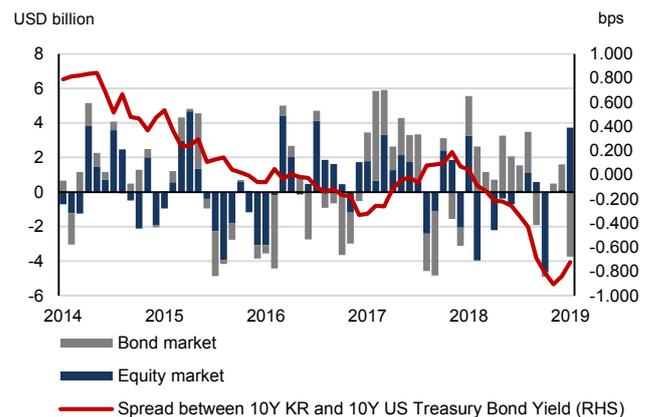
Sources: Ministry of Strategy and Finance; and AMRO staff estimates.

Headline inflation decelerated recently following the fall in global oil prices.



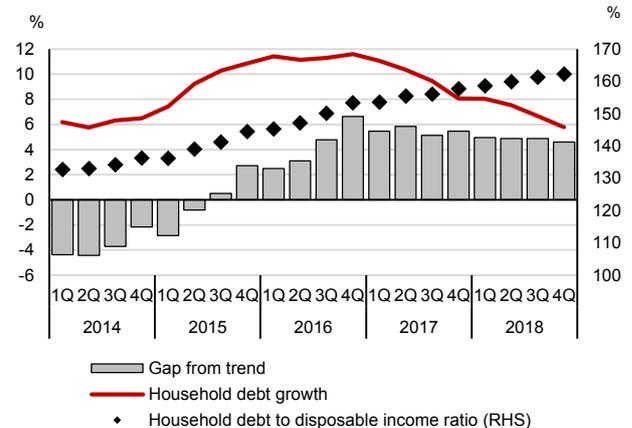
Source: Statistics Korea.

Korean bond and stock markets recorded inflows of non-resident portfolio investment in early 2019.



Sources: Bank of Korea; and AMRO staff calculations.

Household debt moderated gradually as a result of tightened macroprudential measures.



Sources: Bank of Korea; Statistics Korea; and AMRO staff calculations.

Note: The trend is calculated by the Hodrick-Prescott one-sided filter ( $\lambda = 400,000$ ).

## Korea: Selected Economic Indicators

	2015	2016	2017	2018
<b>National income and prices</b>	(In percentage change unless specified)			
Real GDP	2.8	2.9	3.1	2.7
Final consumption	2.4	3.0	2.8	3.5
Private sector	2.2	2.5	2.6	2.8
Public sector	3.0	4.5	3.4	5.6
Gross capital formation	7.3	5.6	10.1	-1.9
Construction	6.6	10.3	7.6	-4.0
Facilities investment	4.7	-1.0	14.6	-1.6
Intellectual property products	1.8	3.5	3.0	1.9
Exports of Goods	-0.6	2.1	3.8	4.0
Imports of Goods	0.7	3.3	7.4	1.9
Labor Market				
Unemployment rate (In percent, period average)	3.6	3.7	3.7	3.8
Prices				
Consumer price inflation (period average)	0.7	1.0	1.9	1.5
Core inflation, excluding food and energy (period average)	2.4	1.9	1.5	1.2
<b>External sector</b>	(In USD billion unless specified)			
Current account balance	105.1	97.9	75.2	76.4
(In percent of GDP)	7.6	6.9	4.9	4.7
Trade balance	120.3	116.5	113.6	111.9
Services (net)	-14.6	-17.3	-36.7	-29.7
Financial account balance	90.7	92.2	80.1	53
Direct investment (net)	19.6	17.8	16.2	24.4
Portfolio investment (net)	49.5	67.0	57.9	43.9
Other investment (net)	19.8	10.9	14.3	-14
Overall balance	12.1	7.6	4.4	17.5
Gross official reserves	368	371.1	389.3	403.7
(In months of imports of goods & services)	8.3	8.8	7.9	7.5
Short-term external debt (In percent of international reserves)	28.3	28.2	29.8	31.4
<b>Central government</b>	(In percent of GDP)			
Total Revenue	23.8	24.5	24.9	26.1
Total Expenditure	23.8	23.4	23.5	24.4
Overall balance including Social Security Fund	0.0	1.0	1.4	1.7
Managed balance	-2.4	-1.4	-1.1	-0.6
Central and local government debt	37.8	38.2	38.2	38.2
<b>Monetary and financial sector</b>	(In percentage change)			
Domestic credit	6.8	5.5	5.6	5.4
(In percent of GDP)	191.7	192.7	193.1	197.2
Exchange rate (KRW per US\$, end of period)	1,172.00	1,208.50	1,071.40	1,118.10
10-year government bond yield (in percent, end of period)	2.2	2.2	2.5	2.0
Property price (In percentage change, period average)	3.4	2.7	1.3	2.2
<b>Memorandum Items</b>				
Nominal GDP (In KRW trillion)	1,564.1	1,641.8	1,730.4	1,782.3
Nominal GDP (In USD billion)	1,382.4	1,414.7	1,530.2	1,619.8

Sources: Korea authorities; and AMRO staff estimates.

## Lao PDR

Lao PDR's economic growth slowed in 2018. Growth is estimated to have moderated to 6.5 percent in 2018, from 6.9 percent in 2017. The economy was dragged down by falling output from mining while the electricity sector made a relatively minor contribution to growth, as there was no major increase in installed capacity. Output from agriculture also slowed as a result of flooding, while tighter fiscal policy also inhibited growth. The services sector was the main driver of the economy in 2018, supported by the strong wholesale and retail trade activity, and the improvement in tourism-related sectors as arrivals grew after two years of contraction. Growth is expected to recover slightly to 6.6 percent in 2019, as the impact of the flood dissipates, large hydropower projects commence operations towards the second half of the year, and construction activity is boosted by foreign direct investment (FDI) projects and infrastructure development.

Inflation has increased from the low base of last year. After registering an inflation rate of 0.8 percent in 2017—the lowest in 8 years—inflation rose to 2.0 percent in 2018, driven by rising food and fuel prices. Core inflation likewise rose to 2.2 percent in 2018, from 0.9 percent in 2017, due to higher prices of personal items such as clothing and footwear, furnishings and household equipment. Prices in restaurants and hotels also rose as a result of the recovery in tourist visitors. Inflation remained low for the first three months of 2019, at 1.6 percent, and is expected to trend slightly upward but remain manageable throughout the year.

The current account deficit widened further in 2018. It rose to 7.8 percent of GDP in 2018 from 7.0 percent of GDP in 2017, driven by the large trade deficit which reached 4.8 percent of GDP, and larger outflows from the primary income and lower inflows from the secondary income accounts, as profit repatriation and interest payments rose while remittance inflows declined, respectively. Meanwhile, the services account saw a slight improvement with positive growth in tourist arrivals. The overall balance of payments ended 2018 with a deficit, owing to the wider current account deficit, despite robust FDI inflows and external bond issuances. There was significant pressure on the exchange rate in 2018, with the gap between the parallel and commercial rates widening by as much as 4 percent in the third quarter of 2018. The gap has since narrowed, with the appreciation of the parallel rate and gradual depreciation of the commercial rate. Reserves

dropped to USD 858.61 million at the end of February 2019, down from USD 1.02 billion at the end of 2017.

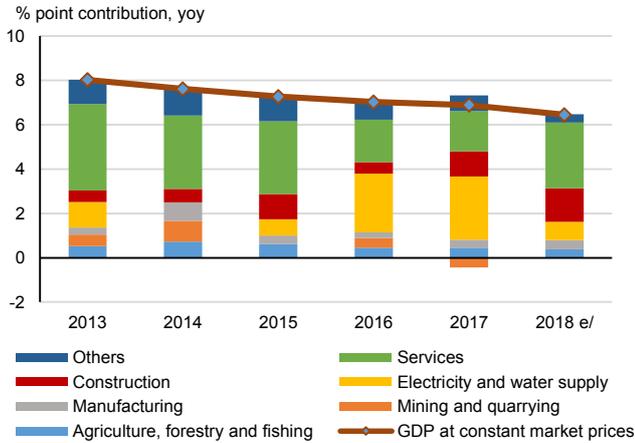
Credit growth slowed owing to the moderation in economic activity and fiscal tightening. Credit growth to the private sector and state-owned enterprises (SOEs) slowed to 2.3 percent in December 2018, from 10.8 percent in December 2017. Fiscal restraint also played a part as credit to SOEs contracted and public investment slowed down. In May 2018, the restriction on foreign currency lending was lifted, reversing earlier tightening policies. However, credit growth remained weak with foreign currency and Kip lending increasing by 3.2 and 2.1 percent, respectively, in Q4 2018. The interest ceilings that had been in place since 2015 were lifted in February 2019 to allow banks to better price credit risks.

The banking system appears sound based on aggregate indicators. Overall capital adequacy ratio for the banking system was at 17.8 percent in September 2018, well above the minimum requirement of 8 percent. The loan-to-deposit ratio is at 87.4 percent as of end-2018. Bank profitability is inching up with the return on asset of 0.68 percent in the third quarter of 2018. Meanwhile, the overall non-performing loan ratio rose slightly to 3.1 percent in the third quarter of 2018. Notwithstanding the general soundness of the banking system, weaknesses remain, such as low capitalization for some state banks. Meanwhile, the process of clearing legacy government arrears related to past projects is ongoing.

The fiscal deficit is expected to narrow in 2018, despite challenges to revenue generation, as authorities clamp down on expenditure. The fiscal deficit is expected to improve to 4.6 percent of GDP in 2018, from 5.6 percent of GDP in 2017, despite flat growth in tax collection, as expenditure has been tightly controlled. Challenges against fiscal consolidation are expected to continue. The fiscal deficit is expected to rise slightly to 4.7 percent of GDP in 2019, as major revenue enhancing reforms are only expected to take effect in 2020, thus emphasizing the need for careful expenditure management during the year to cap the deficit. The authorities' strong commitment to fiscal consolidation is essential to reverse the trend of rising public debt-to-GDP, which needs to be complemented with carefully coordinated policy efforts to sustain strong growth momentum.

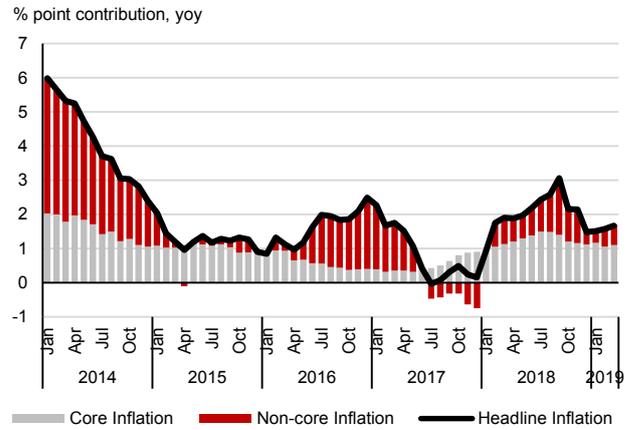
## Lao PDR: Selected Charts

Growth moderated in 2018 as a result of the slowdown in the resource sector and tight fiscal management.



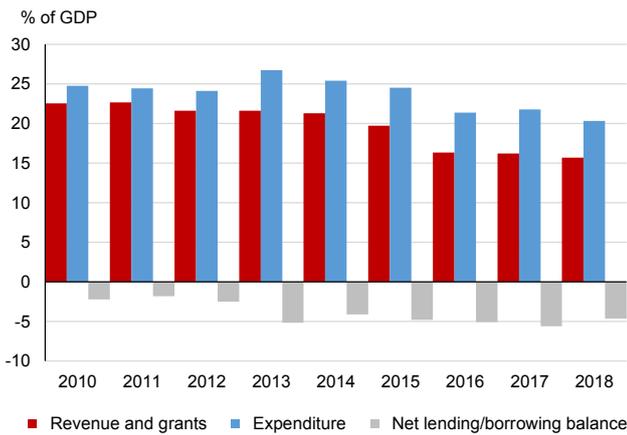
Source: Lao Statistics Bureau.

Inflation rose to 2.0 percent in 2018, driven by rising food and fuel prices.



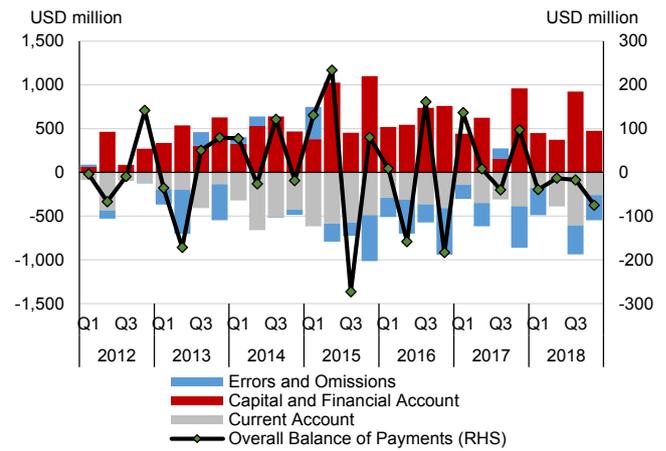
Source: Lao Statistics Bureau.

Fiscal consolidation continued as tighter expenditure control compensated for low revenue growth in 2018.



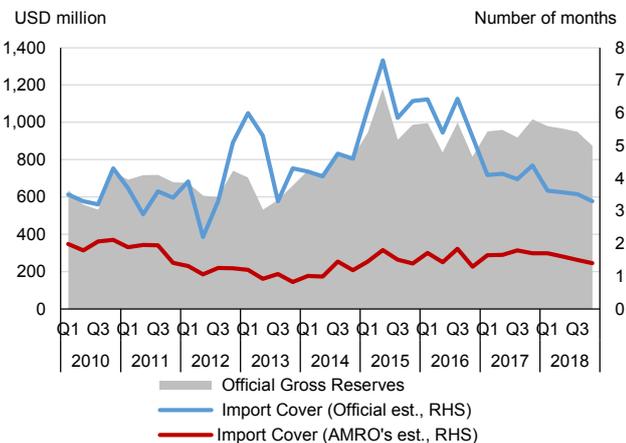
Source: Ministry of Finance.

Steady inflows of foreign direct investment and portfolio inflows, partially financed the sizeable current account deficit, as the BOP registered an overall deficit for 2018.



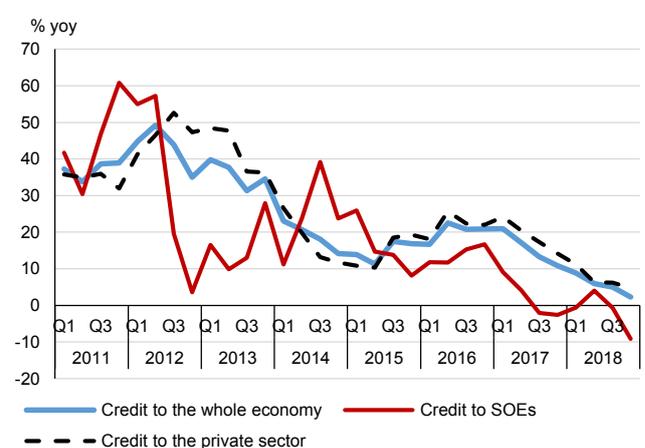
Source: Bank of Lao PDR.

Foreign exchange reserves declined to USD 873 million at the end of 2018, equivalent to about 1.4 months of imports.



Sources: Bank of Lao PDR; and AMRO staff estimates.

The moderation in credit growth could be ascribed to the contraction of credit to SOEs and lower private sector credit growth.



Sources: Bank of Lao PDR; and AMRO staff calculations.

## Lao PDR: Selected Economic Indicators

	2015	2016	2017	2018
<b>Real Sector and Prices</b>	(In percentage change unless specified)			
Real GDP	7.3	7.0	6.9	6.5
GDP deflator	2.3	3.0	1.9	1.7
Consumer price inflation (average)	1.3	1.6	0.8	2.0
Unemployment rate	1.3	1.4	1.5	-
<b>External Sector</b>	(In USD million unless, unless specified)			
Export	3,653.0	4,245.0	4,823.0	5,295.0
Import	5,675.0	5,372.0	5,636.0	6,164.0
Trade balance	-2,022.0	-1,128.0	-813.0	-869.0
(In percent of GDP)	-14.0	-7.1	-4.8	-4.8
Current account balance	-2,268.0	-1,385.0	-1,193.0	-1,430.0
(In percent of GDP)	-15.7	-8.7	-7.0	-7.8
Capital and financial account balance	2,919.0	2,534.0	2,156.0	2,219.0
(In percent of GDP)	20.2	15.9	12.6	12.1
Overall balance	171.0	-172.0	201.0	-146.0
Official gross reserves	987.0	815.0	1,016.0	873.0
(In months of imports of goods & services)	1.8	1.5	1.8	1.4
Export volume	18.4	15.9	6.7	7.0
Import volume	13.0	-6.2	2.3	6.9
External debt, gross	11,663.0	13,523.0	14,497.0	15,923.0
(In percent of GDP)	80.8	85.0	84.9	87.4
<b>Fiscal Sector (General Government)</b>	(In percent of GDP)			
Revenue and grants	19.7	16.3	16.2	15.7
Expenditure	24.5	21.4	21.8	20.3
Current expenditure	15.2	15.3	12.5	12.0
Capital expenditure	9.3	6.1	9.3	8.2
Net lending/borrowing balance	-4.8	-5.1	-5.6	-4.6
Primary net lending/borrowing balance	-3.8	-3.8	-4.3	-2.9
Public debt	57.7	58.5	60.1	62.9
<b>Monetary and Financial Sector</b>	(In percent per annum, end-period unless specified)			
Domestic credit	17.9	18.5	6.4	9.2
Government	31.2	-8.8	-60.6	304.4
State Enterprises	8.2	16.7	-2.6	-9.1
Private Sector	19.3	22.0	14.2	4.7
Private Sector credit (In percent of GDP)	37.1	41.0	43.0	41.6
Broad money	14.7	10.9	12.2	8.3
Reserve money	6.6	-1.4	9.5	5.0
<b>Memorandum Items</b>				
Nominal GDP (In LAK billion)	117,251.0	129,280.0	140,749.0	152,375.0
Nominal GDP (In USD million)	14,430.0	15,913.0	17,070.0	18,224.0
GDP per capita (In USD)	2,222.8	2,409.9	2,585.1	2,777.7
Exchange rate (In LAK/USD, average)	8,125.00	8,124.40	8,245.60	8,361.10

Sources: Lao PDR authorities; and AMRO staff estimates.

# Malaysia

The economy remained resilient despite a moderation in 2018. Robust private consumption drove real GDP to expand by 4.7 percent in 2018, although growth moderated from a three-year high of 5.9 percent in 2017 owing to lackluster investment and a slower pace of export expansion. In 2019-2020, GDP growth is expected to remain moderate at around 4.6–4.7 percent, reflecting the ongoing fiscal consolidation, slowdown in the global electronics cycle, lower crude oil prices and spillovers from the uncertainty over the global trade outlook arising in part from the U.S. China trade tension.

Subdued inflation is likely to persist over the medium term. Inflation was generally on a declining trend in 2018. Headline and core inflation dipped below 1 percent in June through August, when the GST was zero-rated, and have remained low despite the re-introduction of the sales and services tax (SST) in September. Looking ahead, headline inflation is expected to climb 60 basis points higher to 1.6 percent in 2019 before reverting towards the long-run trend of nearly 2.5 percent in 2020.

Merchandise exports have slowed sharply, exhibiting signs of vulnerability to external headwinds. After accelerating to nearly 20 percent in U.S. dollar terms in H1 2018, export growth slowed to 9 percent in H2 and fell by 5.1 percent in the first two months of 2019. Netting out re-exports, domestic exports recorded a sharper slowdown amid the escalation in the U.S.-China trade tension and weaker global demand.

The external position remains supported by a sustained current account surplus and steady foreign direct investment inflows. The current account remained in surplus in 2018, although narrower owing to the wider primary account deficit. After easing sharply in Q2 and Q3, foreign direct investment inflows rebounded in Q4 for a full-year average of 2.4 percent of GDP. These net foreign inflows cushioned the sizable non-resident portfolio investment outflows in 2018, particularly in May and June following the unexpected change in the Malaysian government and

broader risk aversion. The Balance of Payments recorded a modest surplus in 2018, while reserves have remained above USD 100 billion and are sufficient to finance seven months of retained imports and equivalent to the short-term external debt.

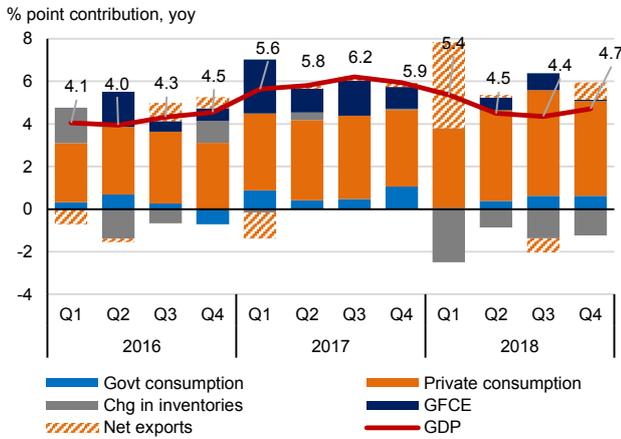
Financial conditions have remained accommodative, notwithstanding the policy rate adjustment and capital outflows in 2018. Bank lending rates stabilized over the course of the year after rising in tandem with the 25 basis point policy rate hike in January 2018. Despite the capital outflows, banks' excess ringgit liquidity with Bank Negara Malaysia was fairly stable throughout the year, while credit gained pace after a multi-year period of moderation. Banks have significant capital and liquidity buffers, stable asset quality and healthy funding profiles, although they are vulnerable to elevated private sector debt and the supply overhang in the property market.

Fiscal consolidation continues under the new government. The budget deficit targets for 2018 and 2019 were revised up to 3.7 percent of GDP and 3.4 percent, respectively, to incorporate provisions for the outstanding tax refunds and commitments that were unbudgeted under the previous government as well as the one-off special dividend from Petronas. Despite the revision, fiscal consolidation continues in 2019, reflecting the 50-basis point decline in the adjusted deficit to 2.9 percent of GDP after netting out the one-off expenses and revenue item. Fiscal consolidation has to continue given the sizable debt burden, especially when including the transfers for the servicing of some of the government-guaranteed debt.

A sustained and concerted effort to boost productivity is crucial in attaining a more inclusive and high-income nation. Innovation and research and development need to be promoted to attract high value-added private investments, and consequently, raise the quality of employment and improve income distribution. In this regard, greater efforts should be made to ensure fair competition, greater technological adoption among firms and human capital development.

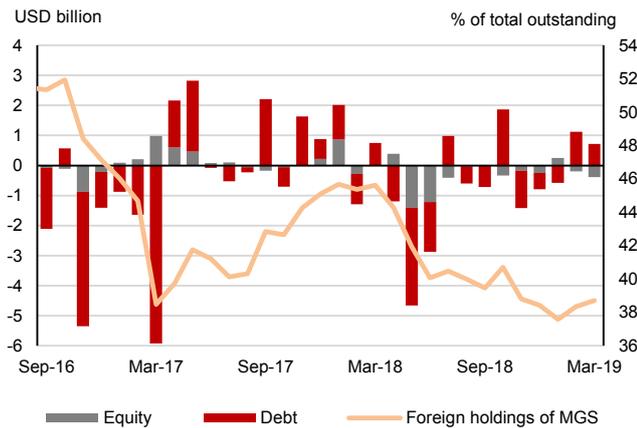
## Malaysia: Selected Charts

Growth eased in 2018 owing to anemic investment activity and slower exports expansion.



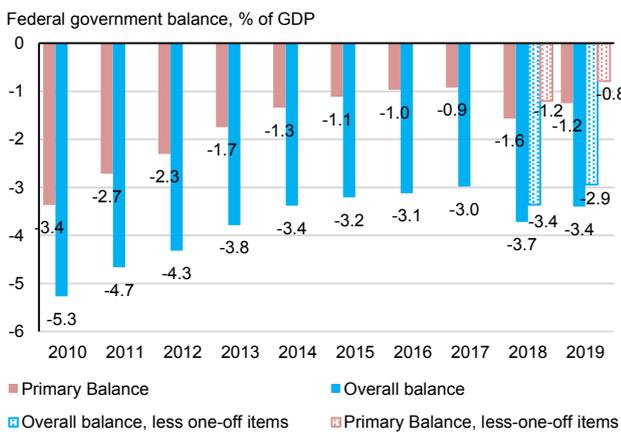
Sources: Department of Statistics Malaysia; and AMRO staff calculations.

Non-residents have become net buyers of bonds and stocks in early 2019 after the sell-off for most of 2018. Foreign holdings of MGS have stabilized at around 38 percent.



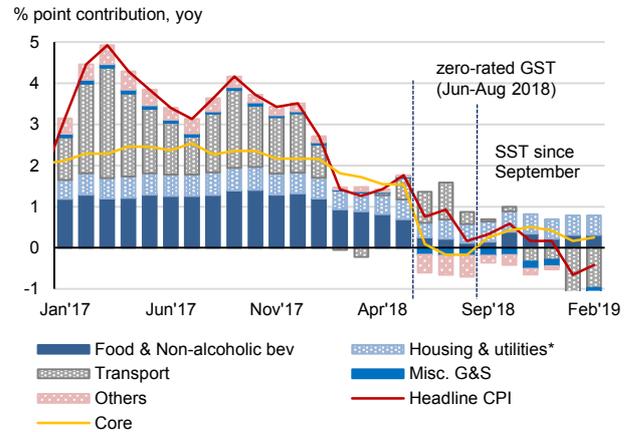
Source: Bank Negara Malaysia; Bursa Malaysia.

Fiscal deficit targets for 2018–19 have been re-adjusted to provide largely for previously non-budgeted expenses and revenue items.



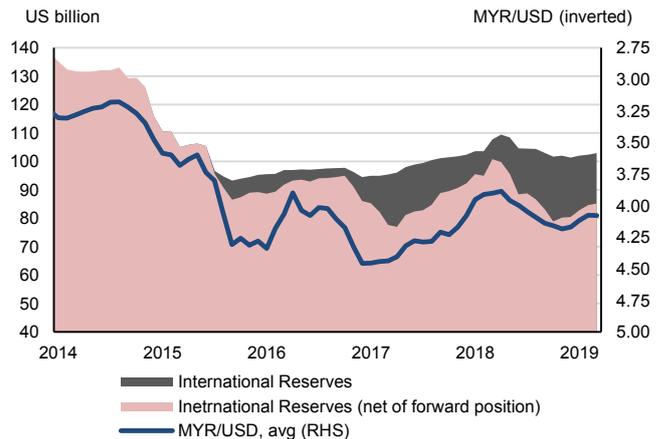
Sources: Department of Statistics Malaysia; and Ministry of Finance.

Inflation has remained low despite the resumption of the sales and service tax in September 2018.



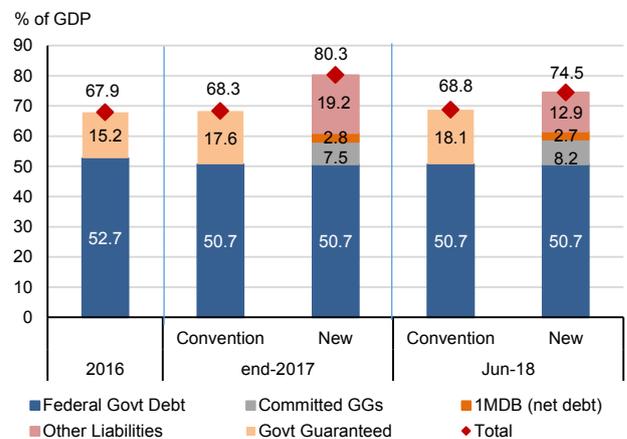
Sources: Department of Statistics Malaysia; and AMRO staff calculations.

FX reserves and the MYR improved slightly in Q1 2019 after declining through the latter half of 2018.



Source: Bank Negara Malaysia.

The government debt remains below the self-imposed limit of 55 percent of GDP, although total liabilities have risen to include committed GGs, 1MDB debt and others.



Source: Ministry of Finance.

Note: Other Liabilities refer to those projects under Public-Private Partnership (PPP), Pembinaan Bt Sdn Bhd (PBLT), and private finance initiatives (PFI). The Federal Government Debt stood at 51.8 percent of GDP as of end-2018.

## Malaysia: Selected Economic Indicators

	2015	2016	2017	2018
<b>Real Sector and Prices</b>	(In percentage change, unless specified)			
Real GDP	5.1	4.2	5.9	4.7
Private consumption	6.0	6.0	7.0	8.1
Government consumption	4.5	0.9	5.4	3.3
Gross capital formation	6.7	3.3	6.4	-4.4
Gross fixed capital formation	3.6	2.7	6.2	1.4
Exports of goods and services	0.3	1.3	9.4	1.5
Imports of goods and services	0.8	1.3	10.9	0.1
Labor market	(Percent)			
Unemployment rate	3.2	3.5	3.4	3.3
Prices	(In percentage change, unless specified)			
Consumer price inflation (period average)	2.1	2.1	3.7	1.0
Core inflation (period average)	N.A.	2.5	2.3	0.8
GDP deflator	-0.4	2.0	3.8	0.9
<b>External Sector</b>	(In USD billion, unless specified)			
Current account balance	9.0	7.2	9.4	8.3
(In percent of GDP)	3.0	2.4	3.0	2.3
Trade balance	28.0	24.6	27.2	30.1
Exports, f.o.b.	174.5	165.9	187.8	207.4
Imports, f.o.b.	146.5	141.0	160.5	177.3
Services balance	-5.3	-4.6	-5.3	-4.9
Receipts	34.8	35.6	37.0	39.7
Payments	40.1	40.1	42.3	44.5
Primary income, net	-8.2	-8.4	-8.5	-12.2
Secondary income, net	-5.5	-4.5	-4.0	-4.7
Financial account balance	-14.2	-0.1	-1.1	4.6
Direct investment, net	-0.5	3.3	3.8	2.8
Direct Investment Assets	-10.2	-10.2	-5.6	-5.8
Direct Investment Liabilities	9.7	13.5	9.4	8.6
Portfolio investment, net	-6.7	-3.4	-3.6	-11.0
Net acquisition of financial assets	-2.3	-3.6	-4.5	-2.3
Net incurrence of liabilities	-4.4	0.2	1.0	-8.7
Other investment, net	-6.9	0.2	-1.2	12.6
Net error and omission	-8.3	-5.8	-4.4	-11.0
Overall balance	1.0	1.4	3.8	1.9
Official reserves asset (end-period)	95.3	94.5	102.4	101.4
(In months of goods & services imports)	6.1	6.3	6.1	5.5
Total external debt (In percent of GDP)	72.2	74.3	65.4	64.7
Short-term external debt (In percent of total)	42.0	41.3	39.7	43.8
Short-term external debt (In ratio to international reserves)	1.2	1.1	1.2	1.0

	2015	2016	2017	2018
<b>Fiscal sector (National Government)</b>	(In percent of GDP)			
Government revenue	18.9	17.3	16.3	16.3
Government expenditure	22.1	20.4	19.3	20.0
Fiscal balance	-3.2	-3.1	-3.0	-3.7
Primary balance	-1.1	-1.0	-0.9	-1.5
Government debt	54.4	52.7	50.7	51.8
Government debt, including contingent liabilities	15.3	15.2	17.6	18.1
<b>Monetary Sector</b>	(In percentage change, end-period unless specified)			
Broad money	3.0	3.2	4.9	8.0
Of which: Private sector claims	8.3	5.8	5.8	6.4
Of which: Loans	8.2	6.0	3.8	5.0
Of which: Securities	8.6	4.0	23.6	16.7
<b>Memorandum Items</b>				
Exchange rate (In MYR/USD, average)	3.91	4.15	4.30	4.04
Exchange rate (In MYR/USD, eop)	4.29	4.49	4.08	4.17
Nominal GDP (In MYR billion)	1,158.5	1,231.0	1,353.4	1,429.8
Nominal GDP (In USD billion)	297.5	297.3	315.3	354.5
GDP per capita (In USD)	9,515.5	9,397.3	9,832.6	10,948.5

Sources: Malaysia authorities; and AMRO staff estimates.

# Myanmar

Myanmar's economy is expected to rebound in FY2018/19. Growth softened to 6.5 percent in FY2018 interim,<sup>2</sup> mainly as a result of the disruption in agriculture due to natural disaster and softer telecommunication-related service activities. Contained public spending also weighed on growth, as the government aimed to lower the budget deficit during the fiscal year transition. Travel facilitation measures and expanded overseas air routes have been supporting tourist arrivals, which started to pick up in H2 2018. Supported by sustained manufacturing growth and renewed economic reforms, the economy is projected to grow at 7.3 percent in FY2018/19.

While inflation edged up in Q2–Q3 2018, it showed signs of softening towards year-end. Inflation registered 7.0 percent in FY2018 interim, due to the effects of flooding and the depreciating currency in 3Q. With the exchange rate stabilizing and the effects of the flood ebbing, the inflation rate has declined since November 2018. The headline inflation for FY2018/19 is forecast to be around 5.0 percent.

The external position remained weak, but the current account balance and foreign direct investment (FDI) inflows have started to improve. Exports continued to grow at 10.5 percent and imports declined by 3 percent in the first four months of FY2018/19, which translated into a narrower trade deficit. Meanwhile, the recovery in tourist arrivals strengthened the service account. The current account deficit is expected to improve to -3.6 percent of GDP in FY2018/19 from -4.4 percent in FY2017/18. FDI approvals rebounded during the first four months of FY2018/19. Foreign exchange reserves remained flat at around USD 5.3 billion as of September 2018, equivalent to 4.0 months of imports.

While broad money growth continued to decelerate, credit growth has started to stabilize. Credit growth grew by 23.8 percent as of August 2018, likely bottoming out from the slowdown in FY2017/18. Recent measures to ease the restriction on banks' international remittance business and

allow foreign currency settlement in international trade should help to expand the domestic credit and support the development of the banking sector going forward.

The approved FY2018/19 budget provides for an expansion in spending to support growth. The realized revenue in FY2018 interim was higher than the original estimate. Together with contained expenditure disbursement, the actual fiscal deficit was reduced to 1.8 percent of GDP in FY2018 interim. However, the government plans a higher budget deficit in FY2018/19, close to 5.8 percent of GDP, to support economic growth and social welfare.

Key downside risks include the on-going tensions in the Rakhine State and the related potential withdrawal of the preferential trade treatment by the European Union. These ongoing concerns have triggered a wait-and-see attitude among existing and potential investors, dampening the inflows of foreign investment and local business sentiment.

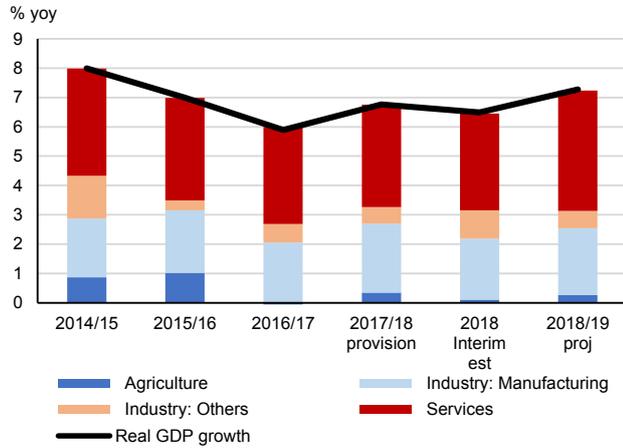
The external position is also vulnerable to adverse shifts in relations with major trading partners. On the export front, agriculture continues to be subject to geopolitical risks with neighboring countries, and the labor-intensive garment sector could slow sharply if the current preferential trade treatment from the European Union is withdrawn. The investment inflows—especially to export-oriented manufacturing—would also be adversely affected. Constrained by low foreign reserves and the presence of a large informal market, the ability of the authorities to smooth exchange rate movement remains limited.

The acceleration of structural reforms is critical to maintaining investor confidence and developing a market-based economy. Reforms to develop a more market-based economy—including hard and soft infrastructure, and the regulatory and legal frameworks—should be strengthened. Accelerating the pace of liberalization and deregulation would be an effective strategy to instill investor confidence amid external uncertainties.

<sup>2</sup> FY2018 Interim refers to a half-year period from April to September 2018. The new fiscal year cycle starts in October and ends in September in the following year.

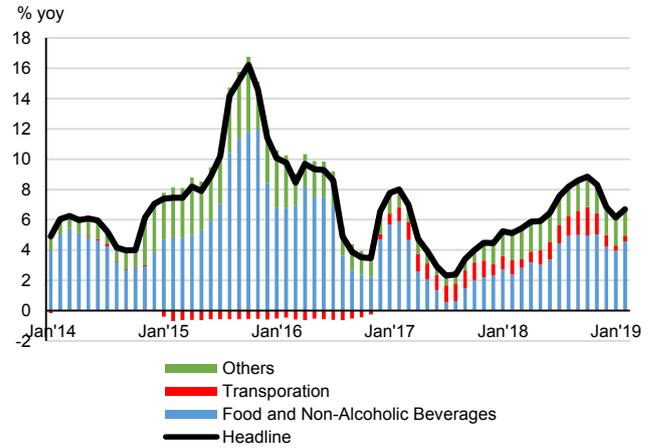
## Myanmar: Selected Charts

Growth is expected to pick up in FY2018/19, after softening in 2018.



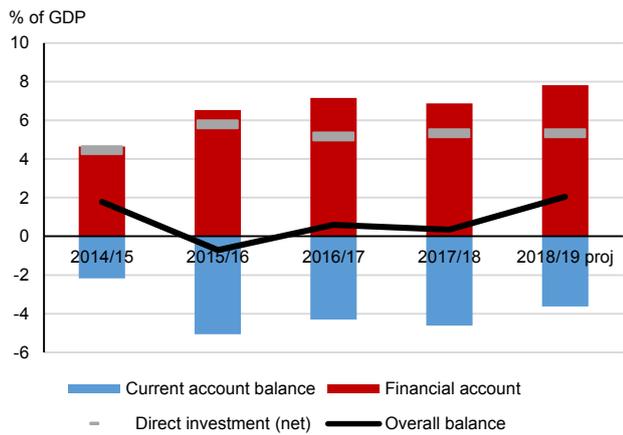
Sources: Ministry of Planning and Finance; and AMRO staff calculations.

Inflation has started to slow since November 2018, with less pressure from fuel prices and the exchange rate and from the diminishing flood effects.



Source: Central Statistical Organization.

The financial account was supported by continued FDI inflows, which offset the current account deficit.



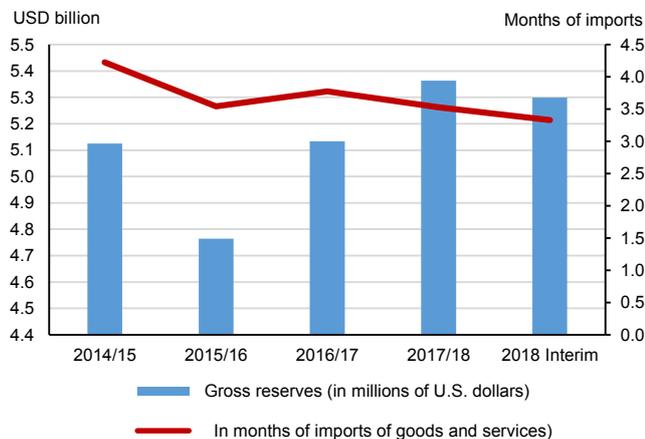
Source: Central Bank of Myanmar.

The sharp depreciation in the Kyat was contained towards the end of 2018.



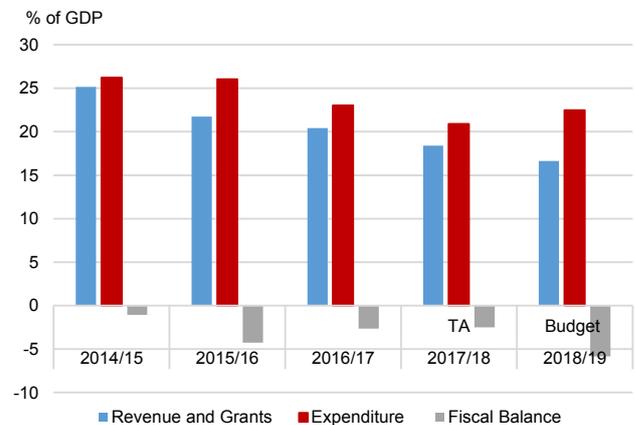
Source: Central Statistical Organization.

Myanmar's foreign exchange reserves dropped slightly during Q3 2018, resulting in lower import cover.



Sources: Central Bank of Myanmar; and Directorate of Investment and Company Administration.

The budgeted deficit increased sharply in FY2018/19.



Source: Ministry of Planning and Finance.

## Myanmar: Selected Economic Indicators

	2015/16	2016/17	2017/18	2018/19
<b>Real Sector and Prices</b>	(In percentage change)			
Real GDP <sup>1/</sup>	7.0	5.9	6.8	7.3
CPI (2012=100, period average)	10.0	6.8	4.0	5.0
CPI (2012=100, end-period)	8.4	7.0	5.4	5.1
<b>Balance of payments</b>	(In USD million, unless specified)			
Trade balance	-4,048.0	-4,394.2	-4,680.2	-4,734.0
Current account balance	-3,009.5	-2,721.2	-3,104.5	-2,307.1
(In percent of GDP)	-5.1	-4.3	-4.6	-3.6
Financial account	3,885.8	4,533.1	4,634.3	4,975.3
Direct investment (net)	3,443.0	3,260.2	3,588.7	3,390.6
ODA (net)	444.5	-35.0	224.7	350.0
Total external debt (In percent of GDP)	16.7	13.4	15.5	15.8
Gross international reserves	4,764.0	5,133.9	5,364.0	6,597.0
(In months of imports)	3.5	3.8	3.5	4.1
<b>Fiscal sector <sup>2/</sup></b>	(In percent of GDP)			
Revenue and grants	21.7	20.4	18.6	16.6
Tax revenue	8.6	8.9	8.1	7.6
SEE receipts	10.2	9.1	8.2	7.8
Expenditure	26.0	23.0	21.1	22.5
Fiscal balance	-4.3	-2.6	-2.5	-5.8
Primary balance	-3.1	-1.3	-1.1	-4.4
Public debt	38.1	35.6	38.4	42.4
<b>Monetary and Financial Sector</b>	(In percentage change, end-period, unless specified)			
Domestic credit	32.4	24.5	20.2	25.8
Private sector	34.2	33.5	23.4	26.4
Broad money	26.3	19.4	18.0	20.3
Reserve money	22.8	8.8	6.0	10.0
Loan-to-deposit ratio	70.6	69.2	70.0	-
<b>Memorandum Items</b>				
Exchange rate (In MMK/USD, average)	1,222.4	1,260.6	1,355.8	1,565.0
Exchange rate (In MMK/USD, end of period)	1,216.0	1,362.0	1,335.0	1,550.0
Nominal GDP (in USD billion)	59.5	63.2	67.3	63.6
Nominal GDP (in MMK billion)	72,714.0	79,722.9	90,450.9	106,096.3

Sources: Myanmar authorities; and AMRO staff estimates.

Note: 2018/19 data refers to projections and a new fiscal year starting from October.

# The Philippines

Economic growth in the Philippines slowed in 2018, as high inflation eroded household purchasing power and weaker external demand weighed on exports. Nonetheless, active government spending has supported a resilient economy, as witnessed by strong growth in gross fixed capital formation and government consumption. The economy expanded by 6.2 percent in 2018, the lowest in the last three years. Economic growth is expected to gradually recover on the back of buoyant domestic demand and will likely expand by 6.4 percent in 2019, albeit with the balance of risks to growth tilted to the downside.

Inflation stayed above the target range in 2018, largely as a result of supply shocks. Headline inflation rose by 5.2 percent in 2018, much higher than the target band of 3.0 percent  $\pm$  1.0 percentage point. A sharp increase in food prices, soaring oil prices, excise tax hikes, and a weaker peso, all contributed to the increase. Owing to the implementation of various non-monetary measures, including the passage of the rice tariffication law and lower oil prices, average inflation is forecast to settle within the target band of 3.0 percent  $\pm$  1.0 percentage point in 2019.

The external position has weakened, but buffers remain adequate. The current account deficit widened to 2.4 percent of GDP in 2018, mainly driven by strong imports of capital goods and raw materials. The financial account registered a net inflow of USD 7.8 billion, supported by strong foreign direct investment inflows, although it was not sufficient to cover the current account deficit and outflows captured by errors and omissions. The resultant funding gap was mainly met by a drawdown of the Banko Sentral ng Pilipinas' international reserves. Accordingly, gross international reserves declined to USD 74.7 billion by the end of October 2018 and then edged up to USD 82.8 billion as of February 2019—more than sufficient to cover the country's gross external financing needs.

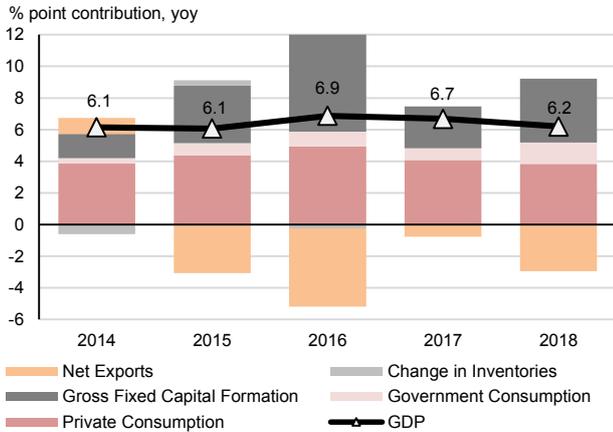
Monetary conditions have tightened, but credit continues to expand. Tightening monetary policy operations amid intensified short-term capital outflows have led all market rates to rise markedly. Supported by strong demand and growing competition, banks have continued to expand credit strongly. Credit growth is anticipated to remain elevated, but as real borrowing cost starts to rise, it is likely to moderate. Notwithstanding the rise in credit, the banking system remains generally sound, but there may be potential weaknesses in the non-banking sector.

The fiscal position has been markedly enhanced as the first phase of the Tax Reform for Acceleration and Inclusion Act has taken effect and tax administration has improved. The expanded fiscal space has allowed the government to pursue development programs more aggressively. Supported by improved revenues, the government stepped up the pace of disbursement to other agencies and enhanced its implementation capacity. As a result, government spending was able to outpace the fiscal program for the first time. The government is shifting its budget from an obligation basis to a cash basis in 2019, as part of its efforts to enhance fiscal efficiency.

The major risks facing the Philippine economy are mostly short-term ones. Externally, escalating global trade tensions remain the major risk. Domestically, elevated inflation and pockets of financial vulnerabilities are the main concerns. Global trade tensions and a slowdown of the global economy may exert significant drag on Philippine economic activity. As global financial conditions have eased, the pressure from short-term capital outflows has dissipated. Inflation has come down sharply but uncertainty from global oil prices may delay its return to the mid-point of the target range. Rapid credit growth over the past several years could potentially give rise to financial vulnerabilities. Overall, risks appear to be moderating.

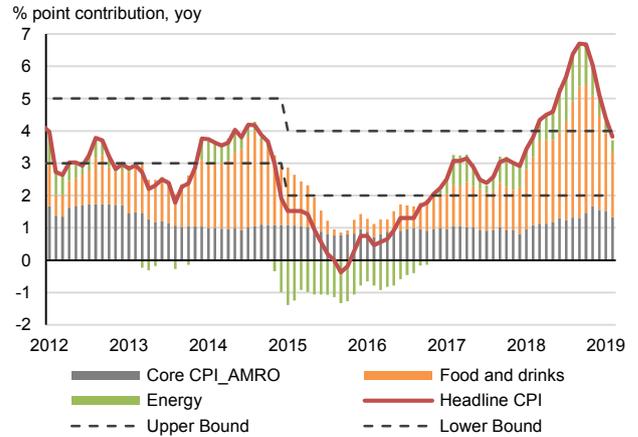
## The Philippines: Selected Charts

Economic growth slowed in 2018 as a result of weaker external demand and private consumption.



Source: Philippine Statistics Authority.

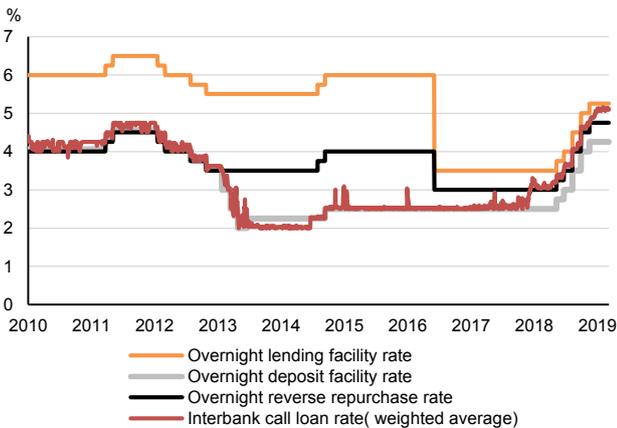
Inflation accelerated to above the upper bound of the target range in 2018, largely as a result of supply shocks but has started to decline recently.



Sources: Philippine Statistics Authority; and AMRO staff calculations.

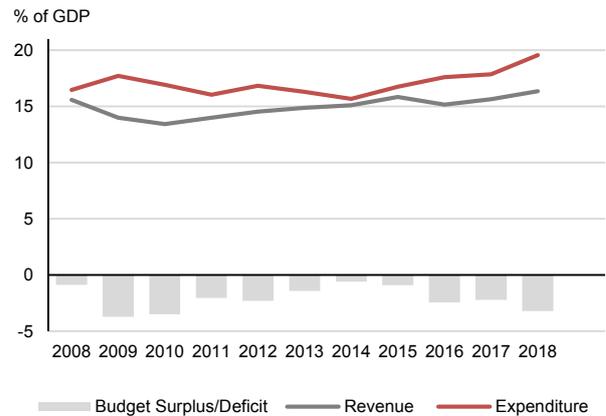
Note: Energy includes electricity, gas and other fuels under housing items and fuel and lubricant under transportation; food and drinks include all food and drinks and tobacco. The remaining components are used by AMRO staff to calculate core inflation.

Monetary conditions have tightened as the Bangko Sentral ng Pilipinas started hiking its policy rate and short-term capital left.



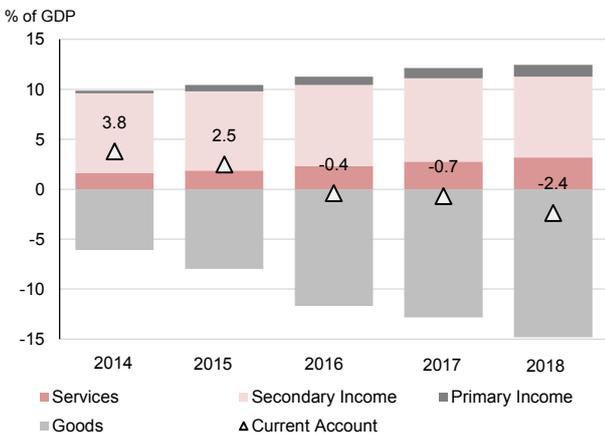
Source: Bangko Sentral ng Pilipinas.

Fiscal strength has been enhanced by tax reforms.



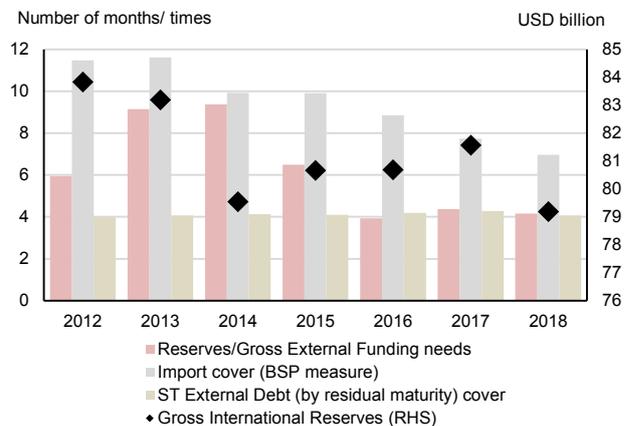
Source: Bureau of Treasury.

The balance of payments has worsened as the current account deficit widened.



Source: Bangko Sentral ng Pilipinas.

International reserves remain adequate.



Source: Bangko Sentral ng Pilipinas.

Note: Import cover refers to number of months of average imports of goods and payment of services and primary income.

## The Philippines: Selected Economic Indicators

	2015	2016	2017	2018
<b>Real sector and prices</b>	(In percentage change, unless specified)			
Real GDP	6.1	6.9	6.7	6.2
Private consumption	6.3	7.1	5.9	5.6
Government consumption	7.6	9.0	6.2	13.0
Gross fixed capital formation	16.9	26.1	9.4	12.9
Exports of goods and services	8.5	11.6	19.7	13.4
Imports of goods and services	14.6	20.2	18.1	16.0
Prices				
Consumer price inflation (end of period 2012=100)	0.7	2.2	2.9	5.1
Consumer price inflation (period average 2012=100)	0.7	1.3	2.9	5.2
Core inflation (period average 2012=100)	1.0	1.6	2.4	4.2
GDP deflator	-0.6	1.7	2.3	3.8
<b>External sector</b>	(In USD billion, unless specified)			
Current account balance	7.3	-1.2	-2.1	-7.9
(In percent of GDP)	2.5	-0.4	-0.7	-2.4
Trade balance	-23.3	-35.5	-40.2	-49.0
Services balance	5.5	7.0	8.7	10.5
Primary income, net	1.9	2.6	3.2	3.8
Secondary income, net	23.3	24.7	26.2	26.8
Financial account balance	2.3	0.2	-2.8	-7.8
Direct investment, net	-0.1	-5.9	-7.0	-5.9
Portfolio investment, net	5.5	1.5	2.5	0.9
Other investment, net	-3.1	4.6	1.7	-2.8
Error and omission	-2.4	0.3	-1.6	-2.3
Overall balance	2.6	-1.0	-0.9	-2.3
Gross international reserves (end-period)	80.7	80.7	81.6	79.2
Total external debt (In percent of GDP)	26.5	24.5	23.3	23.9
Short-term external debt (In percent of total)	19.5	19.4	19.5	20.3
<b>Fiscal sector (National Government)</b>	(In percent of GDP)			
Government revenue	15.8	15.2	15.6	16.4
Government expenditure	16.7	17.6	17.9	19.6
Fiscal balance	-0.9	-2.4	-2.2	-3.2
Primary balance	1.4	-0.3	-0.3	-1.2
Government debt	44.7	42.1	42.1	41.8
<b>Monetary sector</b>	(In percentage change, end-period unless specified)			
Domestic credit	11.5	17.0	13.9	14.7
Of which: Private sector	12.1	16.6	16.4	14.9
Broad money	9.3	13.4	11.3	8.9
<b>Memorandum items:</b>				
Exchange rate (In PHP/USD, average)	45.5	47.5	50.4	52.7
Exchange rate (In PHP/USD, eop)	47.2	49.8	49.9	52.7
Gross domestic product at current price (In PHP trillion)	13.3	14.5	15.8	17.4
Gross domestic product at current price (In USD billion)	292.8	304.9	313.6	330.7
GDP per capita (In USD)	2,882.7	2,953.1	2,988.9	3,101.8

Sources: The Philippines authorities; and AMRO staff estimates.

# Singapore

Singapore's growth remained firm in 2018, but moderated as the cyclical uplift from the global tech sector eased alongside weakening global growth. Following a strong rebound of 3.9 percent in 2017, growth moderated to 3.2 percent in 2018. The manufacturing sector slowed as the impetus from the upswing in the global tech cycle waned, accentuated by softer growth in its key final demand markets. Activity in the services sector remained robust, driven mainly by financial and business services.

Improvements in the labor market continued to gather pace, contributing to higher underlying wage pressures. Despite the worsening external environment, net employment gains increased and broadened. The bulk of the gains was driven by services, while the contraction in manufacturing employment eased. Nominal wage growth improved from 3.1 percent in 2017 to 3.5 in 2018, supported by productivity growth, which had recovered strongly since 2017.

The Monetary Authority of Singapore core inflation continued to edge up to 1.7 percent in 2018, while headline inflation remained low at 0.4 percent. In February 2019, MAS core inflation remained steady at 1.5 percent while headline inflation stayed low at 0.5 percent, as rental costs fell at a more moderate pace. However, inflationary pressures are expected to increase in 2019 from a firmer labor market.

The normalization of monetary policy is in line with the objective of containing price pressures in the medium-term. The slope of the Singapore dollar nominal effective exchange rate policy band was increased slightly twice last year, from zero percent prior to April 2018, in response to the steady improvements in the labor market and above-potential growth, alongside increasing inflationary pressures.

The property market experienced a price resurgence from Q2 2017 to Q3 2018, but has started to stabilize following the tightening of macroprudential measures in July 2018. After a sharp increase of 9.6 percent from Q2 2017 to Q3 2018, on the back of robust transaction volumes from improving sentiment, private residential property prices began to stabilize, easing slightly by -0.5 percent quarter-on-quarter

in Q4 2018 and Q1 2019. Potential supply is increasing as a result of the large volume of collective land sales. Accordingly, the authorities have increased the Additional Buyer's Stamp Duty (ABSD) rates and tightened the Loan-to-Value (LTV) limits to cool the property market and keep prices in line with economic fundamentals. Rents for office spaces are recovering, while rents for retail and industrial spaces continue to decline.

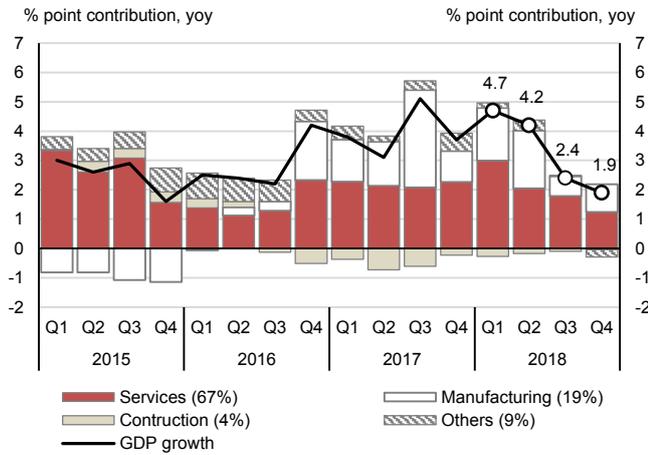
Bank lending to non-bank entities and residents grew more slowly, reflecting the moderation in economic growth, including the impact from both trade tensions and property cooling measures. Business loan growth moderated in 2018 and early-2019, owing, in part, to the general commerce segment. In the consumer segment, housing loan growth has also eased.

The revised FY2018 Budget is expansionary with a large planned increase in expenditure, especially in infrastructure. The FY2018 overall fiscal position has been revised from a slight deficit of 0.1 percent of GDP to a surplus of 0.4 percent of GDP as a result of better operating revenue growth and lower-than-expected total expenditure outlays. All 23 sector-specific Industry Transformation Maps have been rolled out in FY2018. Each ITM lays out holistic plans for a specific sector in areas of productivity, jobs and skills, innovation and internationalization. The plans will attempt to help those sectors achieve growth and competitiveness, and create quality jobs for Singapore's future economy. In FY2019, AMRO staff estimates that the fiscal impulse, which is proxied by the change in the primary balance which does not include one-off and recurring payments from the newly announced Merdeka Generation Fund and Long-Term Care Support Fund starting from 2019, will be small.

Going forward, growth is expected to expand at a more gradual pace. Growth is projected to slow to around 2.5 percent in 2019, around its longer-term growth potential. Downside risks to growth have increased, stemming from the U.S.-China trade conflict and weaker global growth. Some segments in the corporate and household sectors are vulnerable to a sharp economic slowdown.

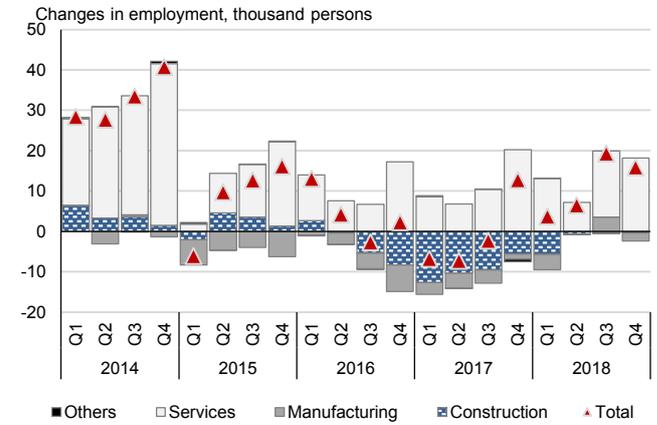
## Singapore: Selected Charts

Singapore's growth moderated in 2018 as the cyclical uplift from the global tech rebound eased.



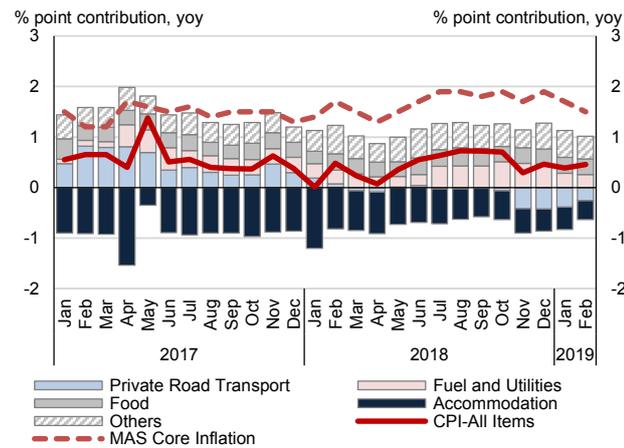
Source: Singapore Department of Statistics.  
Note: GDP Shares of sectors are based on 2018 numbers.

Net employment gains accelerated, on the back of the services sector.



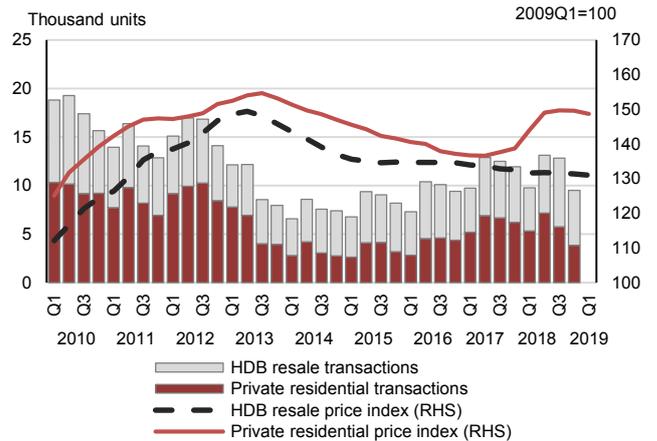
Source: Ministry of Manpower.

Headline inflation increased but stayed low while the Monetary Authority of Singapore core inflation continued to edge up, to near 2 percent.



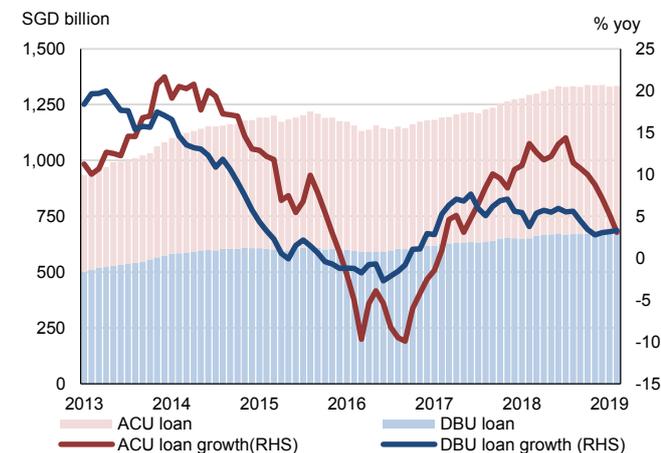
Sources: Singapore Department of Statistics; and Monetary Authority of Singapore.

The property market recovered strongly in 2018, but has started to stabilize following the recalibration of macroprudential measures in July 2018.



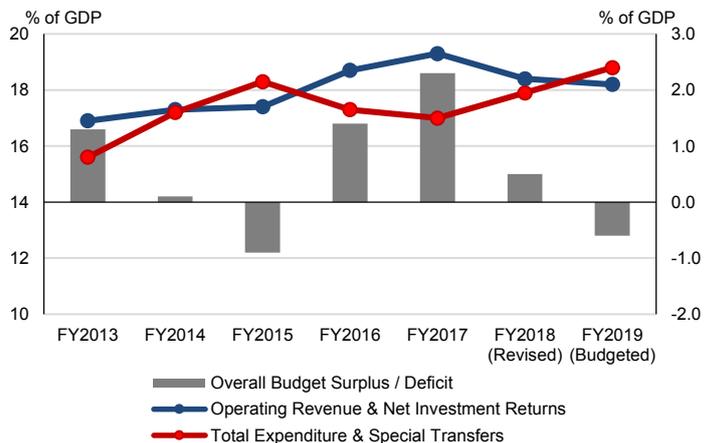
Sources: Urban Redevelopment Authority; and Housing Development Board.  
Note: 2019 Q1 figures are based on advance estimates.

Growth in bank lending has started to moderate.



Source: Monetary Authority of Singapore.

The revised FY2018 overall budget surplus of 0.4 percent is expected to decline to -0.7 percent in FY2019.



Source: Ministry of Finance Singapore.

## Singapore: Selected Economic Indicators

	2015	2016	2017	2018
<b>National Income and Prices</b>	(In percentage change, unless specified)			
Real GDP	2.5	2.8	3.9	3.2
Real private consumption	5.0	2.2	3.2	2.4
Real public consumption	7.8	4.3	4.2	3.6
Gross fixed capital formation	1.5	0.9	5.3	-3.4
Exports of goods & services	5.0	0.8	5.4	5.2
Imports of goods & services	3.6	0.6	7.0	4.5
MAS core inflation	0.5	0.9	1.5	1.7
Consumer price inflation	-0.5	-0.5	0.6	0.4
Unemployment rate, annual average	1.9	2.1	2.2	2.1
<b>External Sector</b>	(In percent of GDP, unless specified)			
Current account balance	17.0	17.5	16.0	17.7
Capital and financial account balance <sup>1/</sup>	-16.8	-17.9	-7.9	-13.9
Direct investment (net)	8.0	10.7	15.2	12.4
Portfolio investment (net)	-20.1	-6.1	-10	-6.6
Other investment (net)	-6.5	-18.1	-10.7	-15.1
Derivatives (net)	1.8	-4.4	-2.4	-4.6
Overall balance of payments	0.4	-0.6	8.1	3.5
International reserves (In USD billion, end period)	247.7	246.6	279.9	287.7
<b>Fiscal Sector</b>	FY2015	FY2016	FY2017	FY2018
Operating revenue (In percent of GDP)	15.3	15.4	16.2	15
Total expenditure (In percent of GDP)	15.9	15.9	15.7	16.1
Primary surplus / deficit (In percent of GDP)	-0.6	-0.5	0.5	-1.1
Overall budget surplus / deficit (In percent of GDP)	-1.0	1.4	2.3	0.4
<b>Monetary</b>	(In percentage change, unless specified)			
3-month SGD Sibor (In percent, end period)	1.2	1.0	1.5	1.9
Domestic liquidity indicator (end period)	0.2	-0.2	0.1	0.0
Narrow money M1	6.7	5.5	5.4	-1.2
Broad money M2	4.0	8.4	4.1	5.1
<b>Memorandum items</b>				
Straits Times Index (end period)	2,883.0	2,881.0	3,403.0	3,069.0
Private Residential Property Index (2009Q1=100)	141.6	137.2	138.7	149.6
Spot exchange rate (In SGD/USD, period avg.)	1.37	1.38	1.38	1.35
NPL ratio of local banks (In percent, end period)	1.1	1.4	1.6	1.5

Source: Singapore authorities.

Note: <sup>1/</sup> There has been a change in sign convention for the financial account, based on BPM6. A positive sign now indicates an increase in assets or liabilities, and net outflows in net balances. However, this figure still uses the previous sign conventions.

# Thailand

Thailand's growth accelerated to 3.7 percent in Q4 2018 from 3.2 percent in Q3, led by private consumption and investment. Private consumption has been on an upward trend since Q4 2017, partly boosted by the end of the five-year lock-in period under the first-time car buyer scheme. The slight recovery in tourism from the boat accident off Phuket offset the negative growth contribution from net exports.

Headline inflation remains low, in part, dragged down in recent months by lower oil prices. Headline inflation was 0.7 percent in February 2018, its fourth month below the lower bound of the Bank of Thailand's target range.

The external position remains strong, reflecting large current account surplus and high international reserves. The current account surplus narrowed slightly to 6.9 percent of GDP in 2018 from 11 percent in 2017, reflecting the effects of global trade conflicts and the boat accident off Phuket, as well as the result of robust investment and consumption on imports. The current account surplus has been partially recycled and invested overseas in the form of direct investment by domestic corporates and portfolio outflows by residents.

Overall fiscal policy remains expansionary in support of the economy. In FY2018,<sup>3</sup> fiscal revenue decreased marginally to 15.2 percent of GDP while expenditure declined to 18.5 percent of GDP, with the overall fiscal deficit at 3.3 percent of GDP, lower than in FY2017. Disbursements of capital expenditure were low in FY 2017 and FY2018. Notwithstanding the sustained fiscal deficit, Thailand has significant fiscal space as public debt is only slightly above 40 percent of GDP.

Going forward, the Thai economy is expected to grow close to potential. It is forecast to grow at 3.8 percent in 2019 and 3.7 percent in 2020. Inflation is expected to increase to around 1.0 percent in 2019 and 2020. The current account surplus is projected to continue to narrow in 2019 and 2020, reflecting the impact of global trade conflicts on exports amid a softer external environment, and still-robust domestic consumption and investment.

Downside risks to growth stem mainly from uncertainties surrounding the U.S.-China trade negotiations and domestic political uncertainties. While positive trade diversion effects may start to offset some of the negative spillovers from the trade conflict, uncertainty over the outcome of the U.S.-China trade negotiations remains a key risk. Political uncertainties surround the general election and represent a potential risk to the Eastern Economic Corridor mega-projects and investments. Although tourist arrivals from China, a major tourism market for Thailand, have started to turn around, the lingering effects of the Phuket boat accident poses a downside risk.

Risks to financial stability remain contained, although some pockets of vulnerabilities remain. The search-for-yield behavior in what has been a prolonged period of low interest rates represents a potential risk particularly to savings cooperatives and mutual funds. The revised mortgage loan regulations requiring a stricter loan-to-value ratio of 70 percent for third and subsequent mortgages and 80–90 percent for second mortgages should help strengthen financial stability. The household debt-to-GDP ratio, albeit moderating, remains high compared to regional peers. The loan quality of SMEs requires continued monitoring, especially if financial conditions start to tighten.

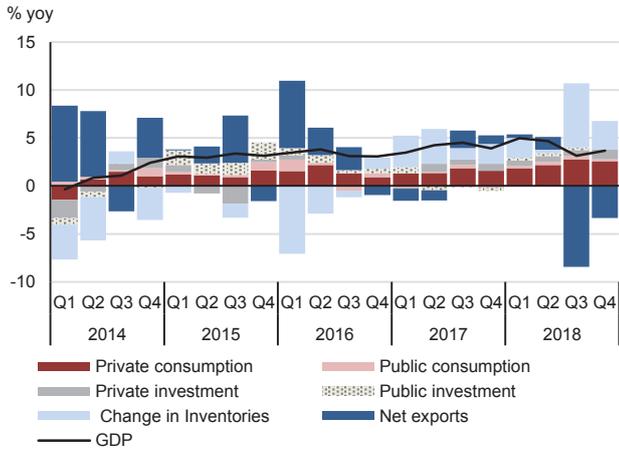
Thailand is aging at a relatively fast pace, putting it at risk of "growing old before getting rich." Thailand's aging will reduce the share of the working age population, with a consequent reduction in the contribution of labor to Thailand's potential growth. Population aging may also put pressure on the fiscal position, as pension and health-related spending will rise.

The 20-year Strategic Plan, including the Thailand 4.0 scheme, and the flagship project of Eastern Economic Corridor, is a welcome move. Labor productivity could be increased by improving the quality of education, especially in science and technology, and enhancing vocational training. A coordinated package of reforms is necessary in order to cope with the rapid pace of aging, including extending the retirement age, mobilizing previously underemployed labor in the countryside, and encouraging high-skilled immigration.

<sup>3</sup> Thailand's fiscal year 2018 runs from October 1, 2017 to September 30, 2018

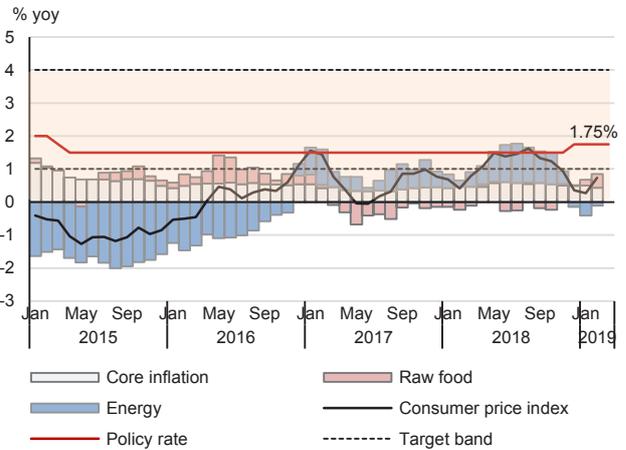
## Thailand: Selected Charts

Economic growth had gained traction until H1 2018, but slowed in H2 2018 amid a turnaround in exports and a slowdown in tourism.



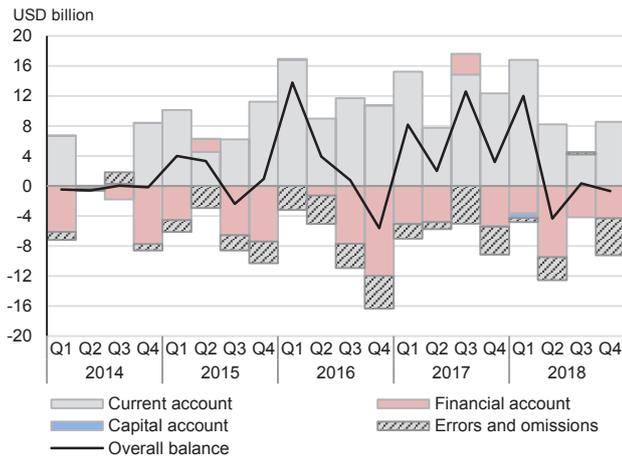
Sources: CEIC; and National Economic and Social Development Council; and AMRO staff calculations.

Headline inflation remains low, contained in recent months by lower oil prices.



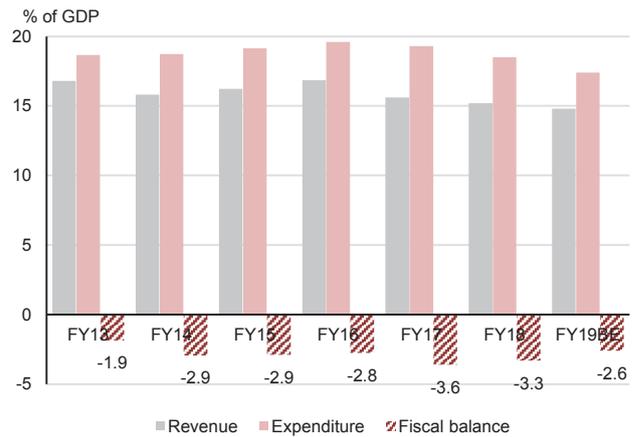
Sources: Bank of Thailand; Bureau of Trade and Economic Indices; and CEIC.

The external position remained robust while the current account surplus narrowed.



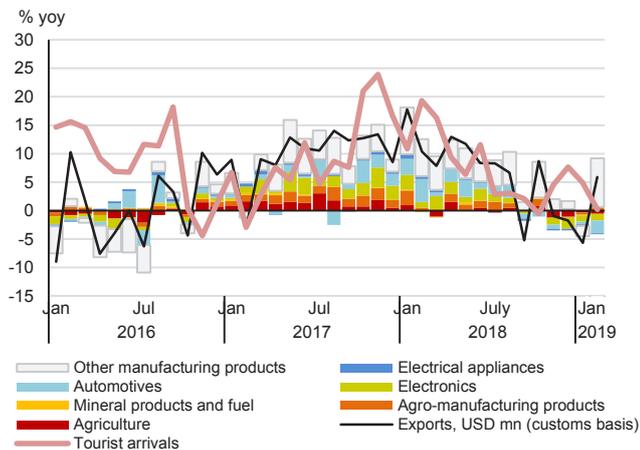
Sources: Bank of Thailand; and CEIC.

Both the revenue-to-GDP ratio and expenditure-to-GDP ratio have fallen in recent years.



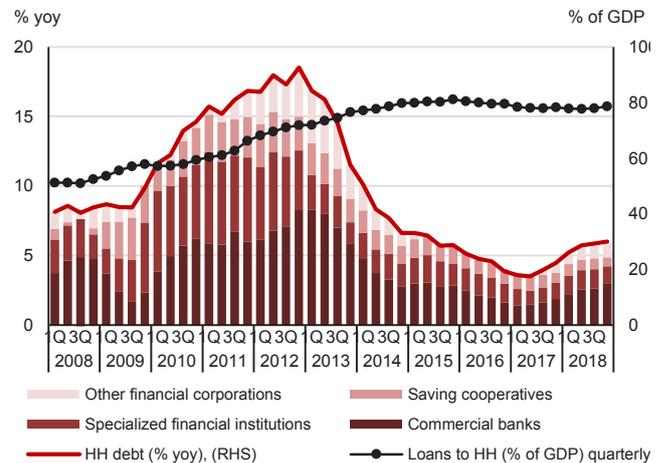
Sources: Bureau of Budget; CEIC; and Fiscal Policy Office.

Downside risks to growth stem mainly from uncertainties surrounding the U.S.-China trade negotiations and domestic political uncertainties.



Sources: Bank of Thailand; CEIC; Customs Department; Ministry of Tourism and Sports; and AMRO staff calculations.

Household debt-to-GDP ratio, albeit slowed down, remains high compared to regional peers.



Source: Bank of Thailand; and AMRO staff calculations.

## Thailand: Selected Economic Indicators

	2015	2016	2017	2018
<b>Real sector and prices</b>	(In percentage change unless specified)			
Real GDP	3.1	3.4	4.0	4.1
Final consumption	2.4	2.7	2.3	4.0
Private sector	2.3	2.9	3.0	4.6
General government	2.5	2.2	0.1	1.8
Capital formation	4.4	2.9	1.8	3.8
Private sector	-2.1	0.6	2.9	3.9
General government	28.4	9.5	-1.2	3.3
Exports of goods and services	1.6	2.8	5.4	4.2
Imports of goods and services	0.0	-1.0	6.2	8.6
<b>Labor market</b>				
Unemployment rate (in percent, period average)	0.9	1.0	1.2	1.1
<b>Prices</b>				
Consumer price inflation (period average)	-0.9	0.2	0.7	1.1
<b>External sector</b>	(In USD billion, unless specified)			
Current account balance	32.1	48.2	50.2	35.2
(In percent of GDP)	8.0	11.7	11.0	6.9
Trade balance	26.8	36.5	34.2	22.3
Exports, fob	214.0	214.3	235.3	252.2
Imports, fob	187.2	177.7	201.1	229.8
Services, net	19.2	24.3	28.9	28.8
Receipts	61.8	67.8	75.5	84.1
Payments	42.5	43.5	46.7	55.3
Primary income, net	-20.6	-19.4	-20.3	24.0
Secondary income, net	6.7	6.8	7.5	8.0
Financial account balance	-16.8	-20.8	-12.4	-21.9
Direct investment, net	3.9	-10.6	-10.6	-7.2
Portfolio investment, net	-16.5	-2.8	-2.1	-5.8
Other investment, net	-5.1	-7.8	0.2	-9.0
Errors and Omissions	-9.5	-14.5	-11.7	-5.4
Overall balance	5.9	12.8	26.0	7.3
Gross official reserves excluding net forward position	156.5	171.9	202.6	205.6
(In months of imports of goods & services)	8.2	9.3	9.8	8.7
Total external debt (In percent of GDP)	32.0	32.5	36.7	35.2
<b>Fiscal sector <sup>1/</sup></b>	(In percent of FYGDP)			
Revenue	16.2	16.8	15.6	15.2
Expenditure	19.1	19.6	19.3	18.5
Budget balance	-2.9	-2.8	-3.6	-3.3
Public Debt	43.7	40.8	41.2	41.8
<b>Monetary sector</b>	(In percent)			
Policy rate (In percent per annum, end of period)	1.5	1.5	1.5	1.8
10-year government bond yield (end of period)	2.5	2.7	2.5	2.5

Sources: Thailand Authorities; AMRO staff estimates.

<sup>1/</sup> Fiscal year 2018 runs from October 1, 2017 to September 30, 2018.

# Vietnam

The Vietnamese economy continued its robust growth in 2018 and is expected to maintain the strong momentum in 2019. GDP grew by 7.1 percent in 2018 on the back of strong growth in electronics manufacturing and the wholesale and retail industry. GDP growth in 2019 is expected to be around 6.6 percent, sustained by manufacturing and services. In an attempt to mitigate inflationary pressures, the government managed the increase of administered prices, including the postponement of the environmental protection tax increase. As a result, the average headline inflation in 2018, at 3.5 percent, was kept below the 4.0 percent (de facto) target.

Surpluses in both the current account and financial account helped bolster the foreign exchange reserves buffer. Foreign exchange reserves stood at USD 55 billion as of end-November 2018. The Vietnamese dong came under downward pressure in the second half of the year following capital outflows from emerging markets, resulting in a depreciation of about 2.1 percent vis-à-vis the U.S. dollar in 2018.

Fiscal consolidation continued in line with the medium-term fiscal consolidation plan. Despite relatively buoyant tax revenue, total revenue was unchanged, at 25.7 percent of GDP in 2018, mainly owing to lower land-based revenue and trade-related revenue. Expenditure was maintained at the previous year's level, leaving the deficit unchanged at 3.5 percent of GDP. As a result of fiscal consolidation, public debt declined to 58.4 percent of GDP as of end-2018.

Credit growth has moderated, in line with the SBV's lower credit growth target. The SBV decreased the target from 18 percent in 2017 to 17 percent in 2018, with a view to safeguarding financial stability. As a result, the banking system's actual credit growth declined from 18 percent

in 2017 to 14 percent in 2018. Despite more subdued credit growth, monetary conditions remained relatively accommodative, attributable in part to the SBV's lowering of the policy rate for open-market operations from 5 percent to 4.75 percent in January 2018.

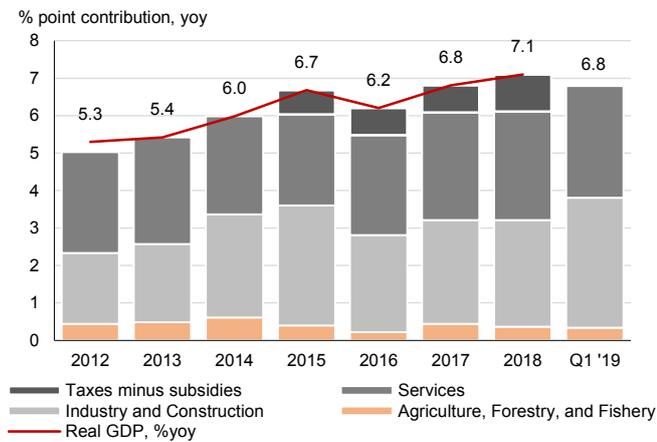
Key risks to the real and external sectors stem mainly from rising trade protectionism. Any impact from the U.S.-China trade conflict on Vietnamese exports would likely be through the global value chain and competition in the domestic and third markets. In addition, slowing global demand amid rising trade protectionism may pose a substantial challenge to Vietnam's exports. On the positive side, however, the U.S.-China trade tension may benefit Vietnam through trade diversion, as well as the potential relocation of foreign firms away from China to Vietnam.

Banking sector risks stem from the relatively low capital buffers and still-sizeable non-performing loans (NPLs). NPL resolution has sped up, with about 35 percent of NPLs acquired by the Vietnam Asset Management Company having been disposed of, as of end-2018. However, a considerable amount of legacy NPLs in the banking system still remains. Meanwhile, already-low bank capital adequacy ratios are projected to decrease further as Basel II standards for risk weights will be applied to all banks by the start of 2020.

Increased reliance on less sustainable revenue sources may undermine the fiscal position in the longer term. Corporate income tax has declined as a share of GDP in recent years, reflecting the reduction in the corporate income tax rate, while VAT and non-tax revenue have increased, offsetting the decline. The increased dependence on non-tax revenue, in particular SOE equitization and land-based revenue, may pose a concern for long-term fiscal sustainability.

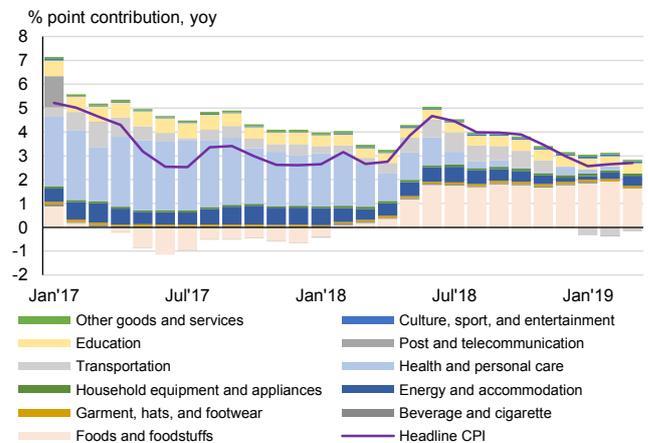
## Vietnam: Selected Charts

Economic growth continued to be robust in 2018.



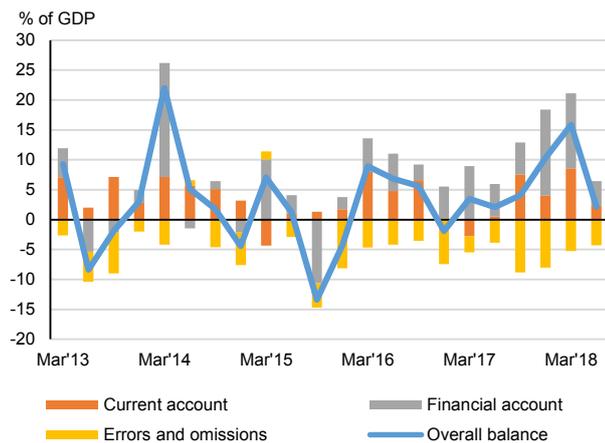
Sources: CEIC; General Statistics Office; and AMRO staff calculations.

Headline inflation was contained below the authorities' (de facto) target of 4.0 percent.



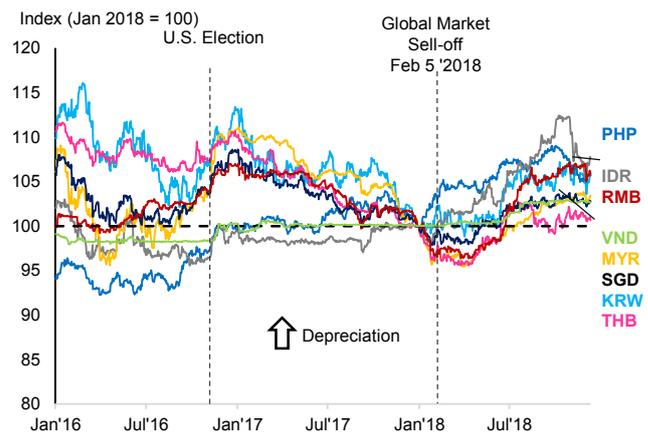
Sources: CEIC; General Statistics Office; and AMRO staff calculations.

Surpluses in the current account and capital and financial account continued to support the balance of payments.



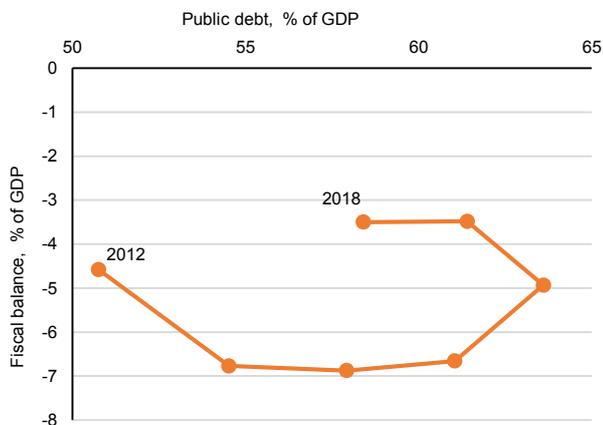
Sources: CEIC; State Bank of Vietnam; and AMRO staff calculations.

The Vietnamese dong depreciated along with other regional currencies relative to the U.S. dollar.



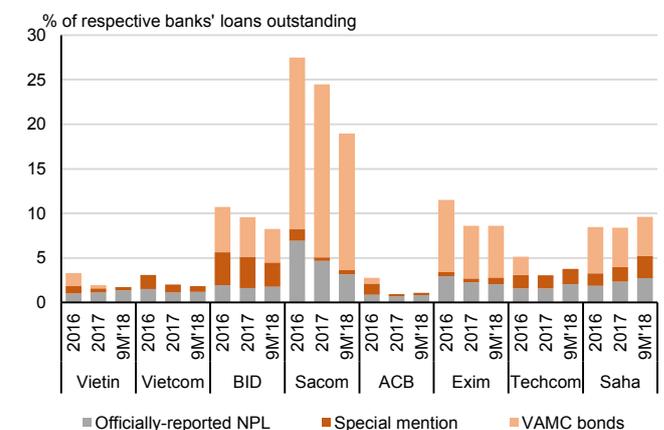
Sources: Haver Analytics; and AMRO staff calculations.

Public debt remained under control.



Sources: CEIC; Ministry of Finance; and AMRO staff calculations.

Banks have made progress in the resolution of their non-performing loans.



Sources: Financial reports of listed banks; and AMRO staff calculations.  
 Note: BID refers to Bank for Investment and Development of Vietnam, ACB refers to Asia Commercial Bank, The first three banks are SOCBs and the rest are domestic private banks (also known as joint stock banks).

## Vietnam: Selected Economic Indicators

	2015	2016	2017	2018
<b>National income and prices</b>	(In percentage change)			
Real GDP	6.7	6.2	6.8	7.1
Consumer price inflation (average)	0.6	2.7	3.5	3.5
<b>Balance of payments</b>	(In USD billion, unless specified)			
Current account balance	0.9	8.2	6.1	10.3
(In percent of GDP)	0.5	4.0	2.7	4.2
Trade balance	7.4	14.0	11.5	9.1
Service balance	-4.3	-5.4	-3.9	-3.9
Primary income	-9.9	-8.4	-9.9	-9.5
Secondary income	7.7	8.0	8.4	8.5
Financial and capital account balance	1.6	11.0	20.2	3.6
(In percent of GDP)	0.8	5.4	9.0	1.5
Direct investment, net	10.7	11.6	13.6	18.0
Portfolio investment, net	-0.1	0.2	1.9	1.0
Other investment, net	-9.1	-0.9	4.8	-15.4
Net errors and omissions	-8.5	-10.8	-13.8	-8.1
Overall balance	-6.0	8.4	12.5	5.8
Gross international reserves	28.3	36.5	49.1	54.9
In months of imports of goods & services	2.0	2.4	2.7	2.6
Coverage of short-term debt by remaining maturity	1.9	2.1	2.6	2.4
	(In percent)			
External debt service/exports of goods and services	3.8	3.3	4.0	3.0
Total external debt/GDP	42.0	44.8	48.9	49.0
Short-term/total external debt	13.0	13.9	13.0	13.4
<b>General government</b>	(In percent of GDP)			
Revenue and grants	23.8	24.5	25.7	25.7
Expenditure	28.5	28.7	29.2	29.2
Net lending/borrowing balance	-4.7	-4.3	-3.5	-3.5
Public debt	61.0	63.7	61.4	61.4
<b>Monetary sector</b>	(In percentage change)			
Claims on the private sector	18.8	18.8	17.4	13.8
Broad money	14.9	17.9	14.3	14.0
<b>Memorandum items:</b>				
Exchange rate (In VND/USD) period avg	21,698.0	21,932.4	22,369.7	22,602.0
Nominal GDP (In USD billion)	193.4	205.3	223.8	244.9
Nominal GDP (In VND trillion)	4,192.9	4,502.7	5,007.9	5,535.3

Sources: Vietnam authorities; CEIC; and AMRO staff estimates.

Note: Data for 2018 refers to estimates. Direct investment and other investment figures in 2018 reflect the Sabeco transaction.





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