



ASEAN+3 REGIONAL ECONOMIC OUTLOOK 2017

ASEAN+3 Region:
20 Years after the
Asian Financial Crisis



This report is produced by the ASEAN+3 Macroeconomic Research Office (AMRO) for the use of the AMRO members and has been reviewed by the Executive Committee. Its publication has been approved by the Executive Committee of AMRO. Any interpretations or conclusions expressed are not necessarily those of the AMRO members. By making any designation of or reference to a particular territory or geographical area, or by using the term “member” or “country” in this report, AMRO does not intend to make any judgements as to the legal or other status of any territory or area.

Nothing herein shall constitute or be considered to be a limitation upon or waiver of the privileges and immunities of AMRO, all of which are specifically reserved.

The factual information covers the period up to 31 March 2017, except when stated otherwise.

© 2017 ASEAN+3 Macroeconomic Research Office
ISSN pending request

Printed in Singapore

ASEAN+3 Macroeconomic Research Office

10 Shenton Way, #15-08 MAS Building
Singapore 079117
enquiry@amro-asia.org
www.amro-asia.org

Table of Contents

Contents	
Acknowledgements	2
Foreword	3
Highlights	4
Acronyms and Abbreviations	7
ASEAN+3 Macroeconomic Prospects and Challenges	8
1. Global Settings and Spillovers to Regional Economies	9
2. Regional Economic Outlook and Challenges	24
3. Policy Issues	34
4. Appendix: Selected Key Macroeconomic Projections	38
Theme: ASEAN+3 Region 20 Years after the Asian Financial Crisis	40
1. 1997 – 2006: Rebuilding Foundations	41
2. 2007 – 2016: Rebalancing and Leveraging Regional Integration	48
3. 2017 – Regeneration and Growth in a Globalized Economy?	58
Annex A: GVAR Model on Spillovers	61
Annex B: Developments in ASEAN+3 Economies	69
Reference List	112
Boxes	
Box A. Comparative Impact of Spillovers from the U.S., China and Japan: Preliminary Results from GVAR Analysis	19
Box B. Recent Developments in Non-Resident Portfolio Capital Flows (Comparison between ASEAN-4 and Korea, and Other Emerging Market Economies)	32
Box C. AMRO in Supporting the Implementation of the Chiang Mai Initiative Multilateralisation (CMIM) Agreement	47
Box D. Recent Developments in Inward FDI Flows in CLMV Economies	53

List of Figures

ASEAN+3 Macroeconomic Prospects and Challenges

Figure 1.1 Global growth forecast in 2016-17	9
Figure 1.2 Global growth forecast revisions in 2017-18	9
Figure 1.3 Composite PMI readings of major advanced economies	10
Figure 1.4 Global trade growth	10
Figure 1.5 Global income elasticity of trade	10
Figure 1.6 Major commodity prices	11
Figure 1.7 Projected global oil inventories in 2017-18	11
Figure 1.8 U.S. inflation growth and inflation expectations	11
Figure 1.9 EM net portfolio flows and currency index	11
Figure 1.10 Selected AE and EM 10-year sovereign bond yields	12
Figure 1.11 U.S. Broad dollar, Japanese Yen and EM currencies	12
Figure 1.12 China's GDP growth	12
Figure 1.13 China's PPI and CPI	12
Figure 1.14 China's imports from ASEAN-6	13
Figure 1.15 China's coal imports	13
Figure 1.16 China's steel exports (value and volume growth)	14
Figure 1.17 China's RMB and RMB CFETS index	14
Figure 1.18 China and ASEAN-5 equity volatility indices	14
Figure 1.19 Global and China equity volatility indices	15
Figure 1.20 China's net capital flows	15
Figure 1.21 Japan's CPI	16
Figure 1.22 JPY/USD cross currency basis swap spread	16
Figure 1.23 Comparison of region's EM and other EM currencies	16
Figure 1.24 Comparison of region's EM and other EM equity indices	16
Figure 1.25 Comparison of EM cumulative net portfolio capital flows during stress periods	17
Figure 1.26 Net portfolio capital flows into global EMs	17
Figure 1.27 Comparison of regional EMs' and other EMs' current account and fiscal balances	17
Figure 1.28 Comparison of regional EMs' and other EMs' sovereign CDS spreads	17

Box A

Figure A1. Response of sample countries' IP to a 1% drop in U.S. IP (36 months)	20
Figure A2. Response of sample countries' IP to a 1% drop in China IP (36 months)	20
Figure A3. Response of sample countries' IP to a 1% drop in Japan IP (36 months)	20
Figure A4. Response of sample countries' exports to a 1% drop in China IP (36 months)	20
Figure A5. Response of sample countries' NEER to a 1% drop in China NEER (12 months)	21
Figure A6. Response of sample countries' NEER to a 1% rise in Japan NEER (12 months)	21
Figure A7. Response of sample countries' Financial EDF to a 1% increase in U.S.' Financial EDF (12 months)	21
Figure A8. Response of sample countries' Corporate EDF to a 1% increase in U.S.' Financial EDF (12 months)	21
Figure A9. Response of sample countries' Financial EDF to a 1% increase in U.K.'s Financial EDF (12 months)	21

Figure A10. Response of sample countries' Corporate EDF to a 1% increase in U.K.'s Financial EDF (12 months)	21
Figure A11. Response of sample countries' Financial EDF to a 1% increase in China's Financial EDF (12 months)	22
Figure A12. Response of sample countries' Corporate EDF to a 1% increase in China's Financial EDF (12 months)	22
Figure A13. Response of sample countries' Financial EDF to a 1% increase in U.S.' Corporate EDF 12 months)	22
Figure A14. Response of sample countries' Corporate EDF to a 1% increase in U.S.' Corporate EDF (12 months)	22
Figure A15. Response of sample countries' Financial EDF to a 1% increase in China's Corporate EDF (12 months)	22
Figure A16. Response of sample countries' Corporate EDF to a 1% increase in China's Corporate EDF (12 months)	22
Figure A17. Response of sample countries' Financial EDF to a 1% increase in Japan's Corporate EDF (12 months)	23
Figure A18. Response of sample countries' Corporate EDF to a 1% increase in Japan's Corporate EDF (12 months)	23
Figure A19. Response of sample countries' Real Equity Prices to a 1% increase in U.S.' Real Equity Prices (12 months)	23
Figure A20. Response of sample countries' Real Equity Prices to a 1% increase in Japan's Real Equity Prices (12 months)	23
Figure A21. Response of sample countries' Real Equity Prices to a 1% increase in China's Real Equity Prices (12 months)	23
Figure 2.1 Regional GDP growth	24
Figure 2.2 Contribution of consumption, investment and net exports to regional GDP growth	25
Figure 2.3 Value-added exports of selected ASEAN+3 economies	25
Figure 2.4 ASEAN's trade with ASEAN+3 and other regions	25
Figure 2.5 ASEAN, Japan and Korea trade with the U.S. and China	26
Figure 2.6 Brazil and Mexico trade with the U.S. and China	26
Figure 2.7 Headline inflation of ASEAN +3 economies	26
Figure 2.8 Policy rate adjustments for selected ASEAN+3 economies	26
Figure 2.9 Primary balance and debt-to-GDP ratio of selected ASEAN economies	27
Figure 2.10 Changes to debt-to-GDP ratio of selected ASEAN+3 economies	27
Figure 2.11 Private sector credit-to-GDP ratio of ASEAN+3 economies	28
Figure 2.12 Credit-to-GDP gap of selected ASEAN+3 economies	28
Figure 2.13 NFC LCY debt (% of GDP) of selected ASEAN+3 economies	28
Figure 2.14 Corporate USD debt of selected ASEAN+3 economies	28
Figure 2.15 Banks' regulatory capital to risk-weighted assets of ASEAN+3 economies	29
Figure 2.16 Total NFC debt of selected ASEAN+3 economies by ICR level	29
Figure 2.17 Current account balances of ASEAN+3 economies	29
Figure 2.18 Global remittances by top source and recipient economies	30
Figure 2.19 10Y sovereign bond yields of selected ASEAN+3 economies	30
Figure 2.20 Share of foreign holdings in LCY sovereign bonds of selected ASEAN+3 economies (2016)	30
Figure 2.21 Non-resident net capital flows of ASEAN-4 and Korea by equity and debt	31
Figure 2.22 FX reserves by import and short-term external debt covers	31
<i>Box B</i>	
Figure B1. Cumulative net portfolio capital flows (ASEAN-4 and Korea, and other EMs)	32
Figure B2. Foreign net capital flows into ASEAN-4 and Korea and Asia Currency Index	32
Figure B3. Comparison of FX reserves between ASEAN-4 and Korea, and other EMs	33
Figure B4. FX change and foreign holdings of LCY sovereign bonds of ASEAN-4 and Korea, and other EMs	33
Figure B5. Comparison of regional's EM and other EM current account and fiscal balances (2016)	33

Figure 3.1 Domestic credit-to-GDP ratio and short-term external debt-to-reserves ratio of selected ASEAN+3 economies (2015)	35
Figure 3.2 Current account balance and fiscal balance of selected ASEAN+3 economies (2016)	36

Theme: ASEAN+3 Region 20 Years after the Asian Financial Crisis

Figure 1.1 GDP growth trajectories during the AFC and GFC	42
Figure 1.2 Export growth trajectories during the AFC and GFC of ASEAN-4 economies and Korea	43
Figure 1.3 Current account balance, investment and savings of ASEAN-4 economies and Korea	43
Figure 1.4 Actual gross fixed capital formation of ASEAN-4 economies and Korea	43
Figure 1.5 Investment-to-GDP ratio of ASEAN-4 economies and Korea	43
Figure 1.6 Gross capital flows in China (including Hong Kong), Korea and ASEAN-5 economies	44
Figure 1.7 Japanese banks' lending to ASEAN (ex-Singapore)	44
Figure 1.8 Japanese ODA to ASEAN+2 economies	44
Figure 1.9 General government gross debt (% of GDP) of ASEAN-4 economies and Korea	46
Figure 1.10 Fiscal balance (% of GDP) of ASEAN-4 economies and Korea	46
Figure 1.11 Stock of FX reserves of ASEAN and Korea	46
Figure 1.12 Reserves and current account balance (% of GDP) of ASEAN-4 economies and Korea	46
Figure 2.1 (a) China's imports from ASEAN by major import classification (in USD terms)	49
Figure 2.1 (b) China's imports from ASEAN by major import classification (% of China's imports)	49
Figure 2.2 China's import intensity	49
Figure 2.3 China's imports from ASEAN by key products (2015)	49
Figure 2.4 Value-added exports to China by selected ASEAN economies	50
Figure 2.5 FDI inflows to ASEAN by source region, economy	51
Figure 2.6 Intra-regional FDI inflows (selected ASEAN economies)	51
Figure 2.7 Global value chain participation rates by region	51
Figure 2.8 Correlation between growth in GVC participation and GDP per capita for ASEAN+3	51
Figure 2.9 Korean FDI stocks in CLMV economies	52

Box D

Figure D1. CLMV economies' total export market share	53
Figure D2. CLMV economies' bilateral trade with China	53
Figure D3. Inward FDI flows to CLMV economies	54
Figure D4. Monthly minimum wage in garment industry (selected EMs)	54
Figure 2.10 Cross-border bank lending to the ASEAN (ex-Singapore) by selected advanced economies	55
Figure 2.11 Net transactions of foreign securities in Asia by Japanese institutional investors)	55
Figure 2.12 GDP growth contribution by expenditure of ASEAN-4 economies and Korea	55
Figure 2.13 Unemployment rate of ASEAN-4 economies and Korea	55
Figure 3.1 Total factor productivity growth of ASEAN-4 economies and Korea	58

Figure 3.2 GNI per capita of U.S. and ASEAN+3 economies	59
Figure 3.3 Comparison of GNI per capita of U.S. and selected ASEAN+3 economies	59

List of Tables

ASEAN+3 Macroeconomic Prospects and Challenges

Table 2.1 AMRO's Projections of GDP Growth and Inflation (2017-18)	24
--	----

Theme: ASEAN+3 Region 20 Years after the Asian Financial Crisis

Table 1.1 Comparison between post-AFC and post-GFC responses	42
Table 1.2 Regional inflation targeting adopters	45
Table 2.1 Outbound tourists from China (excluding Kong Kong) to the region	50
Table 2.2 Plus-3 and ASEAN shares of FDI inflows to CLMV economies	52
Table 2.3 Macroprudential toolkit of selected ASEAN+3 economies	57
Table 3.1 Structural reform agenda of selected ASEAN+3 economies	60

Annex A: GVAR Model on Spillovers

Table 1 List of economies in sample and their abbreviations	65
Table 2.1 List of domestic variables (Real Sector GVAR)	66
Table 2.2 List of domestic variables (Financial Sector GVAR)	67
Table 3.1 Set of variables used for the Real Sector GVAR model	68
Table 3.2 Set of variables used for the Financial Sector GVAR model	68

Acknowledgements

The assessments provided in the ASEAN+3 Regional Economic Outlook 2017 are part of AMRO's continuing surveillance of major economic developments and risks in the ASEAN+3 region. It aims to provide a comprehensive assessment of recent developments and the outlook for the regional economy and its linkages with the global economy, as well as inter-linkages in the financial markets, mainly through studies by staff in the Surveillance Group at AMRO and through consultation visits to member economies.

This report was prepared under the guidance of AMRO Director Dr. Junhong Chang and AMRO Chief Economist Dr. Hoe Ee Khor, by the Regional and Financial Surveillance Team at AMRO led by Ms. Chuin Hwei Ng.

ASEAN+3 Macroeconomic Prospects and Challenges was anchored by Mr. Anthony CK Tan, with contributions from Ms. Siti Athirah Ali, and Mr. Edmond CY Choo. The team worked jointly with Professor Tomoo Inoue of Seikei University, Japan on spillover analysis using the Global Vector Autoregressive (GVAR) model, with advice from Dr. Chaipat Poonpatpibul.

ASEAN+3 Region: 20 Years after the Asian Financial Crisis is a thematic study taking stock of developments in the economic structure and macroeconomic policy framework of the regional economies 20 years after the Asian Financial Crisis. The study was led by Ms. Chuin Hwei Ng with contributions from Dr. Jinho Choi, Mr. Edmond CY Choo, and Ms. Vanne Khut.

The report has benefited from inputs and comments from the Surveillance Group at AMRO, namely Dr. Seung Hyun (Luke) Hong, Dr. Sumio Ishikawa, Dr. Jae Young Lee, Dr. Chaipat Poonpatpibul, Dr. Abdurrohman, Mr. Paolo Hernando, Dr. Xianguo Huang, Dr. Pum Huot, Dr. Akhis R. Hutabarat, Mr. Yoichi Kadogawa, Dr. Hyunjung Joseph Kim, Dr. Wenlong Li, Dr. Xinyi Liu, Dr. Ruperto Pagaura Majuca, Dr. Thi Kim Cuc Nguyen, Mr. Xinke Tang, Mr. Enrico Tanuwidjaja, Dr. Jade Vichyanond, Ms. Wanwisa Vorrarikulkij, as well as other colleagues at AMRO.

The report also benefited from comments from the AMRO Advisory Panel chaired by Dr. Bandid Nijathaworn, and invited discussants to the Informal Consultative Meeting at AMRO on this Report on 15 March 2017. The authors would also like to thank the participants at the AMRO-IMF Seminar held in Manila on 1 March 2017 for their insightful comments and feedback. Needless to say, the views expressed in this report are those of AMRO staff alone and do not, in any way, implicate the members.

Foreword

I am pleased to present the inaugural issue of AMRO's flagship report, the "ASEAN+3 Regional Economic Outlook" (AREO). The AREO is our annual regional surveillance publication, covering both the regional economic outlook as well as timely thematic issues. Its publication is a milestone for AMRO since it was converted into an international organization in February 2016, with the mission of contributing to the macroeconomic and financial stability of the region through conducting regional economic surveillance and supporting the implementation of the Chiang Mai Initiative Multilateralisation (CMIM) Agreement.

The ASEAN+3 region has shown remarkable resilience going into 2017. In Part 1 on *ASEAN+3 Macroeconomic Prospects and Challenges*, we note that the region as a whole grew by 5.3 percent in 2016, and barring tail risks, we expect growth of 5.2 percent this year with inflation well under control. Growth in the two largest economies in our region, China and Japan, has moderated and stabilized. Korea and emerging market economies in ASEAN have weathered the volatility in global financial markets relatively well compared with other emerging markets, while developing economies in ASEAN continue to grow strongly and converge to the more developed economies in the region.

At the same time, our region – and the world – faces significant global policy uncertainty. The threat of rising trade protectionism in the U.S. continues to dampen the export outlook for our region. Tightening global financial conditions have narrowed the room for monetary policy, and while fiscal policy can play a greater role, this is subject to the available fiscal space in each economy. The balancing act between economic growth and financial stability has become more delicate, and in our view, it would be prudent for policymakers to prioritize financial stability in this uncertain global environment. Continued use of the full set of policy tools, including macroprudential policies, and pressing on with structural reforms would be necessary.

Part 2 of the AREO is a thematic study, and for this inaugural issue, we have chosen the theme of the *ASEAN+3 Region: 20 Years after the Asian Financial Crisis (AFC)*. The AFC is a landmark event that highlighted the urgent need for regional financial cooperation in crisis management and resolution, and led to the establishment of the Chiang Mai Initiative in 2000 and its subsequent development into CMIM, and the creation of AMRO to support the process through macroeconomic surveillance.

While there are many ways to approach this theme, we have chosen to focus on how policymakers in the region have rebuilt buffers and policy foundations for economic growth after the AFC that enabled them to weather the ramifications of the subsequent Global Financial Crisis (GFC). These include developing more robust monetary policy frameworks against external shocks; undertaking financial, fiscal and structural reforms; and the adoption of macroprudential measures to deal with financial vulnerabilities where appropriate. These more responsive policy frameworks allowed the region to remain open to capital inflows that surged after the GFC and to rebalance their economies from external demand to domestic demand. The policy decision to remain open to trade and capital flows allowed the region to benefit from the rising tide of growing regional trade and investment integration. Mindful of the sharp increase in capital flow volatility and its destabilizing effects, the ASEAN+3 members have come together to develop a regional safety net supported by enhanced macroeconomic surveillance, which together with their own strengthened domestic policy frameworks and buffers, will improve their resilience against shocks and allow their economies to sustain relatively strong growth.

Hoe Ee Khor
AMRO Chief Economist

Highlights



Macroeconomic Prospects and Challenges

While the economies in the ASEAN+3 region have weathered external shocks well in 2016, global policy uncertainty has risen significantly, in particular for the global trade outlook with rising protectionist sentiment. Global financial markets remain volatile, with spillovers on emerging markets in our region.

- While the underlying growth momentum is gradually improving across major global economies, the recovery is vulnerable to policy uncertainty. In the U.S., the pro-growth agenda of the Trump administration presents some upside potential to the U.S. economy, although more restrictive trade and immigration policies may dampen growth. In the E.U., growth momentum in the Euro area and the U.K. has been stronger than anticipated, but we are cautious over the economic outlook ahead of elections in major Eurozone countries and Brexit negotiations.
- The spillovers of global policy uncertainty to the ASEAN+3 region are through both trade and financial channels. In trade, while signs of recovery in global trade and commodity prices are encouraging, the recovery is threatened by protectionist signals from the Trump administration, especially where these signals target economies in the ASEAN+3 region with large bilateral trade surpluses with the U.S. In the financial markets, global financial conditions are tightening with U.S. Fed interest rate hikes under way, with policy uncertainty threatening to accentuate financial market volatility and capital outflow risks from emerging markets as a whole.

Growth in China and Japan is expected to remain stable in 2017,

with downside risks from rising U.S. trade protectionism. Their growth will anchor growth in the ASEAN+3 region, which is expected to slow slightly to around 5.2 and 5.1 percent in 2017 and 2018 respectively.

- China's economic growth in the short term has shown signs of stabilization amid ongoing structural adjustments, while producer prices have picked up sharply recently. China's stable growth will continue to anchor economic growth in the ASEAN+3 region and absorb imports from the region. Going forward, speeding up the pace of state-owned enterprise (SOE) reform, continuing industrial overcapacity reduction, curbing corporate debt and containing financial stability risks will remain key challenges.
- In Japan, growth is expected to remain strong in 2017, higher than the potential growth rate, supported by macroeconomic policies and external demand. With monetary policy divergence as U.S. Treasury yields rise relative to JGB yields, and also structural factors, Japan's outward portfolio flows to the ASEAN+3 region are expected to continue.
- AMRO's empirical work comparing the impact of spillovers from the U.S., China and Japan using a Global Vector Autoregressive (GVAR) model suggests that the real economy shocks from the U.S. and China have a more significant impact on exports from the region than a similar shock from Japan, with the impact from a shock from China being more persistent than from the U.S. Stresses to the corporate sector originating from the U.S., China and Japan are also found to

be important channels of stress transmission to financial and corporate sectors in emerging markets in our region.

With an uncertain trade outlook, economic growth in the region will continue to be driven primarily by domestic demand, with support from monetary and fiscal policy. Foreign exchange (FX) reserve buffers in the regional economies remain substantial. Compared to 2016, however, policy room in monetary and fiscal policy has generally narrowed.

- While FX reserve buffers are high by conventional metrics of import and short term external debt cover, these buffers should be maintained in the face of potential capital outflow pressures. Sudden unwinding of foreign holdings of local currency assets and capital outflows in a “risk-off” scenario may put additional pressure on the exchange rate and on FX reserves. Exchange rate flexibility combined with judicious intervention to moderate the pace of adjustment would continue to be the appropriate response to risks of external shocks.
- In monetary policy, compared to 2016, rising inflation and tightening global monetary conditions in 2017 will reduce the room for regional economies to ease monetary policy to support growth. Economies in which financial

vulnerabilities have built up with high credit growth or external debt will face the sharpest trade-off in maintaining an accommodative monetary policy to support growth and maintain financial stability.

- Fiscal policy may have to play a greater role to cushion downside risks to the real economy, although fiscal policy space has generally narrowed, and in some economies, is constrained by fiscal rules. Regional economies with lower public debt and stronger external positions can consider maintaining a moderate pace of fiscal expansion. Economies already relying on external financing for both the current account and the fiscal balance (“twin deficits”) would face tighter financing constraints when trying to expand fiscal policy.
- In the current uncertain global environment, in the balance between growth and stability, it would be prudent for policymakers to prioritize financial stability. With constraints on monetary policy, regional policymakers may consider recalibrating targeted macroprudential policy measures to safeguard financial stability and support growth. Given the limitations of short-term demand management policies, there is an urgent need for policymakers to accelerate the structural reform agenda.

Theme: ASEAN+3 Region 20 Years after the Asian Financial Crisis

2017 marks 20 years after the Asian Financial Crisis (AFC), a landmark event in the ASEAN+3 region that has shaped the subsequent foundations and trajectory of economic growth and regional integration, as well as policymakers’ perspectives on crisis management and resolution. In particular, the AFC highlighted the urgent need for regional financial cooperation in crisis management and resolution, which resulted in the Chiang Mai Initiative under the ASEAN+3 Finance process, its subsequent expansion into the Chiang Mai Initiative Multilateralisation (CMIM) Agreement, and the creation of AMRO as an independent macroeconomic surveillance unit supporting the CMIM.

- The first decade after the AFC (1997-2006) was a period of economic consolidation after a sharp negative shock, and of rebuilding foundations for economic growth. The recovery path necessitated fundamental and painful policy adjustments in exchange rate regimes, corporate and financial sector reforms, fiscal consolidation, and reforms in prudential regulation. These policy adjustments enabled the affected economies to rebuild the foundations for economic growth, with exports leading the recovery.
- The region’s continued openness to trade, FDI and capital flows after the AFC enabled economies — especially the developing ASEAN economies — to reap the benefits of

growing regional integration and the emergence of China in regional trade and FDI in the decade following the Global Financial Crisis (GFC), even when the tailwinds provided by global external demand came to an abrupt halt in the advanced economies of the U.S. and Eurozone. Regional financial flows also increased, with Japan continuing its role as a major lender and investor in the ASEAN+3 region.

- Increased intra-regional financial flows have occurred in the context of massive monetary policy stimulus by the U.S. and the Eurozone, which eased the ASEAN+3 region’s rebalancing from export-led to domestic-led demand. However, large and sustained inflows created financial vulnerabilities in the recipient economies, amplified financial market volatility, and complicated monetary policy management. To manage the financial stability risks while reaping the benefits from capital inflows, policymakers in ASEAN+3 have been among the most active in the world in deploying macroprudential measures.
- In the current uncertain global environment, the AFC continues to offer valuable lessons to policymakers. First, the AFC placed policy focus squarely on the risks arising from financial markets and capital outflows. Second, the AFC highlighted the speed and impact of contagion between economies. Third, the AFC highlighted the need for a more

flexible and responsive policy framework domestically, and also greater financial cooperation within the region to deal with external shocks.

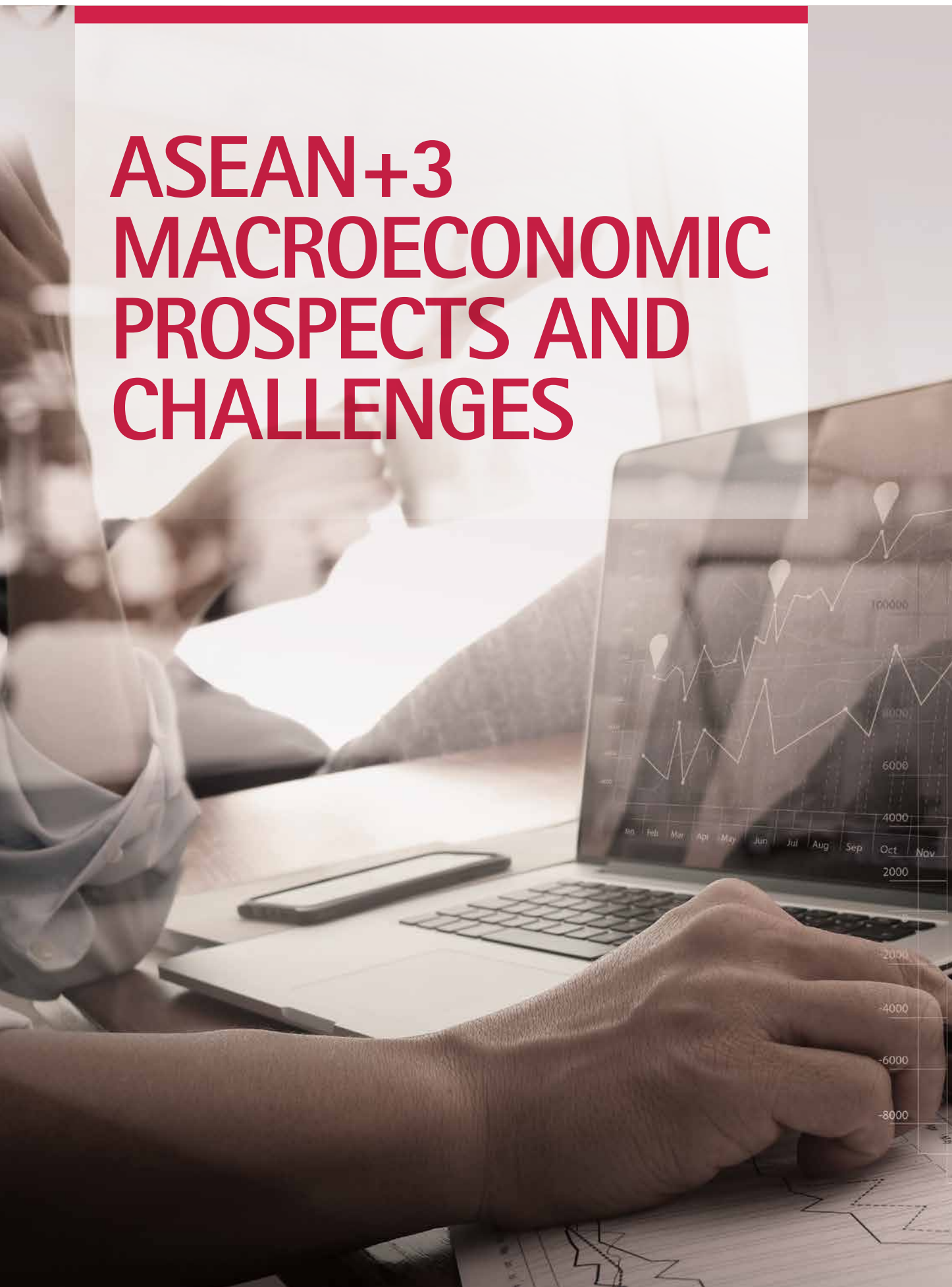
- The current global policy uncertainty — which may include uncertainty from non-economic events — requires policymakers to maintain policy discipline and to respond flexibly to the rapidly changing global environment, coordinating between different policy agencies of government, and ensuring policy intentions are well-communicated to the market. Besides these near-term challenges, the ASEAN+3 region also faces structural challenges as bottlenecks to growth, not only in terms of physical infrastructure but also human capital, which are becoming increasingly apparent in a slower-growth environment. Accelerating structural reform to address the inefficiencies directly has become more urgent.
- The role played by global and regional financial safety nets such as the CMIM in augmenting an economy's buffers to deal with external shocks and contagion risks has become even more important in the current global environment. Policymakers' affirmation of their commitment to regional financial cooperation would help anchor market expectations and provide a solid policy basis for the region's continued growth and development.

ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank	ASEAN	Association of Southeast Asian Nations
AEs	Advanced Economies	ASEAN (ex-SG)	ASEAN excluding Singapore
AFC	Asian Financial Crisis	ASEAN+2	ASEAN plus China (including Hong Kong) and Korea
BIS	Bank for International Settlements	ASEAN+3	ASEAN plus China (including Hong Kong), Japan, and Korea
BOJ	Bank of Japan	ASEAN-4	Malaysia, Thailand, Indonesia and the Philippines
BOT	Bank of Thailand	ASEAN-5	Malaysia, Thailand, Indonesia, the Philippines and Vietnam
CPI	Consumer Price Index	ASEAN-6	ASEAN-5 and Singapore
CBO / CPB	Congressional Budget Office / Netherlands Bureau for Economic Policy Analysis		
DBU	Domestic Banking Unit	Plus-3	China, Japan and Korea
DXY	U.S. Broad Dollar	BCLM	Brunei, Cambodia, Lao PDR and Myanmar
EMs	Emerging Markets	BRICS / LatAM	Brazil, Russia, India, China and South Africa / Latin America
EIA	U.S. Energy Information Administration	CLMV	Cambodia, Lao PDR, Myanmar and Vietnam
ECB	European Central Bank	BN	Brunei Darussalam
EDF	Expected Default Frequency	CN	People's Republic of China
EPFR	Emerging Portfolio Fund Research	HK	Hong Kong, China
FCY	Foreign Currency	ID	Indonesia
FDI	Foreign Direct Investment	JP	Japan
Fed	U.S. Federal Reserve	KH	Cambodia
FOMC	Federal Open Market Committee	KR	Korea
FX	Foreign Exchange	LA, Lao PDR	Lao People's Democratic Republic
G3	U.S., Euro area and Japan	MM	Myanmar
GDP	Gross Domestic Product	MY	Malaysia
GFC	Global Financial Crisis	PH	The Philippines
GFCF	Gross Fixed Capital Formation	SG	Singapore
GNI	Gross National Income	TH	Thailand
GST	Goods and Services Tax	VN	Vietnam
GVC	Global Value Chain		
HH	Household	AT	Austria
HICP	Harmonised Index of Consumer Prices	CY	Cyprus
ICR	Interest Coverage Ratio	BE	Belgium
IEA	International Energy Agency	BR	Brazil
IIF	Institute of International Finance	DE	Germany
ILO	International Labour Organization	EE	Estonia
IMF	International Monetary Fund	ES	Spain
LCY	Local Currency	EU	European Union
MAS	Monetary Authority of Singapore	FI	Finland
NAFTA	North American Free Trade Agreement	FR	France
NEER	Nominal Effective Exchange Rate	IT	Italy
NFC	Non-Financial Corporation	MX	Mexico
REER	Real Effective Exchange Rate	NL	Netherlands
ODA	Official Development Assistance	PT	Portugal
OECD	Organisation for Economic Co-operation and Development	RU	Russia
OPEC	Organization of the Petroleum Exporting Countries	SK	Slovakia
OTC	Over-the-Counter	SP	Spain
PBC	People's Bank of China	TR	Turkey
PCE	Personal Consumption Expenditure	U.K.	United Kingdom
PMI	Purchasing Managers' Index	U.S.	United States of America
RBA	Reserve Bank of Australia	ZA	South Africa
SGP	Stability and Growth Pact		
SITC	Standard International Trade Classification	AUD	Australian Dollar
SOEs	State-Owned Enterprises	BND	Brunei Dollar
UMP	Unconventional Monetary Policy	BRL	Brazilian Real
UNCTAD	United Nations Conference on Trade and Development	EUR	Euro
VAT	Value-Added Tax	GBP	Pound Sterling
WEO	IMF World Economic Outlook	HKD	Hong Kong Dollar
WTO	World Trade Organization	IDR	Indonesian Rupiah
		JPY	Japanese Yen
		KHR	Cambodian Riel
3MMA	3 month moving average	KRW	Korean Won
4wma	4 week moving average	LAK	Lao Kip
bps	Basis points	MMK	Myanmar Kyat
EBITDA	Earnings before interest, tax, depreciation and amortisation	MXN	Mexican Peso
FY	Fiscal Year	MYR	Malaysian Ringgit
mom	Month-on-month	PHP	Philippine Peso
PPP	Purchasing Power Parity	RMB	Chinese Renminbi
qoq	Quarter-on-quarter	RUB	Russian Ruble
SA	Seasonally-adjusted	SGD	Singapore Dollar
s.w.d.a.	Seasonally and working day adjusted	THB	Thai Baht
SAAR	Seasonally-adjusted Annualised Rate	TRY	Turkish Lira
yoy	Year-on-year	USD	U.S. Dollar
YtD	Year-to-date	VND	Vietnamese Dong

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

ASEAN+3 MACROECONOMIC PROSPECTS AND CHALLENGES

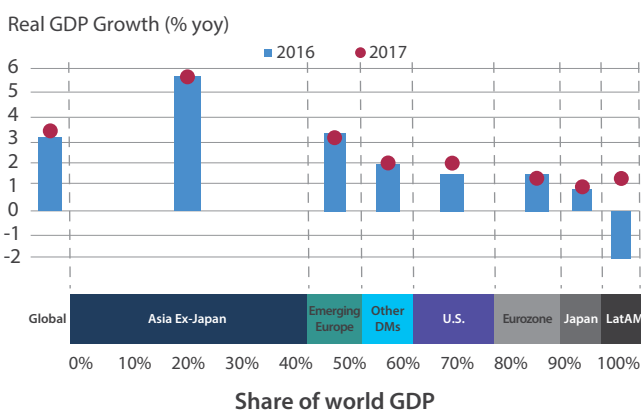


1. Global Settings and Spillovers to Regional Economies

Global growth is expected to pick up moderately in 2017, led by a recovery in the U.S., but policy uncertainty has increased significantly under the Trump administration, especially in the area of global trade. Global financial markets remain volatile, with risks of capital outflows for emerging markets.

1 While the underlying growth momentum is gradually improving across major global economies, the recovery is vulnerable to policy uncertainty. Major advanced economies entered 2017 on a better footing, with Q4 2016 GDP growth trends showing sustained domestic demand, led by steady consumer spending and improving business investment in the U.S. and the Eurozone. In the U.K., despite Brexit-related worries, growth momentum accelerated in Q4 2016 on strong consumer spending, beating market consensus. In the EM sphere, particularly in commodity-exporting economies, real economic activities are generally improving, supported by higher commodity prices, although the outlook remains cautious considering the U.S. interest rate upcycle and the strong USD. Baseline global growth for 2017 is expected to be slightly better than last year (consensus forecast²: +3.2 percent), led by the U.S. and an improvement in some major commodity-exporting EMs (Figure 1.1). Accordingly, global growth estimates

Figure 1.1 Global growth in 2017 is anticipated to be slightly better as compared to 2016



Source: Consensus Mean Forecast from Bloomberg (as of 31 March 2017)

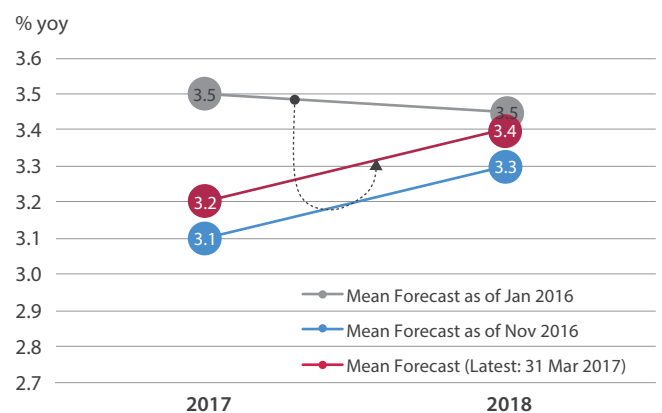
for 2017-18 have been revised slightly upwards as compared to end-2016 (Figure 1.2). However, general discontent around global integration and trade liberalization and potential geopolitical tensions could contribute to a step down in global growth.

2 In the U.S., the pro-growth agenda and financial deregulation plans by the Trump administration present some upside growth potential to the economy, although more restrictive trade and immigration policies may dampen growth. The underlying U.S. fundamentals have progressively

strengthened, with job creation consistently averaging close to 200,000 a month since January 2016, while the unemployment rate has trended down. Looking ahead, Trump's plans for fiscal expansion and tax cuts may stimulate U.S. economic recovery with anticipated higher business spending driving growth and inflation. However, potential reviews of existing trade deals such as NAFTA and other trade pacts by the U.S., could lead to a more restrictive trade environment. These, together with relatively tighter immigration policies, could have some spillback effects, dampening the growth outlook for the U.S. Consequently, the net effects on the trajectory of the U.S. economic recovery remain unclear.

3 In Europe, growth momentum in the Euro area and the U.K. has been stronger than anticipated, though we are cautious about the outlook, potentially weighed down by policy uncertainties ahead, and the continuing slow resolution of non-performing loans (NPLs) in some major Eurozone banks. Recent composite PMI readings showed strong growth in the Eurozone (led mainly by Germany and to some extent, France), which supported the cyclical recovery (Figure 1.3). Headline inflation has also started to trend upwards on higher oil prices. However, the outlook is clouded by policy uncertainties ahead

Figure 1.2 Global growth estimates have been revised slightly upwards for 2017-18



Source: Consensus Mean Forecast from Bloomberg

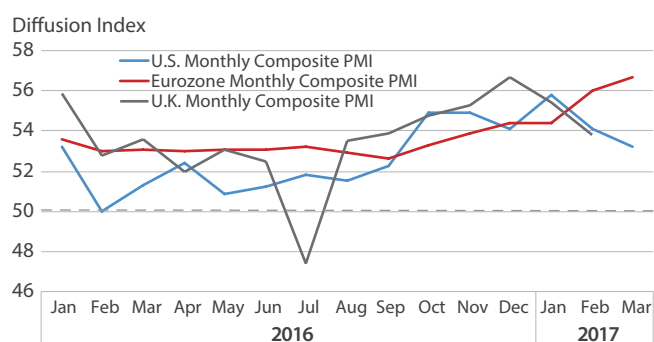
of the upcoming national elections in the Netherlands, Italy and France in H1 2017, and Germany in H2 2017. Similarly, in the U.K., despite a relatively resilient outturn, the outlook is expected to be more moderate in 2017, weighed down by the possibility of a "Hard-Brexit" and its implications for U.K. exports. At the same time, in the banking sector, given the slow resolution of NPLs, concerns continue to build up over the health of some Eurozone banks.³ In Italy in particular, markets are jittery over the country's troubled banking sector, which could weigh on sentiments across the Eurozone.

² Consensus mean forecast from Bloomberg (as of 31 March 2017).

³ The ECB's high level group on NPLs is expected to publish the final guidance to banks in spring 2017. This follows the initial publication of the draft guidance last year and an extensive public consultation process and public hearing. See Interview with Sharon Donnery, Deputy Governor of the Central Bank of Ireland and Chair of the ECB's High Level Group on NPLs, published in Supervision Newsletter (Winter 2017) on 15 February 2017.

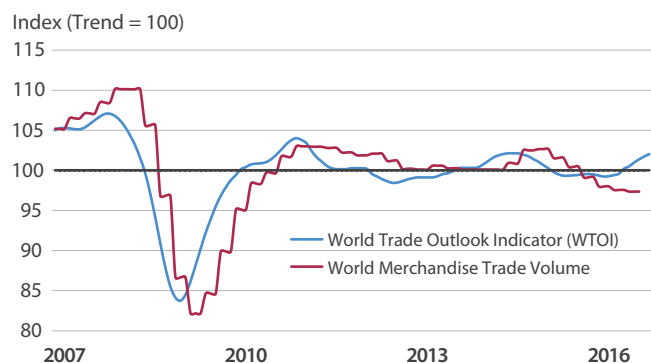
4 Notwithstanding the improving global demand, the outlook for global trade remains lackluster despite recent upturns, weighed down by growing protectionist threats in the period ahead. The WTO's World Trade Outlook leading indicator, a composite of trade indicators such as export orders, air freight and container throughput, showed continued subdued growth in global trade volume going in 2016 (Figure 1.4). While the recent pick-up in global trade activity is encouraging, it is uncertain whether this recovery is sustainable, given signs of the shift in the commitment of the

Figure 1.3 Composite PMI readings in major advanced economies, notably in the Euro area, have trended higher going into 2017



Source: Markit

Figure 1.4 While the global trade picked up recently, it is uncertain whether this recovery is sustainable



Notes: Readings of 100 indicate growth in line with medium-term trends; readings greater than 100 suggest above trend growth, while those below 100 indicate the reverse. The direction of change reflects momentum compared the previous month. The chart compares historical values of the WTOI to actual merchandise trade data. Trade volume growth tends to accelerate when the WTOI (blue line) is above the index for merchandise trade (red line), and decelerate when the WTOI is below the trade index. Source: WTO

U.S. away from multilateral trade deals towards a more bilateral trade approach. The border adjustment tax proposal⁴ currently under consideration in the U.S. may also fundamentally change the organization of global value chains. Global trade volume elasticity with respect to changes in global output has also declined after the GFC, suggesting structural factors may limit the recovery in global trade even if global economic growth recovers (Figure 1.5).⁵

5 Rising commodity prices may pass through to renewed inflation pressures in commodity importers, but do offer some relief to EM commodity exporters. Both energy and non-energy commodity prices have recovered since the trough in January 2016 (Figure 1.6). Considering the projected large stock of global oil inventories going into 2017-18 (Figure 1.7), increases in oil prices are likely to be gradual as suggested by the recent oil futures contracts. OPEC's agreement to cut crude oil production to 32.5 million barrels per day may be partially offset by production from non-OPEC producers including the U.S.

6 Expectations of a fiscal stimulus by the Trump administration have renewed concerns over inflation that may prompt a faster pace of interest rate hikes by the U.S. Fed. Core PCE inflation, the Fed's preferred measure of underlying price trends, has been gradually edging higher towards the Fed's 2.0 percent target, while market-based inflation expectations have jumped on Trump's election victory (Figure 1.8). Expectations

Figure 1.5 Global trade (volume) elasticity with respect to changes in global output has declined

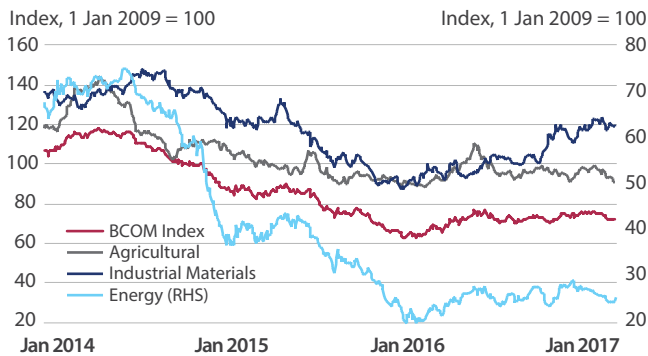


Sources: IMF, CPB

⁴ The proposed border adjustment tax by the U.S. is essentially a subsidy on U.S. exports and tariff on U.S. imports. It is a proposed destination-based, border adjustable international corporate consumption tax system in which a tax is "applied to all domestic consumption and excludes any goods or services that are produced domestically, but consumed elsewhere." (Pomerleau, K. and Entin, S-J., (2016), "The House GOP's Destination-Based Cash Flow Tax, Explained", Tax Foundation.)

⁵ The economic literature suggests several possible factors for the secular decline in trade growth. On the demand side, the first is the decline in fixed asset investment with the global cyclical slowdown. Such investment in capital goods, which entails vertical specialization via the global value chain (GVC) and typically generates higher global trade intensity, remains sluggish. On the supply side, there could be structural shifts as supply chains shorten, with domestic firms becoming more cost-effective in supplying the intermediate goods and parts needed for downstream production activities. There are other factors such as the rise of e-commerce and services trade in recent years.

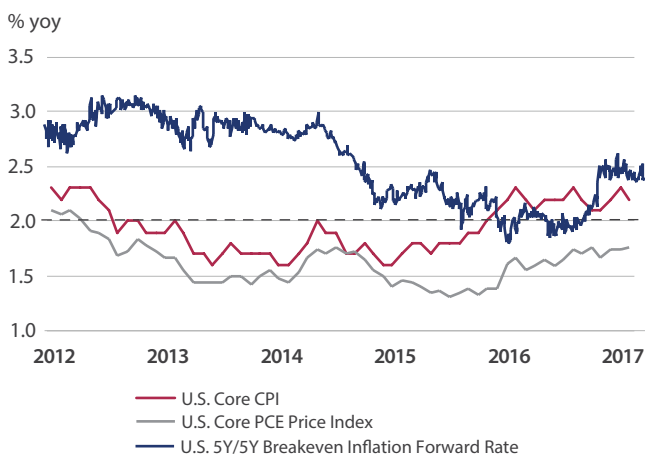
Figure 1.6 Major commodity prices have recovered, although they are still below 2014



Notes: The Bloomberg Commodity Index (BCOM) is made up of 22 exchange-traded futures on 20 physical commodities which are weighted to account for economic significance and market liquidity. Among the commodities are Brent crude oil, corn, gold, natural gas, soybeans and WTI crude oil. Data as of 31 March 2017.
Source: Bloomberg

of a fiscal stimulus by the Trump administration could stoke inflationary pressures given the relatively tight labor market in the U.S. economy. After the 25 bps rate hike in December 2016, the U.S. Fed raised the target range for the federal funds rate by another 25 bps in March 2017 to 0.75 – 1.0 percent, citing steady economic growth, strong job gains and confidence that inflation is rising to the central bank’s target. Looking ahead, the future pace of rate hikes would depend on how the outlook for the U.S. economy develops.⁶ EM portfolio flows are sensitive to market expectations of U.S. Fed rate hikes, and if such rate hikes by the Fed are not well-telegraphed, there is

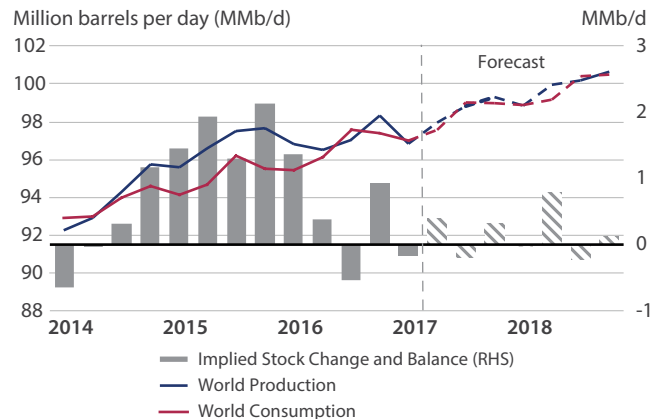
Figure 1.8 U.S. inflation expectations have jumped on Trump’s election victory



Note: The 5Y/5Y inflation swap rate is a common measure which is used by central banks and dealers to look at the market’s future inflation expectations.
Source: Bloomberg

⁶ In the March 2017 FOMC meeting, Fed officials maintained their outlook for two additional rate increases this year and three more in 2018.
⁷ While the fiscal stimulus plans are still unclear, Trump promised during his campaign to lower individual income and corporate taxes while borrowing more. Based on estimates by the Tax Policy Center, his federal budget proposal will cause an estimated fall in federal revenue for the first decade of USD6.2 trillion and an estimated rise in federal debt of USD7.2 trillion. In the area of infrastructure, Trump has promised increased expenditure of USD550 billion (or 3.0 percent of GDP).

Figure 1.7 Projected global oil inventories going into 2017-18 may limit any spike in oil prices

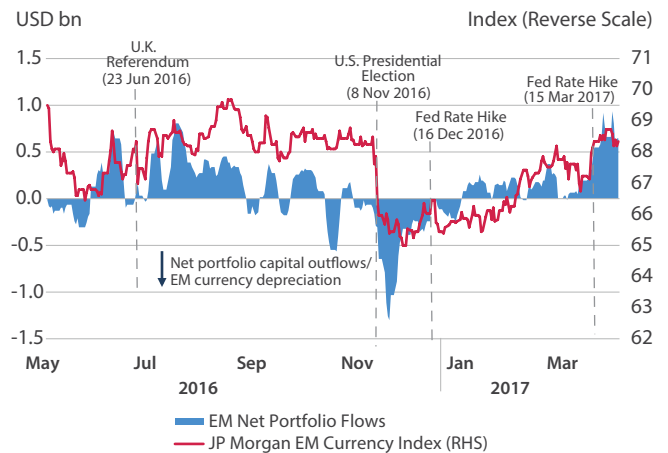


Source: IEA

potential for large and volatile capital outflows and exchange rate depreciation in EMs (Figure 1.9).

7 Global financial markets are likely to remain volatile, with risks of capital outflows, and overshooting in currency depreciation in EMs stemming from global monetary policy divergence, risk aversion and asset rebalancing. U.S. Treasury yields have trended higher, alongside investors’ portfolio reallocation from EM assets into U.S. equities. The pro-growth agenda of the Trump administration has stoked concerns over the rising U.S. government debt level⁷ leading to a re-pricing of

Figure 1.9 EM net portfolio flows are sensitive to market expectations of U.S. Fed rate hikes

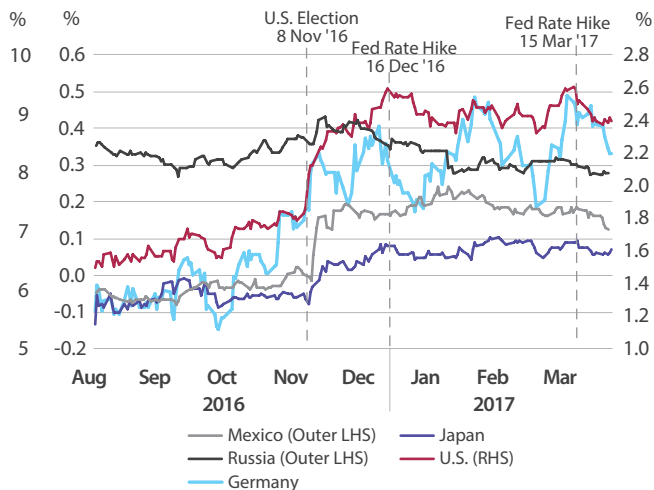


Sources: IIF, JPM

U.S. sovereign debt risks. This has, in turn, pulled up borrowing costs across key sovereign fixed income markets. Figure 1.10 shows that 10-year German Bund yields have edged higher post-U.S. election, while in Japan, 10-year JGB yields have also edged higher, while remaining close to zero, reflecting the BOJ's policy (under its QQE with Yield Curve Control) of targeting 10-year JGB yields at around zero percent. In view of the more upbeat U.S. macroeconomic outlook and higher US interest rates, there has been a shift from EM assets into USD assets, particularly into U.S. equities. Concurrently, EM currencies and the JPY weakened after the Trump victory in November 2016, but have strengthened since the beginning of 2017 as risk aversion waned and capital flows into EMs resumed (Figure 1.11).

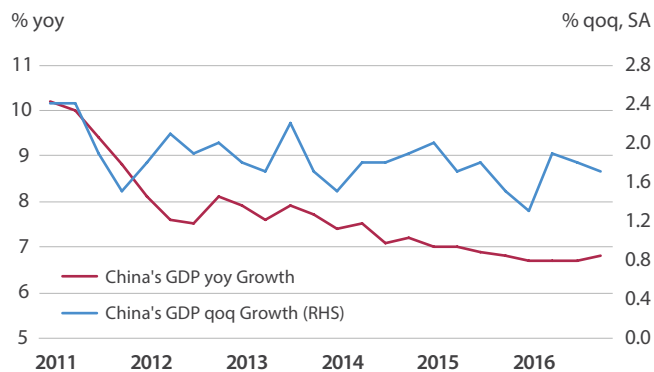
Growth in China and Japan are expected to remain stable in 2017, with downside risks from rising U.S. trade protectionism.

Figure 1.10 Selected AE and EM 10-Year sovereign bond yields jumped post-Trump's victory...



Source: Datastream

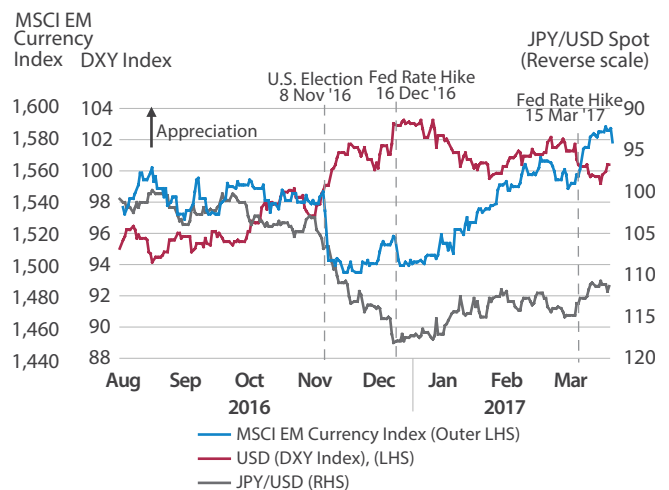
Figure 1.12 A rebound in China's property sector and public spending helped support growth in 2016



Source: China National Bureau of Statistics

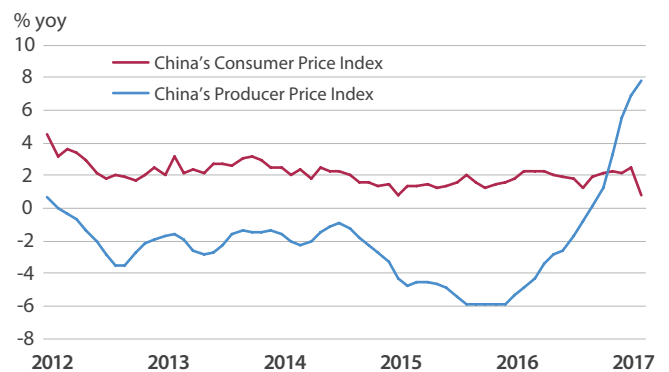
8 China's growth in the short term has shown signs of stabilization amid ongoing structural adjustments, while producer prices have picked up sharply recently. GDP grew by 6.8 percent yoy in Q4 2016, slightly higher than in the previous three quarters (Figure 1.12), leading to a 6.7 percent annual growth for the whole year. On the demand side, growth was mainly driven by expanding consumption and infrastructure investment but weighed down by moderating private investment and slowing exports. On the supply side, the growth drivers included expanding activity in the property and auto sectors. Looking ahead, the reduction of industrial overcapacity will continue to have a moderating impact on growth. Headline inflation remains moderate while producer price inflation (PPI) has reversed to positive territory since September 2016 due to rising commodity prices amid ongoing overcapacity reduction as well as speculation.⁸

Figure 1.11 ...while EM currencies and JPY depreciated against the USD



Source: Bloomberg

Figure 1.13 The yoy growth of China's PPI has reversed to positive territory since September 2016

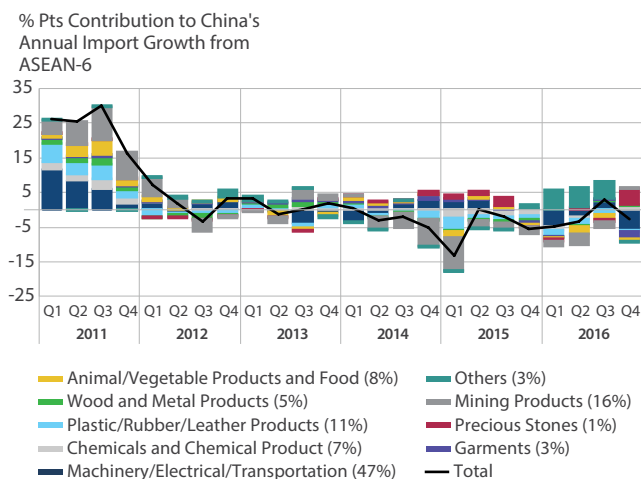


Source: China National Bureau of Statistics

⁸ The low-base effect also helped the PPI to rebound. Further improvements in the PPI and profits are still uncertain as industrial overcapacity remains a challenge and slowing overall investment could weigh on the demand for commodities.

9 China's commodity imports in value terms from the region are likely to increase boosted by rising prices. China's imports of mining, chemicals and plastic and rubber products from ASEAN-6 have largely contracted in USD terms since 2014,⁹ mainly reflecting the collapse of global commodity and oil prices in H2 2014 (Figure 1.14). As prices recover and contribute positively to producer prices, China's commodity imports from the region are likely to increase, thereby supporting regional commodity exporters. However, it is noted that with changing domestic policy priorities, there have been changes in the composition of China's commodity imports. For example, greater emphasis on environment protection and improved fuel-saving technology in China may have contributed to a general decline in the import volume of some energy products, such as coal since January 2015¹⁰ (Figure 1.15).

Figure 1.14 China's imports of mining, chemicals and plastic/rubber products from ASEAN-6 have contracted since 2014



Notes: Percentage contribution is calculated from import values in USD terms. Figures in parentheses refer to the shares in China's total imports from ASEAN-6.

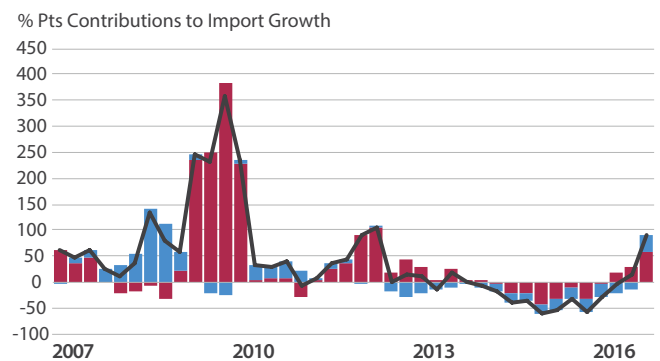
Source: China General Administration of Customs

10 The reduction of industrial overcapacity would have a negative short-term impact on growth, but the medium-term gains from more efficient resource allocation can be expected to be large, especially when it is accompanied by SOE reforms. The legacy of investment-led growth has led to overcapacity, particularly in the metal product and coal mining sectors, which is weighing on near term growth and job creation. As SOEs are present in many industries, the resolution of overcapacity, especially when it is accompanied by SOE reforms, can be expected to result in more efficient resource allocation and gains in productivity. While SOE reforms have made some progress,

they have been slower than market expectations, reflecting the complexity of the task.

11 As overcapacity is progressively reduced in industrial sectors in China, the spillovers to the region in terms of competing imports may also taper off. In the past few years, domestic overcapacity in China's steel sector has led to a surge in steel exports from China to the region and exacerbated the decline in global steel prices.¹¹ With steel prices at historical lows, some regional economies have chosen to import more, rather than expand production. However, such a trend in the region's steel imports from China is not new. Since the GFC, some regional economies have increasingly relied on Chinese steel imports, such as for infrastructure needs, although imports have slowed recently. There could be some substitution effects for local

Figure 1.15 China's import demand for coal has softened with domestic rebalancing and the shift to cleaner energy policy



Source: China General Administration of Customs

production in some regional economies, as local steel producers are facing competition from Chinese steel exporters.¹² That said, the spillovers to the region in terms of competing imports may taper off (Figure 1.16) as overcapacity is progressively reduced in China's steel sectors.

12 On the financial side, heightened global policy uncertainty has not resulted in large movements in China's RMB, which is a key EM currency in the region. After depreciating towards end-2016 reflecting the U.S. Fed rate hike, the RMB and other EM currencies in the region appreciated at the beginning of

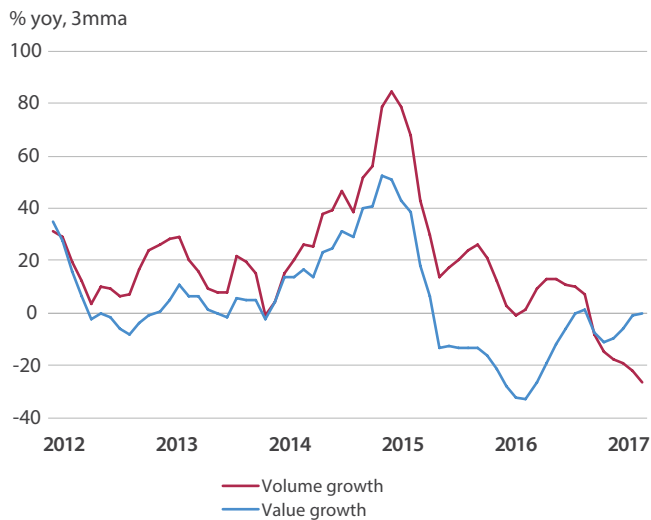
⁹ Although the figures are in USD terms and are affected by price changes including exchange rate movements, China's import volume data showed that the demand from China for these products has actually declined.

¹⁰ Starting January 2015, China has imposed stricter rules to limit low quality coal imports.

¹¹ The 2016 increase in steel prices was due to the temporary spike in demand from the Chinese property market, speculation and rising iron ore prices.

¹² In March, Vietnam imposed temporary anti-dumping tariffs ranging from 14.0 percent to 23.0 percent on steel imports from China and elsewhere. It imposed additional import duties of up to 25.0 percent on more Chinese steel products that will remain in place until October 2019. Thailand's Commerce Ministry has approved anti-dumping measures related to steel imports from China in November 2016.

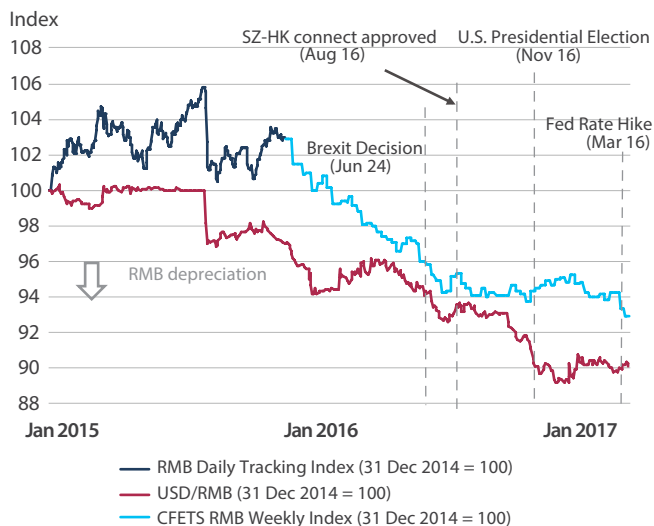
Figure 1.16 China's steel exports have tapered off since 2015



Source: China General Administration of Customs

this year. Despite increased global policy uncertainty, RMB movements have been relatively moderate. The RMB trade-weighted exchange rate, the RMB CFETS, has declined slightly (Figure 1.17). Improvement in communication by policymakers with market participants and tightening of capital flow management measures have also helped in containing RMB volatility. Currencies and financial markets in the region are more sensitive to movements in the RMB and China's financial markets than direct financial linkages with China would suggest, underscoring the importance of confidence in the transmission

Figure 1.17 While the RMB/USD strengthened since early-2017, the RMB CFETS index has remained largely stable

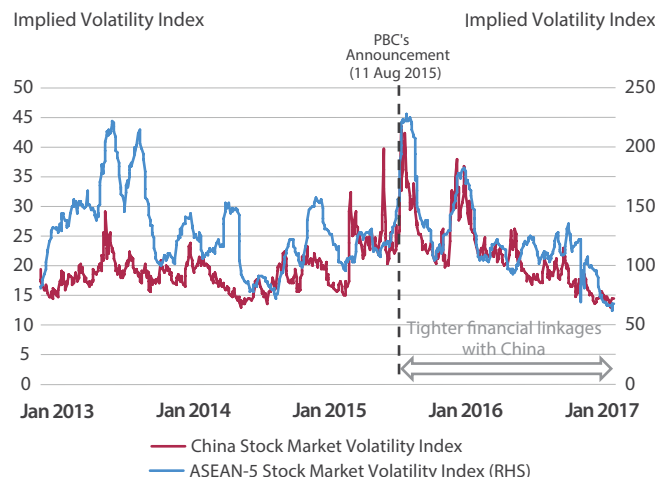


Source: People's Bank of China

of stress in China (Figure 1.18). Global equities markets, and to a lesser extent currencies, have shown significant co-movement with China post-GFC. (Figures 1.19).¹³ With policy uncertainty rising globally, especially after Trump's election win, continued clear policy communication by major economies, including China, are essential to avoid triggering unwarranted concerns in financial markets.

13 In view of the continuing domestic structural adjustment, and rising external headwinds, Chinese economic growth is expected to moderate slightly in 2017. Vulnerabilities have continued due to high corporate debt, persistent industrial overcapacity, and slow SOE reforms which are three major and inter-related challenges to sustainable growth. On the external front, export growth remains largely sluggish, which can be exacerbated by potentially rising trade tensions with the U.S. Capital outflows have eased recently due to further signs of growth stabilization, moderating USD as well as strengthened capital flow management. However, capital outflows continue to be an important risk (Figure 1.20), as market confidence is susceptible to signs of slowing growth and reform uncertainties, as well as external shocks. On the other hand, further expansion in private consumption, the services sector (including the internet economy) and infrastructure investment will sustain growth. GDP is expected to grow by 6.5 percent in 2017 (2016: +6.7 percent).¹⁴ Ensuring adequate policy support to keep the economy on a steady path, while pursuing the needed supply-side reforms for sustainable medium-term growth is essential for macroeconomic stability.

Figure 1.18 Regional equities showed co-movements with China

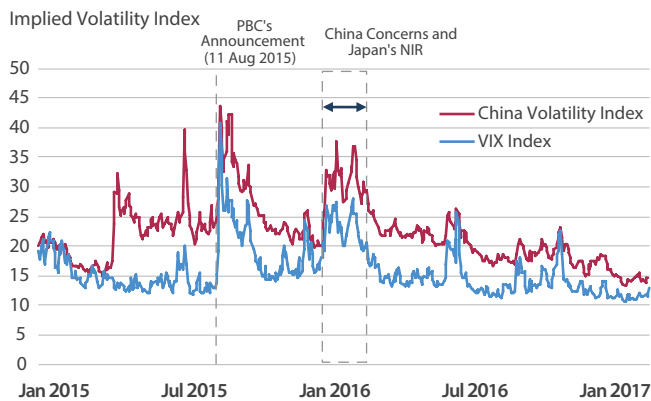


Source: Bloomberg

¹³ As a major EM, China's financial spillovers are large enough to affect global markets, as proxied by the VIX indicator. Recent BIS survey data found that the RMB has become the world's eighth most actively traded currency and the most actively traded EM currency, overtaking the Mexican peso (BIS Triennial Central Bank Survey, "Foreign exchange turnover in April 2016).

¹⁴ China's authorities recently set the growth target at about 6.5 percent for 2017, or slightly higher if possible.

Figure 1.19 Global VIX is increasingly affected by market developments in China



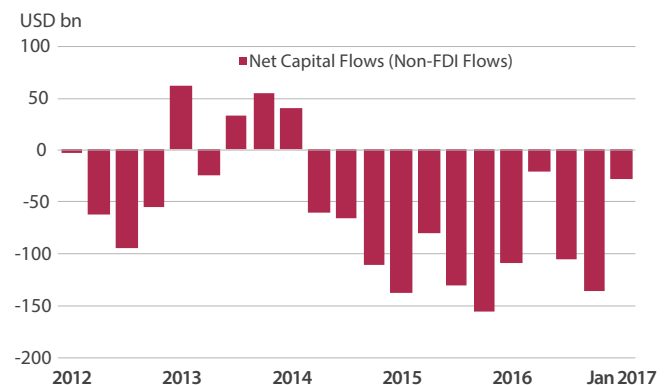
Notes: The AlphaShares Chinese Volatility Index measures the implied volatility of options on the FTSE Xinhua China 25 and Hang Seng (HSI) indices. It will serve as a measure of the market's expectations of near-term volatility conveyed by the options of these two benchmark indexes. VIX represents Chicago Board Options Exchange Volatility index. Data as of 31 March 2017.

Source: Bloomberg

14 In Japan, growth is expected to remain strong in 2017, higher than the potential growth rate, supported by macroeconomic policies and external demand. AMRO staff project GDP growth of 1.3 percent in the fiscal year 2017, supported by major policy stimulus, with headline inflation averaging around 0.6 percent. The sizable fiscal stimulus package announced in August 2016, to be implemented through FY2017, is expected to contribute to some pick-up in economic activities going into 2017.¹⁵ Inflationary pressures have been fairly muted with the consumer price inflation (CPI, all items excluding fresh food) being near zero for some time, reflecting amongst others, weak private consumption and still soft global oil prices (Figure 1.21). However, the oil price recovery, albeit gradual, as well as continual tightening in the labor market are expected to put some upward pressures on inflation in the near term. On the other hand, the still lackluster domestic demand continues to weigh on inflation.

15 With rising U.S. Treasury yields relative to JGB yields, and also rising regional yields, Japan's outward portfolio flows to the region may continue. With a less steep JGB yield curve and negative yields, Japanese investors continue to rebalance their portfolios towards foreign assets, mainly U.S. stocks and Treasuries, as well as alternative investment assets such as J-REIT. In particular, institutional investors such as Japan's Government Pension Investment Fund have almost completed rebalancing their new policy asset mix from 23.0 percent foreign securities to 40.0 percent. Some insurance companies and banks have also re-allocated their investments away from domestic bonds to foreign bonds and other riskier assets in a search for yield. So

Figure 1.20 Capital outflows from China remain a risk



Sources: China State Administration of Foreign Exchange, AMRO staff estimates

far, the reallocation is mainly in favor of advanced economies' assets including U.S. Treasuries.

16 Tightening global financial conditions may also have second-order effects through funding costs on Japanese banks' lending to the region. Japanese banks fund their USD lending to the region through the wholesale market, a part of this through cross-currency basis swaps. There could be spikes in their funding costs should global USD liquidity conditions tighten significantly. Figure 1.22 shows the sudden, though short-lived spikes in JPY/USD cross-currency basis swaps that occur during times of global market volatility, such as during the Lehman collapse. It is also notable that financial regulatory reforms adopted globally after the Lehman collapse partly contributed to the widening trend of the USD funding cost after the GFC. Looking ahead, a confluence of factors is likely to exert some stress on Japanese financial institutions' FX hedging and funding activities, including the continuation of the ultra-low yield environment in Japan, market expectations of higher yields in the U.S. along with the strengthening USD and the continuing trend of global tightening of capital regulations. Notwithstanding these developments, the funding liquidity risk in USD for Japan's banks is a risk that Japan's authorities are aware of and are monitoring closely.¹⁶

Emerging markets' economic outlook, hurt by prolonged subpar global economic and trade growth, faces risks from rising trade protectionism and volatile global financial markets in 2017.

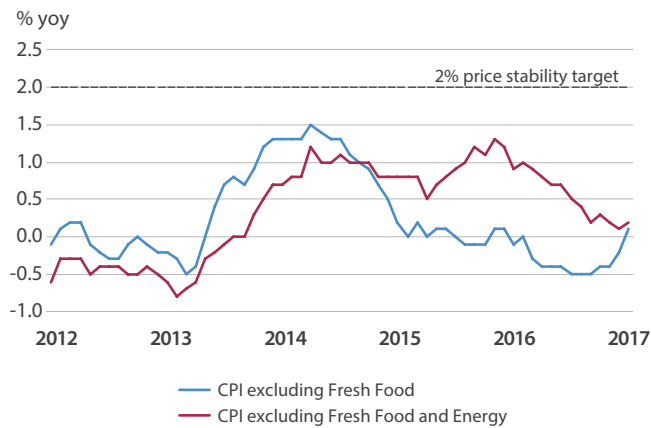
¹⁵ Of the total JPY28.1 trillion economic stimulus package, fiscal components are JPY13.5 trillion which comprises JPY7.5 trillion of budgetary support and JPY6.0 trillion of non-budgetary fiscal measures (fiscal investment and loan program).

¹⁶ Stress in the FX funding costs, while having eased recently, could increase again when Japanese investors resume their portfolio investments abroad.

17 In terms of trade, final demand in the U.S. and E.U. remains important and rising trade protectionist sentiment in the U.S. and uncertainties over the U.K.-E.U. trade negotiations can weigh on the already sluggish export outlook for EMs. Trade tensions, particularly between the U.S. and China — a tail risk event — could propagate through the China-centric Asian supply chain, and have far-reaching effects on the real economy.

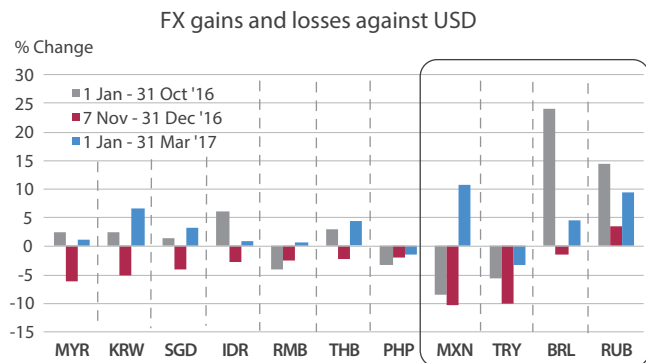
18 On the financial side, while the initial reaction of Asian EM currencies and equities markets to the Trump election was severe, it was comparatively less severe than that of other EMs. Among Asian EMs, the Korean won (KRW) and the Malaysian ringgit (MYR) saw the sharpest falls in the immediate aftermath of the U.S. election result (from 7 November to 31 December

Figure 1.21 Achieving the price stability target of 2.0 percent remains challenging



Note: Figures are adjusted to exclude effects of changes in the consumption tax rate in FY2014.
Source: National Authorities

Figure 1.23 The region’s EM currencies depreciated against the USD but the magnitude were less severe compared to Mexico and Turkey

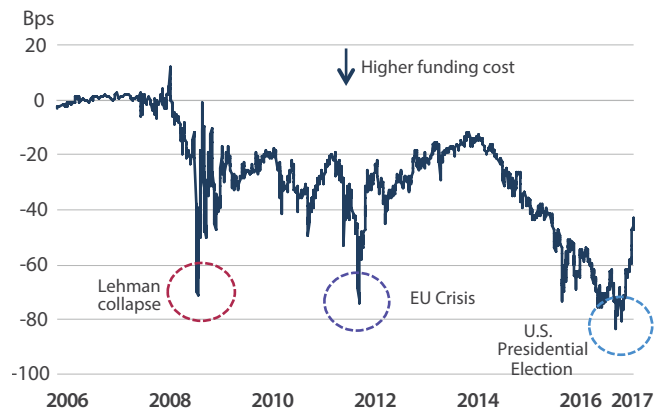


Source: Bloomberg

2016), but still less than the falls in non-Asian EMs (Figure 1.23). The Mexican peso, has been hit particularly hard on fears of more restrictive trade and immigration policies, plunging against the USD since the eve of the U.S. presidential election. Currencies in Brazil and Turkey also fell against the USD. In equities, while Asian EM equities market indices have also fallen, the fall has been less severe than in Latin America. Figure 1.24 shows that on a year-to-date basis (1 Jan to 6 Feb 2017), the MSCI Global EM Index has managed to recoup its post-election losses.

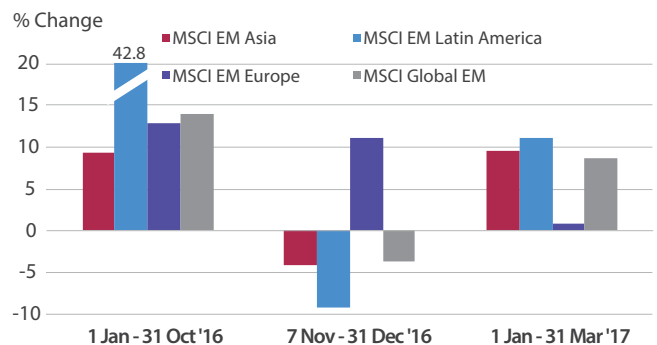
19 Notwithstanding the resumption of net foreign capital inflows into EMs in recent weeks, the external environment is expected to remain challenging in the period ahead, stemming from USD strength, asset price volatility and bouts of capital outflows. The period immediately after the U.S. election result

Figure 1.22 The recent spike of JPY/USD cross currency basis swap spread has been more persistent than during past episodes of uncertainty



Notes: The cross currency basis swap is a calculation that shows how much premiums (-) / discount (+) that needs to be paid / received to convert lump-sum borrowings in local currency into US dollar. Data as of 31 March 2017.
Source: Bloomberg

Figure 1.24 Equities markets in Asian EMs declined less as compared to their peers in Latin America



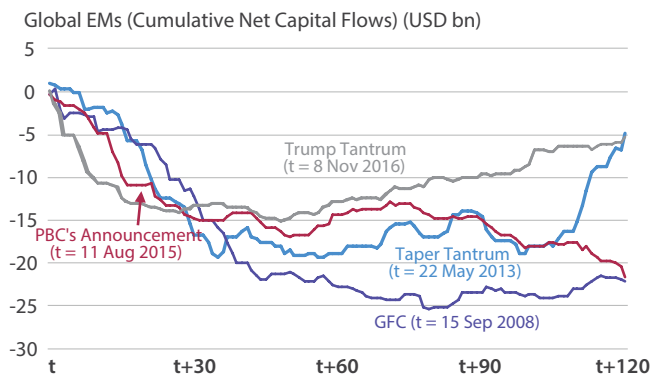
Source: Thomson Reuter Datastream

saw a cumulative net portfolio capital outflow from global EMs amounting to about USD15.0 billion from 8 November until the end of 2016. This magnitude is relatively smaller compared to previous stress periods (Figure 1.25). In the first six weeks of 2017 however, net portfolio capital flows into EMs resumed, partly due to global fund managers increasing their EMs asset allocations, while cutting back on their exposure to U.S. equities (Figure 1.26). The USD has also weakened after President Trump and the Treasury Secretary raised concerns over its recent strength. More hawkish signals from FOMC members at upcoming meetings can fuel a return of USD strength and related asset price volatility. The external environment for global EMs is expected to remain challenging given the more frequent shifts in investor risk appetite. Global investors will also be scrutinizing EMs’ macro-fundamentals more closely, such as current account balances and fiscal positions (Figure 1.27). Figure 1.28 shows that except during periods of heightened global risk aversion, there is some degree of differentiation in

investor risk perception amongst EMs.

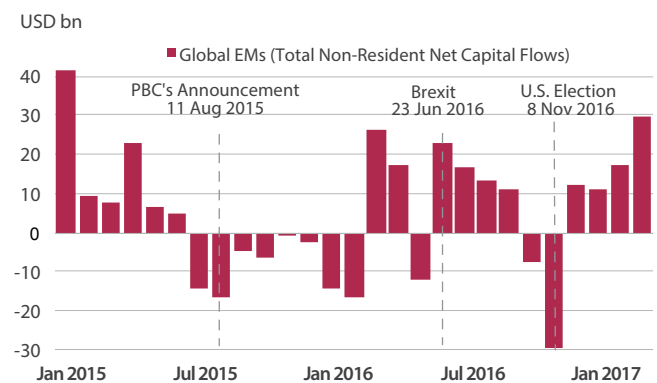
20 Given the high degree openness of some EMs, including in the ASEAN+3 region, EMs are susceptible to negative spillovers from adverse external developments, both in terms of trade and financial linkages. First, in terms of real sector propagation of shocks through trade linkages, spillover analysis using Global Vector Autoregressive (GVAR) model suggests that real economic shocks, such as from a contraction in real GDP growth in the U.S. and China have a significant impact on global EMs mainly through the negative effects on these EMs’ export performance (the impulse response functions (IRFs) of exports to a sustained 1.0 percent drop in U.S./China’s industrial production — a proxy for real GDP, are significantly negative at a 12-month horizon). Export-dependent and commodity-exporting economies such as Malaysia, Singapore, Brunei and Thailand (regional economies), as well as India, South Africa, Saudi Arabia and Australia (economies outside the region)

Figure 1.25 As compared to previous stress periods, global EMs saw relatively “milder” cumulative net portfolio capital outflows during the Trump Tantrum



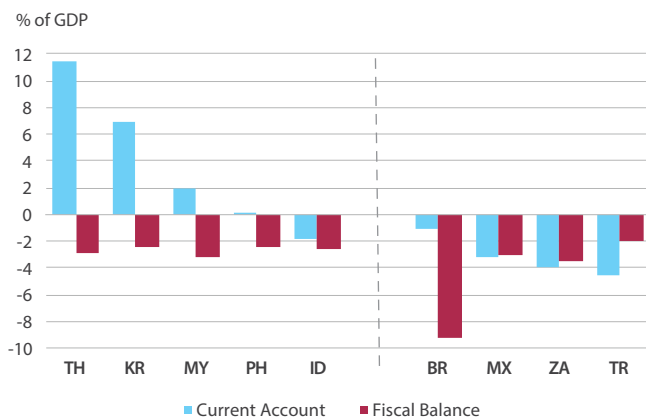
Sources: National Authorities, IIF

Figure 1.26 In the first six weeks of 2017, net portfolio capital flows into EMs resumed



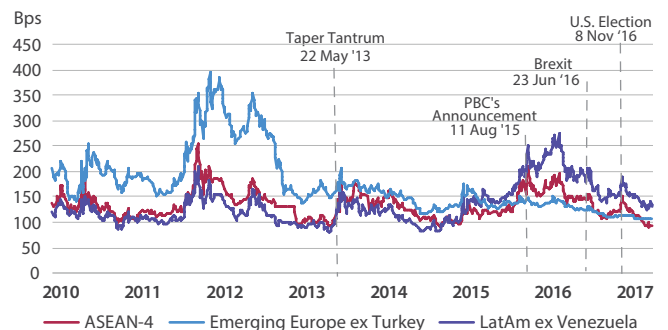
Sources: National Authorities, Bloomberg, IIF.

Figure 1.27 Comparison of EMs’ current account and fiscal balances in 2016



Note: Korea's fiscal balance refers to the adjusted balance, which exclude Social security funds (SSF)
Sources: Bloomberg, AMRO staff estimates

Figure 1.28 Sovereign CDS premiums showed some variations across the EM sphere



Notes: Data is derived from using simple average of economies’ cds spreads of the respective regions. LatAm consists of Brazil, Chile, Colombia, Mexico, Panama and Peru. Emerging Europe consists of Bulgaria, Croatia, Czech Rep, Estonia, Hungary, Latvia, Poland, Romania, Russia, Slovakia and Slovenia. ASEAN-4 consists of Indonesia, Malaysia, Philippines and Thailand. Data as of 31 March 2017.
Source: Bloomberg

were found to be negatively affected by a growth shock in the U.S. and China. In contrast, in the case of real economic shocks in Japan, the response of exports was found to be fairly muted. Given the centrality of China's trade activities globally, the capacity for China to transmit real economy shocks is also rising. Spillovers from a major disruption in China's imports have far-reaching effects given the role of China in the global value chain. Analysis using GVAR suggests that any shock in China's imports is found to have significant impact, the effects of which appear to be more persistent and broad-based, affecting even large systemic economies such as the U.K., France and Germany. The large effects of a China import shock reflect the importance of its final demand. Box A describes the comparative study on the impact of spillovers from the U.S., China and Japan on regional economies.

21 In terms of financial spillovers, the impact of increases in banking sector default risks in the U.S., U.K. and China (financial shocks) on EMs' financial sector are significant, alongside rising corporate distress, given that the shocks originate in systemic economies. Following the approach by Chen et. al. (2010)¹⁷ of using the Expected Default Frequency (EDF) as a measure of stress,¹⁸ analysis using GVAR suggests that the negative spillovers from financial shocks in the U.S. are transmitted rapidly across global EMs' financial and corporate sectors.¹⁹ EMs' corporate sectors in particular, saw a fairly persistent rise in corporate default probabilities (within a 36-month horizon). In contrast, financial shocks originating in China, while significant, appear to be less persistent, as the stress on regional EMs' financial and corporate sectors diminishes within half a year. In the case of financial shocks in Japan, the GVAR analysis showed generally insignificant results for both the financial and corporate sectors. When it comes to the U.K., financial shocks are generally transmitted across the EMs' financial sector, although the spillovers to EM corporates, while positive, are inconclusive.²⁰

22 Should the corporate sector in the U.S., China and Japan face increased default risks, estimates of spillovers using GVAR show

that the banking sectors across both advanced and developing economies are affected as well. Empirical analysis suggests that banking sector EDFs in the U.S., U.K., major Eurozone economies, Australia, Brazil, Turkey and regional EMs (ASEAN-4, Singapore and Korea) spiked in the first six months following a shock in U.S. corporate EDFs, i.e. rising corporate distress. This is intuitive as U.S. corporate earnings are seen to be a key barometer of global corporate health, and hence drive global asset prices, which in turn has a bearing on financial institutions' asset quality (e.g. loans and portfolio assets). A shock in China's corporate EDFs has a significant effect on the financial sector of major commodity producing economies (notably Brazil, Australia, Indonesia and Malaysia), while also affecting countries such as Thailand, Korea, Singapore and Turkey, possibly through the confidence channel. Interestingly, the effect on U.S.' and Japan's financial sectors is not statistically significant, while the effect on the U.K.'s and major Eurozone economies' financial sector, while negative, is relatively small in magnitude. A shock originating in Japan's corporate sector is found to have significant spillover effects on the financial sectors in the U.K. and major Eurozone economies, Australia, China, Korea, Singapore, Malaysia, Turkey and Brazil. In contrast, a shock in U.K.'s corporate EDFs does not appear to have statistically significant effects on the financial sector across major global economies. In the case of the U.S., China and Japan, the shocks to the financial sectors are found to be persistent (within a 36-month horizon).

23 In terms of real equity price shocks in the U.S., Japan and China, the spillovers tend to have a strong positive impact on regional equity markets. An equity rally in the U.S. is often associated with a rally in global equity prices, reflecting generally positive optimism in the global economy. GVAR analysis suggests that the impact, while positive, diminishes within a short period of time, within a year. In the case of China, considering the close trade and financial linkages with regional economies, the spillovers from a positive equity price shock in China is also shown to be positive and non-persistent (see Box A for further details).

¹⁷ Chen, Q., Gray, D., N'Diaye, P., O, Hiroko, and Tamirisa, N., (2010), "International Transmission of Bank and Corporate Distress", IMF Working Paper.

¹⁸ Expected Default Frequency (EDF) is a measure of the probability that a firm will default over a specified period of time (typically one year). "Default" is defined as failure to make scheduled principal or interest payments. According to the Moody's EDF model, a firm defaults when the market value of its assets (the value of the ongoing business) falls below its liabilities payable (the default point). The firm level EDFs are aggregated to form EDFs at the sectoral and country levels.

¹⁹ This could be due to the choice of estimation period, where the study does not cover the years immediately after the AFC, where Japanese banks' pull-back from the region occurred.

²⁰ Nevertheless, the negative spillovers on other major Euro area corporates are found to be statistically significant, underscoring the close inter-connectedness between U.K. banks and Eurozone corporates.

Box A. Comparative Impact of Spillovers from the U.S., China and Japan: Preliminary Results from GVAR Analysis²¹

Given the openness of EMs in ASEAN+3 to global and regional shocks, it is useful to investigate empirically the impact of real economic and exchange rate shocks from the U.S., China and Japan on the region. AMRO employed a Global Vector Autoregressive (GVAR) model to investigate the spillover impacts of real and financial shocks on regional economies, as well as other economies outside the region. For the real economy GVAR model, the specification uses economy-specific variables such as industrial production, consumer prices, trade, nominal effective exchange rates (NEERs) and interest rates as well as other global variables such as oil and food prices. For the financial GVAR model, the specification uses the Expected Default Frequency (EDF)²² of the banking sector, EDF of the corporate sector, real short term interest rates, industrial production, real equity prices and real effective exchange rates (REERs). All ASEAN+3 economies are included in the study (excluding Brunei, Lao PDR and Myanmar for the financial GVAR), along with others such as Brazil, South Africa, the U.K., France, Germany, Spain, Mexico, Saudi Arabia, the U.S., India, Australia, Turkey, and New Zealand from outside the region. Monthly data were used for a dataset of 33 countries from 2001 through to 2015. For more details including methodology and other related technical specifications, please refer to the Annex A.

Real Economy GVAR

- Results from the Real Economy GVAR analysis suggest that growth shocks (proxied by industrial production (IP)) in the U.S. and China have a more significant impact on regional industrial production as compared to a growth shock in Japan. Figures A1 and A2 show the negative impact on the regional economies' IP from shocks of a sustained 1.0 percent drop in the U.S. and China IP, respectively, at a 12-month horizon, as compared to a Japan shock (Figure A3). Accumulated over a 36-month horizon, the response of regional IP tends to be negative (-0.1 percentage points (ppts) from a U.S. IP shock, and -0.9 ppts from a China IP shock, on average). The response of regional IP to a Japan IP shock is statistically not significant.
- In terms of nominal export performance (in local currency terms), a sustained 1.0 percent drop in China's IP has negative spillovers not only to regional EMs' exports, but also affected the exports of other EMs outside the region, and major advanced economies. Moreover, the negative impact is

found to be persistent over a 36-month horizon (-1.35 ppts) (Figure A4). Export-dependent and commodity-exporting economies in the region such as Japan, Malaysia, Singapore, Brunei and Thailand were negatively affected. Reflecting China's importance as an absorber of global demand, the negative impact of a shock from China's IP was also found for European countries such as the U.K., France, Germany. Several large EMs outside the region such as India, South Africa and Saudi Arabia saw a cumulative negative response of -3.2 ppts over a 36-month horizon. The shock was also large for commodity-dependent economies outside of this region such as Australia (-3.5 ppts).

- In terms of exchange rate shocks, a RMB depreciation in China (on a NEER basis) did not have a significant impact on NEERs in the region after 12 months²³, except for Thailand and Japan (in Japan, the NEER appreciated) (Figure A5). Exchange rate appreciation in Japan (on a NEER basis) also did not yield a significant impact on regional NEERs (Figure A6). This could be due to the timeframe used in the GVAR, as exchange rate shocks may have had a more short-lived impact.

Financial GVAR

- Financial shocks (proxied by the financial sector's EDF that originates in the U.S., the U.K. and China are significant, spillovers of which propagates rapidly to regional economies (both the financial and the corporate sectors)). Using the EDFs as a measure of stress,²⁴ a shock in U.S., U.K.'s and China's financial sector EDFs has significant impact on the financial sector EDFs of EMs, the stress of which is then subsequently transmitted to EM corporate sectors, which saw a fairly persistent rise in corporate default probabilities (within a 36-month horizon). Similarly, shocks in the U.K.'s financial EDFs are generally transmitted across the EMs' financial and corporate sectors. In contrast, shocks in China's financial EDFs, while significantly positive, appears to be less persistent relative to the U.S. financial stress scenario, as the stress on EMs' financial and corporate sectors diminishes within half a year (Figures A7 — A12). This is observed for regional EMs (Malaysia, Indonesia, Thailand, China and Korea), as well as other EMs outside the region (India, Mexico, Turkey and South Africa). In the case of financial shocks in Japan, the GVAR analysis generally showed insignificant results for both financial and corporate sectors, therefore not shown.

²¹ These preliminary results are from an ongoing study between AMRO and Professor Tomoo Inoue of Seikei University, Japan.

²² See footnote 18.

²³ The study also considered alternative specification of the exchange rate variable as bilateral exchange rates against USD instead of NEERs.

²⁴ EDF is a measure of the probability that a firm will default over a specified period of time (typically one year). "Default" is defined as failure to make scheduled principal or interest payments. According to the Moody's EDF model, a firm defaults when the market value of its assets (the value of the ongoing business) falls below its liabilities payable (the default point). There are three key values that determine a firm's EDF credit measure: the current market value of the firm (market value of assets), the level of the firm's obligations (default point), and the vulnerability of the market value to large changes (asset volatility).

- Stresses in the corporate sector (proxied by corporate sector EDFs) that originate in the U.S., China and Japan are found to be an important channel of stress transmission to EMs' financial and corporate sectors.
 - Rising corporate default probabilities in the U.S. in particular, have far-reaching negative spillovers to the global economy, as the U.S. corporate financial health is often regarded as a key barometer to gauge the health of the global economy. Stresses in the U.S. corporate sector are associated with falling asset prices, and this in turn affects both financial and corporate sectors' asset quality and soundness in EMs given the centrality of the U.S. economy (Figures A13 and A14).
 - A rise in corporate default probabilities in China also has important systemic ramifications, particularly on the financial sector soundness of commodity producing economies (notably Brazil, Australia, Malaysia and to some extent, Indonesia), while also affecting other regional EMs such as Korea and Thailand. Considering the rising systemic importance of China, financial stress in China is found to also propagate to major advanced economies (Japan, U.K. and major Eurozone economies) possibly through

the confidence channel. Similarly, the transmission of risks in China's corporate sector is also found to be impacting EMs' and major advanced economies' corporate sector soundness (Figures A15 and A16).

- Similarly, in Japan, rising corporate EDFs are found to have significant negative spillover effects on both the financial and corporate sectors in China, Singapore, Malaysia and Thailand (regional EMs), Brazil and Turkey (other EMs), as well as in major advanced economies except the U.S., notably the U.K., major Eurozone economies and Australia. In all cases, the effects are persistent (within a 36-month horizon) (Figures A17 and A18).
- In terms of real equity price shocks, a positive shock in U.S., Japan's and China's equity markets have strong positive impact on regional equity markets, the spillover effects of which diminish after about one year. The result is consistent with the observations that an equity rally in the U.S. is often associated with a rally in global equity prices. In the case of China, the result underscores the notion that regional equity prices have showed large co-movements with China in recent years (Figures A19 to A21).

Generalized Impulse Response Functions: Real Sector GVAR

Figure A1.

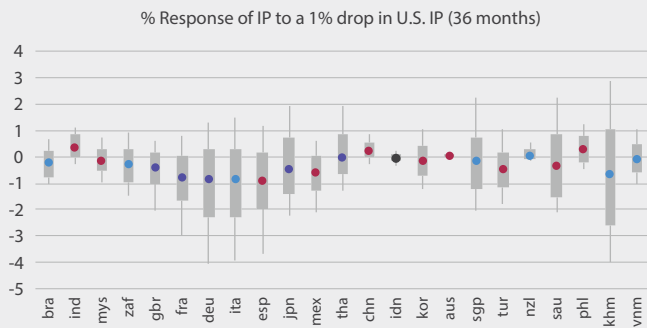


Figure A2.

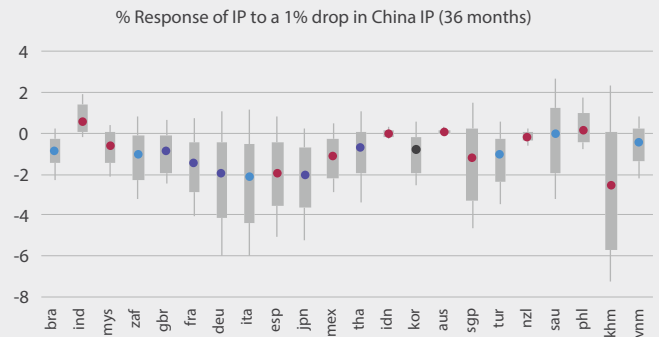


Figure A3.

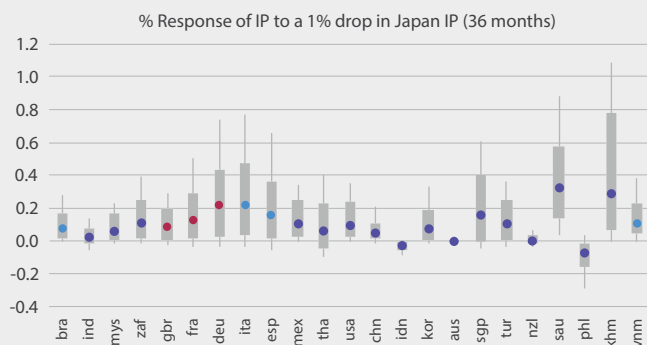


Figure A4.

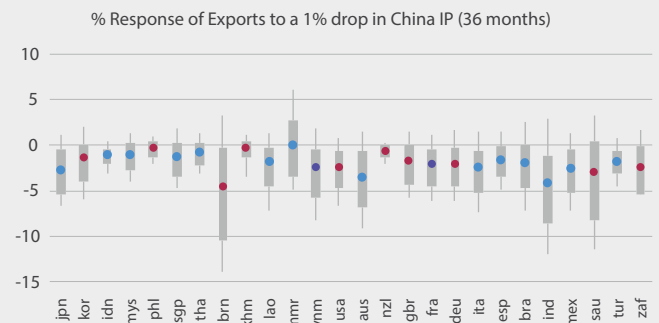


Figure A5.

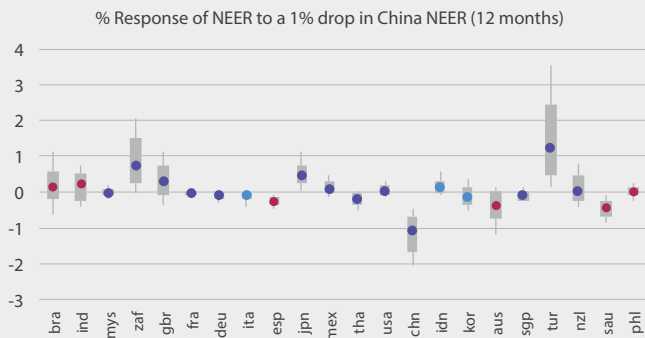
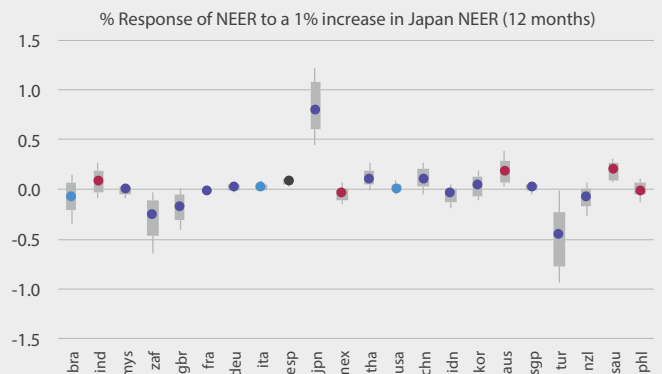


Figure A6.



Generalized Impulse Response Functions: Financial Sector GVAR

A. Spillovers from Financial Sector Shocks in the U.S., the U.K. and China on Sample Countries' Financial and Corporate Sectors

Figure A7.

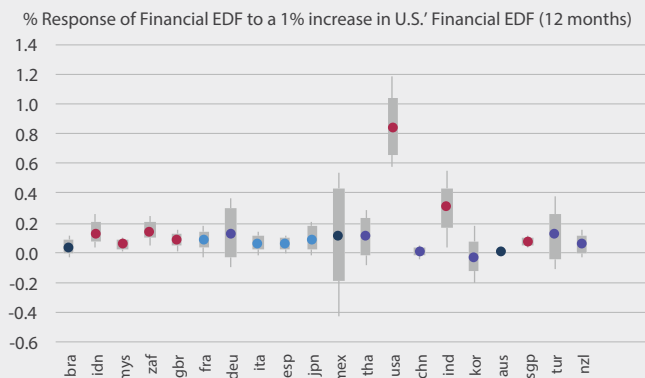


Figure A8.

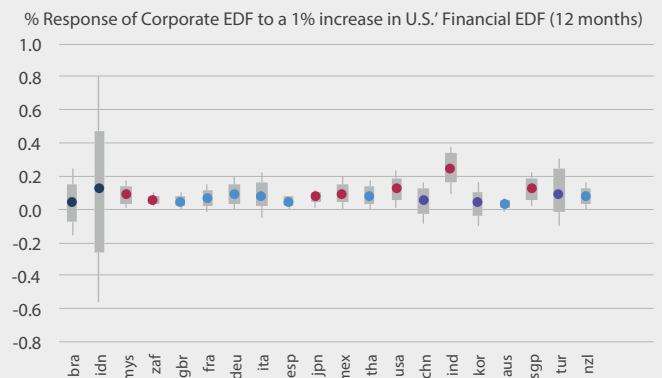


Figure A9.

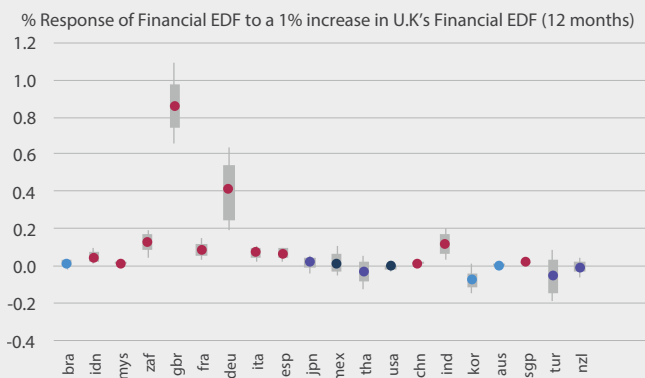


Figure A10.

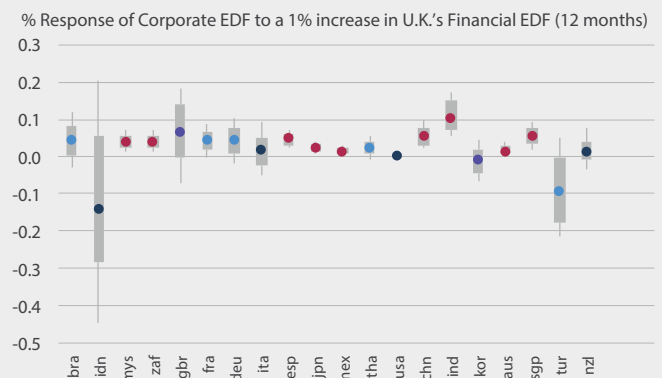


Figure A11.

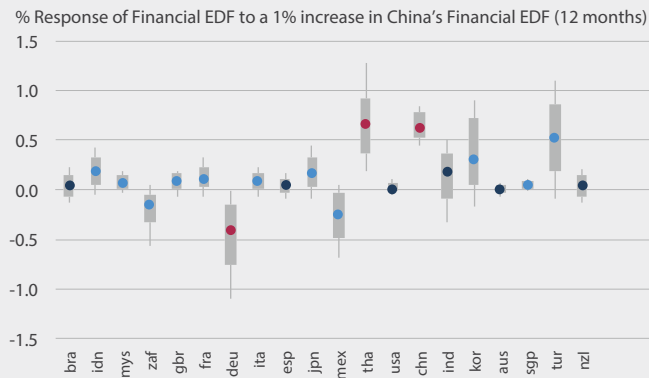
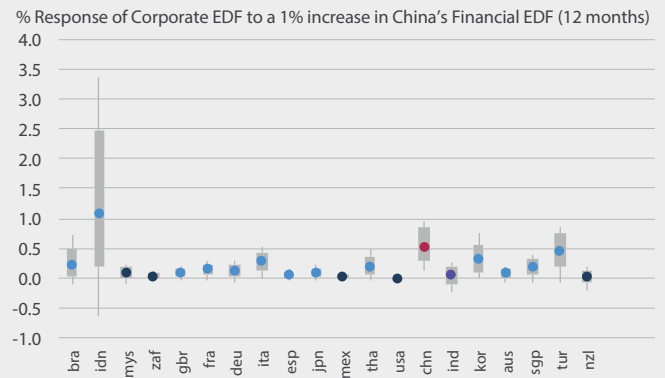


Figure A12.



Generalized Impulse Response Functions: Financial Sector GVAR

B. Spillovers from Corporate Sector Shocks in the U.S., China and Japan on Sample Countries' Financial and Corporate Sectors

Figure A13.

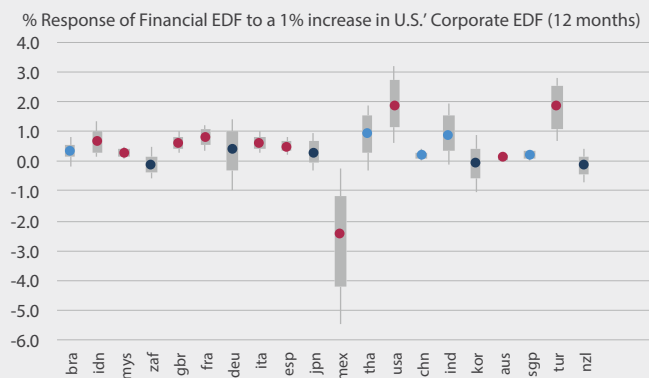


Figure A14.



Figure A15.



Figure A16.

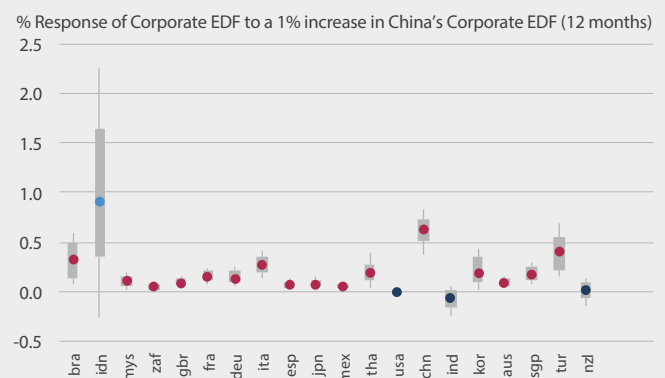


Figure A17.

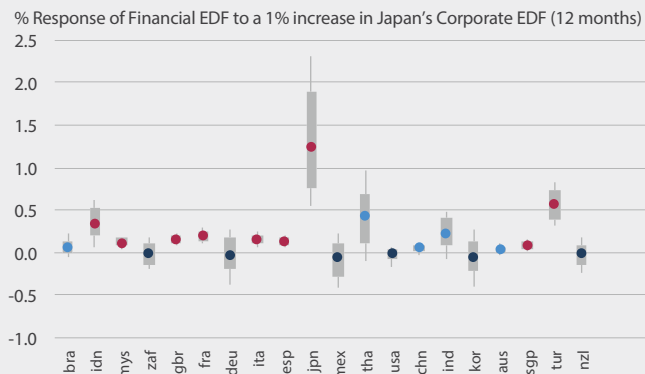


Figure A18.

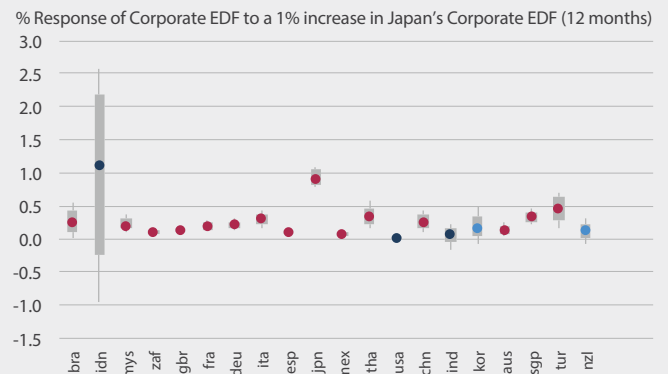


Figure A19.

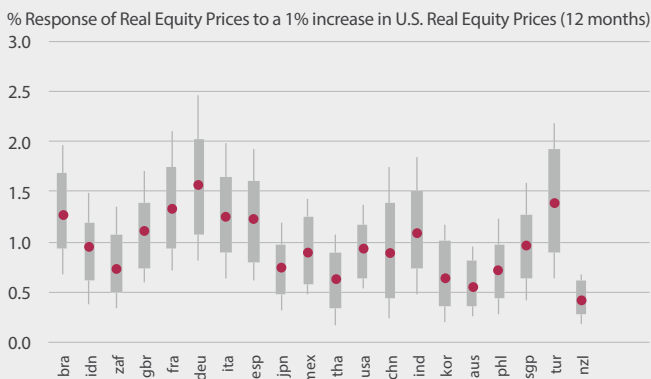


Figure A20.

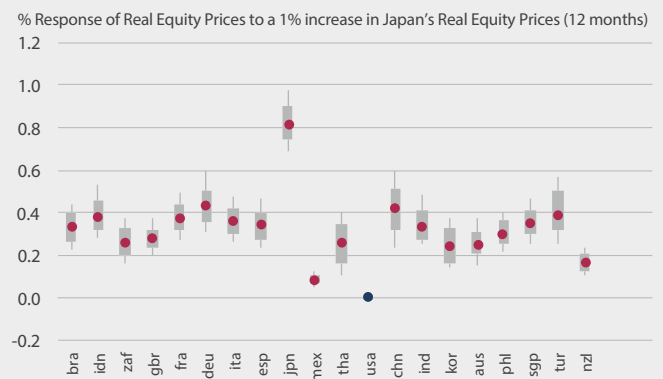
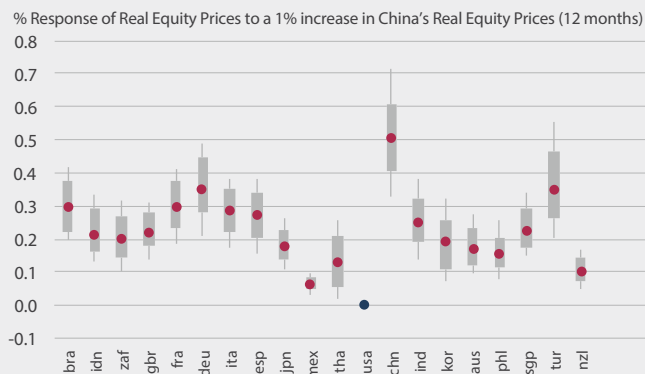


Figure A21.



Legend: Median dots: Red: Statistically significant (95%), Blue: Statistically significant (84%), Purple: Not statistically significant

Notes: The figures presented in this Box are the Generalized Impulse Response Functions of the GVAR, which are calculated by bootstrapping. The number of iterations is 100. The top of the box corresponds to the upper 16 percentile of the distribution; the bottom of the box corresponds to the lower 16 percentile of the distribution. Similarly, the top edge of the whisker corresponds to the upper 5 percentile, and the bottom edge of the whisker corresponds to the lower 5 percentile. The dot is the median value.

2. Regional Economic Outlook and Challenges

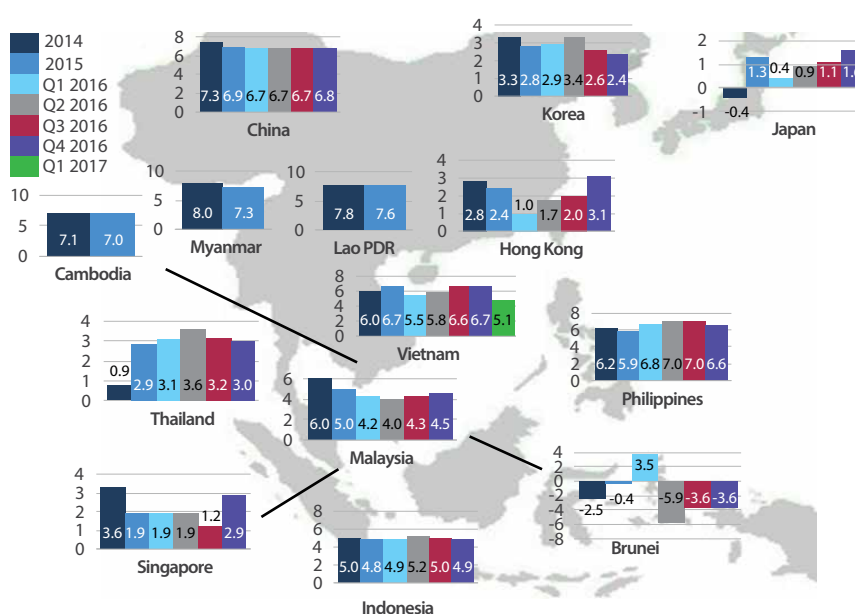
Overall regional growth is expected to slow slightly in 2017-2018, with regional headline inflation expected to pick up after trending downwards since 2011. With sluggish global demand and trade, growth in the region has been predominantly driven by domestic demand with some support from monetary and fiscal policy.

24 Regional economies in 2016 remained resilient despite a less benign external environment, with growth expected to moderate slightly from 2016 to around 5.2 percent in 2017, and 5.1 percent in 2018 (Figure 2.1, Table 2.1). Domestic demand has supported growth, aided by expansionary macroeconomic policies in most regional economies. The ASEAN+3 region remains in a position of strength and has shown resilience so

far to external shocks caused by global policy uncertainty, such as the “taper tantrum” in May 2013, the Brexit referendum, and the unexpected outcome of the U.S. Presidential election in November 2016.

25 Barring tail-risk events such as an escalation of U.S.-China trade tension, an outbreak of a geopolitical conflict or severe climate change events, the baseline scenario is for moderate growth to continue in 2017-18. Trade-dependent economies such as Korea, Singapore and Hong Kong will continue to see moderate growth in 2017 with macroeconomic policies playing a critical role in supporting the economies. Among emerging ASEAN economies, growth has either bottomed out or is picking up gradually supported by accommodative macroeconomic

Figure 2.1 Regional economies remained resilient



Note: On % yoy basis. Data for Japan, Lao PDR and Myanmar refer to the respective fiscal years.
Source: National Authorities

Table 2.1 AMRO's Projections for GDP Growth and Inflation (2017 and 2018)

	Real GDP Growth			Headline Inflation (Period Average)		
	2016 e/	2017 p/	2018 p/	2016 e/	2017 p/	2018 p/
ASEAN+3 Region	5.3	5.2	5.1	1.7	2.5	2.4
Brunei Darussalam	-2.5	1.6	2.9	-0.7	0.2	0.6
Cambodia	6.9	6.8	6.8	3.0	4.0	4.2
China	6.7	6.5	6.3	2.0	2.8	2.5
Hong Kong	1.9	2.3	2.4	2.4	1.8	2.0
Indonesia	5.0	5.1	5.2	3.5	3.8	4.0
Japan	1.4	1.3	1.1	-0.1	0.6	0.9
Korea	2.8	2.5	2.6	1.0	1.8	1.9
Lao PDR	6.9	7.0	7.0	1.6	3.0	3.8
Malaysia	4.2	4.5	4.6	2.1	2.7	2.9
Myanmar	6.0	7.0	7.2	6.8	7.1	6.8
The Philippines	6.8	6.8	7.0	1.8	3.1	3.2
Singapore	2.0	2.0	2.2	-0.5	0.8	1.0
Thailand	3.2	3.4	3.5	0.2	1.2	1.7
Vietnam	6.2	6.4	6.4	2.7	4.0	3.0

e/ Estimates p/ Projections

Notes: Real GDP data refers to fiscal year ending March 2017, 2018 and 2019, respectively for Japan and Myanmar. For Lao PDR, real GDP data for 2016 refers to fiscal year ending September 2016. Thereafter, the data refers to calendar years. For headline inflation, data for Myanmar refers to the respective fiscal years.

Sources: National Authorities, AMRO staff estimates

policies although the growth outlook has become shrouded by uncertainty over impact of the Trump policies on trade, immigration and finance. Growth in the lower-income ASEAN economies (Cambodia, Lao PDR and Myanmar) is expected to be sustained at a moderately high level, supported by capital inflows from multilateral and bilateral development agencies, although they remain vulnerable to external shocks. Other key macroeconomic indicators are set out in the Appendix.

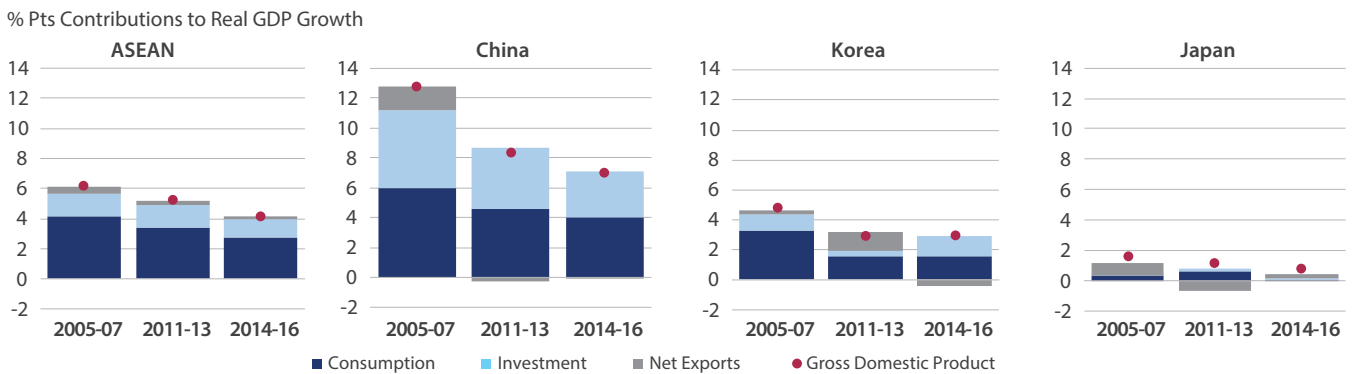
26 Domestic demand will continue to drive growth in 2017, while support from exports is expected to remain tepid, weighed down by potential protectionist measures. Figure 2.2 shows that as compared to the period before the GFC, the drag on growth from net exports has been apparent post-GFC. Compensating for this drag from net exports, private consumption has been the key growth driver, underpinned by stable labor market conditions, continued wage growth and borrowing. The outlook for private consumption is expected to be steady, supported partly by macroeconomic policies. In some ASEAN economies such as Malaysia and Thailand, household spending has been partly bolstered by policy measures to

raise disposable income or to stimulate consumption in an environment of soft commodity prices. Fiscal stimuli in several regional economies, such as Japan, Korea and Thailand, have provided impetus to growth. In view of the rising protectionist sentiment in the U.S. and Europe, external support from exports is expected to be tepid. Potential pull-back in U.S. outward FDI flows to bring manufacturing jobs back to the U.S. could also weigh on longer-term growth potential in trade-dependent regional economies.

Unlike in 2016, the shifting global landscape in 2017 has accentuated the transmission of risks to regional economies via trade, financial and confidence channels.

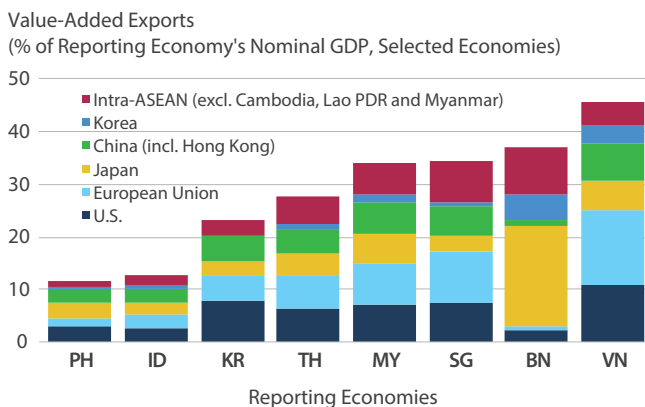
27 Growing U.S. trade protectionism can be partially cushioned by intra-regional trade in final goods within the ASEAN+3 region, which has been rising noticeably (Figure 2.3). Intra-ASEAN trade accounts for around 24.0 percent of ASEAN's total trade, while ASEAN's trade with China, Japan and Korea has increased to 31.2 percent (Figure 2.4). This compares with a decline in ASEAN's trade with North America (mainly the U.S.),

Figure 2.2 Regional growth is mainly driven by domestic demand, with net exports contributing relatively less to headline real GDP growth in recent years



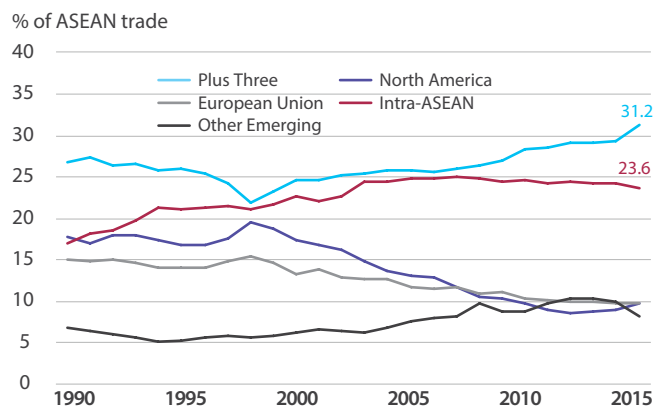
Notes: Changes in inventories and statistical discrepancies are not shown. Data are based on calendar years including Japan. Source: National Authorities

Figure 2.3 The ASEAN+3 region is an important final demand export destination (2015)²⁵



Sources: National Authorities, IMF, OECD-WTO & AMRO staff estimates

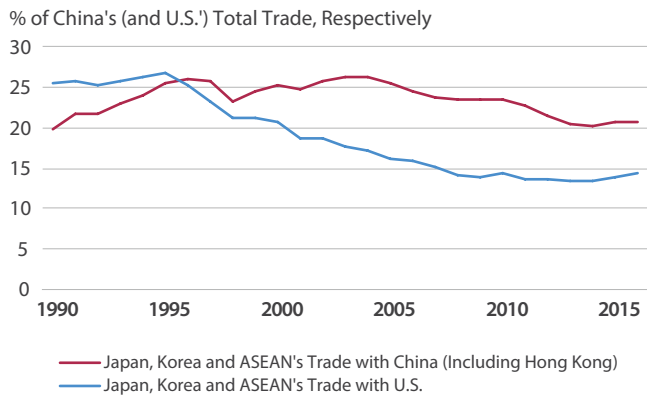
Figure 2.4 Intra-ASEAN trade and ASEAN's trade with the Plus-3 economies have increased



Source: Asia Regional Integration Center (ARIC)

²⁵ Latest data are up to 2011. 2015 estimates are based on unchanged production structure, but allows for changes in market share.

Figure 2.5 Direct trade linkages of ASEAN, Japan and Korea with the U.S. have declined, while their linkages with China have increased

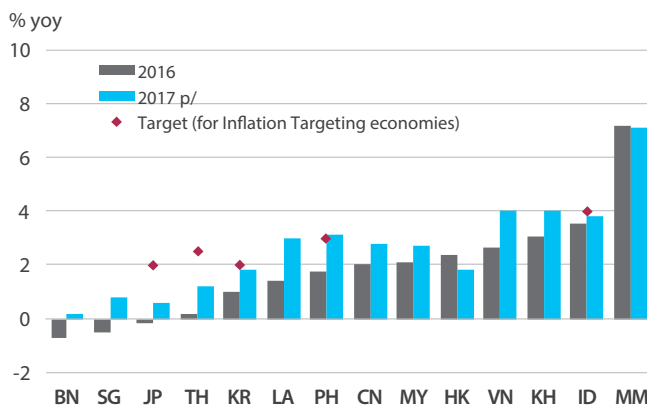


Source: IMF

and to a lesser extent the EU. This is unlike some non-Asian EMs such as Mexico and Brazil that have greater trade linkages with the U.S. (Figures 2.5, 2.6). Nevertheless, with both China and the U.S. absorbing significant shares of the region's exports, an increase in U.S.-China trade tensions will have significant negative spillovers on the region through dampening growth and demand in these major economies.

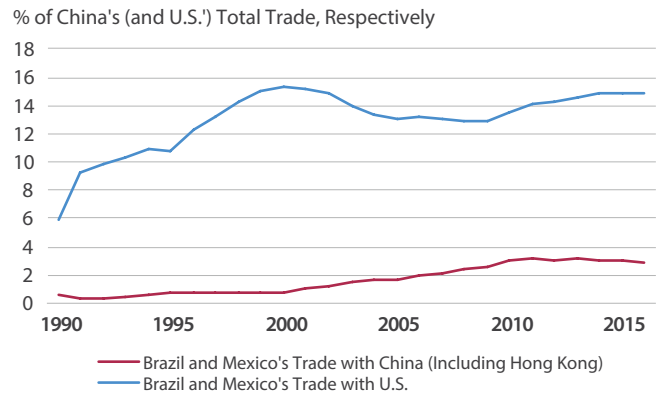
28 Compared to 2016, rising inflation and tightening global monetary conditions in 2017 have reduced the room for regional economies to ease monetary policy to support growth. For economies in the region that have adopted inflation-targeting monetary policy regimes, inflation remains below the level where policy tightening is warranted (Figure 2.7). Some economies, including Indonesia, Korea and Malaysia, have eased policy interest rates since early 2016, while others have held rates at current levels²⁶ (Figure 2.8). Looking ahead, considering the

Figure 2.7 Headline inflation, while below the level where policy tightening is warranted, is expected to trend upwards in 2017



Source: National Authorities

Figure 2.6 Non-Asian EMs such as Brazil and Mexico also have growing trade linkages with China

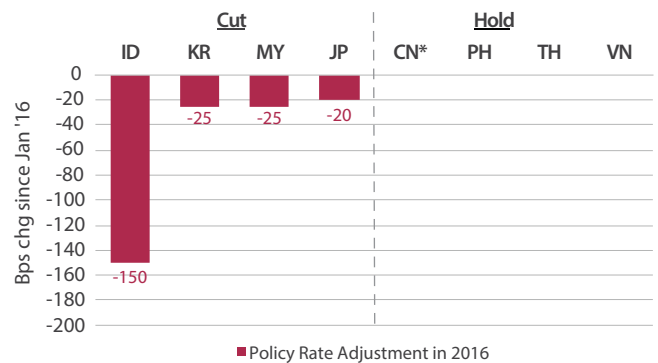


Source: IMF

fading of base effects from low global oil prices, the outlook for inflation is expected to trend upwards, which may constrain monetary policy space to support growth. On the external front, while regional economies' bilateral exchange rates against the USD have generally strengthened, albeit less as compared to the level at the beginning of 2016 until early November 2016, the potential for capital flow reversals from EMs could further reduce the room for accommodative monetary policy support (see Section 3 on Policy Issues).

29 On the fiscal side, despite generally weaker revenue collection, some economies have been able to rebalance their budgets and maintain an expansionary fiscal stance to support growth. Fiscal conditions have tightened, as the commodities downturn has reduced revenue collection, notably in Brunei, Indonesia, Malaysia, Vietnam, Lao PDR and Myanmar. In some oil-exporting regional economies, fiscal authorities have been

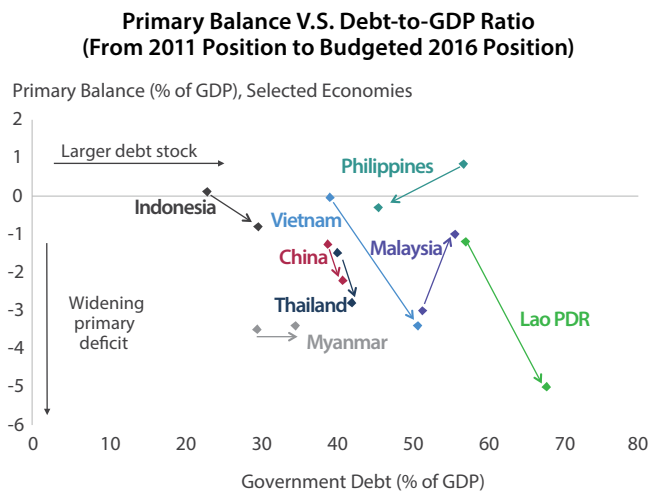
Figure 2.8 Rising inflation and potential capital flow reversals could limit the degree of monetary policy accommodation ahead



Note: * For China, policy rate refers to benchmark 1-year lending rate
Source: National Authorities

²⁶ Several regional central banks such as China (March 2016) and Malaysia have also lowered the reserve requirement ratios of banks in an effort to boost funds in the financial system.

Figure 2.9 Some regional economies have been able to run larger primary deficits, while keeping the debt-to-GDP ratio relatively stable



Notes: 2016 data refers to the budgeted figures. For Myanmar, data refer to 2014 and 2016. For Philippines, Thailand and Vietnam, government debt refers to central government debt only. For Malaysia, the 2016 debt-to-GDP ratio has been adjusted to account for the transfer MYR21.9 billion of debt (1.8 percent of GDP) to the Public Sector Home Financing Board. Sources: National Authorities, AMRO Staff estimates

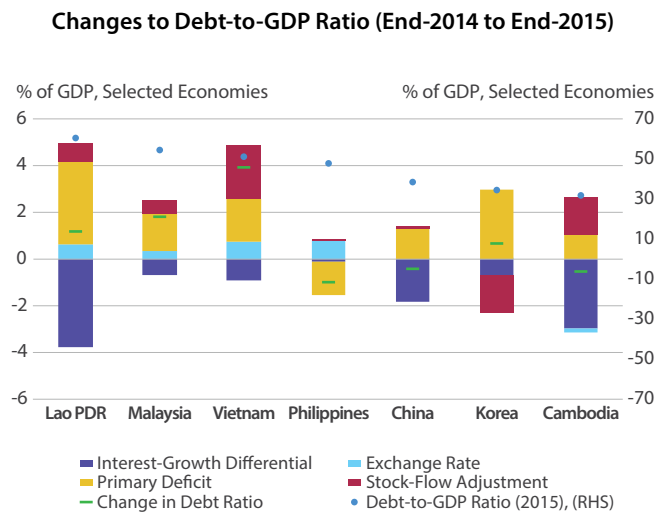
able to mitigate the fall in oil revenue by cutting fuel subsidies (Malaysia and Indonesia), introducing alternative sources of revenue, such as the GST (Malaysia). Most economies (China, Japan, Korea, Singapore and Thailand) ran a larger primary deficit and undertook expansionary fiscal policy in 2016 to support growth (Figure 2.9).

30 In general, fiscal authorities have been able to run a more expansionary fiscal policy without hitting debt ceiling constraints. Although primary deficit has increased, the increase in government debt has been partially offset by low interest rates relative to growth (the interest-growth differential) (Figure 2.10). As global interest rates rise in 2017, fiscal policy will be more constrained in some economies from a debt sustainability perspective. It is imperative to ensure that amidst a narrowing fiscal space, fiscal resources are used efficiently to maximize impact.

Private domestic demand has been sustained partly by borrowing and rising leverage amid an extended period of ultra-low global interest rates, which is a source of vulnerability when monetary conditions tighten.

31 Sustained credit growth at low interest rates has led to a substantial build-up in private sector debt and leverage in several economies. The stock of credit to the private sector, as a percentage of GDP, has increased significantly in most regional economies after the GFC, particularly in China (Figure 2.11). In

Figure 2.10 The debt-to-GDP ratio is mainly driven by larger primary deficits, reflecting expansionary fiscal policy



Source: National Authorities

ASEAN economies such as Thailand, Indonesia, the Philippines and Malaysia, this partly reflects household borrowing that supported private consumption and investment in properties. In smaller ASEAN economies such as Cambodia, Myanmar and Vietnam, this partly reflects financial inclusion as informal lending becomes regulated and is captured in credit statistics, and also partly reflects rapid growth in credit to sectors such as real estate and construction. Using an alternative metric of the credit-to-GDP gap, i.e. the gap between credit trend and GDP trend, the buildup of credit is high in several economies although the gap is narrowing. In comparison, the credit-to-GDP gap is stabilizing in Indonesia and Malaysia, partly reflecting the adoption of macroprudential policy measures to rein in excessive credit growth in the real estate market and in consumer credit (Figure 2.12). In addition, lending by the non-bank sectors in some regional economies is also increasing.

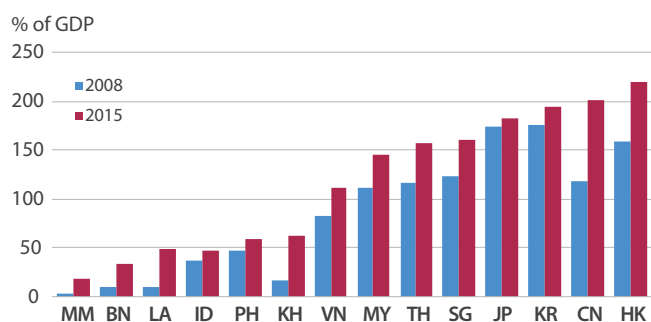
32 Non-financial corporates (NFCs) in the region have borrowed from banks and also issued bonds in foreign currencies, and some NFCs are exposed to FX and rollover risks as global monetary conditions are set to tighten. While most NFC corporate borrowing is in local currencies, a portion is in foreign currencies, notably USD (Figure 2.13). NFCs have also issued USD-denominated debt, with a large share of this debt due to mature in the next three years.²⁷ In 2017, the combination of an appreciating USD, higher global interest rates, and higher term premiums would increase FX and rollover risks

²⁷ China accounts for more than half of the region's foreign-currency debt due in 2016 to 2020. For EMs as a whole (including non-Asian EMs), IIF estimates USD750.0 billion has been issued, with the Asia-Pacific region comprising 51.4 percent of it; Central Asia, Eastern Europe, Middle East and Africa comprising 31.3 percent; and Latin America 17.3 percent.

to these NFCs (Figure 2.14). While some NFCs have natural FX hedges from overseas revenues,²⁸ or have already entered into a financial hedge, those which have not done hedging may find it difficult and costly to hedge in this environment.²⁹

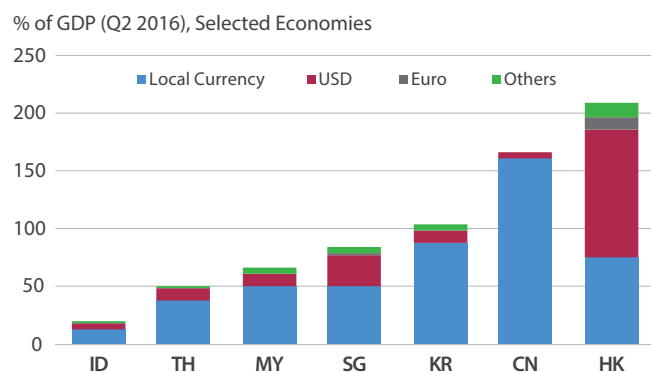
33 While capital buffers in the region’s banking sectors appear adequate (Figure 2.15), they have to be maintained. However, the interest rate upcycle and tightening of global monetary conditions ahead could lead to rising NPLs and bond defaults over the next few years. Across the region, corporates

Figure 2.11 The stock of private sector credit to GDP has been rising since 2008



Notes: Private sector credit refers to loans and advances extended by the banking system to financial and non-financial companies, and households. Sources: National Authorities, World Bank

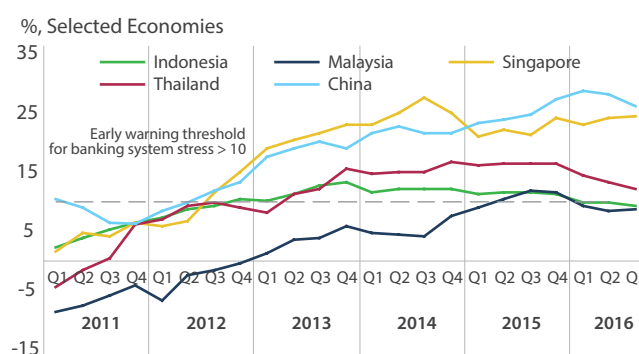
Figure 2.13 While most NFC borrowing is in local currencies, a portion is in FX



Source: IIF

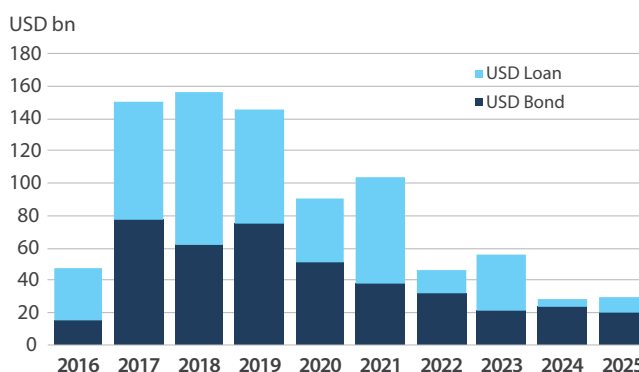
in the commodities and trade sectors have been adversely affected by the sharp fall in commodity prices and downturn in global trade. In terms of debt service capacity, as measured by interest coverage ratio,³¹ the share of debt by NFCs with lower-than-unitary interest coverage ratios (i.e. ICR<1) is rising (Figure 2.16). This decline in debt service capacity among NFCs suggests that NPLs will increase in future. In addition, where NFCs have issued bonds instead of borrowing from the banking system, bond defaults may also increase as economic headwinds increase.

Figure 2.12 The credit-to-GDP gap has increased, though moderated



Notes: Data refers to private non-financial sector only. Credit-to-GDP gap is the difference between credit-to-GDP ratio and its long-term trend. Trends are calculated using Hodrick-Prescott filter with a smoothing factor lambda of 400,000, taking account only of information up to each point in time. Readings above 10 percent signal elevated risks of banking strains, according to the BIS. Source: BIS

Figure 2.14 A large share of USD-denominated debt in regional EMs is due to mature in 2017-19³⁰



Notes: The data includes non-financial corporations and financial corporations. Regional Asia EM in the sample includes China, Hong Kong, Indonesia, Malaysia, Singapore, Korea, and Thailand. Source: IIF

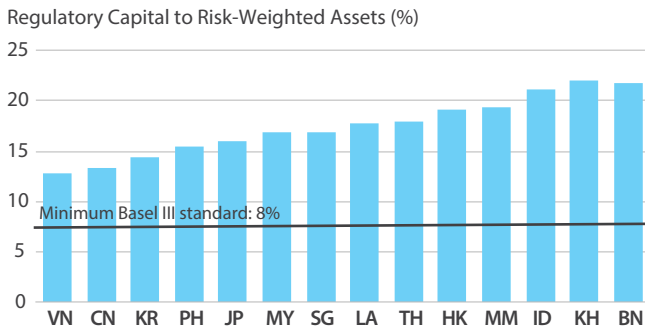
²⁸ Due to lower external revenue resulting from lower commodity prices and lower export volumes, for example, compared to FX liabilities.

²⁹ As hedging costs are typically high in the region and USD liquidity could become unavailable or very costly during stress periods.

³⁰ At the end of 2015, one-third of the almost USD10.0 trillion of USD-denominated debt outside the U.S. was held by residents in emerging markets. In Brazil, Russia and China, USD-denominated credit to non-bank borrowers has more than doubled since 2007. One-third of this debt is due to mature by the end of 2019.

³¹ Interest coverage ratio (ICR) refers to the earnings before interest, taxes, depreciation and amortization (EBITA) to total interest expense. An ICR less than 1 indicates that a company is not generating sufficient cash to cover its interest payments. An ICR of at least 1.5 is generally a rule of thumb for investors in assessing a company’s financial health.

Figure 2.15 Regional banks' capital buffers appear adequate ³²

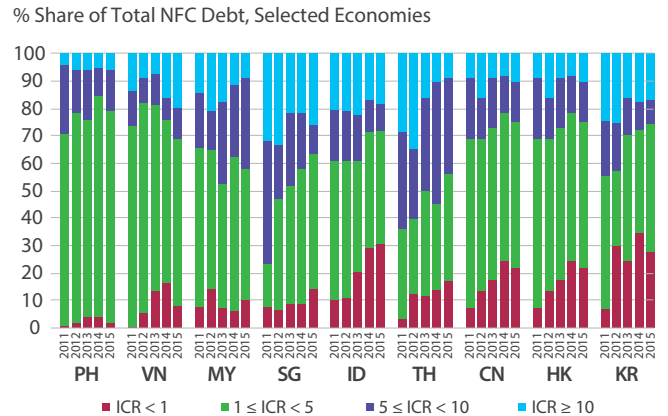


Notes: Data as of Q4 2016, except Japan (Q1 2016), Korea, Malaysia, Indonesia (Q2 2016), and Singapore, Myanmar, Philippines (Q3 2016)
Sources: National Authorities, IMF

Economies relying on bank borrowing or portfolio inflows to finance the current account or the budget would be vulnerable to rising financing costs amid capital outflow risks.

34 Current account positions have been supported by import compression and low commodity prices for commodity importers in 2016, but are projected to weaken slightly in 2017 for most economies. For net oil importers such as China, Japan, Korea, Thailand and Singapore, a faster rate of import compression relative to exports has boosted the current account surplus. In comparison, sustained expansion in domestic demand has contributed to robust import growth which saw the current account surplus shrinking

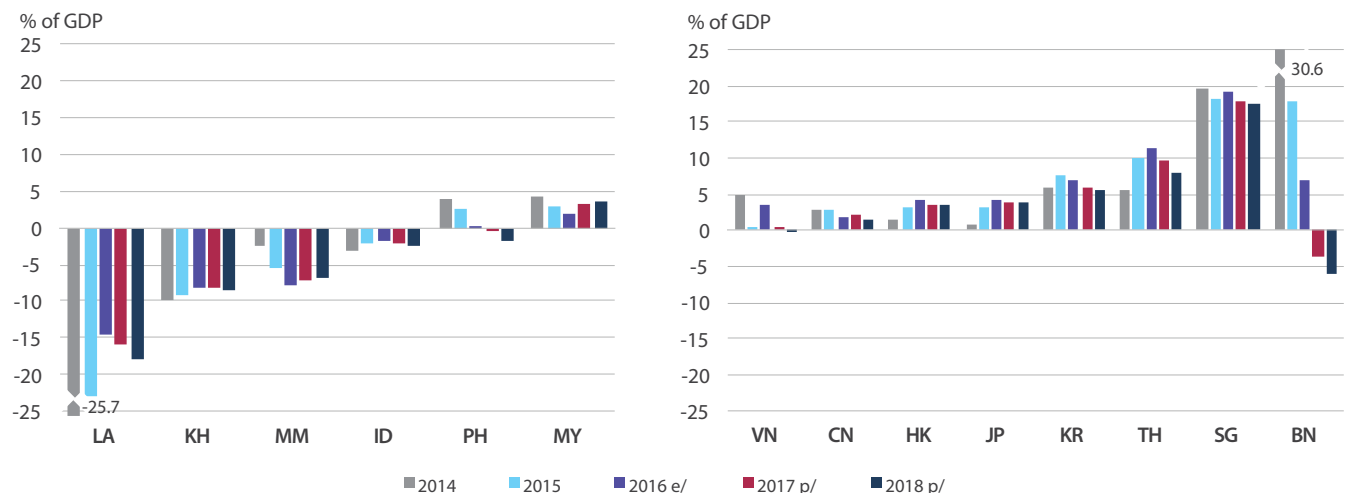
Figure 2.16 NFC debt service capacity has also deteriorated, in line with weakening profitability



Source: Reuters

over the past few years in some economies such as Malaysia and the Philippines (Figure 2.17). Economy-specific factors, such as slowing inward remittances, have also underpinned the moderating current account surplus in the Philippines. Further downside risks could stem from Trump's policies to limit immigration with a negative outlook for remittances considering that the U.S. is the world's largest source country for remittances (Figure 2.18). In smaller ASEAN economies (Cambodia, Lao PDR and Myanmar), current account deficits persist due to sustained large capital imports to support economic development. AMRO staff projects a slight widening of current account deficit for these smaller ASEAN economies for 2017-18.

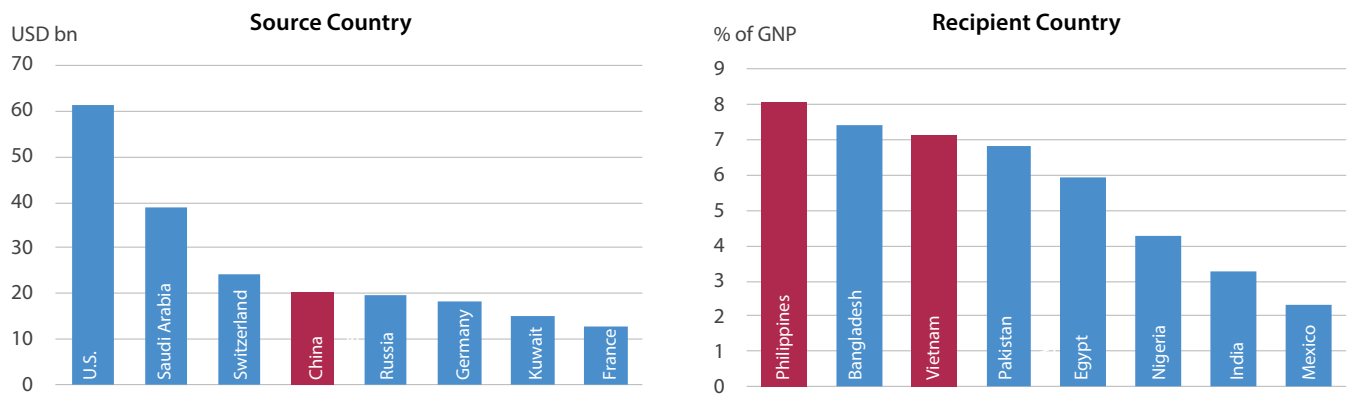
Figure 2.17 Current account surpluses of some emerging ASEAN economies have narrowed



Notes: e/ Estimates p/ Projection
For Myanmar, estimates for 2018 refer to fiscal year ending March 2019.
Sources: National Authorities, AMRO staff estimates

³² For some countries, such as Lao PDR, the figure is based on Basel I standards.

Figure 2.18 The U.S. remains the world's largest source country for remittances

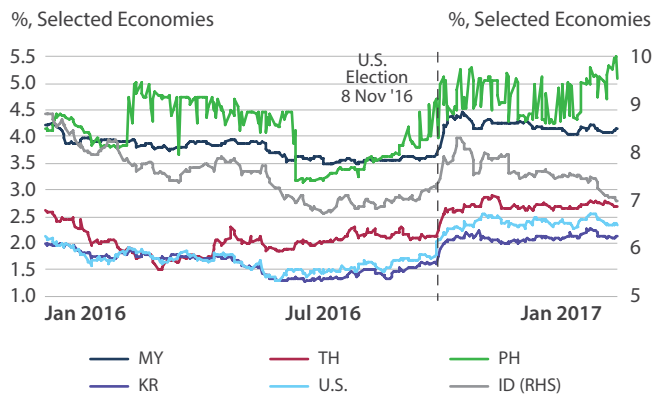


Source: World Bank

35 Where an economy's current account deficits and fiscal deficits rely on external financing through portfolio inflows, tightening global monetary conditions and financial market uncertainty in 2017 are risks that may disrupt financing. The sharp rise in U.S. Treasury yields after Trump's election has pulled sovereign yields higher in EMs, including in regional EMs (Figure 2.19). In addition, foreign investors hold a significant share of local currency sovereign bonds in some regional EMs (Figure 2.20). These holdings are vulnerable to adverse shifts in investor sentiments and retrenchment in foreign

capital. In the weeks after the U.S. election results, regional EMs (Korea, Thailand, Indonesia, Malaysia and the Philippines) saw significant portfolio capital outflows, alongside declining asset prices (currencies, stock and bond markets) (Figure 2.21). In comparison, the smaller ASEAN economies (Cambodia, Lao PDR and Myanmar) are more dependent on FDI and concessional official financing, and less exposed to private portfolio flows. For them, the challenge is to maintain access to official financing and improve their attractiveness to FDI investors to grow their economies.

Figure 2.19 Sovereign bond yields spiked after Trump's election



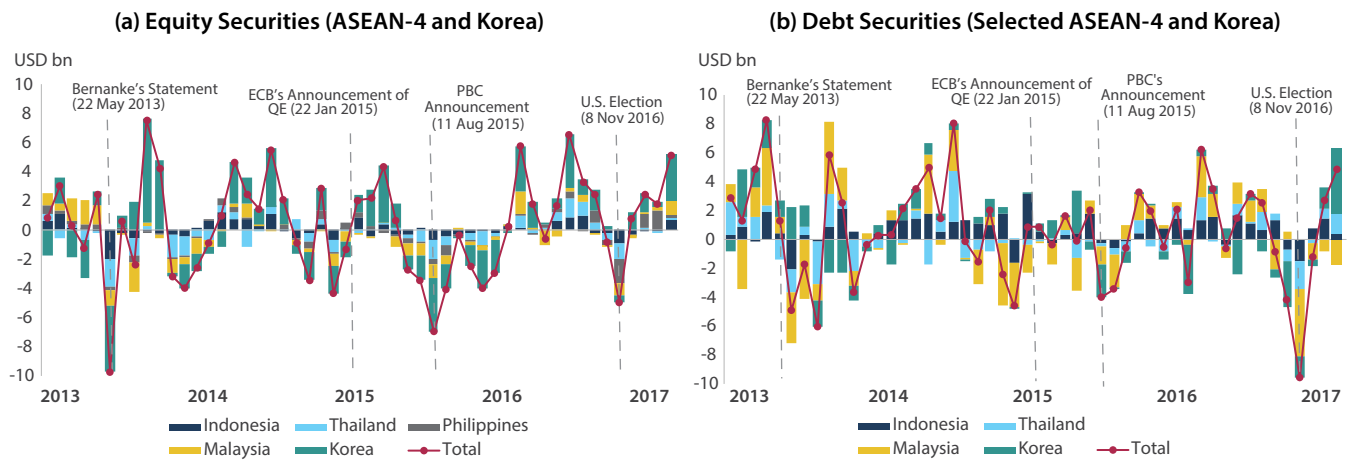
Source: Thomson Reuters Datstream

Figure 2.20 Foreign holdings of local currency sovereign bonds are significant in some regional EMs



Notes: Data refers to foreign participation in local currency sovereign securities only. Data do not include Government Investment Issues and Bank Negara Malaysia Bills/Notes (for Malaysia), State-Owned Enterprises Bonds and Bank of Thailand bonds (for Thailand), Bank Indonesia Certificate (for Indonesia) and Bank of Korea's Monetary Stabilisation Bonds (for Korea). Data as of December 2016
Source: National Authorities

Figure 2.21 Non-resident capital inflows into major ASEAN EMs turned to net outflows during the Trump Tantrum, but have recovered since January 2017

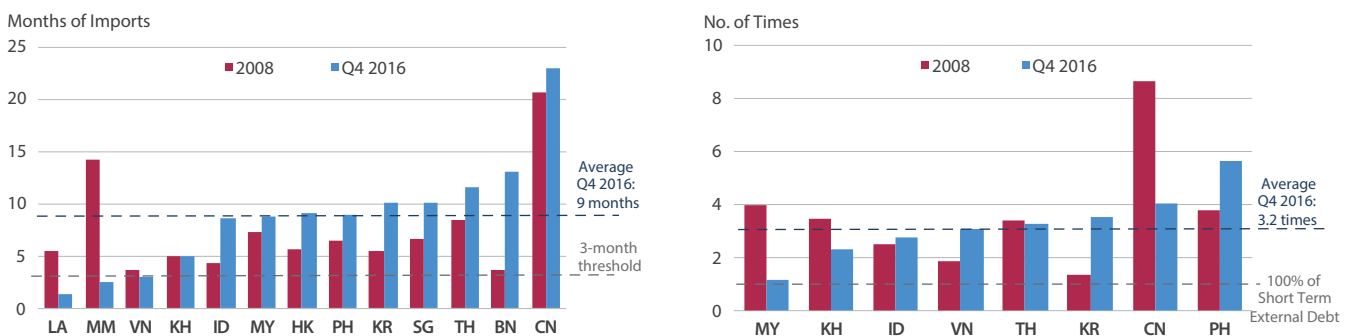


Notes: Equity data are as of end-March 2017, while debt data are as of end-February. Source: National Authorities

36 While FX reserve buffers are high by conventional metrics of import and short-term external debt cover, buffers have to remain adequate in the face of potential capital outflow pressures in a “risk-off” scenario. Regional economies have built up their FX reserves since 2008, with FX reserves covering on average 9.0 months of imports and 3.2 times of short-term external debt (Figure 2.22). As mentioned previously, foreign holdings in domestic asset markets such as local currency sovereign bonds are significant (Figure 2.20). Sudden unwinding of these holdings and capital outflows in a “risk-off” scenario may put additional pressure on the exchange rate and

FX reserves. In recent years, exchange rates have become more flexible, playing a greater role as a buffer against external shocks. Exchange rate flexibility combined with judicious intervention to moderate the pace of adjustment would continue to be the appropriate response to risks of external shocks in 2017. This is especially so as markets may overreact to declines in FX reserves, regardless of their absolute levels.³³ This is especially so as markets may overreact to declines in FX reserves, regardless of their absolute levels.³⁴ Box B compares and contrasts the recent developments in portfolio capital flows between ASEAN-4 and Korea, and other EMs outside the region.

Figure 2.22 FX reserves appear adequate, by metrics of import and short-term external debt cover



Notes: Latest data refers to 2012 (for Vietnam), 2014 (for Cambodia), 2015 (for Brunei), Q3 2016 (for Myanmar). For Myanmar and Lao PDR, data reflect imports of both goods and services based on AMRO's calculations. Japan is not included as the JPY is used as one of the reserve currencies.

Notes: Latest data refers to 2012 (for Cambodia), Q3 2016 (for China), and 2014 and 2016, respectively (for Vietnam). Some member economies have adopted the latest BPM6 (such as Malaysia), which includes local currency-denominated debt held by non-residents in their short term external debt data.

Sources: National Authorities, AMRO ERP Matrix

³³ Market expectations of FX reserve adequacy have also changed, with markets interpreting a fall in FX reserves negatively as a sign of vulnerability.

³⁴ In Malaysia, the drop in the FX reserves to short-term external debt cover is due to the re-definition of external debt in line with international standards. It now also includes non-resident holdings of local-currency denominated debt paper and other debt-related non-resident financial flows such as trade credits, currency and deposits, and other loans and liabilities.

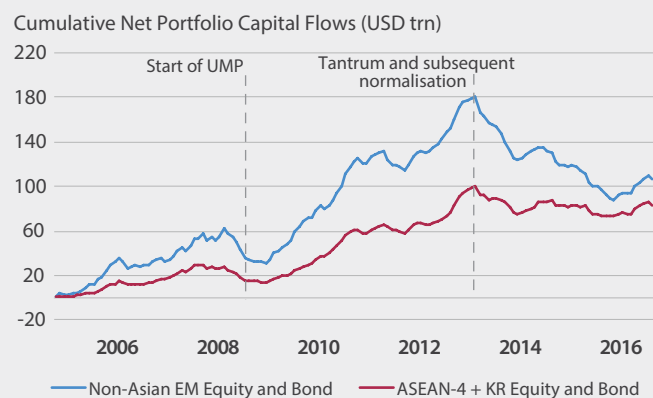
Box B. Recent Developments in Non-Resident Portfolio Capital Flows (Comparison between ASEAN-4 and Korea, and Other Emerging Market Economies)

Capital flows into EMs have been affected by global pull and push factors. Since the “taper tantrum” in mid-May 2013, non-resident portfolio capital flow developments in particular, have become more differentiated amid the re-pricing of risks across asset classes. This box discusses the evolution of the main drivers of portfolio capital flows in the global EMs (Asean-4, Korea and other non-Asian EMs, namely Brazil, Mexico, Russia, South Africa and Turkey), compares the macroeconomic fundamentals and highlights the foundations for financial stability and resilience.

Portfolio capital flows to regional EMs (ASEAN-4 and Korea) have been influenced by the following pull and push factors.³⁵ (Figure B1):

- **Fundamentals:** Economic fundamentals in the region have improved significantly post-AFC. Together with better growth prospects amid the search for yield post-GFC, regional EMs have attracted large inflows.

Figure B1. Portfolio capital flows to EMs were driven by different factors since the AFC



Source: EPFR

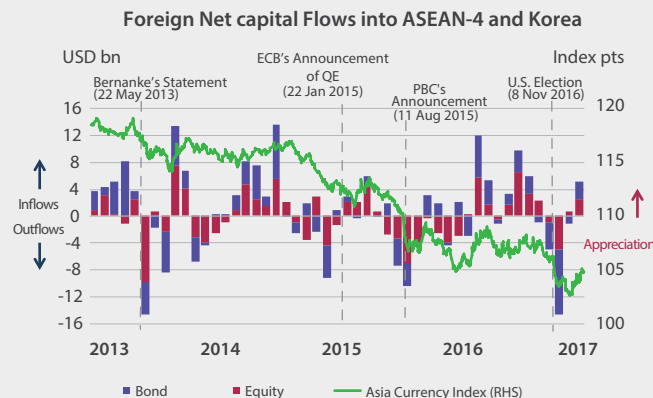
- **Unconventional Monetary Policy (UMP)** in major advanced economies:
 - (1) Easing: AEs commenced QE as domestic interest rates approached zero bound. Differentials in AEs and EMs rates and bond yields, as well as economic fundamentals

played vital roles in the portfolio rebalancing towards EM assets. The risk perception of investors on EM assets gradually reduced.

- (2) Normalization (by U.S. Fed): The Fed's intention to rollback UMP was not well-signaled, which led to severe financial stress in the EMs especially the “Fragile Five” economies in May 2013 (Taper Tantrum). The region experienced large portfolio capital outflow episodes but they were less severe vis-a-vis other EMs due to relatively better current account balances as well as lesser vulnerabilities from foreign ownership of assets. Strong external positions and adequate buffers have helped mitigate market volatility during the Trump Tantrum in November 2016. (Figure B2)

In terms of resilience, following the AFC, the region has strengthened buffers and risk management in the financial sector with adequate financial buffers/liquidity backstop to withstand adverse developments and shocks. The region has

Figure B2. ...while recently, the region has been able to withstand external shocks better



Notes: All data are as of end-January 2017, and refers to Indonesia, Malaysia, the Philippines, Thailand and Korea. For bonds data refers to Indonesia, Malaysia, Thailand and Korea. The Bloomberg Asia currency index consists of currencies from China, Hong Kong, India, Indonesia, Korea, Malaysia, the Philippines, Singapore, Taiwan and Thailand against USD.

Sources: National Authorities, Bloomberg

built a well-capitalized banking system over the years³⁶ that remains resilient despite recent exposure to the commodity and energy-related sectors. An adequate level of foreign reserves has helped to absorb some shocks (Figure B3) and a sound financial regulatory and supervisory framework is also

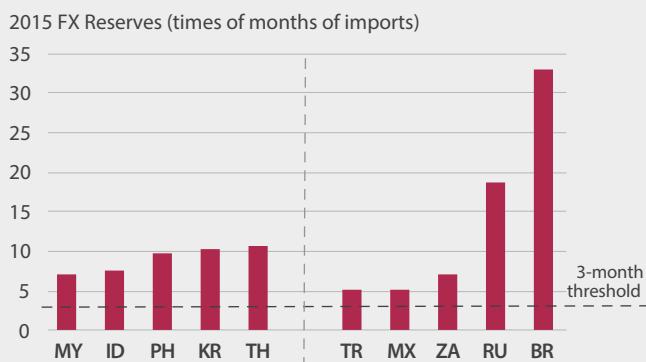
³⁵ Asian Development Bank Institute (Chantapacdepong and Hemvanich): “The pattern of capital flows into Asia in the last decade”, June 2016.

³⁶ Moody's Investor Service Stress-Testing on Emerging Asia: “Banks-Emerging Asia Stress Tests Reveal Resilience Among Most Emerging Asian Banks But Also Some Pockets of Risk”, December 2016.

put in place to safeguard depositors and financial stability.

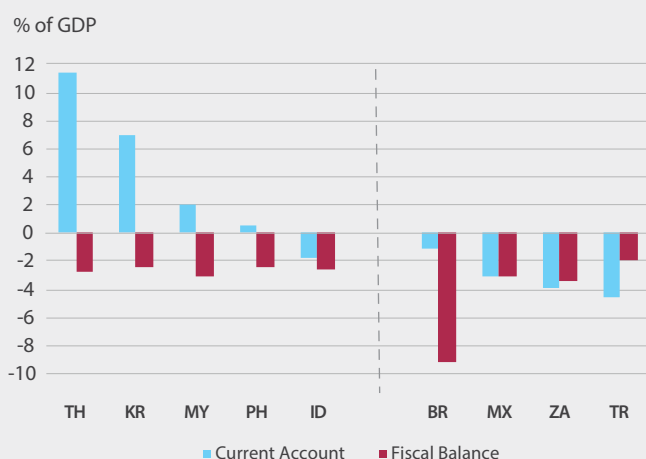
Efforts by the region's regulatory agencies in developing the domestic capital market have generally helped to mitigate the impact of volatile capital flows. Initiatives like the deepening of local currency bond market has helped reduce reliance on short-term foreign financing and mitigate currency mismatch risk. Figure B4 shows the negative relationship between foreign holdings of sovereign bonds and currency performance during uncertain times. Overall, systemic risks have lessened with

Figure B3. ASEAN-4 and Korea foreign reserves were higher than that of Turkey, Mexico and South Africa



Sources: AMRO ERPD Matrix, National Authorities, AMRO staff calculations

Figure B5. Running better current account and fiscal positions would allow more policy room for the region in times of need



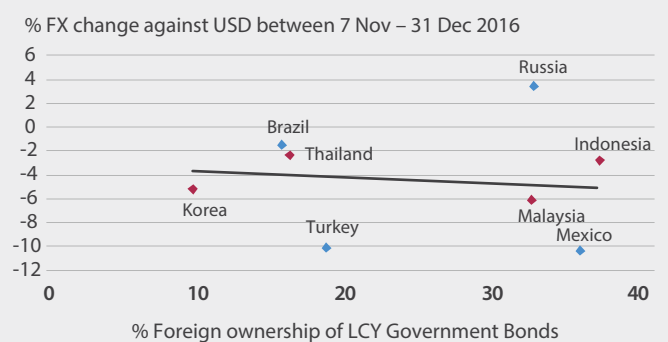
Note: Korea's fiscal balance refers to the adjusted balance, which exclude Social security funds (SSF)

Sources: AMRO staff estimates, Bloomberg

the development of a stronger asset core denominated by domestic currencies.

Regional EMs have gradually strengthened their macroeconomic policy frameworks and improved their conduct of policy. By doing so, they have attained relatively sound public finance and external positions (Figure B5) in view of the need for policy room in future. Within the region, authorities have also enhanced financial cooperation in the areas of macroeconomic surveillance, crisis prevention and information sharing.³⁷

Figure B4. Currencies of EMs with higher foreign ownerships in bonds fell more after the U.S. election



Sources: AsianBondsOnline, Bloomberg

Going forward, policymakers will need to remain vigilant and be ready to respond as near-term risks may create more turbulence in capital markets. Key risks would include the already-slow global trade growth exacerbated by rising anti-globalization sentiments; the tightening of monetary conditions in AEs; and policy uncertainties in U.S. and Europe where the elections begin to unfold this year. To deal with these risks, policymakers have deployed an expanded policy toolkit, such as macroprudential policies and/or capital flows management measures in order to address potential risks ahead.

³⁷ Asian Development Bank Institute (Kawai and Morgan): "Regional Financial Regulation in Asia", February 2014.

3. Policy Issues

Despite better fundamentals, diminishing cyclical tailwinds and rising external headwinds in the period ahead suggest that regional policymakers will face a sharper trade-off between growth and financial stability objectives, at a time when policy space is narrowing.

37 Regional economies have been able to weather the external challenges from a position of strength, benefiting from earlier reforms and structural adjustments. The ending of the commodity price uptrend, moderating credit growth, and less robust foreign capital inflows have contributed, however, to a step-down in growth in several regional economies. At the same time, policymakers are confronted with financial stability challenges arising from the increase in household and corporate debt, high property prices, weakening corporate profitability, and rising NPLs. With the turning of the global credit cycle, stronger USD and the associated capital flow reversal risks, the macroeconomic policy setting has become more constrained by external developments, at a time when policy space in some regional economies is narrowing.

Tightening global monetary conditions in 2017 and rising inflation, albeit from a low base, will constrain regional economies' use of monetary policy to support growth, with the constraints most apparent in economies where financial vulnerabilities have built up. Targeted macroprudential policy measures can help to complement monetary policy to safeguard financial stability.

38 As global monetary conditions tighten, domestic monetary conditions will also tighten at a time when risks to economic growth are growing. The period after Trump's election has already tested EMs with a sharp rise in U.S. Treasury yields, expectations of a faster pace of U.S. Fed rate hikes, and a sharper USD appreciation. The risks going into 2017 are of a disorderly portfolio reallocation, leading to large capital outflows, and excessive exchange rate depreciation or loss of reserves. This scenario may be worsened by confidence channels in the transmission of stress and feedback loops within ASEAN+3.

39 The pick-up in global inflation, mainly reflecting the recent increases in commodity prices, could also be a policy concern moving forward, depending on the extent of pass-through of import prices to domestic prices. In some regional economies, energy prices have started making a positive contribution to headline inflation since the end of 2016. Along with the recovery in producer prices, regional economies that

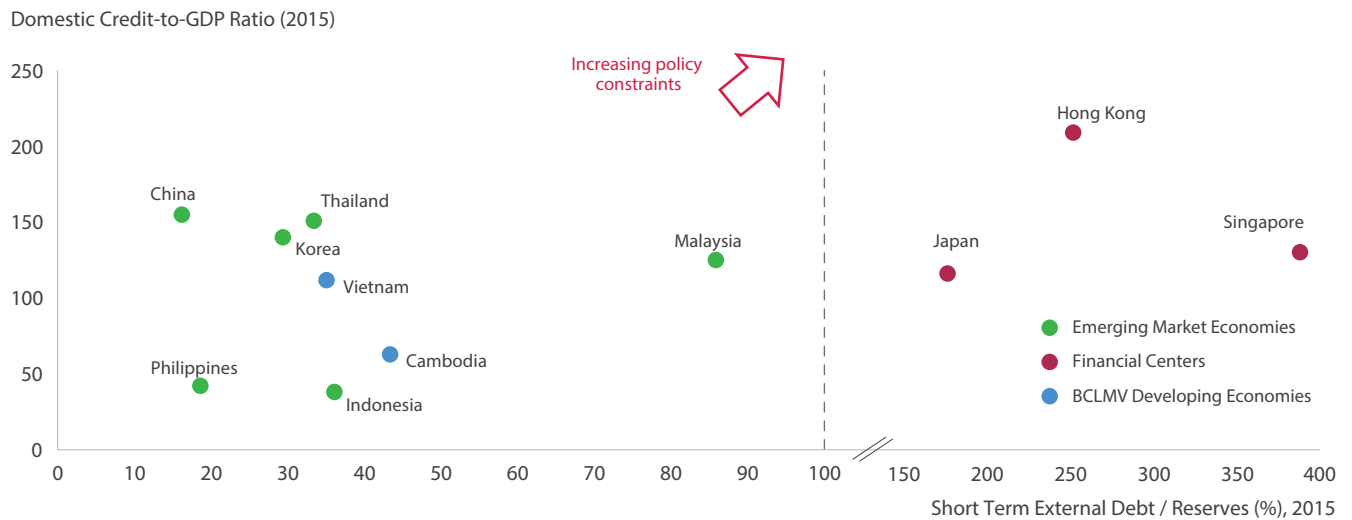
are net commodity importers could see near term inflation gradually firming. As a pre-emptive measure to stem the buildup of cost pressures, regional central banks may have to adjust their degree of monetary policy accommodation in the period ahead.

40 Economies in which financial vulnerabilities have built up with high credit growth or external debt will face the sharpest trade-off in maintaining an accommodative monetary policy to support growth and maintain financial stability. With interest rates rising, economies with a larger stock of private domestic credit to GDP would be more exposed to a sharper than expected rise in debt servicing burdens. In addition, economies with a larger stock of short-term external debt to GDP are more vulnerable to higher cost of borrowing in foreign currency and rollover risks.

41 Figure 3.1 plots ASEAN+3 economies along two dimensions: domestic credit to GDP ratio on the vertical axis, and short-term external debt as a percentage of FX reserves on the horizontal axis. The constraints on monetary policy would increase for economies as they move towards the upper top right, that is, high stock of credit and high short-term external debt. There are, however, several caveats to this framework. First, short-term external debt for financial centers such as Hong Kong, and Singapore can be expected to be higher, and does not necessarily indicate higher vulnerability compared to non-financial centers. Second, for several of the ASEAN CLMV economies and ASEAN-4 EMs, such as Cambodia, Lao PDR, Myanmar, Vietnam, the Philippines, and Indonesia, part of the build-up in domestic credit can be attributed to financial deepening.

42 With these caveats, credit-to-GDP ratios in some economies have remained elevated since 2011. While credit growth has slowed recently in major ASEAN economies, the stock of private sector debt remains relatively high. Looking at the magnitude of short-term external debt to FX reserves, the current levels of debt seem generally manageable in regional EMs. The policy priority for these regional EM central banks will be to shift to a slightly tighter monetary policy stance to safeguard financial stability, while allowing a more flexible exchange rate to cushion some of the adjustments. For economies with high foreign participation in their local domestic financial markets, and/or high gross external financing needs, policymakers would need to keep a tighter monetary policy stance and ensure that the bond yields are market-determined, although there would be some moderating impact on near-term growth.

Figure 3.1 Constraints are more binding for economies with higher financial vulnerabilities



Notes: Domestic credit refers to private domestic credit provided by financial sector. Short term external debt refers to outstanding short-term debt (original maturity) and the outstanding long-term debt (original maturity) due for payment in one year or less. There are no short term external debt data available for Brunei, Lao PDR and Myanmar. Total reserves includes gold. For Singapore, Singapore Government borrowings are not for spending. Singapore Government Securities (SGS) are issued to develop the domestic debt market and Special Singapore Government Securities (SSGS) are issued specifically to meet the investment needs of the Central Provident Fund (CPF) Board.

Source: National Authorities

43 With constraints on monetary policy, regional policymakers should recalibrate targeted macroprudential policy measures to safeguard financial stability and support growth. Where monetary policy may not be available as a policy tool, for example in dollarized economies such as Cambodia, greater reliance has to be placed on appropriate macroprudential policies. Macroprudential policies have been a useful complement to, but not a substitute for broader macroeconomic policy adjustments. Macroprudential measures such as loan-to-value (LTV) limits, debt servicing ratios (DSR) and single borrower limits (SBL) have helped to rein in excessive build-up of debt and contain potential systemic risks to the financial sector, and can continue to be applied where appropriate. However, with rising interest rates, it may be timely to recalibrate the measures to provide support to the property markets where appropriate.³⁸ Similarly, in the banking sector, countercyclical capital buffers that were introduced in some regional economies, along with prudential supervision of the financial sector, should be reviewed.

Fiscal policy may have to play a greater role to cushion downside risks to the real economy, although fiscal policy space

has generally narrowed, and in some economies, is constrained by fiscal rules.

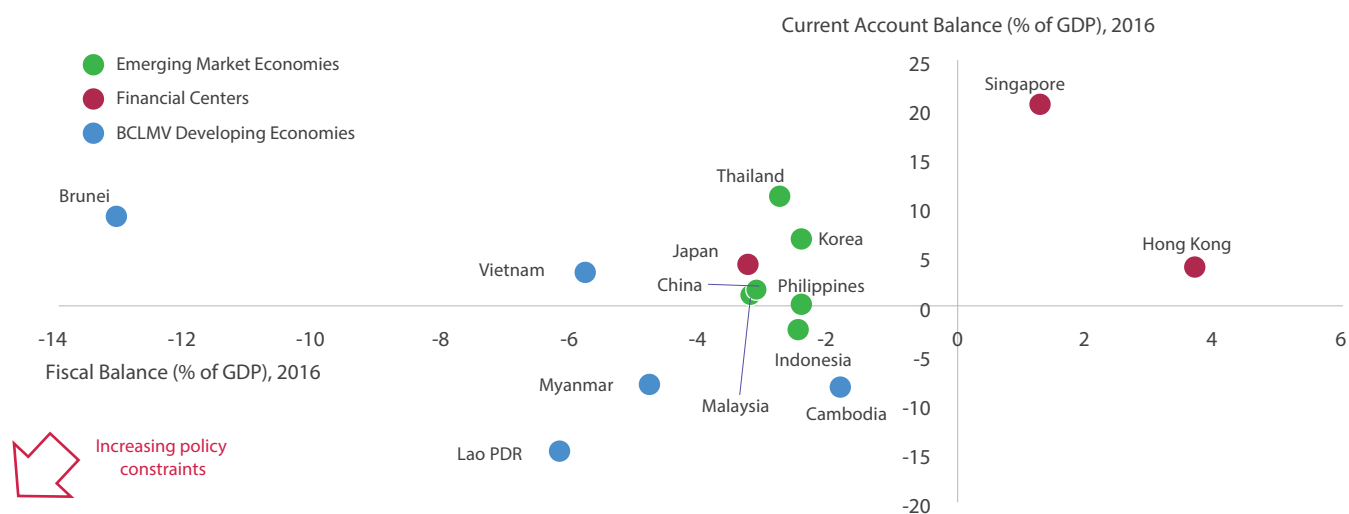
44 As global monetary conditions are likely to tighten, rising U.S. Treasury yields will pull up sovereign bond yields in the region and increase financing costs. In the region, sovereign bond yields have already increased in tandem with the recent sharp increase in U.S. Treasury yields,³⁹ suggesting that policymakers would need to prepare for higher borrowing costs and debt service burdens.

45 Economies already relying on external financing for both the current account and the fiscal balance ("twin deficits") would face tighter financing constraints when trying to expand fiscal policy. Figure 3.2 plots ASEAN+3 economies along two dimensions: current account balance as a percentage of GDP on the vertical axis, and fiscal balance as a percentage of GDP on the horizontal axis. The financing constraints would increase for economies as they move towards the lower bottom left, that is, for economies having to finance both a current account and a fiscal account deficit.

³⁸ During the period of unconventional monetary policies by major advanced economies, emerging markets in the region have been actively using targeted macroprudential policy measures in order to safeguard financial stability, which have generally been effective. In an environment of rising global interest rates, regional policymakers are now confronted with a challenge of normalizing/unwinding some of the earlier set of macroprudential policy measures.

³⁹ The U.S. long-term rate affects both the global benchmark yield and global investor risk appetite, which are important determinants of the pricing of bonds issued by emerging economies in local and global markets. With the growing foreign participation in regional economies' (local currency) sovereign bond market, the sensitivity of the longer end of the yield curve to global factors has increased.

Figure 3.2 Economies running “twin deficits” face the most constraints in using fiscal policy



Notes: Data for Cambodia, Lao PDR and Myanmar include grants. Korea's fiscal balance refers to the adjusted balance, which exclude Social security funds (SSF)
Sources: National Authorities, AMRO staff estimates

46 Regional economies with lower public debt and stronger external positions can consider maintaining a moderate pace of fiscal expansion. In China, Korea, Hong Kong, Singapore and Thailand, considering the relatively ample fiscal space; and the stronger external position, authorities can consider maintaining a moderate fiscal expansion to support short-term growth, while being targeted in their expansionary measures to incentivize the acceleration of structural reform agenda. In the event that growth falters, a more expansionary fiscal stimulus could be considered, provided it is framed within a credible medium-term consolidation plan.

47 In some regional economies, expansionary fiscal spending has to be funded by revenue increases, given the constraints posed by their fiscal rules (Indonesia and the Philippines). While some economies have already started to implement revenue-raising reforms or to reprioritize expenditure, these efforts may need to be enhanced. First, fiscal space may be capped by a policy objective not to further increase the debt-to-GDP ratio (such as in Malaysia and Vietnam). Even if there is no change in the fiscal policy stance, exchange rate depreciation can inflate the debt-to-GDP ratio. As a result, authorities may adopt a more cautious attitude about running a large primary deficit. Second, even if the debt-to-GDP ratio is relatively low (such as in Indonesia

and the Philippines), binding fiscal rules—for example where the central government budget deficit is capped at 3 percent of GDP—can limit the fiscal stimulus. Third, in some economies with relatively ample fiscal space, fiscal prudence is considered a national objective, and the authorities tend to be fiscally conservative, by slowing down expenditures in the event of larger than expected revenue shortfalls.

48 In economies where fiscal positions are expected to remain weak, reprioritizing and rebalancing existing expenditure programs should be the first steps pursued. Such a fiscally neutral approach focusing on improving efficiency and effectiveness can support growth without significant additional fiscal resource requirements. Several economies have taken steps towards revenue-neutral or revenue-enhancing reforms. In particular, in the smaller ASEAN economies (Cambodia and Myanmar), where the “twin” deficits reflect the stage of their economic developments, the policy priority would be to continue with fiscal consolidation and expenditure reprioritization/rebalancing, as economic growth remains relatively robust. In these economies, external financing is mostly in the form of long-term concessionary or bilateral loans from multilateral development banks or sovereign governments, which are relatively stable.

On balance, the recommended policy mix would be to hold monetary policy at current settings to preserve room to deal with a tightening in global monetary conditions, while using fiscal policy, where there is space, to support growth.

49 The policy mix for each ASEAN+3 economy would depend on the need for policy stimulus relative to where it is in the growth cycle, as well as available monetary and fiscal policy space. In terms of monetary policy, while the general recommendation is to hold monetary policy at current settings, economies where high credit growth has been a concern (Cambodia, Lao PDR, Myanmar and Vietnam) may need to adopt more targeted policies — for example, macroprudential measures, and tighter monetary policies. Similarly, for fiscal policy, while the general recommendation is to pursue expansionary fiscal policy where there is room, economies that have had challenges in fiscal revenue due to external shocks (Brunei and Malaysia) may need to prioritize implementation of fiscal consolidation plans. In calibrating these macroeconomic policies, effective and clear policy communication by the authorities is key in helping to bolster policy efficacy through influencing market expectations.

50 Given the limitations of short-term demand management policies, there is an urgent need for policymakers to accelerate the structural reform agenda. With global trade slowing down and policy space constrained, accelerating structural reform agenda is critical to maintain and enhance the economy's growth potential. Policy priorities are to enhance productivity and efficiency to maximize output from existing resources, while concurrently removing obstacles that impede growth such as through further deregulation, streamlining of administrative processes, improving soft and hard infrastructure, strengthening public sector management and legal capacity as well as strengthening revenue collection and administration to reduce the cost of doing business. Easing labor market regulations can increase flexibility in the labor market, such as encouraging flexible work hours, further promoting female participation in the workforce, and creating more regular jobs and opportunities for young adults. Policy commitment to these supply-side policies is critical to enhancing growth potential and economic resilience.

Appendix Selected Key Macroeconomic Projections

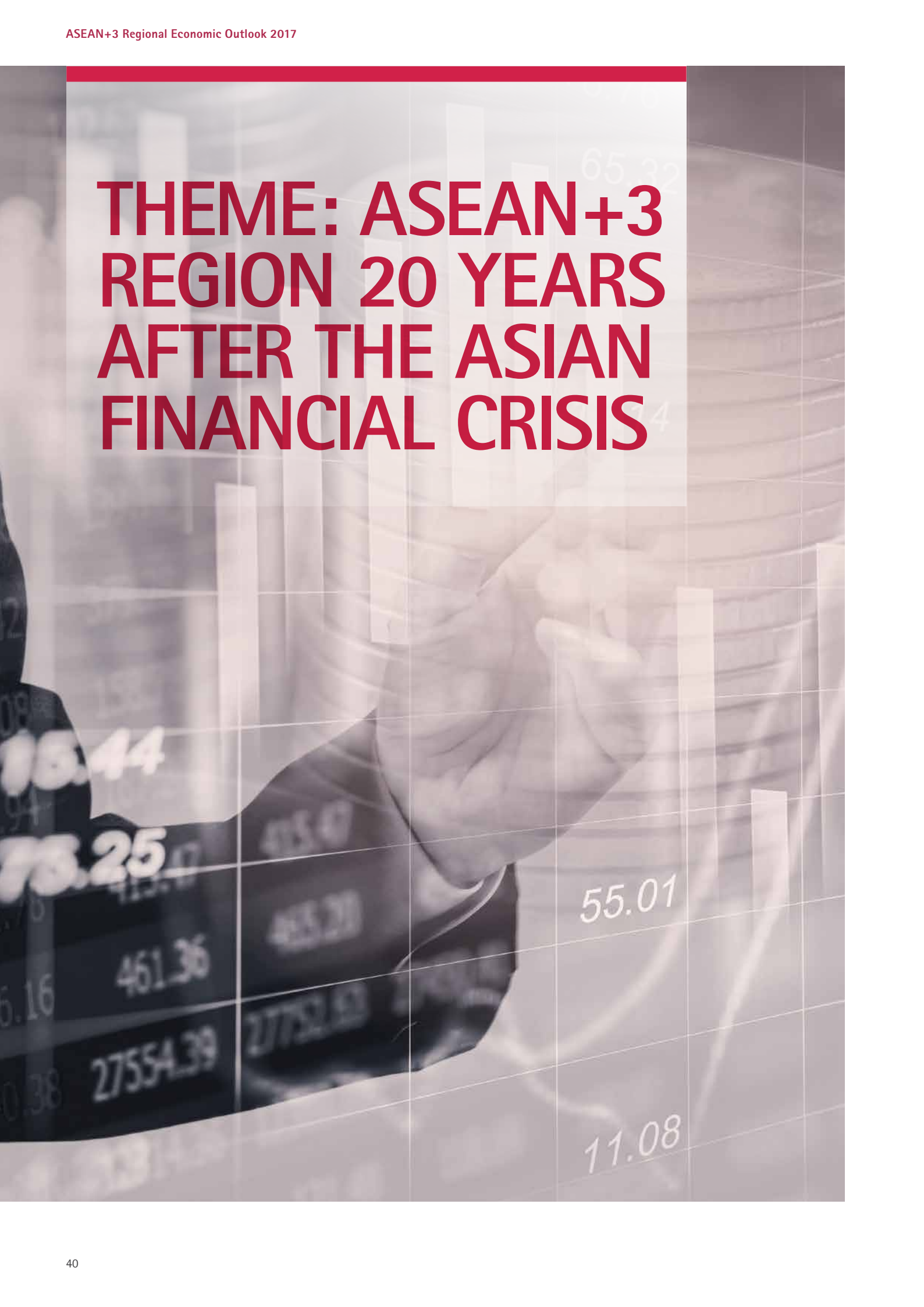
	2015	2016 e/	2017 p/	2018 p/
Brunei Darussalam				
Real GDP Growth (% yoy)	-0.4	-2.5	1.6	2.9
Headline Inflation (Period Average, % yoy)	-0.4	-0.7	0.2	0.6
Current Account Balance (% of GDP)	18.0	7.0	-3.5	-6.1
Central Government Fiscal Balance (Fiscal Year, % of GDP)	-15.4	-13.1	-11.6	-7.0
Cambodia				
Real GDP Growth (% yoy)	7.0	6.9	6.8	6.8
Headline Inflation (Period Average, % yoy)	1.2	3.0	4.0	4.2
Current Account Balance (% of GDP)	-9.3	-8.3	-8.2	-8.5
General Government Fiscal Balance (Excluding Grants, % of GDP)	-2.6	-2.5	-1.5	-1.5
China				
Real GDP Growth (% yoy)	6.9	6.7	6.5	6.3
Headline Inflation (Period Average, % yoy)	1.4	2.0	2.8	2.5
Current Account Balance (% of GDP)	3.0	1.9	2.0	1.5
Central Government Fiscal Balance (% of GDP)	-2.4	-3.0	-3.0	-3.0
Hong Kong				
Real GDP Growth (% yoy)	2.4	1.9	2.3	2.4
Headline Inflation (Period Average, % yoy)	3.0	2.4	1.8	2.0
Current Account Balance (% of GDP)	3.3	4.5	3.6	3.6
Government Fiscal Balance (Fiscal Year, % of GDP)	0.6	3.7	0.6	0.6
Indonesia				
Real GDP Growth (% yoy)	4.9	5.0	5.1	5.2
Headline Inflation (Period Average, % yoy)	6.4	3.5	3.8	4.0
Current Account Balance (% of GDP)	-2.0	-1.8	-2.1	-2.5
Central Government Fiscal Balance (% of GDP)	-2.6	-2.5	-2.4	n.a.
Japan				
Real GDP Growth (Fiscal Year, % yoy)	1.3	1.4	1.3	1.1
Headline Inflation (Period Average, Fiscal Year, % yoy)	0.2	-0.1	0.6	0.9
Current Account Balance (Fiscal Year, % of GDP)	3.1	3.4	4.0	3.8
Central Government Primary Balance (Fiscal Year, % of GDP)	-2.7	-2.5	-2.0	-1.8
Korea				
Real GDP Growth (% yoy)	2.8	2.8	2.5	2.6
Headline Inflation (Period Average, % yoy)	0.7	1.0	1.8	1.9
Current Account Balance (% of GDP)	7.7	7.0	6.0	5.5
Central Government Fiscal Balance (Excluding Funds, % of GDP)	-2.4	-2.4	-2.0	-1.4
Lao PDR				
Real GDP Growth (Fiscal Year, % yoy)	7.6	6.9	7.0*	7.0*
Headline Inflation (Period Average, % yoy)	1.3	1.6	3.0	3.8
Current Account Balance (% of GDP)	-22.9	-14.7	-15.8	-17.9
General Government Fiscal Balance (Including Grants) (Fiscal Year, % of GDP)	-5.2	-6.2	-6.9	-6.4
Malaysia				
Real GDP Growth (% yoy)	5.0	4.2	4.5	4.6
Headline Inflation (Period Average, % yoy)	2.1	2.1	2.7	2.9
Current Account Balance (% of GDP)	3.0	2.0	3.3	3.6
Government Fiscal Balance (Excluding Funds, % of GDP)	-3.2	-3.1	-3.0	n.a.

	2015	2016 e/	2017 p/	2018 p/
Myanmar				
Real GDP Growth (% yoy)	7.3	6.0	7.0	7.2
Headline Inflation (Period Average, % yoy)	10.0	6.8	7.1	6.8
Current Account Balance (% of GDP)	-5.4	-7.9	-7.2	-6.9
Central Government Fiscal Balance (% of GDP)	-4.5	-4.8	-4.5	-4.5
The Philippines				
Real GDP Growth (% yoy)	5.9	6.8	6.8	7.0
Headline Inflation (Period Average, % yoy)	1.4	1.8	3.1	3.2
Current Account Balance (% of GDP)	2.5	0.2	-0.6	-1.8
Central Government Fiscal Balance (% of GDP)	-0.9	-2.4	-3.0	-3.0
Singapore				
Real GDP Growth (% yoy)	1.9	2.0	2.0	2.2
Headline Inflation (Period Average, % yoy)	-0.5	-0.5	0.8	1.0
Current Account Balance (% of GDP)	18.1	19.0	17.9	17.5
Central Government Fiscal Balance (% of GDP)	-1.0	1.3	0.4	0.0
Thailand				
Real GDP Growth (% yoy)	2.9	3.2	3.4	3.5
Headline Inflation (Period Average, % yoy)	-0.9	0.2	1.2	1.7
Current Account Balance (% of GDP)	8.1	11.4	9.6	8.0
General Government Fiscal Balance (Fiscal Year, % of GDP)	-2.9	-2.8	-3.7	-2.2
Vietnam				
Real GDP Growth (Fiscal Year, % yoy)	6.7	6.2	6.4	6.4
Headline Inflation (Period Average, % yoy)	0.6	2.7	4.0	3.0
Current Account Balance (% of GDP)	0.5	4.2	0.2	-0.2
General Government Net Lending/Borrowing (% of GDP)	-6.6	-5.8	-4.2	-4.0

Notes: * Refers to calendar year, e/ refers to estimates, p/ refers to projections

Sources: National authorities, AMRO staff estimates

THEME: ASEAN+3 REGION 20 YEARS AFTER THE ASIAN FINANCIAL CRISIS



1 2017 marks 20 years after the Asian Financial Crisis (AFC), a landmark event in the ASEAN+3 region that has shaped the subsequent foundations and trajectory of economic growth and regional integration, as well as policymakers' perspectives on crisis management and resolution. In particular, the AFC highlighted the urgent need for regional financial cooperation in crisis management and resolution, which has resulted in the Chiang Mai Initiative under the ASEAN+3 Finance process,

its subsequent expansion into the Chiang Mai Initiative Multilateralisation (CMIM) Agreement, and the creation of AMRO as an independent macroeconomic surveillance unit supporting the CMIM.

2 This section traces the evolution of the ASEAN+3 region in each decade after the AFC, and the prospects and challenges moving forward.

1. 1997 – 2006: Rebuilding Foundations

3 The first decade after the AFC was a period of economic consolidation after a sharp negative shock, and of rebuilding foundations for economic growth. With the AFC, the policy focus in the region shifted abruptly from economic growth to regaining and maintaining external and financial stability. The recovery path necessitated fundamental and painful policy adjustments in exchange rate regimes, corporate and financial sector reforms, fiscal consolidation, and reforms in prudential regulation.

Recap of the causes

4 While it is usually stated that the AFC started in Thailand in July 1997 when the Thai baht came under severe speculative pressure, the vulnerabilities in the region had been building for some time. The AFC was caused by a combination of macroeconomic imbalances (even though government budgets were broadly in balance and inflation rates were modest), external developments, and weaknesses in the financial and corporate sectors. The external imbalances were a reflection both of strong private capital inflows and of high domestic private investment rates, and were exacerbated, prior to the crisis, by the appreciation of the USD, to which the currencies of the economies concerned were formally or informally pegged.

5 Leading up to the AFC, capital flows into the region had surged, drawn by high economic growth, low inflation and relatively healthy fiscal performance, financial sector and capital account liberalization, formal or informal exchange rate pegs and various government incentives. The capital inflows fueled rapid credit expansion in Korea, Malaysia and Thailand, which contributed to an investment boom (mainly in real estate) and asset price inflation (especially in Malaysia and Thailand). This in turn encouraged more capital inflows and lending.

6 Under pegged exchange rate regimes, the broadly stable exchange rate led both borrowers and lenders to underestimate the risks from excessive foreign currency

exposure. Maturity mismatches in banks' portfolios, and currency mismatches on corporates' balance sheets and highly leveraged positions of the borrowers proved to be the Achilles' heel of these economies. Meanwhile, banks were increasingly exposed to credit and foreign exchange risks and to maturity mismatches, to the extent that foreign borrowing was short term and domestic lending long term, thus increasing the financial vulnerability to outflows. Rapid growth also strained banks' capacity to assess risk adequately. The lax prudential regulatory and supervisory practices in the crisis-hit economies also contributed to the problem.

7 The vulnerabilities differed slightly across crisis-hit countries. In Thailand, the vulnerabilities stemmed from excessive unhedged foreign currency borrowing in the banking sector under the fixed exchange rate regime; in Indonesia, it was due to unhedged foreign currency borrowing in the corporate sector; in Malaysia, it was the high leverage of the corporate sector; and in Korea, it was mainly in the form of foreign liabilities of non-bank financial institutions and the corporate sector. Non-bank financial institutions had grown rapidly before 1997 as a result of easier licensing requirements (Thailand) and less stringent regulations, including lower capital requirements (Korea and the Philippines) than those applied to commercial banks. Merchant banks in Korea and finance companies in Thailand were the first institutions to face liquidity shortfalls, and many became insolvent and had to be shut.

8 Nevertheless, the vulnerabilities were similar enough for contagion spread rapidly across the region as investors withdrew. While the ASEAN+3 region was affected as a whole, the most adverse impact was on the larger ASEAN economies and Korea. Thailand, Indonesia, Korea and the Philippines⁴⁰ sought financial assistance from the IMF. Tough austerity measures were adopted to help restore confidence, stem capital outflows and support the weakening currency. Some countries also introduced capital control measures to stop capital outflows, with varying degrees of success.

⁴⁰ Support for the Philippines was in the form of extending and augmenting the existing IMF-supported program for the Philippines in 1997, and arranging a stand-by facility in 1998.

Recovery from the AFC

9 Significant and often painful policy adjustments by the affected economies eventually enabled them to rebuild the foundations for economic growth. Exports led the recovery, and the highly depreciated exchange rates boosted export price competitiveness. Exports were further boosted by the deepening of regional value chains with China’s WTO accession in end-2001 and Vietnam’s WTO accession in 2007. Steady global economic growth in the advanced economies provided the tailwinds to the export-led recovery in the region. As a result of their growth rebound and reserve accumulation, the crisis economies which borrowed from the Fund made an early exit from Fund programs.

Table 1.1 Different crises, different responses

	After AFC	After GFC
What led the recovery?	Exports	Domestic demand
Level of Investment	Fell and remained below trend	Remained low
Capital flows	Did not return immediately	Returned immediately
China	Led the surge in intra-regional exports	Rebalancing towards more domestic consumption
Japan	Pull-back of Japanese banking flows from Asia	Increase in Japanese bank flows to Asia
Share of China, Korea and Japan in ASEAN’s total trade	Accounts for around 18% of ASEAN trade in 1999	Share increased to 31%
Productivity growth	Healthy growth via technology	Moderated

10 The region’s recovery path from AFC can be contrasted with its path in the Global Financial Crisis (GFC) that affected the region ten years later in 2008-9, which did not have the same sharp negative shock of the AFC (see Table 1.1 and Figure 1.1). GDP growth collapsed during the AFC as economic fundamentals in the region deteriorated, while during the GFC, growth only dipped slightly and recovered quickly as fundamentals were stronger and the crisis did not originate from the region.

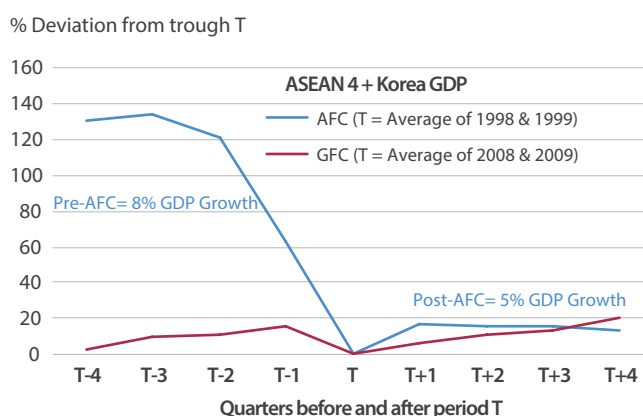
11 Comparing the region’s recovery following the AFC and the GFC, three features of the recovery during the AFC stand out:

- (a) Exports, facilitated by sharply depreciated currencies and robust external demand (notably, a robust U.S. economy), led the V-shaped recovery for the crisis-hit economies in ASEAN-4 and Korea after the AFC. By 1999, GDP growth had recovered to pre-crisis levels and for the next eight years until 2007, GDP growth averaged 4.0 to 6.0 percent in the crisis-hit economies, which while steady, was 1.0 to 2.0 percentage points below pre-crisis growth levels.
- (b) Private investment in the crisis-hit economies declined

sharply during the AFC reflecting widespread corporate failure, and never fully recovered. To some extent, this reflected the correction in excesses in real estate and infrastructure spending. Coupled with the decline in public investment arising from fiscal consolidation, this slump in investment spending lowered productivity growth and hence potential output growth for years to come.

- (c) Capital inflows took time to return to the region after the AFC. This reflected the battered state of the corporate and banking sectors in the crisis-hit economies, which had to undergo a prolonged period of consolidation, often supported by fiscal resources.

Figure 1.1 Different growth trajectories during the AFC and GFC



Note: Data is calculated by taking percentage deviation of quarterly aggregated GDP before and after the crisis years from the average aggregated GDP during crisis years.
Source: National Authorities

12 After the AFC, exports led the recovery in crisis-hit economies and the move towards more flexible exchange rate regimes added a boost to export competitiveness. The current account balance of ASEAN-4 economies and Korea swung from deficit to surplus in a short period of time on the back of strong exports and a collapse in imports (Figure 1.2).

13 The rebound in exports also reflected supportive external demand conditions from a robust U.S. economy, and the concurrent emergence of China as the major player in the region’s production networks from the early 2000s. Exports were further boosted by the deepening of regional value chains with China’s and Vietnam’s WTO accession. Steady global economic growth in the advanced economies and in China also provided tailwinds to the recovery in the region (regional trade integration is elaborated on in the next section). The rebound also meant that the economic adjustment, although painful, took place largely without a permanent spike in unemployment levels in these economies.

14 On a less benign note, from a savings-investment perspective, the large current account surplus also reflected

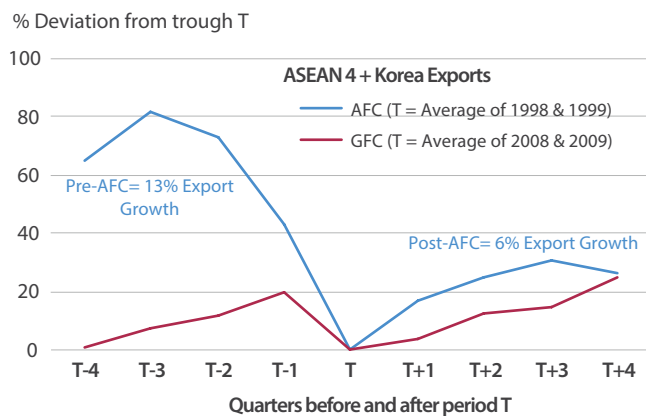
an investment slump rather than a savings glut (Figure 1.3). Investment recovered to above trend level some 10 years after the AFC (Figure 1.4). Real investment in Asia has been lower than what macroeconomic fundamentals would suggest and this reflected the correction in real estate, construction and equipment spending following the construction boom which led to the crisis. Investment as a share of GDP fell by some 12.0 percentage points following the AFC and has remained flat at about 10.0 percentage points below pre-AFC levels ever since. This structural decline in fixed investment reduced the potential growth of these economies which has been about 1.0-2.0 percentage points lower than before the AFC.

15 The investment decline likely reflected the protracted rebuilding of damaged corporate balance sheets as well as disruptions in domestic and external sources of financing, with the consolidation in banking systems hindering lending, and also a decline in capital flows to the major regional EMs. The AFC saw an abrupt reversal of capital flows in response to the worsening economic fundamentals which took some time to recover. Total inflows returned to the region in earnest only

around 2002 (Figure 1.6).

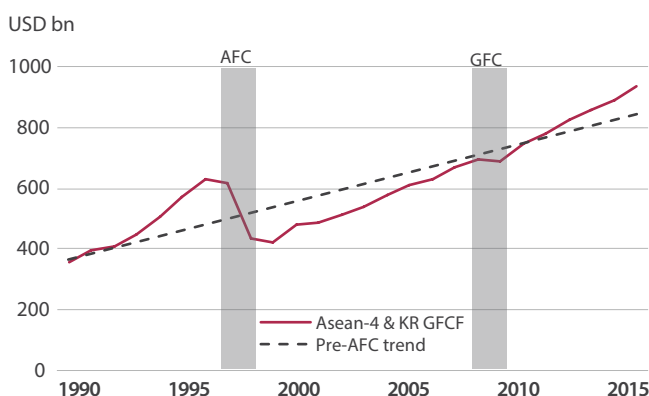
16 Private capital flows were relatively slow to return after the AFC, as compared to after the GFC. The behavior of capital flows after the crises is a major point of contrast between the AFC and the GFC. After the GFC, yield-seeking capital inflows into the ASEAN+3 region recovered quickly and buoyed the recovery through low-cost financing and credit. This is especially true of Japanese banks which have substantially increased their lending and portfolio investment to Asia, filling the void left by European and U.S. banks after the crisis. On the other hand, Japanese banks' cross-border lending to Asia fell by around 24.0 percent to 30.0 percent on average during and immediately following the AFC. This pullback continued until 2004, when Japanese bank lending turned positive, and surged after the GFC. During 2013 and 2014, Japanese bank lending increased sharply by 40.0 percent to 50.0 percent with Thailand accounting for more than half of the inflows from Japan. At the same time, Japan's Official Development Assistance (ODA) was sustained in the decade after the AFC, partly offsetting the decline in Japanese bank lending (Figure 1.8). (Intra-regional flows are elaborated on in the next section).

Figure 1.2 Exports led the recovery after the AFC



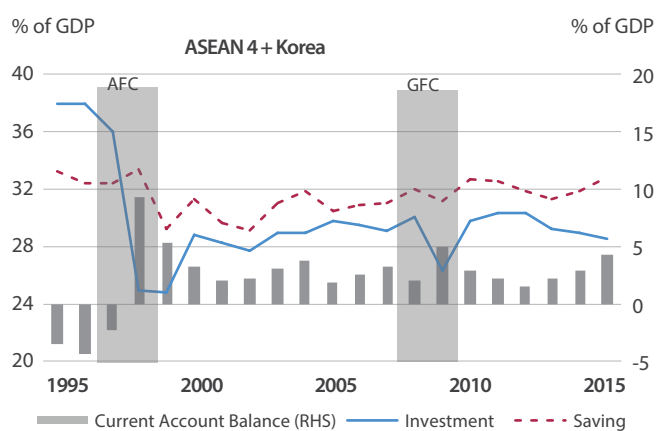
Note: Data is calculated by taking percentage deviation of quarterly aggregated exports before and after the crisis years from the average aggregated exports during crisis years
Source: National Authorities

Figure 1.4 Actual Gross Fixed Capital Formation (GFCF) has been below trend in ASEAN-4 economies and Korea



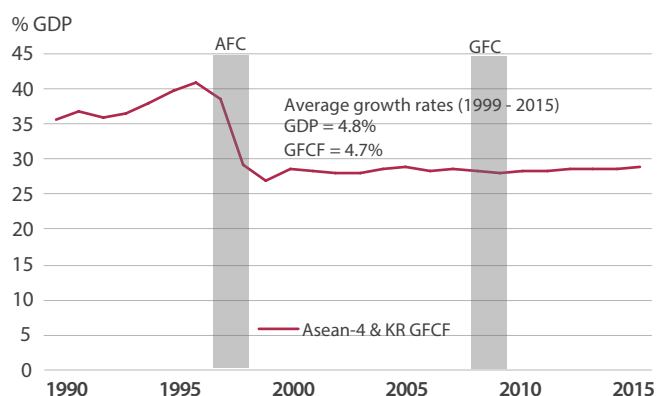
Source: World Bank

Figure 1.3 The reversal of regional current account deficit to surplus during the AFC was mainly due to an investment slump⁴¹



Source: IMF

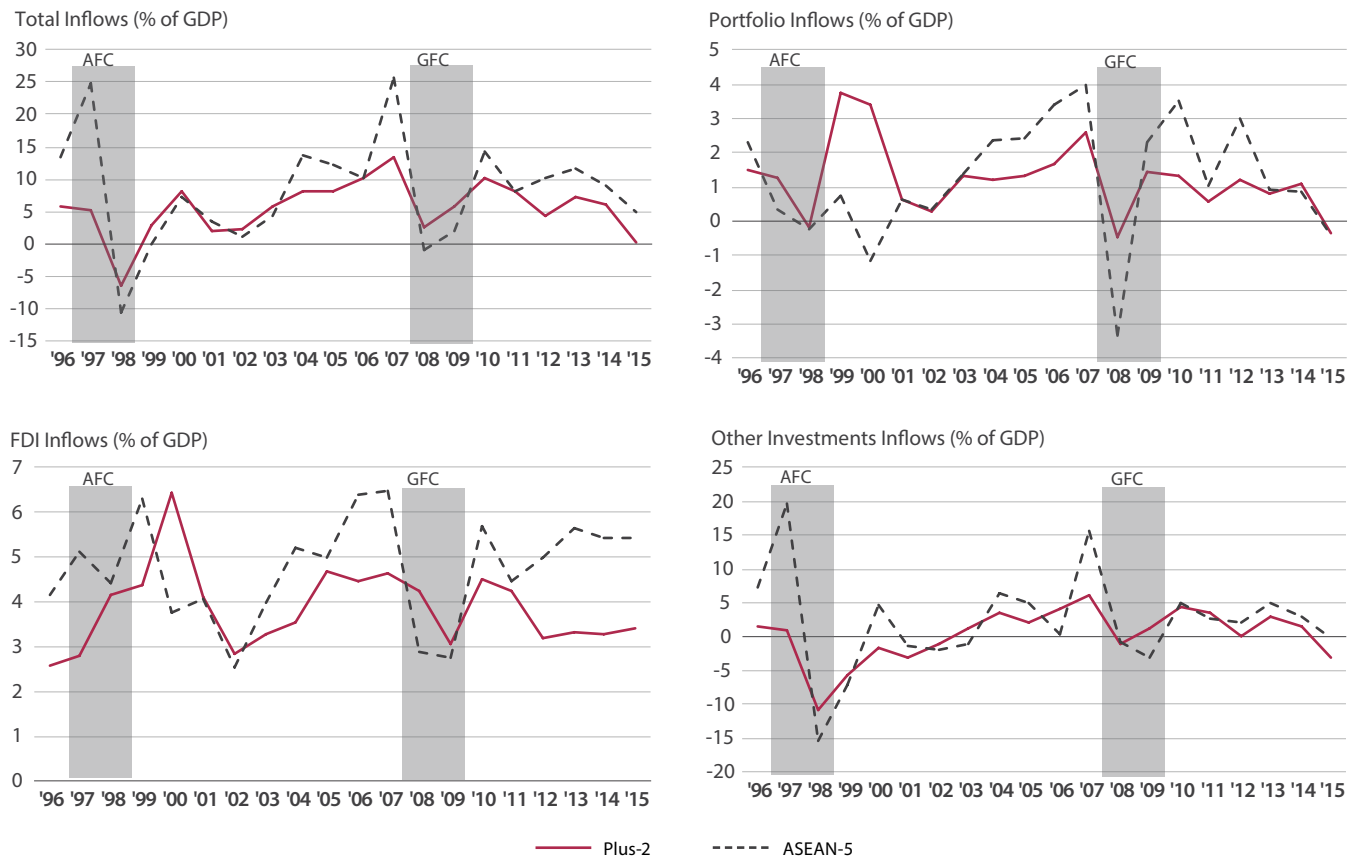
Figure 1.5 The level of investment to GDP ratio has fallen and remained flat in ASEAN-4 economies and Korea



Source: World Bank

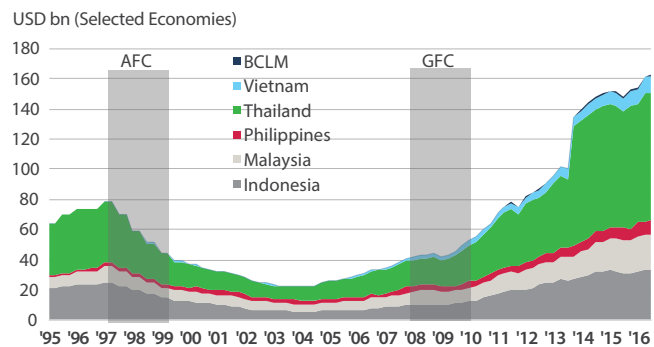
⁴¹ Some regional economies such as in Indonesia, Thailand and Malaysia had their current account deficits turned to surplus during the AFC.

Figure 1.6 Gross Capital Inflows (China, Korea and ASEAN-5 economies)



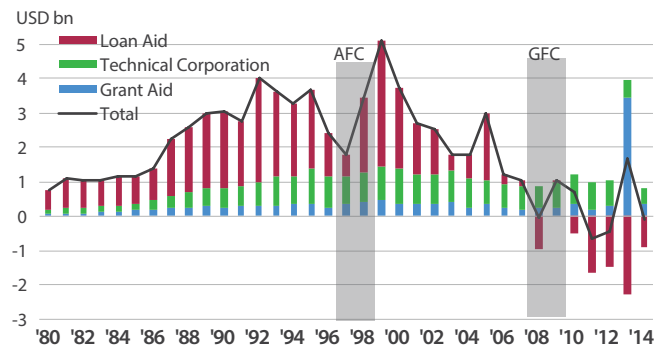
Notes: Plus-2 refers to China, Hong Kong and Korea. ASEAN-5 refers to Indonesia, Malaysia, the Philippines, Singapore and Thailand.
Source: National Authorities

Figure 1.7 Japanese banks' claims to ASEAN (ex-Singapore) declined after the AFC but surged after the GFC



Note: Data based on BIS Consolidated Statistics which capture the worldwide consolidated positions of banks headquartered in BIS reporting countries, including positions of their foreign affiliates but excluding intragroup positions.
Source: BIS Consolidated Banking Statistics

Figure 1.8 Japanese ODA to the ASEAN+2 economies was sustained in the decade after the AFC



Notes: The CLMV joined ASEAN at 1995 (Vietnam), 1997 (Lao PDR and Myanmar) and 1999 (Cambodia). Singapore and Brunei graduated from ODA recipient status in 1996. Hong Kong and Korea graduated from ODA recipient status in 1997 and 2000 respectively. 2014 data for Korea is not available
Source: Japan Ministry of Foreign Affairs

More Robust and Flexible Policy Framework after the AFC

17 In the aftermath of the AFC, policymakers in the region fundamentally changed their policy framework and macroeconomic management, to improve flexibility in their policy mix to deal with external shocks. Key among these changes was a more flexible monetary framework, fiscal and financial sector consolidation, and better prudential oversight to deal with emerging financial stability risks.

18 In monetary management after the AFC, regional policymakers became more skilful at managing the “trilemma” of exchange rate flexibility, monetary policy and capital mobility. Leading up to the AFC, the regimes of fixed nominal exchange rates against the USD turned out to be a source of instability rather than stability. After the AFC, the ASEAN-4 economies moved from a tightly pegged exchange rate regime to a more flexible one. This allowed them to gain more monetary policy autonomy in the context of a more open capital account. Four countries adopted an inflation targeting regime (Table 1.2) that committed the central bank to an explicit inflation target, which kept inflation in check and provided a foundation for sustained growth. The greater transparency and other institutional reforms that come with an inflation targeting framework have, over time, enhanced central bank credibility and help anchor price stability more firmly.

19 The crisis-hit economies of ASEAN-4 and Korea have also committed to fiscal reforms to strengthen their fiscal positions. For instance, some of them have set ceilings on fiscal deficits and/or debt-to-GDP ratios. They have also broadened and diversified their tax base (especially in countries dependent on oil and gas revenue). These measures have anchored fiscal policies and stabilized debt-to-GDP ratios at lower and more sustainable levels (Figure 1.9). The Philippines and Thailand have improved their fiscal balance over the years, while Indonesia and Malaysia’s fiscal balances have been adversely affected by weak commodity-related revenue in recent years (Figure 1.10).

20 In addition, ASEAN-4 economies and Korea have undertaken a series of structural reforms which have strengthened the resilience of their financial systems to shocks

and improved the balance sheets of their corporate and financial sectors. These reforms have encompassed many key areas, including financial and corporate restructuring, adoption of new laws to address corporate bankruptcy and governance, improving of labor market flexibility, strengthening of market competition and easing of foreign ownership. More importantly, greater efforts were made on institutional reforms to improve their risk management capabilities and strengthen their prudential supervision and regulations with the adoption of a more risk-based approach to supervision. Steps have also been taken to reduce relationship-based lending practices that were the norm before the AFC.

21 The crisis countries, for instance, sought to strengthen their supervisory and regulatory powers through the introduction of new laws and new financial supervisory agencies, closure and merger of financial institutions, accompanied by the promotion of transparency and disclosure of quality data. New legislation strengthened autonomy for central banks, including in Indonesia, Thailand and Korea, and across the region, deposit insurance schemes and agencies were established. Along with financial restructuring, Korea embarked upon corporate restructuring, with focus on improving corporate governance, competition, and financial and operational restructuring. In Thailand, the government conducted comprehensive financial sector restructuring, including encouraging M&A of small financial institutions, adopting Basel capital standard and IAS 39 accounting standard on loan-loss provisions, and facilitating the establishment of private asset management firms. Malaysia and the Philippines also implemented various bank restructuring programs.

22 As a result, in the financial sector, nonperforming assets were dealt with, directed lending curtailed and banking systems recapitalized and privatized. These policy efforts in reforming the financial sector were also complemented by fiscal consolidation and reform. This reform process meant stronger balance sheets in both the public and private sectors, which provided a firm foundation to weather the GFC when it hit the region in 2008-9. Contrasting the experience during the AFC where Asian corporates with corporate debt and FX mismatches were battered, Asian corporates remained relatively unscathed during the GFC.

Table 1.2 Inflation Targeting Adopters

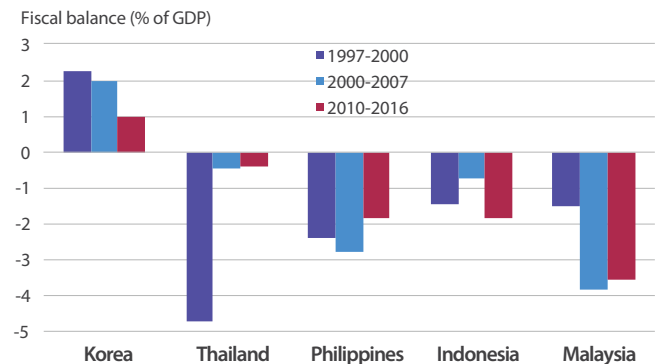
Country	Inflation Targeting Adoption date
Indonesia	Q3 2005
Korea	Q2 1998
Malaysia	Fixed exchange rate (before 2005)
Philippines	Q1 2002
Thailand	Q2 2000

Figure 1.9 Declining public debt in some economies



Note: Data for Indonesia starts from year 2000.
Source: IMF

Figure 1.10 Narrowing fiscal deficits in some economies



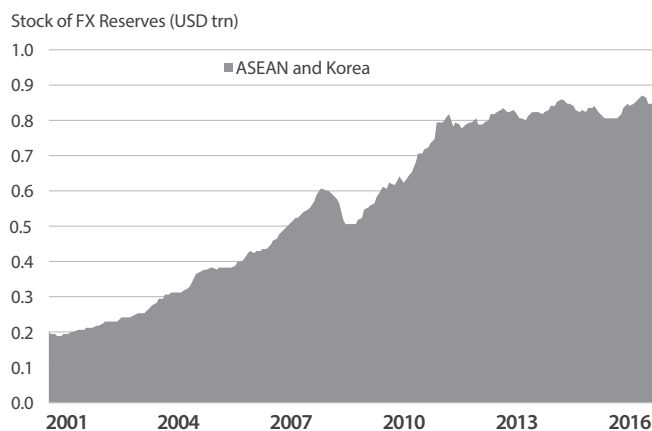
Note: Korea's data includes Social security funds (SSF).
Source: IMF

Foundations for Growth and Regional Financial Cooperation

23 A decade after the AFC, the fundamentals and external positions of the crisis-hit economies had improved remarkably with a significant build-up in FX reserves (Figure 1.11). With rising current account surpluses (Figure 1.12) and net capital inflows gradually returning into the region, Asian economies took the opportunity to build up their foreign exchange reserves substantially in the decade after the AFC. Reserves of ASEAN-4 and Korea increased by three times between the periods 1994-96 and 2000-2007 and the ASEAN+3 region's reserve holdings have grown to over 50.0 percent of global reserves. This was motivated by their experience during the crisis and the desire to build up buffers as insurance against future liquidity crises. These reserves were accumulated mainly through sterilized interventions which reflected their efforts to self-insure against future liquidity crises. The reserves have proved useful and act as a shock absorber during periods of capital outflows.

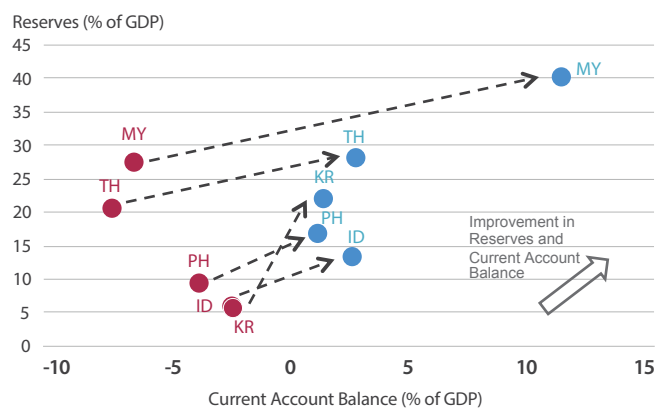
24 While the AFC could have caused an inward-looking response from the region and led it to permanently close its capital account to international trade and investment flows, this did not occur. Instead, the regional economies focused on reducing their external and fiscal vulnerabilities and on building up buffers against future potential crises. The improved macroeconomic management framework after AFC, in particular in improving resilience and buffers against external shocks, allowed the region to reap the benefits from intra-regional trade and FDI flows (the theme of the next section). The AFC also marked the beginning of deeper ASEAN+3 regional financial cooperation in the face of a common crisis, with the Chiang Mai Initiative beginning as a series of bilateral swap arrangements following the meeting of ASEAN+3 Finance Ministers in Chiang Mai, Thailand, in May 2000. Box C outlines the development of the Chiang Mai Initiative into the CMIM, and the role of AMRO in supporting this regional safety net.

Figure 1.11 The stock of foreign reserves has increased over time



Source: National Authorities

Figure 1.12 Reserves have increased and the current account balance has improved



Note: Red dots denote 1994-1996 average while blue ones denote 2000-2007 average.
Source: IMF

Box C. AMRO in Supporting the Implementation of the Chiang Mai Initiative Multilateralisation (CMIM) Agreement

AMRO was established to contribute to securing the economic and financial stability of the region through conducting regional economic surveillance and supporting the implementation of the CMIM. The CMIM is a multilateral currency swap arrangement among ASEAN+3 members, which came into effect on 24 March 2010. Its core objectives are (i) to address balance of payment and short-term liquidity difficulties in the ASEAN+3 region, and (ii) to supplement the existing international financial arrangements. The contracting parties to the CMIM Agreement comprise 13 finance ministries and 14 central banks of ASEAN+3.

In 2000, in the wake of the AFC, ASEAN+3 financial authorities decided to strengthen their financial cooperation through the establishment of Chiang Mai Initiative (CMI), comprising a network of bilateral swap agreements among members. In 2010, the CMI was multilateralized into a single contractual agreement called the CMIM Agreement and the total size of the CMIM facility was expanded and set at USD120 billion. The evolution of the CMI into the CMIM marked an important milestone, exemplifying the members' strong commitment to continuously improve and promote financial stability in the region. The CMIM was further strengthened in 2014 by doubling the size to USD240 billion and raising the IMF de-linked portion to 30.0 percent, and lengthening the maturity and supporting period. A crisis prevention facility, CMIM Precautionary Line (CMIM-PL) was introduced, in addition to the existing CMIM Stability Facility (CMIM-SF) for crisis resolution function.

AMRO's Milestones

February 2009

ASEAN+3 Finance Ministers agreed to establish an independent regional surveillance unit to promote objective economic monitoring.

March 2010

The CMIM Agreement came into effect.

April 2011

The AMRO was established as a company limited by guarantee in Singapore in accordance with Singapore's Companies Act.

July 2014

The amended CMIM Agreement came into effect.

Key points of the amendment:

- (i) Size doubled to USD 240 billion
- (ii) IMF de-linked portion was raised from 20.0 percent to 30.0 percent
- (iii) A crisis prevention facility, CMIM Precautionary Line (CMIM-PL) was introduced
- (iv) The maturity and supporting period of CMIM facilities were extended

October 2014

ASEAN+3 members successfully completed the signing of the AMRO Agreement to establish AMRO as an international organization.

February 2016

The AMRO Agreement entered into force, thereby establishing AMRO as international organization with full legal personality.

2. 2007 – 2016: Rebalancing and Leveraging Regional Integration

Context of the GFC

25 The tailwinds provided by robust external demand came to an abrupt halt in 2008-9 with the GFC taking a large toll on the advanced economies of the U.S. and the Eurozone. Global trade growth has not recovered since, limiting the contribution of exports to growth in the ASEAN+3 economies. However, the massive monetary policy stimulus by the U.S. and the Eurozone resulted in a prolonged period of low global interest rates, creating conditions for the ASEAN+3 region to rebalance and shift from exports to domestic demand as a driver of growth, with investment and consumption facilitated by credit and low financing costs. Yield-seeking capital flows from advanced economies to emerging markets, including in the ASEAN+3 region, provided easy liquidity conditions. At the same time, higher commodity prices led by demand from China benefitted commodity exporters in the region, and eased fiscal constraints.

26 At the same time, the region's continued openness to trade, FDI and capital flows after the AFC enabled the region, especially the smaller ASEAN economies, to reap the benefits from growing regional integration and the emergence of China in regional trade and FDI. With China's accession to the WTO in 2001, it became the central node of a dynamic regional production network, absorbing exports from the rest of Asia. The rise of China as a production platform in this vertically-integrated supply chain for electronics and other products provided the impetus for intra-regional trade to thrive. Intra-regional trade within ASEAN+3 grew from 45.0 percent in 2000 to 47.2 percent in 2015, comparable to the Eurozone's 46.1 percent in 2015. In particular, China's share of intra-regional exports increased from 19.4 percent in 2000 to 25.6 percent in 2009. In this same period, the ASEAN economies of Cambodia, Lao PDR, Myanmar and Vietnam (CLMV) reaped the benefits of greater integration in regional trade and investment flows.

Growing Regional Integration: Emergence of China

27 The region has benefited greatly from China's rapid integration in the global economy, with deepening and diversified trade flows. China's imports from ASEAN economies are diversified in terms of both product types and source economies (Figure 2.1). Most of China's capital goods imports from ASEAN, including transport equipment, are from the ASEAN-5 economies of Thailand, Malaysia, Singapore,

Indonesia and Vietnam. For intermediate goods imports, China has diversified its imports over the past 10 years from the larger ASEAN economies to include the other ASEAN economies of Brunei, Cambodia, Lao PDR and Myanmar. This may reflect the integration of smaller economies into the global value chain, with intermediate goods imported into China for final processing. For consumption goods imports, China has also diversified its imports over the past ten years from ASEAN, with a significant rise in consumption goods imported from Vietnam.

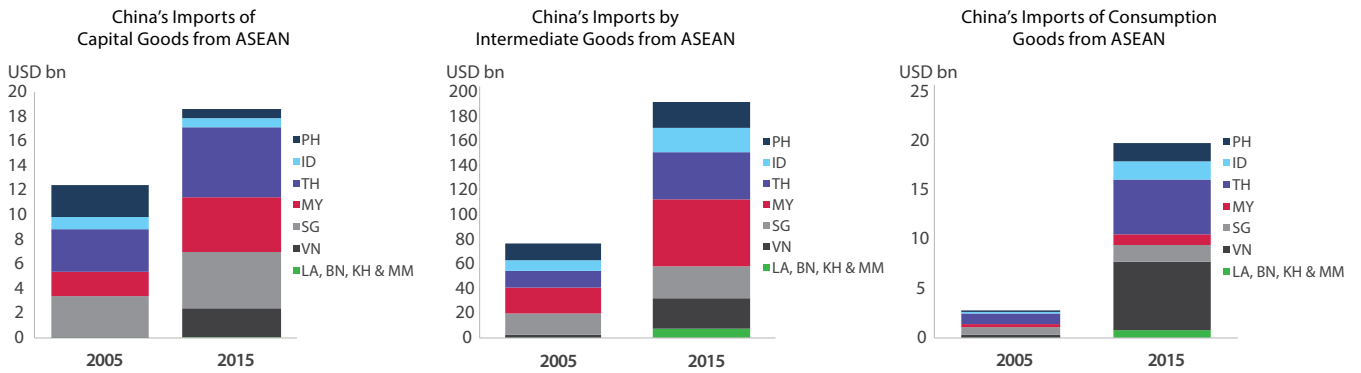
28 While China has absorbed imports from the region to support its investment-driven growth, its import intensity of growth has declined in recent years. Coinciding with the decline in China's fixed asset investment as a share of GDP, China's intensity of imports (in volume terms) relative to the size of the economy has declined since 2011 (Figure 2.2). This suggests that compared to the past, China's growth has become less import-intensive. With the rebalancing away from investment-driven growth, import intensity will likely decline. Economic literature⁴² also attributed the decline in import intensity to a decline in intermediate goods imports, as China moves up the global value chain and on-shores parts of the supply chain back to China, including to its less developed western regions.

29 China's rebalancing from investment- and resource-intensive growth has altered its composition of import demand from the region, a trend expected to continue. The near-term spillovers from demand rebalancing in China will depend on the level and type of exposure to China, as there is considerable variation within the region on the types of exports to China, ranging from countries that export mainly commodities to those exporting capital goods. For example, Brunei's and Indonesia's exports to China are mainly in mining products, while exports from Cambodia, Lao PDR and Myanmar are mainly garments, wood/metals and precious stones respectively. On the other hand, the exports from Korea, Malaysia, Vietnam, Singapore and Thailand to China are mainly in machinery, electrical and transport equipment (Figure 2.3). In the short term, economies with heavy exposure to China's investment (such as exports of capital goods and related parts) will be vulnerable to a structural downward shift in demand.

30 Notwithstanding that a major share of China's imports

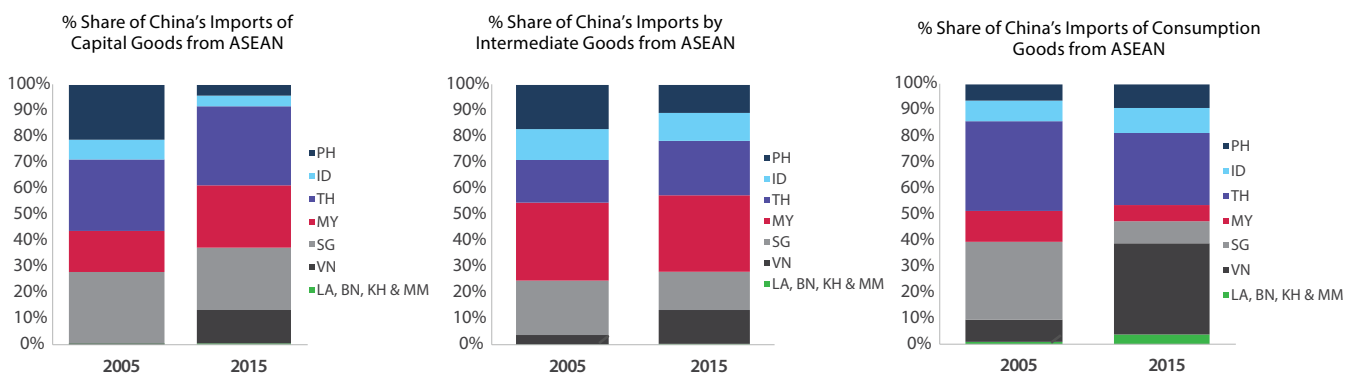
⁴² See Kee and Tang (forthcoming), "Domestic Value Added in Exports: Theory and Firm Evidence from China" American Economic Review.

Figure 2.1(a) China's Imports from ASEAN by Major Import Classification (in USD terms)



Source: UN Comtrade

Figure 2.1(b) China's Imports from ASEAN by Major Import Classification (in % of China's Imports)



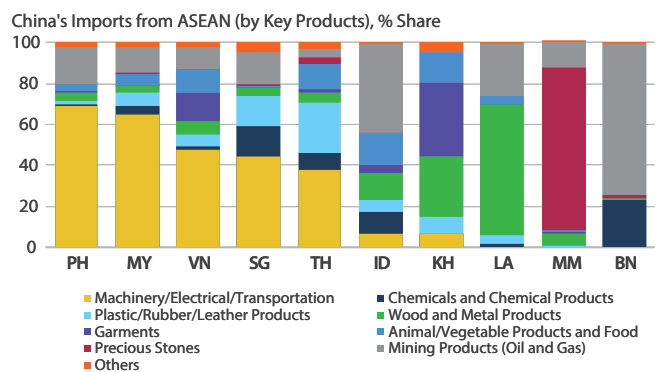
Source: UN Comtrade

Figure 2.2 China's import intensity relative to its economy has declined with its rebalancing



Sources: National Authorities and AMRO staff estimates

Figure 2.3 Exposure to China differs from one economy to another depending on the type of products (ASEAN Economies, 2015)

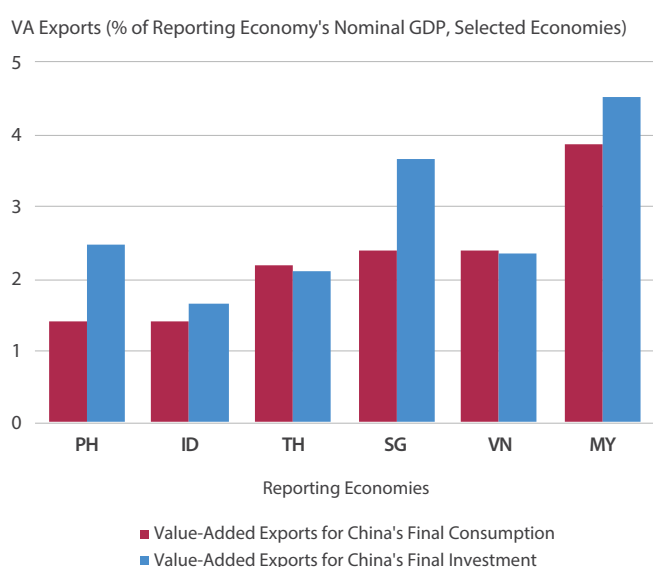


Source: World Trade Atlas

was destined for final demand in the advanced economies, China has increasingly become a key final demand destination for regional exports as well, reflecting its growing affluence and the rapid rise of the middle class. Figure 2.4 shows that while regional economies' exports (in value-added terms) to China were largely for final investment demand, this may be shifting to final consumption demand with China's rebalancing, which is a secular trend. Economies in the region that can better capture the rising consumption demand in China will tend to benefit from this shift.

31 China's consumption of tourism services in the region is a prime

Figure 2.4 Regional economies that can tap rising consumption demand in China will likely benefit (selected economies, 2011)



Source: OECD

example of its rising demand for services from the region. Since 2009, China's outbound tourism has expanded at an exponential rate of 16.6 percent until 2015, particularly to Korea, Japan, Thailand and Cambodia (Table 2.1). Not only did the number of visitor arrivals grow, tourist expenditures in the destination countries (notably Thailand, Singapore and Malaysia) also increased. In the region, the tourism receipts from China have helped to offset the decline in merchandise exports. Development of the tourism industry may also be a means of economic diversification for smaller ASEAN countries (such as the CLMV countries), where the tourism industry has significant potential.

Intra-regional FDI Flows

32 Parallel with this rise in intra-regional trade flows, intra-regional inward FDI flows have expanded strongly in recent

years, notably in ASEAN, reflecting the shifting comparative advantages of ASEAN economies, and their growing participation in global value chains (GVCs).⁴³ The deepening intra-regional investment also reflects the recycling of domestic savings to productive investments within the region. Of the FDI inflows towards ASEAN, intra-ASEAN investors have become the largest source of inflows in 2015. The share of intra-ASEAN investment in total FDI flows to the region rose to 18.4 percent in 2015, while the inflows from E.U. countries are on a downward trend. In aggregate, the investments from the Plus-3 economies command a sizeable share of inward FDI to ASEAN, amounting to about 26.1 percent in 2015 (29.9 percent

Table 2.1 Tourists from China (excluding Hong Kong) have accounted for a rapidly growing share of tourists into most regional economies

	Number of Chinese Tourists in 2016 (mn)	Share of China's Tourists in Total Overseas Tourists Going into Regional Economy (%)		
		2009	2012	2016
Brunei*	0.04	0.4	0.5	0.5
Cambodia	0.8	6.3	9.3	16.6
Indonesia*	1.2	6.2	8.5	12.0
Japan	5.0	14.8	17.1	26.5
Korea	8.1	17.2	25.5	46.8
Lao PDR*	0.4	6.4	6.0	10.2
Malaysia*	2.1	4.3	6.2	7.9
Myanmar*	0.04	n.a.	n.a.	0.9
Philippines	0.7	5.1	5.9	11.3
Singapore	2.1	9.7	14.0	13.8
Thailand	8.8	5.5	12.5	26.9
Vietnam	2.7	14	20.9	26.9
Total	32.0	7.8	12.0	20.6

Notes: *Data for Brunei, Indonesia and Myanmar as of 2015; data for Lao PDR as of 2014. Data for Malaysia include arrivals from Hong Kong.

Source: National Authorities

including Hong Kong). Within the Plus-3, Japan has maintained its status as a key investor in ASEAN whereas the investment shares of China and Korea have been trending upwards in recent years (Figure 2.5).

33 In terms of destination, intra-regional FDI from ASEAN+3 tends to largely flow into the ASEAN-5 economies, while some BCLMV countries have also benefitted from the inflows. Among the large ASEAN economies, recent data shows that Singapore⁴⁴ and Indonesia received substantial shares of intra-regional investment. Among the BCLMV economies, Vietnam and Myanmar attracted relatively large FDI inflows from the ASEAN+3 region. In particular, Vietnam witnessed a large share of FDI inflows from the Plus-3 economies, which is comparable to those in Indonesia and Thailand. It is noteworthy that Singapore, the largest FDI recipient in ASEAN economies,

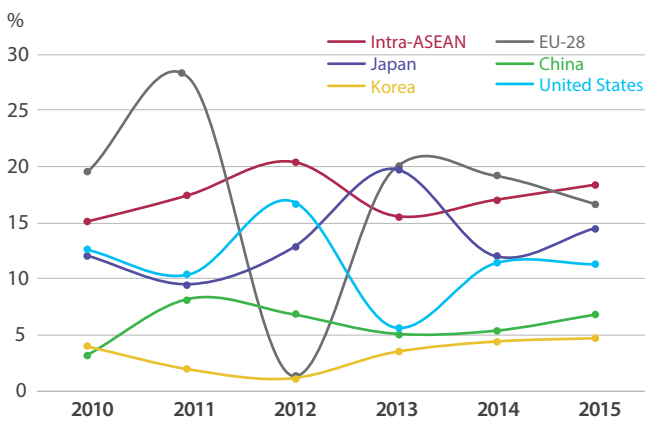
⁴³ United Nations Conference on Trade and Development (2013). "Global Value Chains: Investment and Trade for Development," Chapter 4 of World Investment Report 2013. New York and Geneva: United Nations.

⁴⁴ Some of these FDI flows reflect the activities of companies that have used Singapore as a hub for the region.

accounts for significant shares of intra-ASEAN investments in key destinations, especially Indonesia. (Figure 2.6).

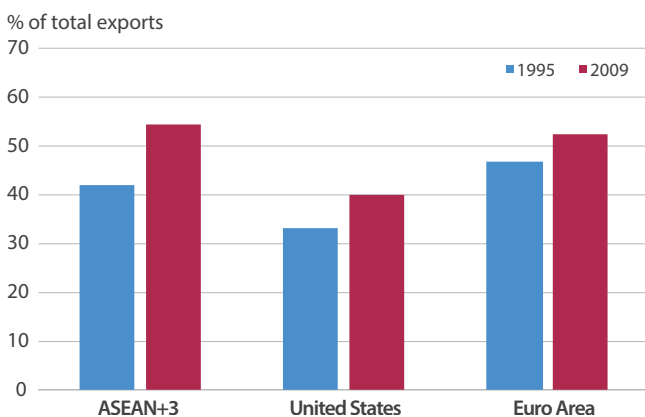
34 Empirical evidence suggests that inward FDI has positive statistical relationships with GVC participation and economic growth. According to a comprehensive empirical study on 187 countries by UNCTAD (2013), inward FDI stock data during the sample period of 1990-2010 tends to show a strongly positive correlation with their GVC participation rates, especially in low-income countries.⁴⁵ In turn, it is also found that a rise in GVC participation growth rates is likely associated with faster GDP per capita growth rates. In a similar vein, our simple analysis of GVC participation and GDP per capita growth rates in the region

Figure 2.5 Share of FDI Inflows to ASEAN by Source Region, economy



Source: ASEANstats

Figure 2.7 Global Value Chain Participation Rates by Region



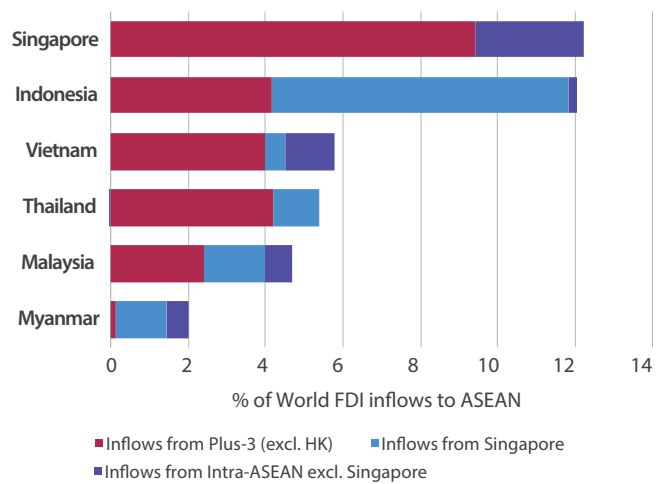
Notes: The OECD indicator is expressed as the sum of share of foreign inputs and domestically produced inputs used in third countries' exports in a country's total exports. For region, cross-country averages are displayed.

Sources: OECD, AMRO staff calculations

lends some support to the arguments based on international evidence. GVC participation rates in the ASEAN+3 rose by 12.0 percentage points on average during 1995-2009 when the FDI inflows surged as aforementioned (Figure 2.7). The region's GVC participation ratio (54.0 percent) exceeded the Eurozone's (52.3 percent) in 2009. Furthermore, the fitted line on a two-way scatter plot shows that GVC participation growth rates have a tendency to go hand-in-hand with GDP per capita growth rates (Figure 2.8).

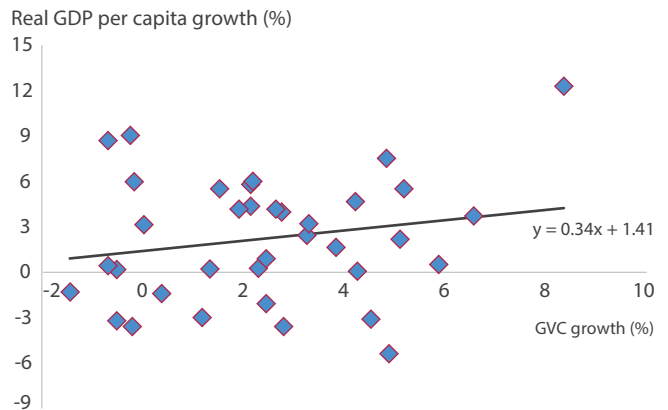
35 These intra-regional FDI flows have been key in promoting industrial upgrading in the CLMV economies. CLMV economies have increasingly attracted FDI inflows

Figure 2.6 Intra-regional FDI Inflows (Selected ASEAN Economies, 2015)



Source: ASEANstats

Figure 2.8 Correlation Between Growth in GVC Participation and GDP per Capita for ASEAN+3 (1995-2008)



Note: The line is obtained from a regression of the annualized real GDP per capita growth on the annualized GVC participation growth for 12 economies in ASEAN+3, except for Myanmar and Laos, for 1995, 2000, 2005 and 2008.

Sources: OECD, IMF, AMRO staff estimates

⁴⁵ The GVC participation rate is defined as the share of its exports being part of a multi-stage trade process, which can be obtained as the sum of share of foreign inputs and domestically produced inputs used in third countries' exports in a country's total exports.

from the Plus-3 economies in recent years, prompted by lower production costs, rapid economic growth and natural resource endowment. With the rapid development of the CLV countries and the opening up of Myanmar, FDI inflows into these economies have been rising especially in areas such as manufacturing, finance and infrastructure. By source, China remains one of the dominant investors in several CLMV countries. In Cambodia, Chinese companies became the largest manufacturing investor, responsible for about half of

the FDI into the manufacturing sector (such as garments). In Laos and Myanmar, China invests mainly in infrastructure projects. Japan and Korea have also been active investors, especially in the manufacturing, real estate and financial industries (Table 2.2). For instance, Korean firms have been rapidly expanding investments in the CLMV (Figure 2.9). Box D discusses the recent developments in intra-regional inwards FDI flows in CLMV economies further.

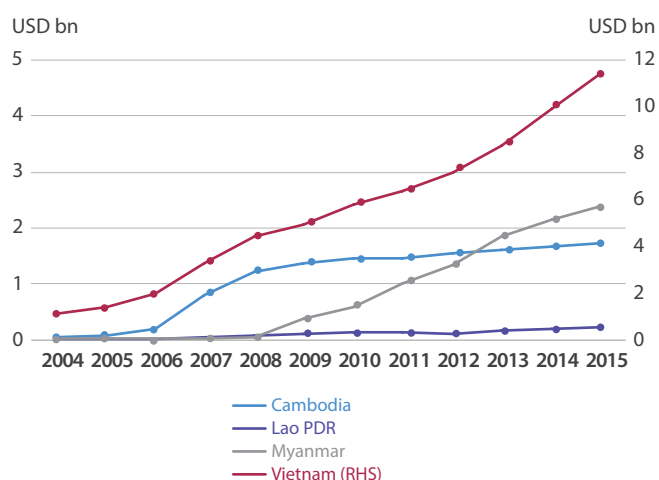
Table 2.2 Plus-3 and ASEAN Shares of FDI Inflows to CLMV Countries

Host	Source	2013	2014	2015
Cambodia	China	22.5	32.1	31.6
	Japan	3.0	4.9	3.1
	Korea	14.0	6.2	4.2
	ASEAN5	19.1	11.2	14.9
Lao PDR	China	35.1	67.3	61.6
	Japan	0.4	0.2	7.0
	Korea	2.5	1.4	4.2
	ASEAN5	4.7	11.8	7.6
Myanmar	China	30.2	7.5	1.9
	Japan	1.4	4.0	3.4
	Korea	0.0	1.2	1.3
	ASEAN5	44.6	69.8	74.5
Vietnam	China	10.7	2.3	3.2
	Japan	26.6	10.5	8.1
	Korea	19.9	35.3	29.6
	ASEAN5	23.0	16.4	17.6

Notes: All the figures are expressed in terms of the percentage of total FDI inflows. ASEAN5 includes Indonesia, Malaysia, Philippines, Singapore, and Thailand.

Source: ASEANstats

Figure 2.9 Korean FDI Stocks in CLMV Countries



Source: ASEAN Investment Report 2016

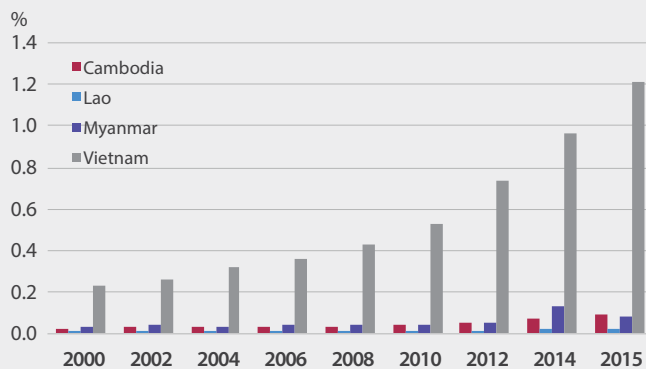
Box D. Recent Developments in Inward FDI Flows in CLMV Economies

CLMV are amongst the world's fastest growing economies, with the region's exports commanding a sizeable share of GDP, reflecting their increased interconnectedness in the global economy. Due to their close proximity to China and competitive factor markets, CLMV economies have attracted sustained large inward FDI globally as well as from major regional economies. This Box describes the recent developments in inward FDI flows to the CLMV economies, including the outlook and potential risks ahead.

Following an export-led growth strategy, the CLMV's exports have expanded rapidly in recent years. From 2011 to 2015, exports grew from 52.5 percent to 64.4 percent of GDP. Although small in absolute terms, the global export market share of the four nations quadrupled from 0.3 percent in 2000 to 1.4 percent in 2015 (Figure D1), with major export partners including the E.U., the U.S., China, India, Japan and ASEAN. Major export commodities include garments, agricultural commodities, electronics, electricity, and oil. More importantly, the CLMV and China have become more closely integrated as reflected in the rapid expansion of CLMV bilateral trade with China (Figure D2). The share of the CLMV trade to China's total trade has increased four-fold from 0.7 percent in 2000 to 3.0 percent in 2015.

The expansion in exports reflects the exponential rise in inward

Figure D1. CLMV's total export market share has been rising over time

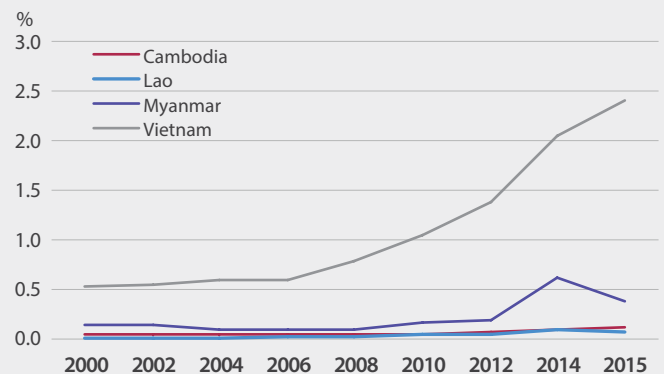


Sources: World Integrated Trade Solutions, World Bank

FDI in various industries, from both within and outside the region, serving as an important growth driver and a major source of employment for the CLMV economies. Although the CLMV have attracted FDI inflows from countries inside and outside the region, a large part of investment inflows is still from major regional economies, including China, Hong Kong, Japan, Korea and Singapore. In terms of sector, the inward FDI is mainly concentrated in manufacturing (mostly garments, electronics), power, mining, oil and gas, financial activities, accommodation, construction and real estate.

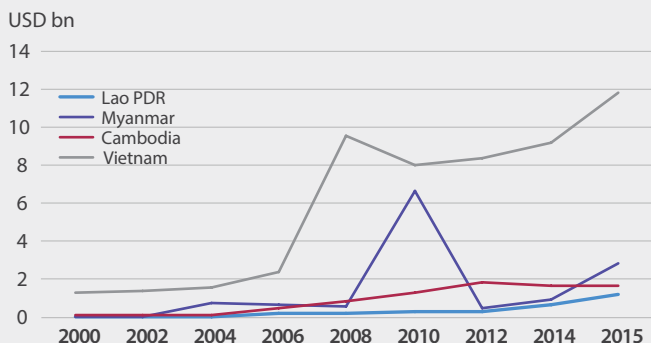
For example, inward FDI in Cambodia, although still flowing largely into garments, has seen some diversification into other light manufacturing sectors, such as electronics, bicycles, etc., as reflected in the increasingly diversified export products. In Lao PDR, inward FDI in hydropower still constitutes a large portion of total FDI. In contrast, Myanmar has made remarkable progress in developing a sustainable industrial base. Although the country's inward FDI in the manufacturing sector remains limited at present, the establishment of special economic zones (e.g. in Thilawa) will be of fundamental importance for its manufacturing development in the longer run. Vietnam has become less reliant on garment manufacturing and diversified into other sectors (electronics and machinery) while having transformed itself into a production hub for many large global technology manufacturers (Figure D3).

Figure D2. A similar trend is observed in CLMV's share in China's bilateral trade



Sources: World Integrated Trade Solutions, World Bank

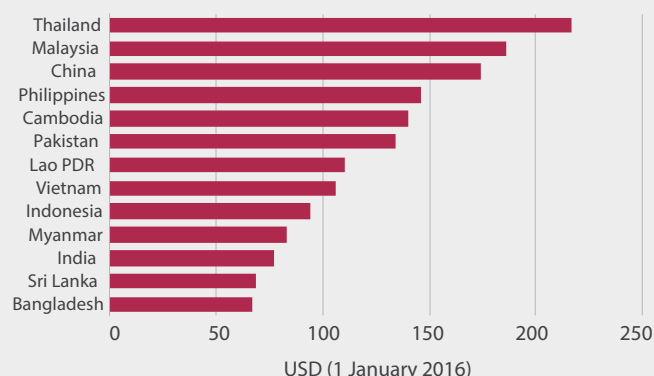
Figure D3. Inward FDI flows to CLMV reflects the rising participation in GVCs



Source: UNCTAD

Reflecting their comparative advantages, the CLMV have benefited from rising intra-regional FDI inflows and become one of the most attractive investment destinations for major economies in the world. The outlook for inward FDI in CLMV economies remains positive, and the sub-Mekong region is poised to attract sustained FDI inflows, largely due to stable macroeconomic environment, cheap and abundant young labor force, strategic location, improved investment climate and infrastructure, fast-growing middle class and market demand, coupled with preferential trading schemes to international markets. As of January 2016, monthly minimum wage in the CLMV ranged from USD83 to USD154, relatively low compared to other countries in Asia (Figure D4). China’s continued minimum wage hike as well as its policies to move up the industrial value chain and shift to a consumption-led economy have enabled the CLMV to benefit from China’s factory relocation. In addition, China’s One Belt One Road initiative is expected to benefit the ASEAN economies, including the CLMV, in the form of trade and infrastructure investment. More importantly, the four nations are among the

Figure D4. Monthly Minimum Wage in the Garment Industry (Selected EMs)



Source: ILO

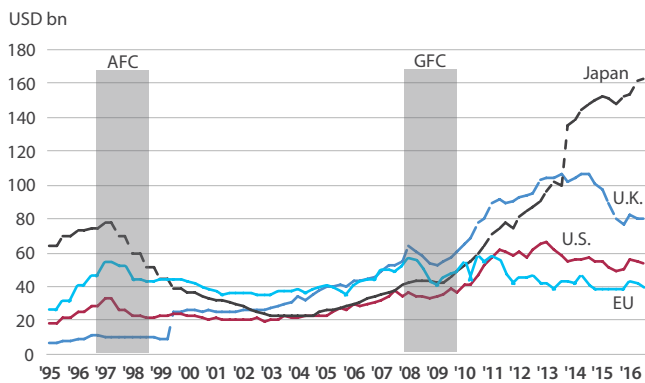
developing countries granted preferential trading schemes to EU – Everything But Arms and Free-Trade Agreement.

Notwithstanding the rise in intra-regional investment activities, the CLMV economies’ dependence on the region, especially China, does entail some risks. China’s rebalancing, for instance, may impact the region through various channels. Export is the primary channel through which the impact of China’s slowdown can be transmitted. The CLMV, particularly Lao PDR and Myanmar, which heavily depend on China for their raw material exports are highly exposed to the slowdown. Another potential channel is FDI as China is one of the top investors in the CLMV. If China’s economy slows much more sharply than expected, FDI inflows from China to the CLMV may be negatively impacted. The financial repercussions of China’s slowdown may also impact domestic financial markets in the region, which may complicate macro-financial management. However, given their limited financial links with China, the CLMV’s exposure to the spillovers from China’s financial market fluctuations also remains limited.

Regional Financial Integration and Global Spillovers

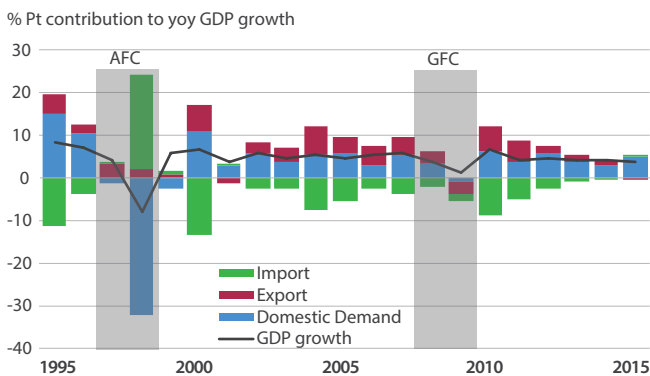
36 Regional financial flows have also increased, with Japan continuing its role as a major lender and investor in the ASEAN+3 region. Japanese banks' cross-border lending and investment have been given a boost amid low interest rates in Japan, as indicated in the first part of this Report. With compression of net interest margins at home and the need to support the construction of global value chain by Japanese corporations, Japanese banks have significantly expanded their overseas lending. Japanese banks' overseas loans continued to see relatively high growth.⁴⁶ Figure 2.10 shows that after the GFC, Japanese banks have substantially increased their lending to Asia, filling the void left by Europe and the U.S. Similarly, in terms of portfolio investment, Japanese investors have reallocated their investments overseas in search of yields (Figure 2.11).

Figure 2.10 Cross-border lending of Japan vs E.U. and U.S. bank lending to ASEAN (ex-Singapore)



Note: Data based on BIS Consolidated Statistics which capture the worldwide consolidated positions of banks headquartered in BIS reporting countries, including positions of their foreign affiliates but excluding intragroup positions. Source: BIS Consolidated Banking Statistics

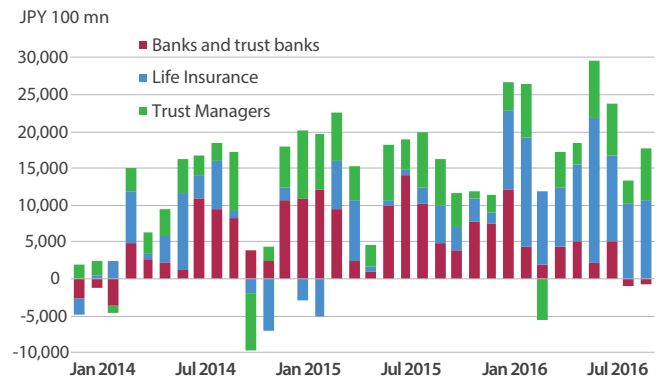
Figure 2.12 Growth contribution from exports has tapered after the GFC while that from domestic demand remains supportive



Note: For simplicity, changes in stock and statistical discrepancies are omitted. Source: World Bank

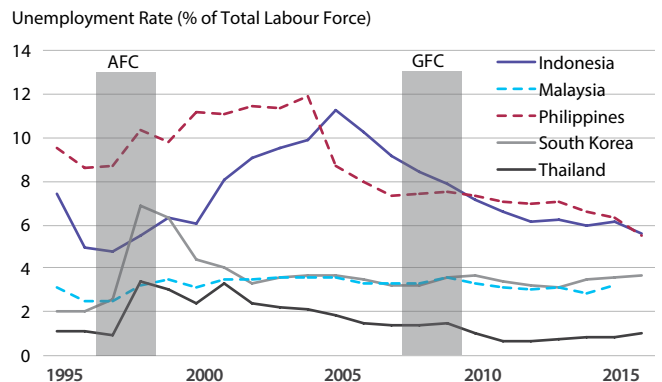
37 The positive structural trend of both Japan's outward investment and lending is likely to be sustained, and major Japanese banks have significantly increased their presence in the ASEAN region, including through mergers and acquisitions. High-profile acquisitions include the purchase by a major Japanese bank of a majority stake in the Bank of Ayudhya in Thailand, and purchase by the Japanese bank of a strategic stake in Security Bank in the Philippines, and in the Vietnam Joint Stock Commercial Bank for Industry and Trade (VietinBank) in Vietnam. All three major Japanese banks have also been granted banking licenses in Myanmar as part of Myanmar's first phase of banking liberalization. These significant investments suggest a long-term strategy of continued lending to the region, with Japanese banks' lending to the region rising steadily over the years.

Figure 2.11 Net Transactions of Foreign Securities in Asia by Japanese institutional investors



Sources: National Authorities, BIS, AMRO staff estimates

Figure 2.13 Better labor market conditions in ASEAN-4 and Korea during the GFC have supported domestic demand-led growth after the crisis.



Source: National Authorities

⁴⁶ Bank of Japan, "Financial System Report", October 2016.

38 Intra-regional financial flows have increased in the context of massive monetary policy stimulus by the U.S. and the Eurozone, and the resulting prolonged period of low global interest rates have eased the ASEAN+3 region's adjustment to domestic-led demand (Figure 2.12). ASEAN+3 economies could shift from exports to domestic demand as a driver of growth, with investment and consumption facilitated by credit and low financing costs. Yield-seeking capital flows from advanced economies to emerging markets, including in the ASEAN+3 region, have expanded domestic liquidity and provided low-cost financing for corporates and households which has spurred domestic consumption and investment in real estate.

39 However, sustained capital inflows after the GFC, triggered by the combination of Unconventional Monetary Policies (UMP) and low interest rates in the advanced economies have, posed multiple challenges for ASEAN economies. First, large and sustained inflows create financial vulnerabilities in recipient economies through rapid credit expansion, asset price inflation, higher leverage and at times, currency and maturity mismatches. It amplifies the pro-cyclicality of the financial cycle and the higher the upturn, the sharper and more painful the downturn. Second, capital flow volatility creates and amplifies financial market volatility and this is exacerbated by the lack of depth and breadth of financial markets in ASEAN. In addition, the sudden reversal of capital flows is disruptive and the cost of disruption could be large if not managed properly, large exchange rate depreciations, financial instability and a severe downturn could be the result, as seen during the AFC.

40 Third, sustained capital inflows not only complicate the implementation of monetary policy, it undermines the efficacy of monetary management. For example, large capital inflows have resulted in exchange rate appreciations and excess liquidity in many ASEAN economies. ASEAN central banks have used sterilized intervention to manage the appreciation pressures while mopping up excess liquidity. And attempts to raise interest rates to tighten domestic conditions might be offset by the sheer size of inflows and attract even more inflows. Moreover, raising interest rate might be at odds with the domestic economic cycle. Thus, monetary policy is no longer "independent" as it is influenced by capital flow dynamics. It is in this sense that the global financial cycle transforms the trilemma into a "dilemma" – independent monetary policies are possible only if the capital account is managed. Thus, in many ASEAN economies, while monetary policy has focused on controlling inflation, active sterilized intervention of exchange rates in line with macroeconomic fundamentals is the norm and in the process, they have accumulated foreign exchange reserves as self-insurance against sudden stops.

Challenges to Policy Management

41 Heeding the lessons from the AFC, ASEAN economies have to judiciously manage the objectives of growth and

financial stability when dealing with capital flows. Capital flows can increase the risk of asset price booms and if not managed properly could lead to negative spillovers affecting corporates, the household sectors and banks. In recent years, while ASEAN economies have reaped the benefits of capital flows, strong inflows have complicated monetary management, as domestic policy rates are only partly able to insulate business cycles. It has also raised concerns over increasing corporate and household leverage, as elaborated in the first section of this Report.

42 Policymakers in ASEAN+3 have been among the most active in the world in deploying macroprudential measures to manage financial stability risks while reaping the benefits from capital inflows. Policymakers have judiciously used a mix of monetary policy and macroprudential policies to achieve price and financial stability. This requires strong inter-agency coordination and clear communication to the public about the objectives and targets of the policy mix. Table 2.3 shows the main macroprudential measures deployed to manage financial stability risks. Among others, this macroprudential toolkit has included:

- (a) Macroprudential policies such as loan-to-value ratios and debt servicing ratios as targeted responses to risks emerging in certain asset markets, in particular property markets;
- (b) Capital flow management measures (CFMs) such as reserve requirements on foreign currency deposits, restrictions on bond holding period or withholding tax for foreigners (in Thailand and Indonesia) to manage risks from capital inflow surges
- (c) Foreign exchange interventions have also been used to counter excessive currency volatility that might have a negative impact on balance sheets. At the same time, greater flexibility in exchange rates has allowed policymakers to manage the adjustment through a combination of foreign exchange interventions and exchange rate adjustments.

43 While the GFC affected the region relatively less as compared to the AFC, the contagion, capital outflows and USD liquidity crunch in some economies strengthened policymakers' resolve to build buffers and enhance regional financial arrangements. The decade saw a large build-up of foreign exchange reserves in the ASEAN+3 region, especially in China, as the first line of defense against external shocks. In addition, regional policymakers enhanced the CMI from a series of bilateral swap arrangements to a multilateral currency swap (CMIM) in March 2010, and doubled the size of CMIM from USD120.0 billion to USD240.0 billion in July 2014.

Table 2.3: Macroprudential Toolkit (Selected Economies)

China	Restrictions on property purchases in a number of cities and increases mortgage down payment in 2016.
Hong Kong	Ad valorem stamp duty raised for residential property transaction to a flat rate of 15.0 percent.
Singapore	Tiering of LTV ratios for borrowers with outstanding loans, introduction of loan tenure caps and total debt servicing ratio framework.
Indonesia	Raising of LTV ratios for house purchases and 5.0 percent reduction in down payment requirements.
Vietnam	Increasing risk weight assigned to real estate loans from 150.0 percent to 200.0 percent, effective January 2017 and lowering the ratio of short-term funding to medium- to long-term lending to 50.0 percent.
Cambodia	Large increases in the minimum capital requirements of banks in March 2016.
Korea	Tightening of existing regulations on banks' foreign currency liquidity.

Note: The table above shows recent measures taken by selected economies in 2016 and 2017.

3. 2017 – Regeneration and Growth in a Globalized Economy?

44 In 2017, 20 years after the AFC, that landmark event still offers valuable lessons to policymakers in the ASEAN+3 region. First, whereas the policy focus in the late 1980s to early 1990s was on risks from fiscal deficits and inflation, the AFC placed policy focus squarely on the risks arising from financial markets and capital outflows. Second, the AFC highlighted the speed and impact of contagion between economies that were perceived to be “similar” by investors, which caused a vicious cycle as economic fundamentals deteriorated with financial contagion. Third, the AFC highlighted the need for a more flexible and responsive policy framework domestically, and also greater financial cooperation within the region to deal with external shocks.

Challenges to Domestic Policy Frameworks

45 In terms of domestic policy frameworks, the first part of this report on Macroeconomic Prospects and Challenges highlighted the flexibility with which regional policymakers have responded to external shocks and spillovers, through exchange rate adjustments, fiscal stimulus where appropriate, and a robust and pragmatic use of macroprudential policies. The use of this enhanced policy toolkit is a testament to the policy institutions that the region has built up over the past 20 years. In monetary policy, for instance, this required building (or rebuilding) the credibility of the central banks and their communications framework, and monetary policy tools to ensure smooth transmission of policy rate adjustments to market interest rates. In fiscal policy, fiscal rules and consolidation have shored up the capacity of fiscal authorities to allocate fiscal resources in a more resource-efficient way. In both monetary and fiscal policy, the development of local bond markets has helped monetary policy transmission and also provided an additional source of financing for fiscal needs. In macroprudential policy, tools such as LTV ratios on property sectors required administrative capacity in monitoring and

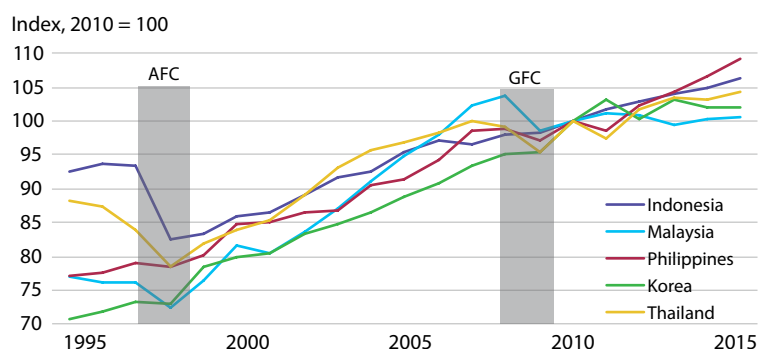
implementing these measures, as well as coordination with other government agencies.

46 The capital inflows into the region after the GFC have loosened the policy constraints on monetary and fiscal policy through lower financing costs globally, and these constraints have started to tighten again. Macroprudential policies, which were largely effective in a situation of capital inflows and an economic cycle upturn, are yet untested in a risk scenario of capital outflows coupled with an economic downturn. The current global policy uncertainty—which may include uncertainty from non-economic events—therefore requires policymakers to maintain policy discipline and to respond flexibly to the rapidly changing global environment, coordinating between different policy agencies of government, and ensuring policy intentions are well-communicated to the market.

47 Besides these near-term challenges to policy, the ASEAN+3 region also faces structural challenges to growth as it reaches a higher stage of economic development. Bottlenecks to growth, not only in physical infrastructure but also human capital, are becoming increasingly apparent in a slower-growth environment. Continuing the theme of lower investment from the AFC, total factor productivity has slowed in regional economies (Figure 3.1), and these structural issues may impede the continuing growth trajectory to catch up with advanced economies (Figures 3.2 and 3.3).

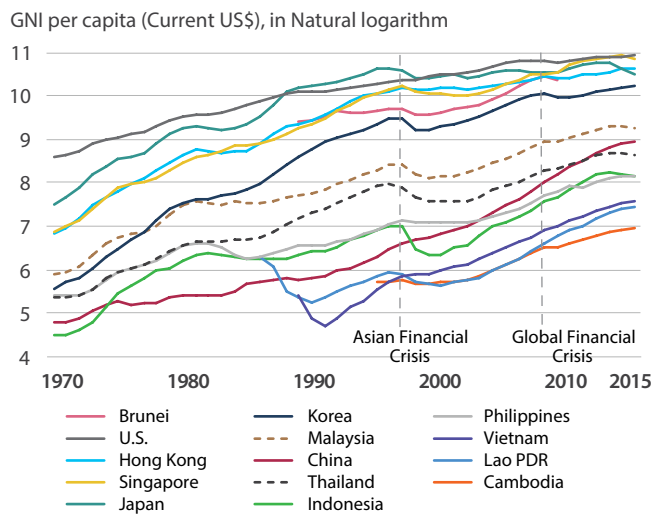
48 Faced with these near-term constraints and longer-term structural challenges, accelerating structural reform to address directly the inefficiencies in factor inputs and productivity has gained urgency. In this regard, policymakers in the region have been stepping up their structural reform agenda (Table 3.1). These reform measures will require continued policy focus and political will to push through and sustain, in order to reap the long-term benefits.

Figure 3.1 Post-GFC, total factor productivity growth slowed in Indonesia, Malaysia, Korea and Thailand



Notes: The Conference Board is a privately-run global, independent business membership and research association working in the public interest. It is also responsible for the widely followed benchmarks such as the index of Leading Indicators and the Consumer Confidence Index among others.
Sources: The Conference Board “Total Economy Database”, November 2016

Figure 3.2 GNI per capita by economy: Catching-up



Notes: GNI per capita is current USD, using the Atlas Method. Data for Brunei are available up to 2012, while time series data for Myanmar are not available.
Source: World Bank

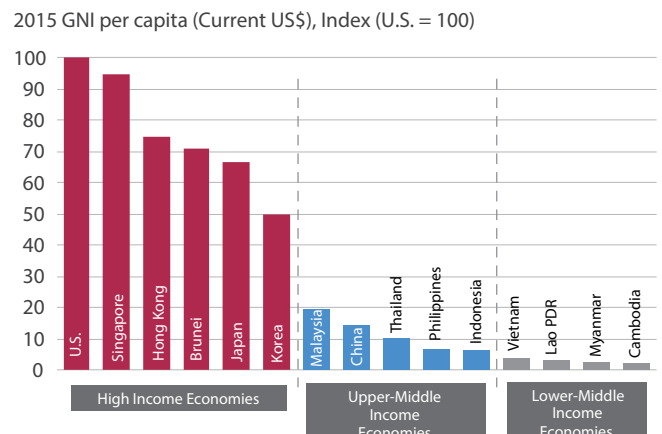
- Addressing bottlenecks in infrastructure in the economy;
- Enhancing factor inputs through increasing labor force participation and labor force skills; and
- Mobilizing savings in the region to support investment needs, including developing local currency bond markets.

Challenges to Regional Financial Cooperation

49 The AFC marked the start of greater regional cooperation in dealing with external shocks and with the impact of contagion. The ASEAN+3 region has remained open to trade and investment flows, and with this come the risks of shocks from a globalized economy. In managing these risks collectively, the region has made remarkable progress over the past 20 years in the formation and enhancement of regional safety nets, such as the CMIM, to supplement global safety nets. This regional safety net supported by enhanced macroeconomic surveillance, together with their own strengthened domestic policy frameworks and buffers, will improve the ASEAN+3 economies' resilience against shocks and allow their economies to sustain relatively strong growth.

50 In the first part of this report on Macroeconomic Prospects and Challenges, while ASEAN+3 economies' FX buffers are high by conventional metrics of reserve adequacy

Figure 3.3 Comparison of GNI per capita



Notes: GNI per capita is current USD, using the Atlas Method. Data for Brunei is as of 2012, while for Myanmar, data as of 2014. Classifications on high (GNI > USD 12,476), upper-middle (USD 4,036 < GNI < USD 12,475) and lower-middle income (USD 1,026 < GNI < USD 4,035) economies are based on World Bank's definitions.
Source: World Bank

(such as coverage of short-term external debt and coverage of months of imports), market expectations of FX reserve adequacy seem to have shifted. The markets appear to expect that current high levels of FX reserves are a "floor" and that reserves should not fall by much below that level. With shifting market expectations and rising global policy uncertainty, the role played by global and regional financial safety nets, such as the CMIM in augmenting an economy's buffers to deal with external shocks and contagion risks have become even more important.

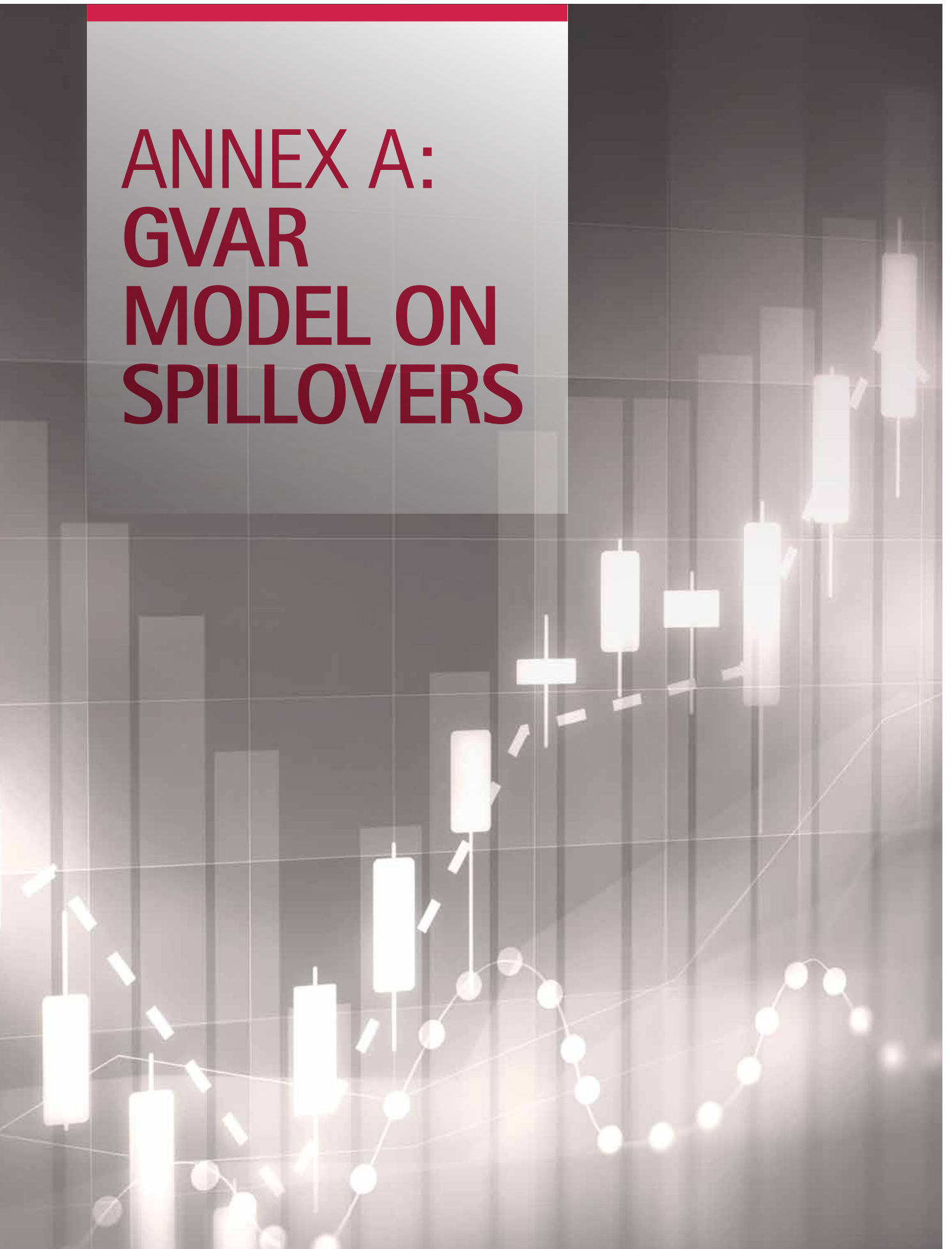
51 More broadly, the global policy climate is at risk of a policy shift to a more bilateralist approach towards trade and potentially other economic relations, led by the U.S., challenging the modality of and benefits from multilateral economic cooperation. In the ASEAN+3 region, from a structural perspective, regional integration and capital flows post-GFC have given impetus to economic development and upgrading in the region. Growing regional trade, spurred by the rapid rise of the middle class, has increasingly offset weak global demand in advanced economies for the region's exports, while regional FDI and financial flows have financed investment and facilitated technology transfer. In the current global environment, policymakers' affirmation of their commitment to regional financial cooperation would help anchor market expectations and provide a solid policy basis for the region's continued growth and development.

Table 3.1: Structural Reform Agenda (Selected Economies)

Real Sector	
China	Pursuing “supply-side” reforms and SOE reforms. Streamlining government administration and allowing the market to play a more decisive role.
Indonesia	Increased streamlining of processing and reducing of red tape and regulations have been done for various sectors and industries to improve business environment.
Singapore	Corporate tax rebates and various business grants to provide more opportunities for SMEs to play a more prominent role in the economy.
Thailand	Adopting the Cluster Development Policy to strengthen industrial value chains by introducing investment incentives and promoting use of advanced technology. The government has also reinforced initiatives on digital economy development, such as the implementation of the National e-Payment Master Plan.
Myanmar	Among ongoing efforts to improve business environment and streamline business processes, implementation of the new Investment Law covering domestic and foreign investment to improve prospects for increased investments.
Vietnam	The Ministry of Planning and Investment has been assigned to lead the monitoring of indices in overall measures to improve the business environment and enhance competitiveness.
Fiscal Sector	
China	Implementing fiscal and tax reforms, including the replacement of business tax with VAT.
Indonesia	Reducing tax rates for certain industries for further promotion and development.
Myanmar	Continuing efforts to strengthen public financial management and practicing fiscal prudence. Also, efforts to expand tax revenue base are bolstered by providing more resources and modernize the Internal Revenue Department.
Lao PDR	Practicing more fiscal prudence while increasing efforts to improve administration in tax revenue collection.
Hong Kong	Established a Working Group on Long-term Fiscal Planning in 2013 to study ways to ensure fiscal sustainability amid population aging. Based on the WG’s recommendation a Future Fund was set up in 2016, with a view to securing higher investment returns for fiscal reserves.
Financial Sector	
China	Improving macroprudential framework, improving regulation and curbing leverage.
Indonesia	Relaxation of eligibility criteria for micro-loan subsidies and simplification of regulatory and licensing procedures for Islamic financial products.
Myanmar	Implementation of the cash reserve requirement in April 2015 with full compliance by all banks in October 2016 and ongoing improvement of access to credit for SMEs and agriculture-related enterprises.
Vietnam	According to the economic restructuring plan 2016-2020, aims for the financial sector includes restructuring of credit institutions, reducing systemic risks and promoting operation efficiency.
Lao PDR	Made efforts to restructure and recapitalize three state owned banks.
Hong Kong	Placed the financial sector as an important growth driver and taken series of initiatives, including establishment of the two Stock Connects with the mainland and launch of the Infrastructure Financing Facilitation Office (IFFO) and Fintech Facilitation Office (FFO).
Labour and Productivity	
Singapore	Ongoing efforts to upgrade skills and productivity of local workforce through various schemes and investment in education infrastructure; gradually reducing the dependence on foreign workers.

Note: The table above shows selected measures recently taken by selected economies.

ANNEX A: GVAR MODEL ON SPILLOVERS



Annex: GVAR model on Spillovers

1.0 Introduction and a brief literature review of the GVAR⁴⁷

The Global Vector Autoregressive (GVAR) model is commonly used to investigate the spillover effects of various international economic shocks on Asian economies. For this purpose, we use a time-series technique of the GVAR model, which was introduced by Pesaran, Schuermann, and Weiner (2004), Dees, di Mauro, Pesaran, and Smith (2007), and Dees, Holly, Pesaran, and Smith (2007). In this empirical study, two versions of the GVAR model are estimated; a Real Sector GVAR (to examine the propagation of shocks through trade linkages) and a Financial Sector GVAR (to examine the propagation of shocks through banks/corporates and equity market linkages).⁴⁸ In particular, the Real Sector GVAR aims to quantify the magnitude and diffusion process of unexpected shocks in the industrial production growth rate, imports, as well as short-term interest rate that originate in the U.S., China and Japan to the economic variables of 27 sample countries including ASEAN+3 economies. In contrast, the Financial Sector GVAR aims to quantify the magnitude and diffusion process of unexpected shocks in bank/corporate distress, short-term interest rate, and equity prices that originate in the U.S. China, Japan, as well as the U.K. to the same set of sample countries, excluding Brunei, Lao PDR and Myanmar due to some data gaps.

In general, the GVAR model is configured by a system of country-specific VAR models, each of which is connected through the so-called “foreign” variables in each sub VARs. A key idea is that the “foreign” variables are defined as a deterministic function of the other country’s domestic variables. At the time of estimating the parameters, the country-specific VAR models are estimated one by one, by assuming that the “foreign” variables are indeed “exogenous.” For the dynamic analysis, such as the impulse response analysis, the entire system is solved along with the identity equations that associate the “foreign” variables with the other country’s “domestic” variables.

Due to its modeling flexibility, the GVAR model has been applied to various fields such as macroeconomics (Dees, di Mauro, Pesaran, and Smith, 2007), industrial sectors (Hiebert and Vansteenkiste, 2010), bond markets (Favero, 2013), real estate markets (Vansteenkiste, 2007), fiscal imbalance on borrowing costs (Caporale and Girardi, 2013), and U.S. credit supply shocks (Eickmeier and Ng, 2015). The model was also applied to examine the impact of China’s recent slowdown (Gauvin and Rebillard, 2015; Inoue, Kaya, and Oshige, 2015), and the propagations of oil and food price shocks to nation’s domestic price indices (Galesi and Lombardi, 2009) as well as the level of production (Inoue and Okimoto, 2016).

1.1 The Model

The *i*-th country-specific (VAR with exogenous variables) VARX*(*p*, *q*) model (for *i* = 1, ..., *N*), a building-block of the GVAR model, is specified as

$$\Phi_i(L, p_i)\mathbf{x}_{i,t} = \mathbf{a}_{i0} + \mathbf{a}_{i1}t + \Lambda_i(L, q_i)\mathbf{x}_{i,t}^* + \Psi_i(L, q_i)\boldsymbol{\omega}_t + \mathbf{u}_{it} \quad (1)$$

where $\mathbf{x}_{i,t}$ represents the domestic variable vector of country *i*; $\mathbf{x}_{i,t}^*$ denotes the foreign variable vector; $\boldsymbol{\omega}_t$ represents a vector of global variables; \mathbf{a}_{i0} and \mathbf{a}_{i1} denote the coefficients of a constant and a time trend; p_i represents country *i*’s lag length of domestic variables; q_i represents country *i*’s lag length of foreign and global variables; *L* denotes the lag operator; $\Phi_i(L, p_i)$; $\Lambda_i(L, q_i)$, and $\Psi_i(L, q_i)$ represent the polynomials of coefficient matrices with order p_i , q_i , and q_i ; and \mathbf{u}_{it} represents the idiosyncratic errors. A vector of country-specific shocks, \mathbf{u}_{it} , is assumed to be distributed as serially uncorrelated with zero mean and a nonsingular covariance matrix, i.e., $\mathbf{u}_{it} \sim i.i.d.(0, \Sigma_{it})$.

The element of foreign (“star”) variable vector, $\mathbf{x}_{i,t}^*$, is constructed from the other country’s domestic variables in the following manner. For time *t*, let us denote the first element of country *i*’s foreign variable as $x_{it}^{*(1)}$ and the corresponding variable of country *j* as $x_{jt}^{(1)}$. They are linked by the weights, w_{ij} , which represent the “closeness” between country *i* and country *j*.

$$x_{it}^{*(1)} = \sum_{j=1}^N w_{ij} x_{jt}^{(1)} \quad (2)$$

⁴⁷ This Annex is the result of a joint study between AMRO and Professor Tomoo Inoue of Seikei University, Japan.

⁴⁸ This Financial GVAR extends the work done by Chen, Gray, N’Diaye, Oura, and Tamirisa (2010).

By definition, $w_{ii} = 0$, and $\sum_{j=1}^N w_{ij} = 1$ for $i = 1, \dots, N$. If the variable x_{jt} is missing for country j , then $\{w_{ij}\}_{i=1}^N$ is rescaled accordingly.⁴⁹

For the Real Sector GVAR, for the closeness matrix w_{ij} , we use the trade weights (or trade shares) for each sample country (for Real Sector GVAR). For country i , its trade weight w_{ij} with respect to country j is quantified as:

$$w_{ij} = \frac{\text{sample average bilateral trade flows between countries } i \text{ and } j}{\sum_{k=1}^N \text{sample average bilateral trade flows between countries } i \text{ and } k} \quad (3)$$

where the “bilateral trade flow” is the sum of exports and imports between a pair of countries, obtained from the IMF’s Direction of Trade Statistics. We take a sample average of years 2001-2015 of trade flows.⁵⁰

For the Financial GVAR, for the closeness matrix w_{ij} , we use the financial stock weights for each sample country. For country i , its financial weight w_{ij} with respect to country j is quantified as:

$$w_{ij} = \frac{\text{sample average of financial stock in country } i \text{ from country } j}{\sum_{k=1}^N \text{sample average financial stock in country } i \text{ from country } k} \quad (4)$$

where the “financial stock” is the sum of Inward FDI (obtained from the Coordinated Direct Investment Survey, IMF) and the Assets of Total Investment (from the Coordinated Portfolio Investment Survey, IMF). Any negative inward FDI figures are replaced with zero. For the FDI and the portfolio investment, we take a sample average of years 2008-2015 and 2001-2015, respectively.

The dynamics of the global variables, ω_t , is specified as a following VARX(p, q) model:

$$\Phi(L, p)\omega_t = \mu_0 + \Lambda(L, q)\tilde{\mathbf{x}}_{t-1} + \eta_t \quad (5)$$

where p is the lag length of global variables and q is the lag length of the feedback variables, $\tilde{\mathbf{x}}_t$, constructed by the country-specific domestic variables in the GVAR model. The first element of $\tilde{\mathbf{x}}_t$ is defined as

$$\tilde{x}_t^{(1)} = \sum_{i=1}^N \tilde{w}_i x_{it}^{(1)} \quad (6)$$

where \tilde{w}_i represents a weight in order to construct these feedback variables.⁵¹

When we estimate the country-specific VARX* models and the global variable’s VARX model, \mathbf{x}_{it}^* and $\tilde{\mathbf{x}}_t$ are constructed directly from the data. However, at the time of dynamic analysis, such as calculating the impulse response functions, the values of \mathbf{x}_{it}^* and $\tilde{\mathbf{x}}_t$ are calculated internally from the forecasted values of $\{\mathbf{x}_{jt}\}$ for $j=1, \dots, N$, which are obtained by solving the system of Equations (1), (2), (4), and (5). Thus, the GVAR model can describe the interactions of variables not only within a country, but also between countries.

As we report below, the variables included in the country-specific models and the global variable model are mostly integrated of order one. This implies that, if long-run equilibrium relationships exist among these variables, the VARX* models have their corresponding Vector Error Correction Model with exogenous variables (VECMX*) forms. If such long-run equilibrium relations are detected, they are imposed at the time of simulating the GIRFs.

⁴⁹ Technically, we can use a different kind of w_{ij} for constructing the different variables. One possibility is to use capital flow data to construct financial weights for financial variables. See Galesi and Sgherri (2009), Eickmeier and Ng (2015) for empirical example, and Smith and Galesi (2014) for econometric specifications.

⁵⁰ Given the fact that China’s emergence has drastically changed the trade flows after year 2001, it is more natural to use a time-varying trade weights. In the next stage, we will replace the time-constant weight with the time-varying weight.

⁵¹ The weight \tilde{w}_i is also not time-varying. In this study, \tilde{w}_i is calculated from the 2009–2011 average of the GDP (in current international PPP) obtained from the World Development Indicators of the World Bank.

2.0 Estimation and testing

2.1 Data and a related specification issue

In the Real Sector GVAR study, we estimate 27 country-specific VARX* models and one commodity price VARX* model, at monthly frequency. Fourteen of them are Asian countries (Indonesia, Malaysia, Japan, Thailand, China, India, Korea, the Philippines, Singapore, Brunei, Cambodia, Lao PDR, Myanmar and Vietnam). For Financial Sector GVAR, as mentioned earlier, due to some data gaps, Brunei, Lao PDR and Myanmar are excluded from our sample dataset (and so only 24 country-specific VARX* models are estimated). Data are collected from various sources, including the International Financial Statistics by the IMF, Moody's and national authorities, which cover the period from January 2001 to December 2015 (for the Real Sector GVAR) and from January 2000 to December 2015 (for the Financial Sector GVAR).

For the Real Sector GVAR, the vector of domestic variables, \mathbf{x}_{it} , in the country-specific VARX* model includes at most six variables: industrial production y_{it} (mnemonic is ip); the headline consumer price index p_{it} (cpi); exports (in LCU, nominal) ex_{it} (exlcu); imports (in LCU, nominal) im_{it} (imlcu); the nominal effective exchange rate e_{it} (neer); and the short-term interest rate r_{it} (rshort).⁵² Since y_{it} , e_{it} and r_{it} are missing for some countries, they are included when available. See Table 2.1 for details.

The domestic variable vector (for $i=1, \dots, N$) is $\mathbf{x}_{it} = (y_{it}, p_{it}, ex_{it}, im_{it}, e_{it}, r_{it})'$ where,

$$y_{it} = 100 \times \log(\text{industrial production})$$

$$p_{it} = 100 \times \log(\text{headline CPI})$$

$$ex_{it} = 100 \times \log(\text{nominal export})$$

$$im_{it} = 100 \times \log(\text{nominal import})$$

$$e_{it} = 100 \times \log(\text{nominal effective exchange rate})$$

$$r_{it} = \text{short – term interest rate (\%)}$$

Before taking the logarithmic transformation, industrial production, headline CPI, export, import, and nominal effective exchange rates are all normalized so that the average value of the period 2009M01–2011M12 takes 100.

For Financial Sector GVAR, The vector of domestic variables, \mathbf{x}_{it} , in the country-specific VARX* model includes at most six variables: EDF of financial sector $edff_{it}$ (mnemonic is edff); EDF of corporate sector $edfc_{it}$ (edfc); the real short-term interest rate r_{it} (rint); the real equity price q_{it} (req); industrial production y_{it} (ip); and the real effective exchange rate e_{it} (reer).⁵³ When data is missing, they are excluded from the set of their domestic variables. See Table 2.2 for details.

The domestic variable vector (for $i=1, \dots, N$) is $\mathbf{x}_{it} = (edff_{it}, edfc_{it}, r_{it}, q_{it}, y_{it}, e_{it})'$ where

$$edff_{it} = \text{Moody's EDF of financial sector}$$

$$edfc_{it} = \text{Moody's EDF of corporate sector}$$

$$r_{it} = \text{real short – term interest rate (\%)}$$

$$q_{it} = 100 \times \log(\text{equity price/CPI})$$

$$y_{it} = 100 \times \log(\text{industrial production})$$

$$e_{it} = 100 \times \log(\text{real effective exchange rate})$$

⁵² Except for the short-term interest rate series, we have tested if the series contains seasonal variation. After adjusting the seasonality, we have detected the outliers. See Appendix for these procedures.

⁵³ For industrial production, we have adjusted the seasonality and the outliers.

The real short-term interest rates are calculated by subtracting the past annual rate of headline inflation from the nominal short-term rate (Galesi and Sgherri, 2009). For the U.S., we use the Wu-Xia index as the nominal short-term rate.

For the Real Sector GVAR, the set of foreign variables, \mathbf{x}_{it}^* , is constructed as defined by Equation (2). As discussed by Pesaran, Schuermann, and Weiner (2004) and Galesi and Lombardi (2009), due to a strong correlation between domestic and foreign-specific nominal effective exchange rates, the foreign-specific nominal effective exchange rates are excluded from the country-specific VARX* models. Moreover, by reflecting the fact that the U.S. is the only large open economy in the sample period, we assume that the foreign financial markets do not affect its economy. Thus, r_{it}^* is excluded from the U.S. model. See Table 3 for details.

For the Financial Sector GVAR, the set of foreign variables, \mathbf{x}_{it}^* , is constructed as defined by Equation (2). As discussed by Pesaran, Schuermann, and Weiner (2004) and Galesi and Lombardi (2009), due to a strong correlation between domestic and foreign-specific real effective exchange rates, the foreign-specific real effective exchange rates are excluded from the country-specific VARX* models. Moreover, by reflecting the fact that the U.S. is the only large open economy in the sample period, we assume that the foreign financial markets do not affect its economy. See Table 3.2 for details.

As for the global variables, ω_t , two commodity prices, log of crude oil price index p_t^O , and log of food price index p_t^F , are included in order to capture the influences from the international commodity market.

Table 1: List of Economies in Sample and their Abbreviations

Names	Abbreviation		Names	Abbreviation		Names	Abbreviation
BRAZIL	bra		JAPAN	jpn		PHILIPPINES	phl
INDONESIA	idn		MEXICO	mex		SINGAPORE	sgp
MALAYSIA	mys		SAUDI ARABIA	sau		TURKEY	tur
S. AFRICA	zaf		THAILAND	tha		NEW ZEALAND	nzl
U.K.	gbr		U.S.	usa		BRUNEI	brn
FRANCE	fra		CHINA	chn		CAMBODIA	khm
GERMANY	deu		INDIA	ind		LAO PDR	lao
ITALY	ita		KOREA	kor		MYANMAR	mmr
SPAIN	esp		AUSTRALIA	aus		VIETNAM	vnm

Table 2.1: List of Domestic Variables (Real Sector GVAR)

			INDUSTRIAL PRODUCTION	CPI	EXPORT (LCU)	IMPORT (LCU)	NOMINAL EER	SHORT TERM INTEREST RATE
	Names	Abbreviation	ip	cpi	exlcu	imlcu	neer	rshort
1	BRAZIL	bra	0	0	0	0	0	0
2	INDONESIA	idn	0	0	0	0	0	0
3	MALAYSIA	mys	0	0	0	0	0	0
4	S. AFRICA	zaf	0	0	0	0	0	0
5	U.K.	gbr	0	0	0	0	0	0
6	FRANCE	fra	0	0	0	0	0	0
7	GERMANY	deu	0	0	0	0	0	0
8	ITALY	ita	0	0	0	0	0	0
9	SPAIN	esp	0	0	0	0	0	0
10	JAPAN	jpn	0	0	0	0	0	0
11	MEXICO	mex	0	0	0	0	0	0
12	SAUDI ARABIA	sau	0	0	0	0	0	
13	THAILAND	tha	0	0	0	0	0	0
14	U.S.	usa	0	0	0	0	0	0
15	CHINA	chn	0	0	0	0	0	0
16	INDIA	ind	0	0	0	0	0	0
17	KOREA	kor	0	0	0	0	0	0
18	AUSTRALIA	aus	0	0	0	0	0	0
19	PHILIPPINES	phl	0	0	0	0	0	0
20	SINGAPORE	sgp	0	0	0	0	0	0
21	TURKEY	tur	0	0	0	0	0	0
22	NEW ZEALAND	nzl	0	0	0	0	0	0
23	BRUNEI	brn		0	0	0		
24	CAMBODIA	khm	0	0	0	0		
25	LAO PDR	lao		0	0	0		
26	MYANMAR	mmr		0	0	0		
27	VIETNAM	vnm	0	0	0	0		0

Table 2.2: List of Domestic Variables (Financial Sector GVAR)

			EDF OF FINANCIAL SECTOR	EDF OF CORPORATE SECTOR	REAL SHORT TERM INTEREST RATE	REAL EQUITY	INDUSTRIAL PRODUCTION	REAL EER
	Names	Abbreviation	edff	edfc	r	q	ip	reer
1	BRAZIL	bra	0	0	0	0	0	0
2	INDONESIA	idn	0	0	0	0	0	0
3	MALAYSIA	mys	0	0	0	0	0	0
4	S. AFRICA	zaf	0	0	0	0	0	0
5	U.K.	gbr	0	0	0	0	0	0
6	FRANCE	fra	0	0	0	0	0	0
7	GERMANY	deu	0	0	0	0	0	0
8	ITALY	ita	0	0	0	0	0	0
9	SPAIN	esp	0	0	0	0	0	0
10	JAPAN	jpn	0	0	0	0	0	0
11	MEXICO	mex	0	0	0	0	0	0
12	SAUDI ARABIA	sau					0	0
13	THAILAND	tha	0	0	0	0	0	0
14	U.S.	usa	0	0	0	0	0	0
15	CHINA	chn	0	0	0	0	0	0
16	INDIA	ind	0	0	0	0	0	0
17	KOREA	kor	0	0	0	0	0	0
18	AUSTRALIA	aus	0	0	0	0	0	0
19	PHILIPPINES	phl			0	0	0	0
20	SINGAPORE	sgp	0	0	0	0	0	0
21	TURKEY	tur	0	0	0	0	0	0
22	NEW ZEALAND	nzl	0	0	0	0	0	0
23	BRUNEI	brn	0	0	0	0	0	0
24	CAMBODIA	khm	0	0	0	0	0	0
25	LAO PDR	lao	0	0	0	0	0	0
26	MYANMAR	mmr					0	
27	VIETNAM	vnm			0		0	

Notes: A circle indicates that the data is available. A blank indicates that the corresponding variable is not available (either entirely or partially for the sample period), and is thus excluded from the dataset.

Table 3.1: Set of Variables used for the Real Sector GVAR Model

	Country-Specific VARX*			Commodity VAR	
	domestic x_{it}	foreign x_{it}^*	global ω_t	own ω_t	feedback \bar{x}_t
industrial production	y_{it}	y_{it}^*			\tilde{y}_t
consumer price index (headline)	p_{it}	p_{it}^*			
export (in LCU)	ex_{it}	ex_{it}^*			
import (in LCU)	im_{it}	im_{it}^*			
nominal effective exchange rate	e_{it}				
short-term interest rate	r_{it}	r_{it}^*			
oil price			p_t^O	p_t^O	
food price			p_t^F		p_t^F

Note: The foreign-specific short-term interest rate, r_{it}^* , is excluded from the U.S.'s VARX* model only.

Table 3.2: Set of Variables used for the Financial Sector GVAR Model

	Country-Specific VARX*			Commodity VAR	
	domestic x_{it}	foreign x_{it}^*	global ω_t	own ω_t	feedback \bar{x}_t
EDF of financial sector	$edff_{it}$	$edff_{it}^*$			
EDF of corporate sector	$edfc_{it}$	$edfc_{it}^*$			
real short-term interest rate	r_{it}	r_{it}^*			
real equity price	q_{it}	q_{it}^*			
industrial production	y_{it}	y_{it}^*			\tilde{y}_t
nominal effective exchange rate	e_{it}				
oil price			p_t^O	p_t^O	

Note: For the VARX* model of the U.S. economy, $edff_{it}^*$, $edfc_{it}^*$, r_{it}^* , q_{it}^* are excluded.

ANNEX B: DEVELOPMENTS IN ASEAN+3 ECONOMIES



Brunei Darussalam

After a short period of improvement in 2015, the economy contracted again in 2016 due to the oil and gas production decline. The economy recorded a contraction of 2.5 percent in 2016 following a significant decline in the oil and gas production. On the expenditure side, tighter government revenue on the back of lower oil prices has constrained government consumption as well as public investment. Government consumption has recorded a contraction for two years in a row. Brunei's growth prospects in the next few years, therefore, would depend mainly on the progresses of oil and gas production and some FDI projects construction, as well as on the success of recent diversification efforts. The economy is estimated to remain in contraction in 2016 with weaker oil and gas sector contribution due to disruption in oil and gas production. The economy is projected to recover gradually in 2017 on the back of the progress in the refurbishment work of oil and gas production facilities and construction of some large FDI projects.

Negative inflation continued, mainly because of low import prices and relatively weak demand. The economy has experienced negative inflation for the third year in a row on the back of the appreciation of BND against trading partners' currencies, as well as subdued domestic demand. The inflation is expected to increase marginally in 2017 as commodity prices have been trending upward recently combined with the gradual improvement in domestic demand.

On the external side, the trade balance has remained in surplus but narrowed over the past three years with falling oil prices. As the export decline outpaced imports with falling oil and gas prices, the trade surplus continued to shrink. As services and secondary income accounts remained in deficit, current account surplus continued to shrink. However, the external position remains well-buffered with international reserves able to cover around 15 months of imports.

Bank intermediation generally remained limited with a slight decreasing trend in 2016. Bank intermediation in Brunei remained relatively limited as reflected in its relatively low loan-to-deposit ratio (LDR). As of Q3 2016, the LDR was 38.2 percent¹, lower than at end-2015 owing to decelerating bank loan growth with weaker domestic economic activity. Although non-performing loan ratio has been trending up slightly, banks in general continued to remain well capitalized.

Despite some recent pick-ups in oil and gas prices, the fiscal position is still under substantial pressures. After four years of surplus, the fiscal balance turned into deficit of around 1.0 percent of GDP in FY2014/2015. In FY2015/2016 the deficit widened to 15.4 percent of GDP, and is projected to

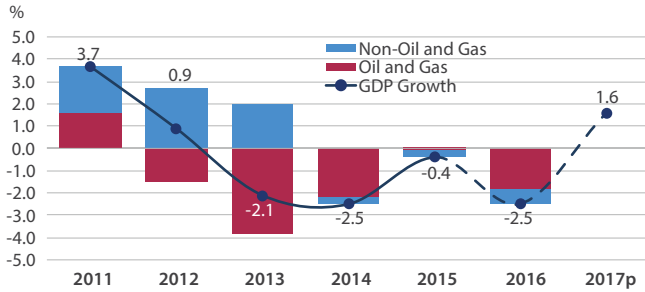
improve slightly to around 13.1 percent of GDP in FY2016/2017 as oil prices has been picking up since H22016. The rising fiscal deficit was mainly due to a sharp decline in oil-related revenue on account of low oil prices which overwhelmed the small spending cuts. However, the sizeable fiscal buffer accumulated from fiscal surpluses in past decades enabled Brunei to finance its deficits in recent years.

Recent economic developments in Brunei have reemphasized the need for structural reform policies towards a more diversified and competitive economy. The government of Brunei has recently intensified its reform efforts to spur the private sector's role in the economy and attract more FDI. For instance, under PENGGERAK (a coordinating unit under Prime Minister Office), the government has recently formed two statutory bodies, namely FAST (FDI Action and Supporting Center) and DARE (Darussalam Enterprise) to facilitate FDI and to develop domestic business — in particular SMEs. On the fiscal side, the government has started to adopt performance program budgeting in the effort to improve public financial management.

¹ The loan to deposit ratio (LDR) here is calculated as a ratio between total Loans and Advance/Financing to total Deposits (Non-bank Customers) based on the AMBD's Monthly Statistical Bulletin as of December 2016.

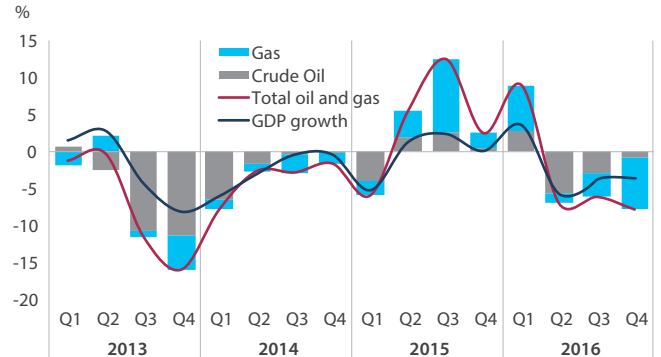
Brunei Darussalam: Selected Charts

GDP growth has been in contraction for four years in a row, but is expected to recover gradually in 2017.



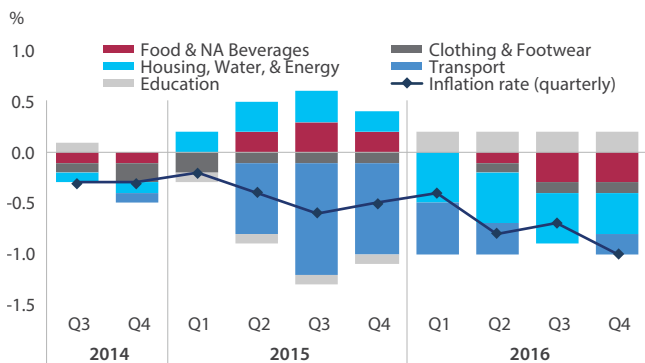
Note: 2016e and 2017p refers to AMRO staff estimates and projections, respectively

GDP growth correlates closely to the oil and gas production...



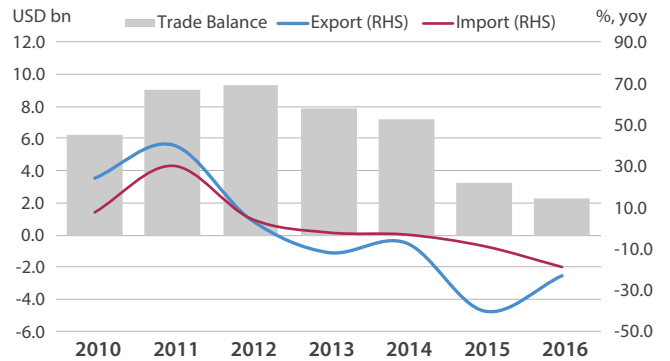
Sources: National Authorities, AMRO staff calculations

Negative inflation continued in 2016 on the back of weak domestic demand and a relatively stronger BND.



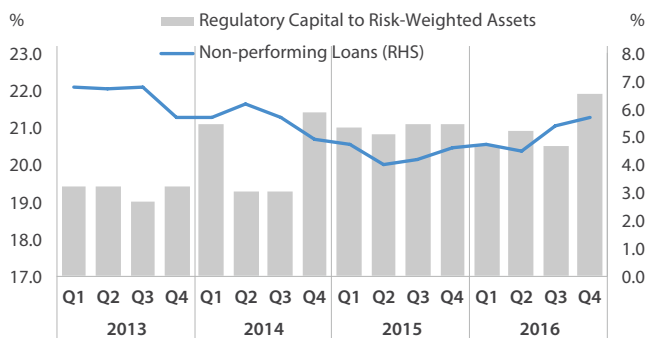
Sources: CEIC, AMRO staff calculations

The trade surplus continued to shrink as export contraction outpaced the decline in imports.



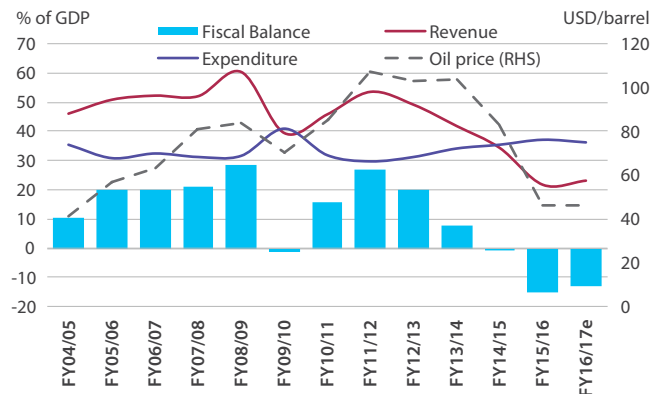
Sources: CEIC, AMRO staff calculations

Banks remained well buffered with a relatively high capital adequacy ratio, despite some uptick in NPLs.



Sources: CEIC, AMRO staff calculations

The fiscal balance has worsened with falling oil prices.



Sources: National Authorities, AMRO staff calculations

Brunei Darussalam: Selected Economic Indicators

	2013	2014	2015	2016 Est.
Real Sector and Prices	(in annual percentage change, unless specified)			
Real GDP	-2.1	-2.5	-0.4	-2.5
Government Consumption	3.6	1.8	-3.6	-6.5
Household Consumption	6.0	-3.7	5.2	-1.3
Investment	11.9	-31.2	6.6	-11.1
Export Goods & Services	-5.7	0.9	-10.8	-9.2
Import Goods & Services	14.5	-30.9	-11.7	1.8
Investment (in percent of GDP)	39.6	27.4	35.2	34.6
GDP deflator	-2.8	-1.8	-17.6	-9.2
Consumer price inflation (average)	0.3	-0.2	-0.4	-0.7
External Sector	(in millions of BND, unless specified)			
Trade balance	8,652	9,418	4,267	3,047
Current account balance	4,721	6,644	3,204	1,084 e/
In percent of GDP	20.9	30.6	18.0	7.0 e/
Overall balance (million USD)	116	72	-261	110 e/
Gross international reserves (million USD)	3,406	3,479	3,218	3,329
In months of imports of goods & services	11.3	11.6	11.9	15.0
Fiscal Factor	(in percent of GDP)			
Revenue and grants	41.8	34.3	21.9	23.3 e/
Oil and gas revenue	38.1	29.8	16.8	17.2 e/
Expenditure	34.1	35.3	37.3	36.4 e/
Current Spending	24.2	26.5	29.2	28.5 e/
Capital Spending	9.8	8.8	8.0	7.9 e/
Budget Balance	7.7	-1.0	-15.4	-13.1 e/
Monetary and Financial Sector	(in annual percentage change, unless specified)			
Domestic credit (private)	6.0	1.9	2.4	-5.3
Broad money	1.5	3.2	-1.8	1.5
Reserve money	2.4	1.1	5.1	5.4
Memorandum Items				
GDP (in millions of USD)	18,094	17,122	12,930	11,270
GDP (in millions of BND)	22,639	21,664	17,778	15,747.7
Exchange rate (BND/USD) average	1.25	1.27	1.37	1.38
Exchange rate (BND/USD) end-period	1.27	1.32	1.41	1.45

Notes:

1) Fiscal Year: April/March

2) The figures ending with e/ indicate estimates

Sources: National Authorities, IMF and AMRO staff calculations

Cambodia

Cambodia's economy is expected to maintain stable growth in 2017, amid continuing downward pressure from external demand. The economic growth is estimated at 6.9 percent in 2016 as garment export softened and tourist arrivals growth moderated. Improvement in agriculture and a stable construction sector supported the overall growth in 2016. The economic growth is projected to remain stable at around 6.8 percent in 2017 and 2018, supported by a domestic demand while external demand remains sluggish. Headline inflation, which rose to 3.0 percent in 2016, is forecast to increase further to 4.0 percent in 2017 and 4.2 percent in 2018 with continuing recovery of oil prices and rising food prices.

The external position strengthened significantly with a sizeable decline in current account deficit while FDI inflows were sustained. Trade deficit improved in 2016 as the slowdown in both export and consumption-related imports outpaced the decline in export growth. As the balance of payments surplus continued, gross international reserves reached USD6.73 billion in December 2016, covering 5.5 months of goods and services imports. With a new regulation on capital requirement, FDI into the financial sector showed a strong growth of 25.0 percent while FDI into other sectors remained mixed. Going forward, the recently agreed real estate investment projects from China, if realized, may substantially increase FDI inflows.

While trade deficit is improving, enhance export competitiveness against headwinds is critical. Rising labor costs due to minimum wage hikes may undermine cost competitiveness over time. In addition, the strong U.S. dollar and the competition from neighboring countries also contributed to the slowdown of garment export growth to E.U. market and the contraction in U.S. market in 2016. As Cambodia is not a member of TPP, it may gain from the trade pact's demise and sustain foreign direct investment. Going forward, maintaining labor cost competitiveness, improving infrastructure and diversifying exports will be the key to its export growth.

The exchange rate remained stable against U.S. dollar, with continued high degree of dollarization. The month-on-month changes of KHR/USD fluctuated within a small band of +/- 1.0 percent during Q4 2016. The foreign currency deposits as a percentage of broad money and of total deposit, were 83.2 and 93.7 percent at year-end, respectively. Efforts to promote the use of local currency and support its liquidity have been continuing through measures such as liquidity-providing operations and requirement on the minimum share of the loans in local currency out of total loan portfolio.

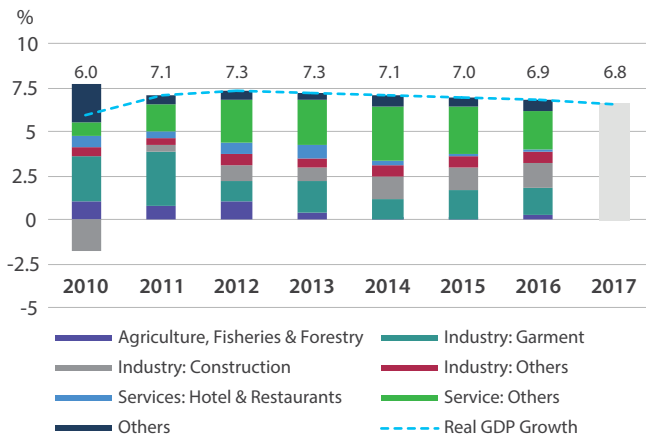
The private sector credit growth continued to slow down in 2016. At the end of 2016, credit growth of commercial banks to both corporates and households decelerated to 20.1 percent, with corporate loans slowing from 20.4 percent in 2015 to 17.5 percent, and household loans from 44.7 percent to 36.8 percent. Such a deceleration could partly result from the regulations on the minimum capital and liquidity coverage. With deposit growth also slowing, the loan-to-deposit ratio remained stable, and other financial indicators have remained sound so far. While slower credit growth helps reduce risks to overall financial stability, it may lead to stress on asset quality with potential spillovers. Higher lending rates from the U.S. Fed rate increases and lender's tighter control on loans rollover may marginally add up to the deterioration of asset quality in some banks and MFIs.

The domestic real estate market, especially the condominium segment, is likely to experience pressure on prices. Heightened supply going forward will continue to put pressure on price, and changing market expectations can turn the market cycle through depressed demand.

Fiscal position improved in FY2016 over a strong revenue collection, a slow expenditure disbursement and an increase in spending efficiency. A narrowed fiscal deficit of -2.5 percent of GDP is expected in FY2016 as revenue growth continued to be strong while capital expenditure disbursement remained slow. In FY2017, current expenditure and wages are budgeted to increase by 17.0 percent and 21.0 percent respectively while revenue is expected to grow at double-digit rates, but at a slower rate.

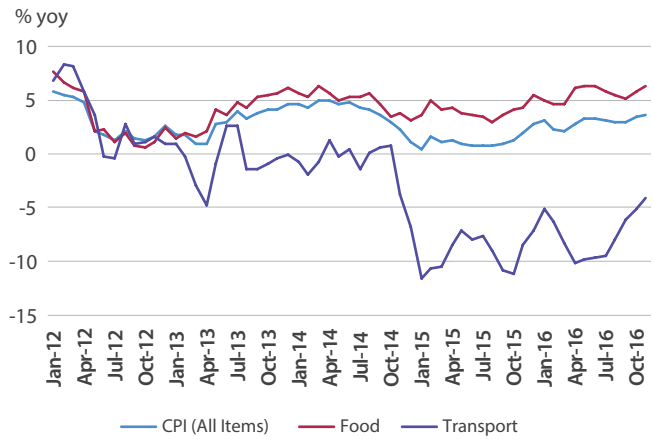
Cambodia: Selected Charts

Economic growth is expected to be stable but slightly lower in 2017.



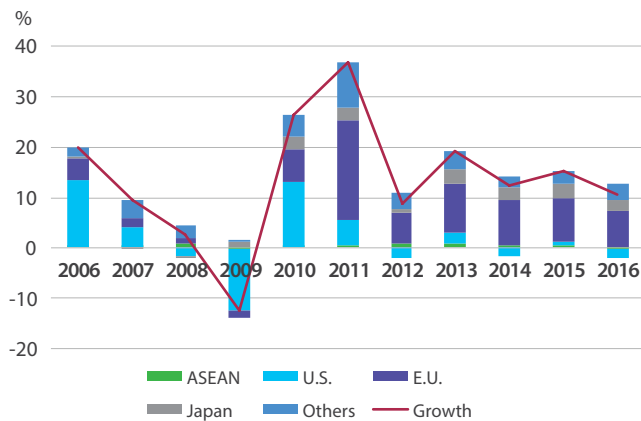
Notes: "e" stands for "estimate"; "p" stands for projection. The 2016 and 2017 numbers are AMRO estimates and projections. Sources: National Authorities, AMRO staff estimates

Inflation edged up in 2016 due to an uptick in food prices.



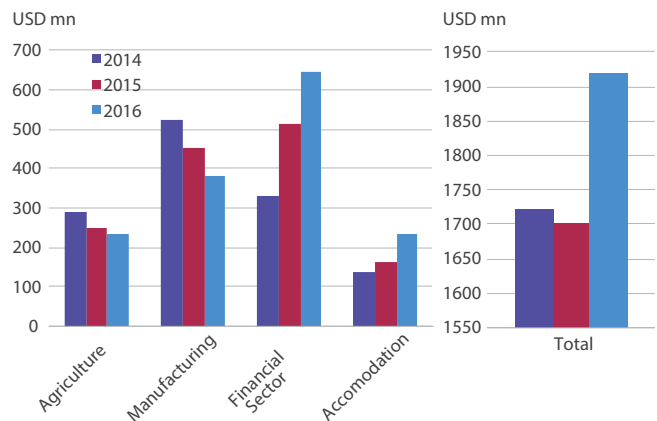
Source: National Authorities

Garment exports account for three-fourths of total exports by value. Its growth decelerated in 2016 due to a slowing E.U. market and a contraction in the U.S. market.



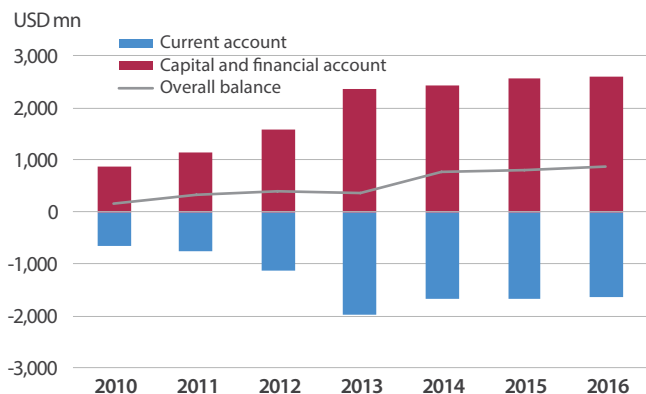
Note: It is growth contribution of exports value. Sources: National Authorities, AMRO staff calculations

FDI inflows to financial sector grew and inflows to non-financial sector remained mixed in 2016.



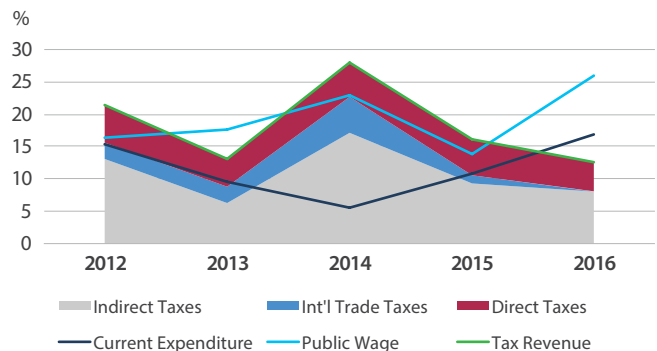
Notes: Financial sector includes both banks and MFIs. Accommodation includes hotel, resort and casino. Source: National Authorities

With improved trade deficit and FDI growth, the overall balance remained in surplus in 2016.



Source: National Authorities

Revenue collection, particularly tax revenue, outperformed the budget again in 2016, but tax revenue growth is getting slower.



Note: On a fiscal year basis for all charts in Figure 3. Source: National Authorities

Cambodia: Selected Economic Indicators

	2013	2014	2015	2016 Est.
Real Sector and Prices	(in annual percentage change, unless specified)			
Real GDP	7.4	7.1	7.0	6.9
Consumption (in percent of GDP)	84.3	83.0	82.2	86.2
Investment (in percent of GDP)	20.0	22.1	22.5	20.6
GDP deflator	0.8	2.6	1.7	2.6
Consumer price inflation (average)	3.0	3.9	1.2	3.0
Consumer price inflation (end of period)	4.6	1.1	2.8	3.9
External Sector	(in millions of USD, unless specified)			
Trade balance	-3,218.8	-3,208.9	-3,443.3	-3,413.6
Current account balance	-1983.4	-1639.7	-1674.8	-1657.3
In percent of GDP	-13.0	-9.8	-9.3	-8.3
Overall balance	351.8	754.4	797.9	873.4
Gross international reserves 1/	3,642.0	4,391.0	5,093.0	6,730.0
In months of imports of goods & services	3.8	4.2	4.4	5.5
Fiscal Sector (General government)	(in percent of GDP)			
Revenue and grants	19.0	19.1	19.7	19.2
Revenue	15.1	16.8	17.8	18.5
of which: tax revenue	12.7	14.7	15.8	16.1
Expenditure	21.3	21.1	20.4	21.0
Expense	12.1	12.7	13.0	14.6
Net acquisition of non-financial assets	9.2	8.4	7.4	6.4
Overall budget balance, excl. grants	-6.3	-4.3	-2.6	-2.5
Net lending/borrowing balance	-2.3	-1.9	-0.7	-1.8
Primary net lending/borrowing balance	-1.6	-1.6	-0.4	-1.4
Monetary and Financial sector	(in annual percentage change, unless specified)			
Domestic credit	17.9	28.5	24.3	21.9
Private sector	26.7	31.3	27.1	22.5
Broad money	14.6	29.9	14.7	17.9
Reserve money	13.0	24.6	21.7	25.0
Memorandum Items				
Nominal GDP (in millions of USD)	15,228.0	16,700.5	18,077.7	19,859.3
Nominal GDP (in billions of riels)	61,326.9	67,436.8	73,422.7	80,529.3
Exchange rate (Riels/USD, period average)	4,027.3	4,038.0	4,060.5	4,055.0
Exchange rate (Riels/USD, end of period)	3,995.0	4,075.0	4,050.0	4,037.0

Notes:

1) Investment includes change of inventories.

2) Gross international reserves exclude unrestricted foreign currency deposits held as reserves at the NBC; reflected RMB inclusion in the SDR basket on Oct 1, 2016;

Sources: National authorities, AMRO staff calculations; 2016 figures are based on AMRO staff estimates and projections.

China

Growth has shown signs of stabilization recently. On the demand side, growth in 2016 was mainly driven by expanding consumption and infrastructure investment but weighed down by moderating private investment and slowing exports. On the supply side, the growth drivers included expanding activities in the property and automobile sectors. On the other hand, industrial overcapacity reduction continued to affect growth.¹ The authorities recently set the growth target at about 6.5 percent for 2017, or slightly higher if possible. We expect the economy to grow by around 6.5 percent in 2017, with momentum sustained from further expansion in private consumption, the services sector (including the internet economy) and infrastructure investment amid headwinds from continuing overcapacity reduction, external uncertainties and slowing property transactions.

A further pickup in producer prices is uncertain, potentially constraining profit improvements going forward. CPI inflation remains moderate. PPI growth has reversed to the positive side since September 2016 due to rising commodity prices amid ongoing overcapacity reduction as well as speculation. The low-base effect also helped the PPI to rebound. The rising PPI and tax breaks have led to improved industrial profits, helping contain the increase in NPLs. That said, further improvements in the PPI and profits are still uncertain as industrial overcapacity remains a challenge and slowing overall investment could weigh on the demand for commodities.

Capital outflows have eased recently due to further signs of growth stabilization, moderating USD as well as strengthened capital flow management. Notwithstanding, capital outflow risks remain as market confidence is susceptible to moderate growth, reform uncertainties and external shocks.

The depreciation pressure on the RMB against the USD has lessened since early-January. In December 2016 and early-January 2017, the strong USD — boosted by U.S. President Donald Trump's economic stimulus prospects and the effect of the potentially faster Fed rate hikes — was the driving factor leading to further RMB depreciation vis-a-vis the USD. Since early January, the depreciation pressure has eased due to moderating USD, signs of economic stabilization and slowing capital outflows.

Macroprudential measures have helped curb the rise in the property prices in bigger cities but upward pressures on property prices remain. These pressures are related to limited investment options in other asset markets, continued urbanization, and ample liquidity.

Moving forward, risks and excessive volatility in the financial markets need to be further addressed by financial regulation and monetary policy. The authorities have put macroeconomic stability as the top priority in the *2017 China Annual Government Work Report* and have committed to pay greater attention to financial risks. In this regard, strengthening regulation on shadow-banking products is important. Further macroprudential measures may be needed to curb speculation in the property markets. The recent neutral monetary policy stance (with a slightly tightening bias), is apt as it can help curb leverage in the financial markets and support the RMB exchange rate.

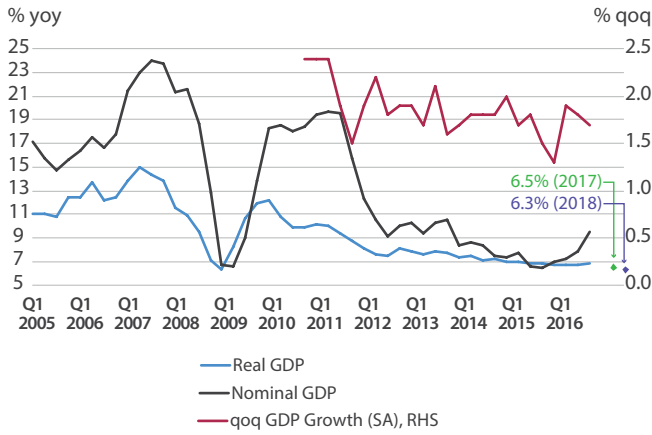
Fiscal policy should focus on smoothening overcapacity reduction, facilitating SOE reforms, enhancing infrastructure and strengthening social safety nets. Meanwhile, improving spending efficiency and investment returns continues to be crucial. In addition, further efforts are encouraged to manage contingent liabilities and local borrowing ahead.

High corporate debt, persistent industrial overcapacity, and slow SOE reforms continue to be significant challenges to sustainable growth in the medium- to long-term. The corporate debt-to-GDP ratio stood at around 155 percent of GDP in 2016 and is estimated to rise further in 2017, according to AMRO's calculations. A faster pace of SOE reforms could help improve efficiency and resource allocation and help expedite the process of corporate debt deleverage and overcapacity reduction. Employing market-based approaches and strengthening policy coordination are important to address overcapacity, reduce high debt levels and push further SOE reforms.

¹ According to the Guideline to Resolve Industrial Overcapacity released by the State Council on 6 October 2013, steel is the industry with serious overcapacity as its utilization capacity ratio (percentage of production/capacity) was 72.0 percent as of end 2012, lower than international standards. On 1 February 2016, the State Council released the Guideline to Resolve Coal-mining Overcapacity, indicating that coal mining is another sector with serious overcapacity. In AMRO's view, overcapacity of an industry refers to excess supply over demand in a structural sense, which has led to sluggish product prices, low returns, persistent losses and rising defaults. Recently, according to the 2017 China Annual Government Work Report, in 2016, steel production capacity was cut by more than 65 million metric tons and coal by over 290 million metric tons. In 2017, the government pledges to take solid and effective steps to cut overcapacity, aiming to further reduce steel production capacity by around 50 million metric tons and shut down at least 150 million metric tons of coal production facilities.

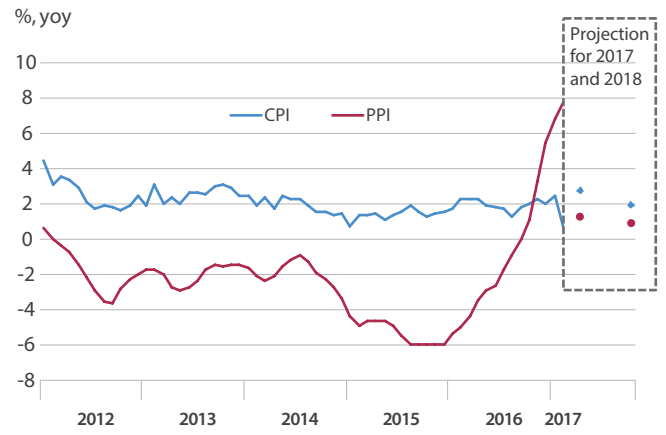
China: Selected Charts

Growth has shown signs of stabilization recently



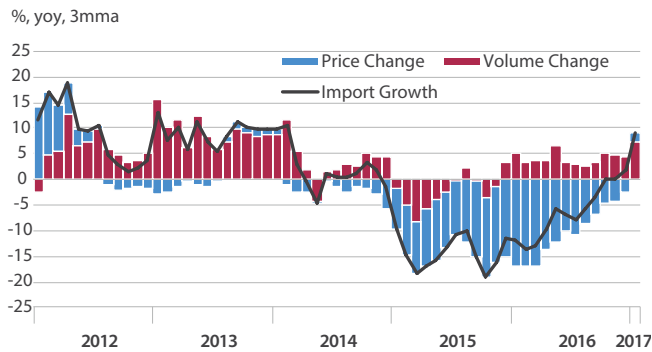
Source: NBS, AMRO staff projections

CPI inflation remains moderate while PPI growth has turned positive since September 2016



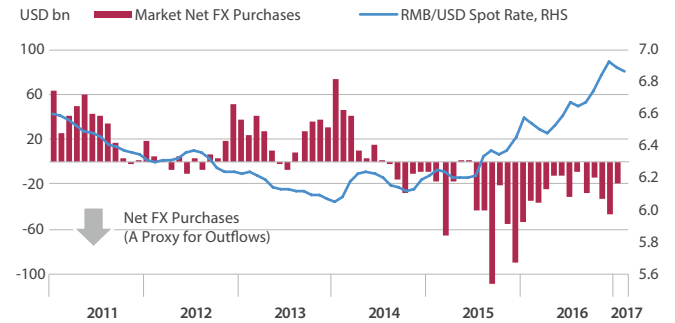
Sources: NBS, AMRO staff projections

Import volume expanded continually, especially for goods related to consumption



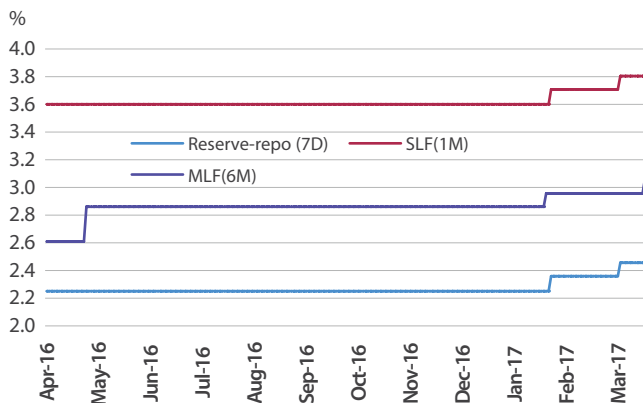
Sources: General Administration of Customs, AMRO staff estimates

Capital outflows have eased recently due to further signs of growth stabilization, moderating USD as well as strengthening capital flow management



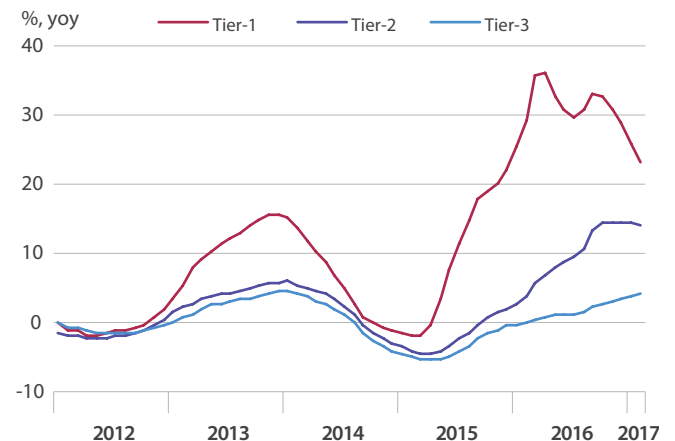
Source: PBC

The recent neutral monetary policy stance (with a slightly tightening bias), is apt as it can help curb leverage in the financial markets and support the RMB exchange rate



Source: Wind

Property prices remain high in tier-1 cities while the momentum has moderated recently



Source: Wind

China: Selected Economic Indicators

	2013	2014	2015	2016
Real Sector and Prices	(in annual percentage change, unless specified)			
Real GDP	7.8	7.3	6.9	6.7
Nominal GDP	10.2	8.2	7.0	8.0
Fixed asset investment	19.6	15.7	10.0	8.1
Purchasing Managers' Index (Mfg, period end)	51.0	50.1	49.7	51.4
Purchasing Managers' Index (non-Mfg period end)	54.6	54.1	54.4	54.5
Registered unemployment rate: urban, % average)	4.1	4.1	4.0	4.0
Wages (average)	10.1	9.5	10.1	-
Consumer Price Index (CPI, average)	2.6	2.0	1.4	2.0
Core CPI (average)	1.7	1.6	1.6	1.6
Producer Price Index (average)	-1.9	-1.9	-5.2	-1.4
New constructed home prices (average)	5.9	2.6	-3.8	6.2
Second hand home prices (average)	3.2	1.1	-2.8	5.3
External Sector	(in billions of USD, unless specified)			
Exports	2,210.7	2,343.2	2,282.4	2,136.6
Imports	1,949.3	1,963.1	1,680.8	1,589.5
Trade balance	261.4	380.1	601.7	547.1
Trade balance (% of GDP)	2.7	3.6	5.5	4.9
Current account balance	148.2	277.4	330.6	210.4
Current account (% of GDP)	1.5	2.7	3.0	1.9
Financial and capital balance (excl. reserves)	346.1	-51.4	-485.3	-490.6
FDI	123.9	128.5	135.6	126.0
ODI	107.8	123.1	145.7	-
External debt (gross)	863.2	1,779.9	1,416.2	-
International reserves	3,821.3	3,843.0	3,330.4	3,010.5
RMB Exchange rate (against USD, average)	6.19	6.14	6.23	6.64
Fiscal sector	(in percent of GDP, unless specified)			
Revenue	22.0	21.8	22.1	21.4
Expenditure	23.8	23.6	25.5	25.2
Overall balance	-2.0	-2.1	-2.4	-3.0
Central government debt	14.6	14.9	15.8	16.1
Revenue (% yoy)	10.1	8.6	5.8	4.5
Expenditure (% yoy)	10.9	8.2	13.2	6.4
Monetary and Financial Sector	(in annual percentage change, unless specified)			
M2 (period end)	13.6	12.2	13.3	11.3
Aggregate Financing (period end)	17.6	14.3	12.5	12.8
Total loan (local & foreign currency, period end)	13.9	13.3	13.4	12.8
Lending rate (1y, period end, %)	6.0	5.6	4.4	4.4
10 Year treasury bond yield (period end, %)	4.63	3.64	2.83	3.04
Banking capital adequacy ratio (period end, %)	12.2	13.2	13.5	13.3
NPL ratio (period end, %)	1.00	1.25	1.67	1.74
Memorandum Items				
Nominal GDP (in billions of USD)	9,616.2	10,488.2	11,060.2	11,206.7
Nominal GDP (in billions of RMB)	59,524.4	64,397.4	68,905.2	74,412.7

Note:

1) RMB external debt has been included since 2015

Sources: State Statistics Bureau, PBC, China Customs, Ministry of Finance, China Banking Regulatory Commission, State Administration of Foreign Exchange, AMRO staff calculations

Hong Kong, China

GDP growth in Hong Kong has started to pick up since H2 2016 on account of receding external and domestic headwinds. The full year GDP growth rate in 2016 was 1.9 percent, slowing down from 2.4 percent in 2015 due to subdued global trade, weak tourism demand as well as lackluster private consumption. However, the growth momentum recovered moderately toward the latter part of the year, with the firming global growth prospects, especially in the U.S. and China, and reviving regional trade. Meanwhile, private consumption growth gradually picked up on the back of the stable labor market conditions. The GDP growth rate in 2017 is projected to increase to around 2.3 percent as the recovery continues.

The economy is highly exposed to downside risks from the external environment through both real and financial channels. As Hong Kong's economy is trade-dependent, the potential implementation of protectionist policies by the new U.S. administration could pose downside risks to Hong Kong's export sector. Should such a policy direction result in retaliations by China, the negative spillovers to Hong Kong will likely be significant. In addition, political risks in Europe, including uncertainty relating to Brexit-related negotiations, may also dampen the global trade outlook. Such uncertainties could also lead to subdued private fixed investment.

Uncertainty over the pace of the U.S. interest rate up-cycle continues to pose downside risks. Should there be a faster-than-expected pace of interest rate increases, possible sudden capital outflows from the region could lead to a rapid rise in HKD interest rates. This will increase debt-servicing burdens for households and the corporate sector. Such risks, however, could be cushioned by a sizeable Aggregate Balance in Hong Kong as well as the macroprudential measures and other supervisory measures in place. Furthermore, the stronger HKD REER will negatively impact external competitiveness. That said, the economic stimulus package of the U.S. and resulting better global growth perspectives, as well as the flexible price and wage structures in Hong Kong, would offset such negative impacts to some extent.

Inflationary pressure has been checked due to the strong HKD and the lagged effects of the housing rent adjustment. Headline inflation in 2016 stood at 2.4 percent, lower than 3.0 percent in 2015. As the currency appreciation and the housing market softening continue, headline inflation is projected to decline further to around 1.8 percent this year.

Overall, domestic financial conditions remain accommodative. Domestic interbank interest rates rose in late-2016 partly reflecting the year-end funding demand and a catch-up with increases in the U.S. interbank interest rates, and the momentum has receded along with the subsequent

decline in funding demand. Meanwhile, loan growth recovered further toward the end of 2016 owing to improving domestic economic activities.

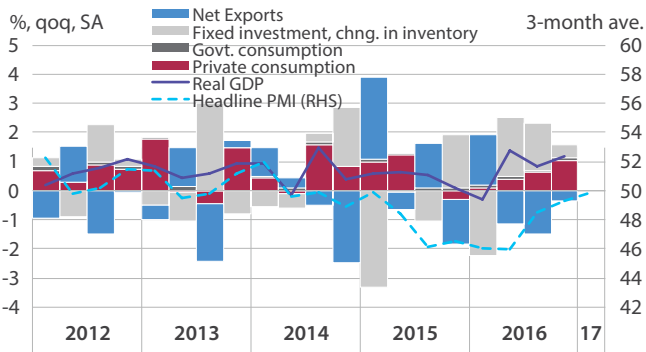
The banking system remains sound and well-capitalized. Banks in Hong Kong maintain a prudent lending stance with ample capital buffers. The classified loans ratio is at low level, stabilizing from the recent slight pickup.

In the residential property market, transaction volumes have declined and an upward momentum in flat prices have softened immediately after the introduction of the ad valorem stamp duty in November 2016. The sequence of macroprudential and demand-side management measures introduced since 2009 have mitigated financial stability risks. Notwithstanding, given the high household debt level and rapidly recovering mortgage loans with floating HIBOR-based interest rates, the faster pace of Fed rate hikes could increase households' debt servicing burdens. In the longer-term, measures by the government to increase housing supply will improve affordability.

Fiscal conditions are expected to remain sound throughout FY2017/18. According to the Budget Speech by the Financial Secretary in February 2017, revenue in FY2016/17 is estimated to increase by 12 percent more than the original estimate due to the increase in revenue from land sales and stamp duties. In the FY2017-18, the government plans to boost expenditure by 5.3 percent with measures to support social welfare, education and healthcare. The fiscal position will remain strong, marking the 14th consecutive year of surplus with ample fiscal reserves amounting to 23.2 months of government expenditure as of March 2018.

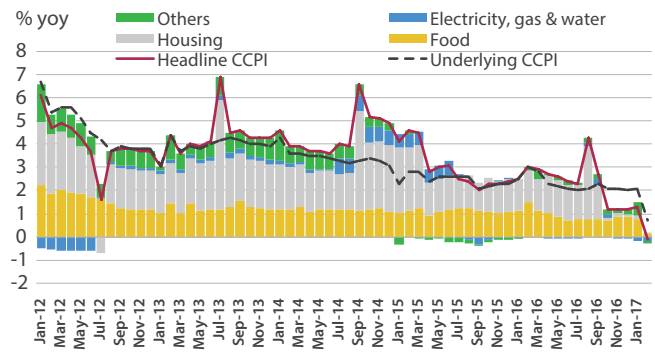
Hong Kong, China: Selected Charts

Real GDP growth has picked up steadily from the negative territory in Q1 2016 on the back of resilient private consumption and improved external demand.



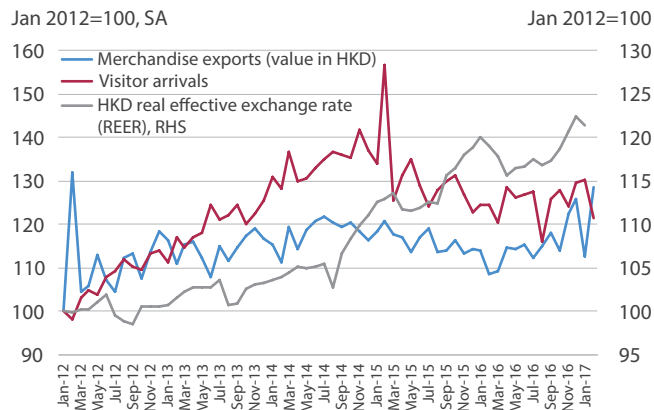
Note: Figure for Q1 2017 is as of January.
Sources: CEIC, Markit

Inflationary pressure has been subdued, mainly due to currency appreciation and the lagged effect of the past housing rent adjustment.



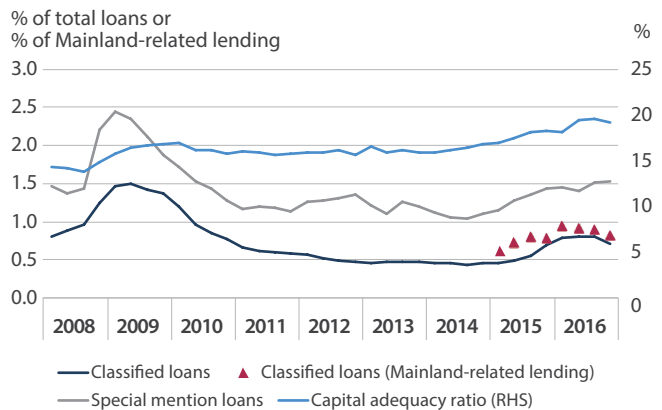
Source: CEIC

External headwinds remain albeit moderating, with concerns over the U.S. and China growth and policy uncertainties as well as appreciating HKD.



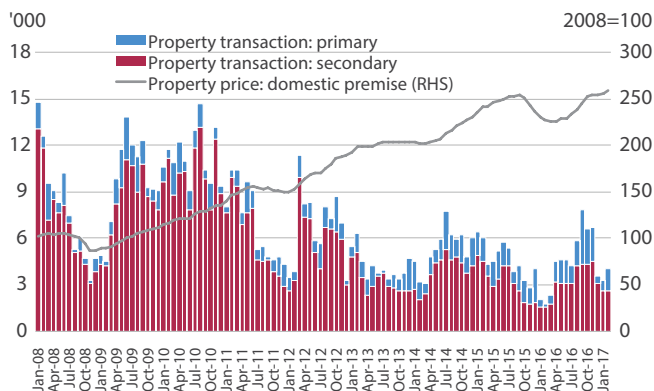
Note: Data for visitor arrivals and HKD REER are available up to December 2016.
Sources: CEIC, AMRO staff calculations

Banks are well-capitalized while the classified loans ratio is at low level, stabilizing from the recent slight pickup.



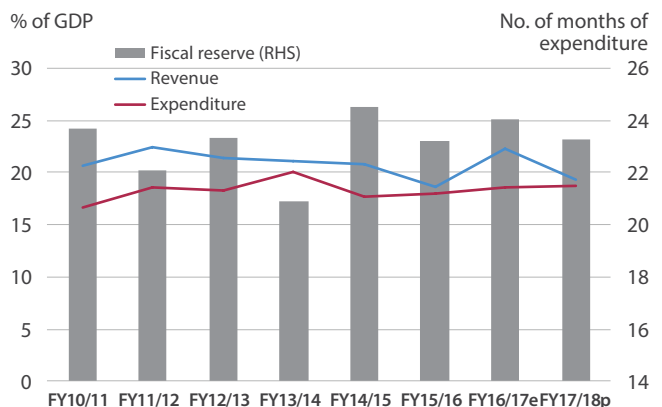
Sources: CEIC, HKMA

Transaction volumes of residential premises have declined since last December mainly due to the increased ad valorem stamp duty and reduced demands amid higher interest rates.



Source: CEIC

The fiscal position remains strong with ample policy space, although expenses for healthcare and social welfare will continue to increase due to aging population.



Sources: CEIC, The 2017-18 Budget Speech, AMRO staff projections

Hong Kong, China: Selected Economic Indicators

	2013	2014	2015	2016 Est.
Real Sector and Prices	(in annual percentage change, unless specified)			
Real GDP	3.1	2.8	2.4	1.9
Private consumption	4.6	3.3	4.8	1.6
Government consumption	2.7	3.1	3.5	3.3
Gross domestic fixed capital formation	2.6	-0.1	-3.2	-0.5
Building and construction	-4.3	9.3	2.2	3.6
Machinery, equipment and intellectual property products	11.3	-8.7	-7.7	-4.6
Exports	7.8	1.0	-1.4	0.9
Goods	8.2	0.8	-1.7	1.7
Services	6.0	1.6	0.3	-3.1
Imports	8.3	1.0	-1.8	1.2
Goods	9.9	1.5	-2.7	1.0
Services	-2.1	-2.2	5.1	1.9
GDP deflator	1.8	2.9	3.7	1.8
Headline inflation	4.3	4.4	3.0	2.4
Underlying inflation	4.0	3.5	2.5	2.3
Unemployment rate (%)	3.4	3.3	3.3	3.4
External Sector	(in percent of GDP)			
Overall BoP	2.7	6.2	11.8	0.4
Current account	1.5	1.4	3.3	4.5
Financial non-reserve assets	-1.3	2.9	6.4	-4.6
Fiscal Sector (General Government)	(in percent of GDP, end-Mar of fiscal year)			
Revenue	21.0	20.8	18.6	-
Expenditure	20.0	17.3	18.0	-
Consolidated budget balance	1.0	3.6	0.6	-
Monetary and Financial Sector	(in annual percentage change, end-period, unless specified)			
M1	9.7	13.1	15.4	12.3
M3	12.4	9.6	5.5	7.7
Total loans	16.0	12.7	3.5	6.5
Classified loan ratio (%)	0.5	0.5	0.7	0.7
Capital adequacy ratio (%)	15.9	16.8	18.3	19.2
Memorandum Items				
Nominal GDP (in billions of USD)	275.7	291.4	309.4	320.7
Nominal GDP (in billions of HKD)	2,138.3	2,260.0	2,398.4	2,489.1
Interest rates (% end-period)				
HSBC's Best lending rate	5.0	5.0	5.0	5.0
Three-month Hibor	0.4	0.4	0.4	1.0
Asset prices				
Hang Seng stock index (end of period, 1964=100)	23,306	23,605	21,914	22,001
Residential property prices (end of period, 1999=100)	245.1	278.3	285.0	307.1
Spot exchange rate (HK\$/US1\$, period ave.)	7.756	7.754	7.752	7.762
Official reserve assets (US\$bn, end-period)	311.2	328.5	358.8	386.2

Sources: Bloomberg, CEIC

Indonesia

Output growth decreased to 4.9 percent in Q4 from 5.0 percent in Q3, driven by contraction in government consumption. Household consumption remained firm, while exports have started to rebound. On an annual basis, GDP growth in 2016 was 5.0 percent, a slight improvement from 4.9 percent the previous year.

Inflation picked up to 3.8 percent yoy in February on the back of increases in some food and administered prices.

In light of a rebound in price pressure and rising global interest rates, Bank Indonesia (BI) has kept the policy rate unchanged at 4.75 percent since October last year.

The current account deficit narrowed to 0.8 percent of GDP in Q4 from 1.9 percent in Q3 as rebounding commodity prices drove export growth. On an annual basis, the current account registered 1.8 percent in 2016, compared to 2.0 percent in 2015. As the economy picks up, the deficit will likely increase as import demand expands. Meanwhile, the prospects for the recovery of exports are contingent on the trajectory of commodity prices. We project the current account deficit to rise to around 2.1 percent of GDP in 2017.

While the tax amnesty bill was relatively successful in mobilizing revenue, it was not sufficient to stem the revenue decline, as the 2016 budget deficit was 2.5 percent of GDP, compared to the revised budget's target of 2.4 percent of GDP. The higher-than-expected deficit was largely due to relatively weak collection of non-oil and gas income tax and VAT amid moderated economic performance and low commodity prices.

Banking credit growth slightly moderated in 2016 at 7.9% yoy, but expected to expand by 9-12% in 2017, in line with the improving domestic outlook. Meanwhile, the deterioration in banks' asset quality seems to have abated, and the banking sector remains well-capitalized to administer credit expansion. Despite subdued growth in banks' lending activity, nonbank financing gained significantly as domestic consumption strengthened. Banking sector is expected to gain momentum, shortly following the pick-up in nonbank financing sector.

Global uncertainties which hit the emerging markets in 2016 seemed to have a temporary effect on the Indonesian financial market. The rupiah posted a 2.3% gain over the course of the year. In addition, capital market continued to demonstrate a strengthening trend. This strengthening trend was accompanied by significant nonresident inflows, especially in the government debt market.

The main risks to growth are factors that may hamper investment and government consumption. One is the effectiveness of the economic policy packages in improving the investment climate for the private sector. One key challenge in public investment is overcoming obstacles in implementing infrastructure spending.

Inflation risks are moderate in light of firmer commodity prices and further potential increases in administered prices. Monetary policy would need to be carefully calibrated to both support growth and maintain external stability in the event of heightened volatility in global financial markets.

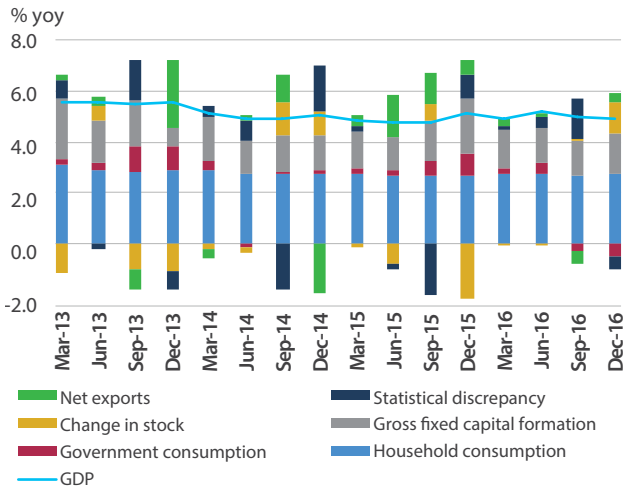
A key risk in the external sector remains the volatile capital flows. The current account deficit has narrowed, supported by the recent rebound in commodity prices, while it may increase going forward as import demand expands along with infrastructure investment. As far as the financial account is concerned, vulnerability lies in potential episodes of acute outflows.

The government's strong commitment to tax reform should help broaden the tax base and increase revenue intake to finance for needed infrastructure investment. As tax amnesty expired in March and the rebound in economic growth has yet to gain full traction, it may be challenging for the government to meet its revenue target. It is critical that the authorities remain committed to fiscal reform in order to raise revenue to fund essential infrastructure investment and other social programs in the period ahead.

The rise in NPL over the past few years has been well-mitigated, although it warrants monitoring going forward. The banking sector, particularly the four largest banks, has a relatively ample capital cushions and should be able to absorb losses on most banks' balance sheets.

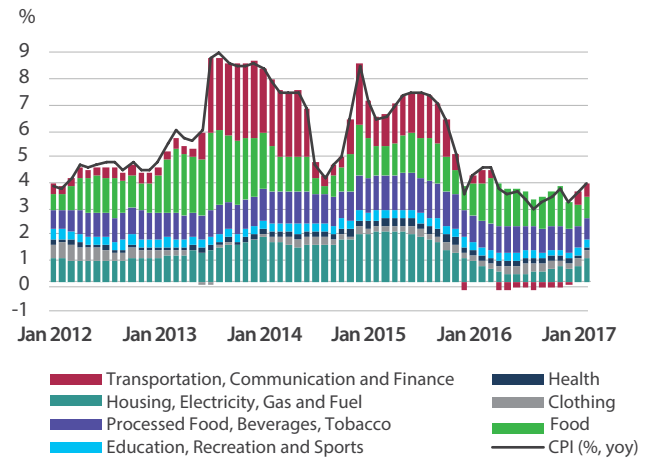
Indonesia: Selected Charts

GDP growth increased slightly last year...



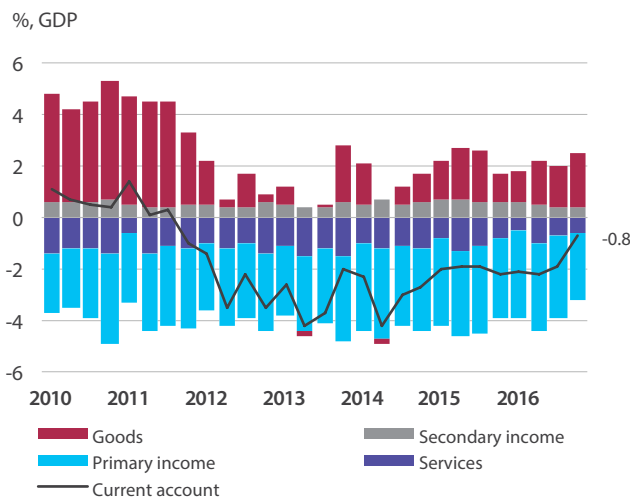
Source: Central Bureau of Statistics

...and inflation has bottomed out and started to pick up...



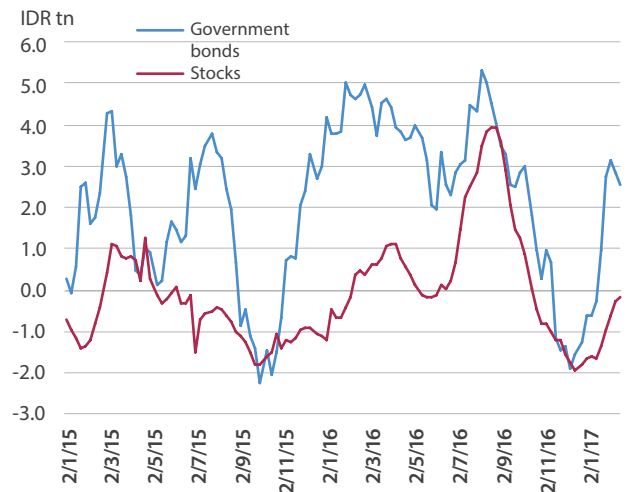
Source: Central Bureau of Statistics

...while import compression and rebounding commodity prices helped contain the current account deficit.



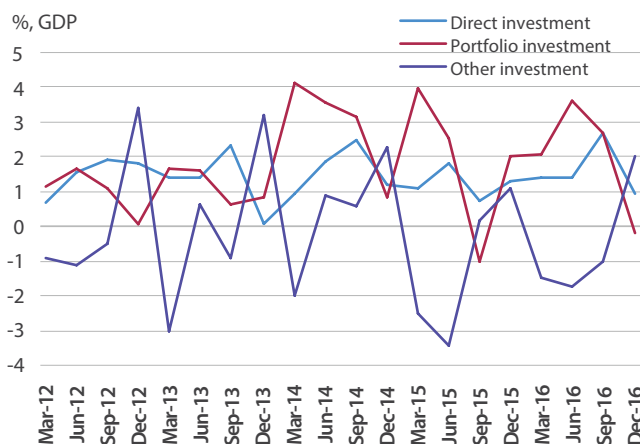
Sources: Bank Indonesia, AMRO staff calculations

The country experienced bouts of volatile capital flows in the latter half of last year...



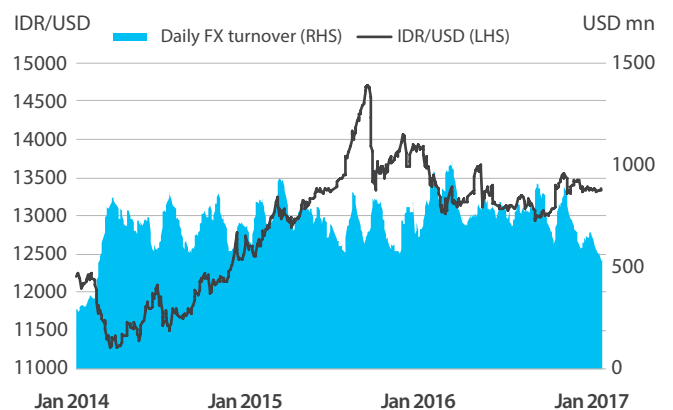
Sources: Bank Indonesia, Central Bureau of Statistics

...but net capital flows were positive for the whole year...



Sources: Bank Indonesia, AMRO staff calculations

...leading to currency appreciation.



Sources: Bank Indonesia, AMRO staff calculations

Indonesia: Selected Economic Indicators

	2013	2014	2015	2016
Real Sector and Prices	(in annual percentage change)			
Real GDP	5.6	5.0	4.9	5.0
Household consumption	5.4	5.1	5.0	5.0
Government consumption	6.7	1.2	5.3	-0.1
Gross fixed capital formation	5.0	4.4	5.0	4.5
Change in stocks	-28.6	31.4	-31.0	23.7
Export	4.2	1.1	-2.1	-1.7
Import	1.9	2.1	-6.4	-2.3
Headline inflation (end-period)	8.1	8.4	3.4	3.0
External Sector	(in percent of GDP)			
Current account balance	-3.2	-3.1	-2.0	-1.8
Trade balance	0.6	0.8	1.6	1.6
Oil and gas	-1.1	-1.3	-0.7	-0.5
Non-oil and gas	1.7	2.1	2.3	2.2
Financial account balance	2.4	5.0	2.0	3.1
Foreign direct investment (net)	1.3	1.7	1.2	1.6
Portfolio investment (net)	1.2	2.9	1.9	2.0
Other investment (net)	-0.1	0.5	-1.2	-0.5
Overall balance	-0.8	1.7	-0.1	1.3
Fiscal Sector (Central Government)	(in percent of GDP)			
Revenue and grant	15.1	14.7	13.1	12.5
Expenditure	17.3	16.8	15.7	15.0
Budget balance	-2.2	-2.1	-2.6	-2.5
Monetary and Financial Sector	(in annual percentage change)			
Broad money	12.8	11.9	9.0	10.0
Private sector credit	20.0	12.6	9.6	7.7
BI Policy Rate	7.5	7.8	7.5	4.75
Memorandum Items				
Nominal GDP (in billions of USD)	913.5	890.3	861.0	932.9
Nominal GDP (in millions of rupiah)	9,546.13	10,569.71	11,531.72	12,406.81
Exchange rate (rupiah/USD)	10,461.2	11,865.2	13,389.4	13,312.7
International reserves (USD bn)	112.8	111.9	105.9	116.4
External debt (percent of GDP)	29.0	32.0	33.0	33.6

Sources: Central Bureau of Statistics, Ministry of Finance, Bank Indonesia, AMRO staff calculations.

Japan

Japanese economy will likely continue its strong growth above potential in FY2017. Real GDP grew by an annualized 1.2 percent in the Q4 2016, following the strong growth of average 1.8 percent for the previous three quarters. Exports picked up rapidly in Q4 on the back of economic recovery in advanced economies. Business investment remained resilient, staying in the moderate increasing trend. Meanwhile, private consumption has been still sluggish despite the steady increase in wages and employment and the growth of residential investment has been moderating. In FY2017, the real GDP is expected to be grow by 1.3 percent in FY2017, helped by external demand and domestic policy supports. Risk to this outlook is tilted toward downside as the emergence of trade protectionism and its repercussion to global growth would weigh on the recovery of Japanese exports. In addition to a support by macroeconomic policies, structural reforms are crucial for the sustainability of high growth.

Consumer prices have remained subdued and the accommodative monetary policy has continued. CPI (less fresh food) inflation had been negative or zero for one year, before it turned to positive 0.1 percent in January 2017. Downward pressures remain sizable with appreciated JPY, offset somewhat by the gradual recovery trend in commodity prices. The CPI inflation is likely to increase gradually to around 0.6 for FY2017 in line with the increase in commodity prices as well as domestic economic activities. Since the introduction of QQE with Yield Curve Control (YCC), JGB yield curve seemed to be in line with the current guideline for its market operations, in which the target level of 10-year JGB yields is around zero percent.

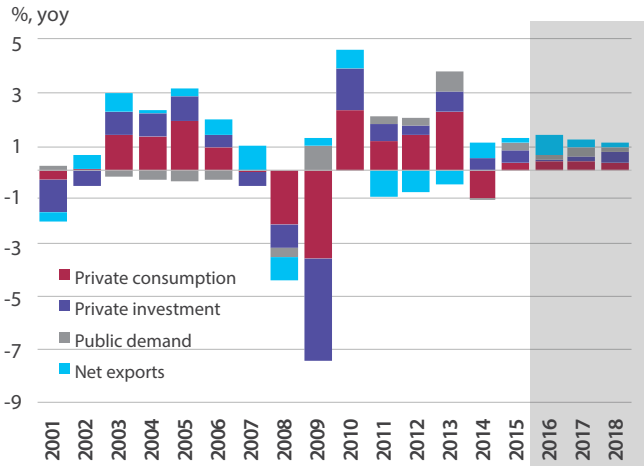
The external position has been robust with a sizable current account surplus. Trade surplus has widened as exports have picked up while imports have contracted. Since December 2016, Japanese investors have reduced their positions of foreign bonds and equities on a net basis. In the foreign exchange market, the JPY has been volatile, mainly due to uncertainties related to U.S. monetary, fiscal and trade policies.

Financial sector has remained stable, but the stress in the banking sector needs to be monitored. The overall financial condition continued to be accommodative as credit has increased at an accelerated pace of over 2.5 percent. Most banks in Japan have sufficient capital buffers, but suppressed interest margins continued to weigh on the banking sector profitability, particularly for small regional banks and Shinkin banks. The stress in the FX funding has eased recently, but it could increase again when Japanese investors resume their foreign purchases. Meanwhile, liquidity indicators suggest that the liquidity in the JGB market has remained deteriorated amid persistently large purchase of JGBs by the BOJ.

Fiscal discipline and sustainability remained key challenges for the government. The fiscal stance remained expansionary with a sizable stimulus package, together with the delay in the consumption tax hike. FY2017 budget aims to run the central government primary deficit at around 2.0 percent of GDP compared to 2.5 percent estimated for FY2016. The budget is viewed as well targeted with measures to address ageing population and low fertility rate. However, pressures for additional spending exist with the implementation of the economic stimulus package announced last year as well as rising demand for social security and infrastructure investment. Further shift to fiscal expansion could raise concerns about the government's commitment to fiscal discipline and consolidation. Any event that negatively affects fiscal sustainability could increase pressures on sovereign ratings and JGB yields.

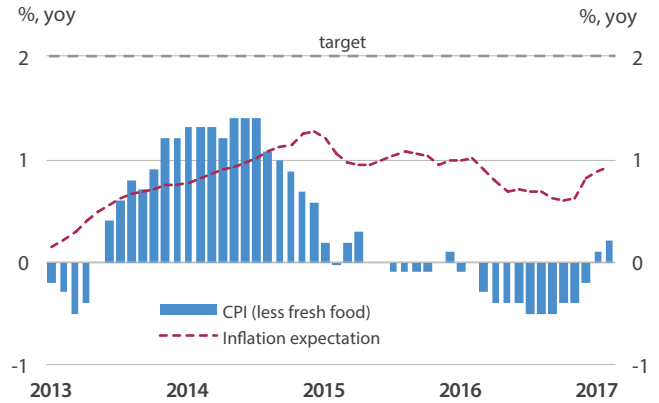
Japan: Macroeconomic Developments

Real GDP has grown above its potential.



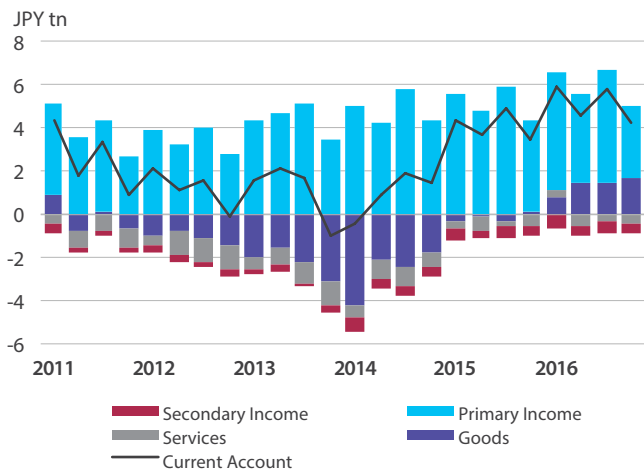
Source: Cabinet Office

CPI inflation remained subdued.



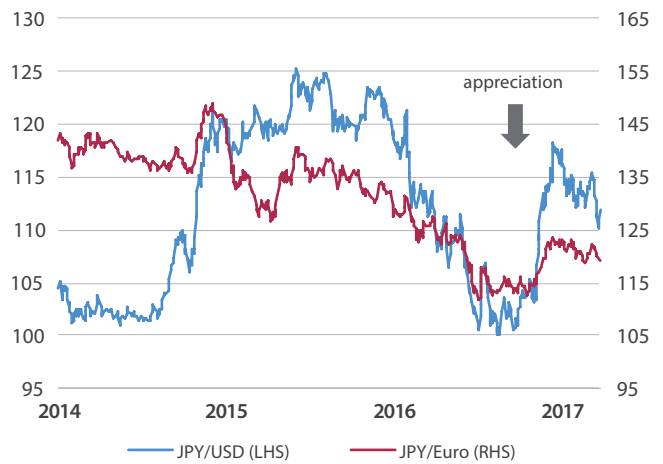
Sources: Statistics Bureau (Ministry of Internal Affairs and Communications), Japan Center for Economic Research.

Current Account Surplus remained sizable.



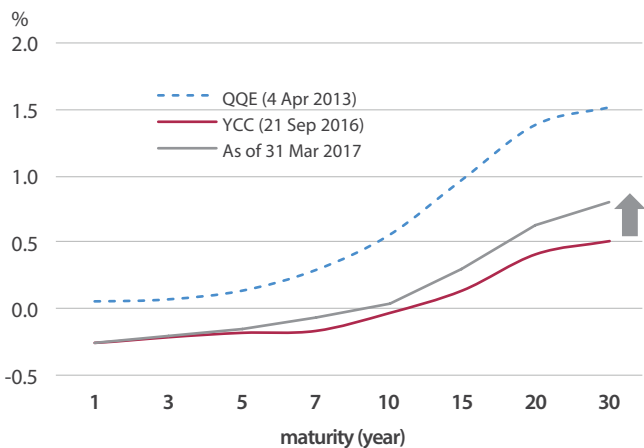
Source: Ministry of Finance

The JPY has appreciated since December 2016.



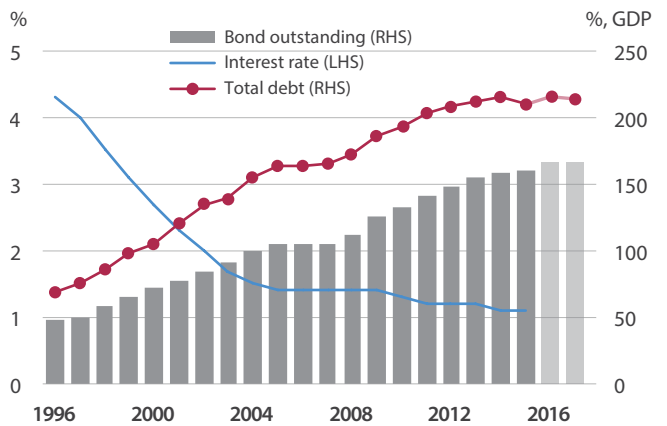
Source: Bank of Japan

The JGB yield curve has stiffened recently.



Source: Ministry of Finance

Central government debt remained heightened.



Source: Ministry of Finance

Japan: Selected Economic Indicators

	2012	2013	2014	2015	2016 Est.
Real Sector and Prices	(in annual percentage change, unless specified)				
GDP growth	0.9	2.6	-0.4	1.3	1.4
Private consumption	1.8	2.7	-2.7	0.5	0.7
Business investment	2.4	7.0	2.4	0.6	3.1
Residential investment	5.1	8.3	-9.9	2.7	6.4
Government consumption	1.3	1.7	0.4	2.0	0.5
Public investment	1.3	8.6	-2.1	-2.0	-0.3
Net export (ppts)	-0.8	-0.5	0.6	0.2	1.0
Exports	-1.6	4.4	8.8	0.8	5.7
Imports	3.8	7.1	4.2	-0.2	1.5
Labour Market	(in monthly average for the period)				
Unemployment rate (% sa)	4.3	3.9	3.5	3.3	3.1
Ratio of job offers per one applicant (sa)	0.8	1.0	1.1	1.2	1.4
Prices	(in monthly average for the period)				
CPI (all items)	-0.3	0.9	2.9	0.2	-0.1
CPI (less fresh food)	-0.2	0.8	2.8	0.0	-0.3
External Sector	(in JPY trillion, unless specified)				
Current account balance	4.2	2.4	8.7	18.0	18.5
Current account balance (% of GDP)	0.9	0.5	1.7	3.4	3.4
Trade balance	-8.2	-13.8	-9.1	-1.1	5.6
Exports of goods, fob	63.9	70.9	74.7	74.1	72.5
Imports of goods, cif	72.1	84.6	83.8	75.2	66.9
Current account: income	14.5	18.3	20.0	20.6	14.8
Financial account	1.5	-1.0	13.8	23.8	21.0
International reserves (USD bn, period end)	1,254	1,279	1,245	1,262	-
Fiscal Sector (Central Government)	(in percent of GDP)				
Tax revenues	8.9	9.3	10.4	10.6	10.4
Expenditures	19.6	19.7	19.1	18.5	18.6
Primary balance	-5.6	-5.3	-3.1	-2.7	-2.5
Outstanding gov. debt (JPY tn)	992	1,025	1,053	1,049	1,095
Outstanding gov. debt	200.5	202.0	203.4	197.2	202.9
Monetary Sector	(in annual percentage change, unless specified)				
Monetary base	8.8	43.7	39.7	32.3	-
Overnight uncollateralized call rate (%)	0.082	0.073	0.068	0.063	-0.045
Memorandum Items					
Nominal GDP (in billions of USD)	5,939	5,056	4,678	4,433	4,982
Nominal GDP (in trillions of JPY)	494.7	507.4	517.8	532.1	539.7
Exchange rate (JPY/USD, period average)	82.9	100.1	109.7	120.1	108.3
Exchange rate (JPY/USD, end of period)	94.0	103.0	120.2	112.4	111.8
Nikkei 225 (JPY, end of period)	12,398	14,828	19,207	16,759	18,909
JGB 10 year yield (% end of period)	0.56	0.64	0.40	-0.05	0.04
Non-performing loan ratio (% end of period)	0.33	1.33	1.10	0.97	-

Notes:

- 1) The fiscal year is from April 1 to March 31
- 2) The BOP data in external sector follow the IMF BPM6 standard.
- 3) In the column of AMRO estimation for FY2016, actual data are used for overnight uncollateralized call rate, exchange rate (JPY/USD), Nikkei225, JGB 10 year yield.

Sources: National Authorities, IMF, AMRO staff estimates

Korea

The Korean economy continued to show modest growth in 2016. In Q4, Korea's GDP growth slowed further but less severely hit by the outbreak of political turmoil than expected, mainly due to a strong rebound in facilities investment. With this Q4 outturn, annual GDP growth has recorded 2.8 percent, which is the same as in the previous year.

Employment growth remains stagnant, showing a lack of improvement. Manufacturing sector employment growth has turned negative since July 2016 when corporate restructuring started in earnest. In contrast, service sector employment steadily increased, but may be adversely influenced by worsening consumer sentiment.

Inflationary pressure emerged, mainly due to cost-push factors. In recent months, consumer and producer prices showed a surge, mainly driven by a delayed pass-through of oil price rises and food supply disruptions from the avian influenza and foot-and-mouth disease outbreak. However, demand-side inflation pressure remains subdued with negative output gap.

In 2016, the current account continued to register a slew of surplus, while the financial account showed an increase in net portfolio investment asset. The current account surplus amounted to around 7 percent of GDP, reflecting the goods account surplus. In the financial account, residents' overseas portfolio investment, seeking for higher yields, strongly increased, whereas foreigners' portfolio investment showed slight capital outflows over the year. In Q4 2016, the Korean won depreciated sharply against the U.S. dollar with elevated external uncertainties and net capital outflows. In Q1 2017, however, the currency reverted to appreciate amid weaker anticipation of strong U.S. dollar.

In the financial sector, household debt piled up amid a rise in borrowing rates. In Q4 2016, household credit rose to a record-high of KRW1,344 trillion. Tighter regulations on banks introduced last year contributed to a slower commercial bank loans, while led to a heightened growth in non-bank household loans. In recent months, benchmark lending rates showed a pick-up along with rising long-term bond yields, synchronized with the U.S. Treasury yields.

Looking ahead, the Korean economy is projected to grow by 2.5 percent in 2017, and 2.6 percent in 2018 amid rising global demand. Exports and facilities investment driven by a rising global demand of the IT products are expected to buttress growth, while private consumption remains sluggish and construction investment slows. The headline CPI inflation is expected to rise by 1.8 percent and 1.9 percent in 2017 and 2018, respectively.

High household debt and corporate restructuring should be addressed effectively in such a way that adverse impacts on growth and financial markets are minimized.

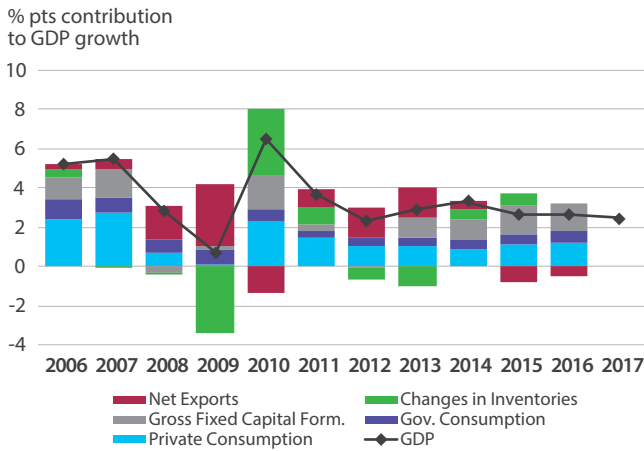
Notwithstanding Korea's modest loan-to-value ratios and low default rates, vulnerable group of borrowers with poor credit ratings and low income as well as self-employed borrowers are highly vulnerable to unfavorable interest rate and income shocks. Furthermore, corporate restructuring on selected industries with overcapacity, such as shipbuilding and shipping, may deteriorate labor markets even further, leading to negative spillovers to downstream industries and financial markets. Despite some potential side effects in the near-term, steadfast structural reform efforts on selected key areas — labor, public, finance and education — are highly encouraged to enhance growth potentials.

On the external front, the economy faces elevated uncertainties from the U.S. economic policies. The potential disputes between the U.S. and its trading partners on exchange rates and trade surpluses may pose downward pressures to Korea's trade prospects, while the anticipated Fed rate hike remains the foremost game-changer with regard to potential capital outflows.

Noteworthy, the U.S. trade policies against China may lead to adverse spillovers to Korean exporters via indirect channels. High dependence of Korean exporters on processing trades with China suggests that the potential trade conflicts between the U.S. and China may erode the exports destined to China more significantly if materialized.

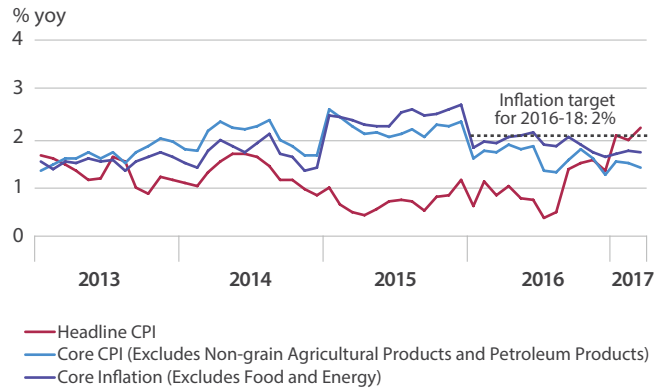
Korea: Selected Charts

In 2016, domestic demands continued to buttress growth, despite negative contributions from net exports.



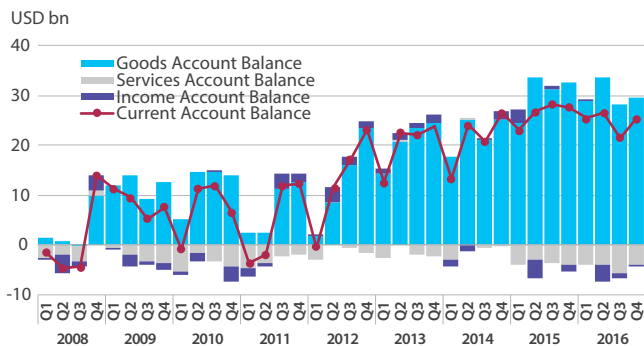
Sources: The Bank of Korea, AMRO Staff Estimates

Since H2 2016, the headline inflation showed a pick-up, largely due to cost-push pressures.



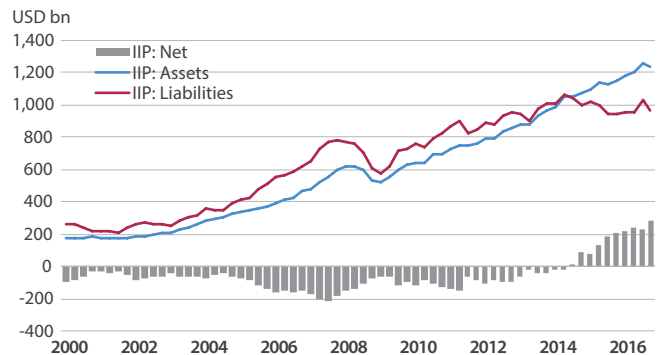
Source: Statistics Korea

In BOP, the current account continued to register a slew of surplus in 2016.



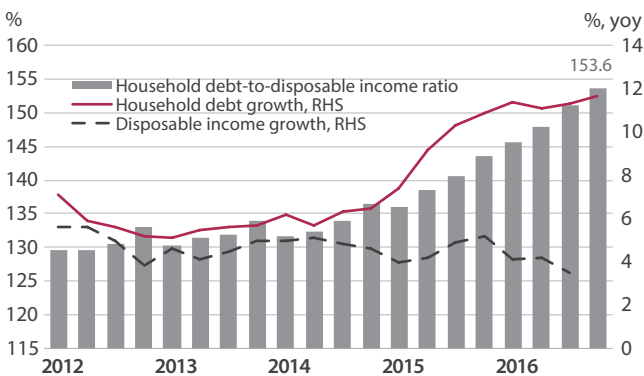
Source: The Bank of Korea

On the financial side, residents' overseas investments exceed inward foreign investments in stock.



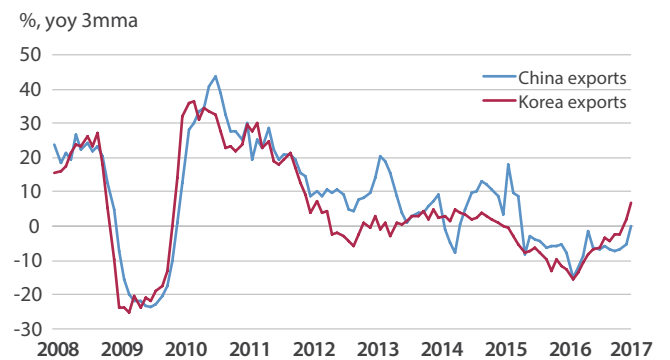
Source: The Bank of Korea

Household debt-to-income ratios continued to increase as the debt grew faster than the disposable income.



Source: The Bank of Korea

Korea's export performances have been closely associated with China's via global value chains.



Sources: Korea Customs Service, General Administration of Customs of China

Korea: Selected Economic Indicators

	2013	2014	2015	2016
Real Sector and Prices	(in annual percentage change, unless specified)			
Real GDP	2.9	3.3	2.8	2.8
Private consumption	1.9	1.7	2.2	2.5
Construction investment	5.5	1.1	6.6	10.7
Facilities investment	-0.8	6.0	4.7	-2.3
Exports of goods and services	4.3	2.0	-0.1	2.1
Imports of goods and services	1.7	1.5	2.1	4.5
Labor Market				
Unemployment rate (in percent)	3.1	3.5	3.6	3.7
Nominal wage growth	3.9	2.5	3.5	3.8
Prices				
CPI Inflation	1.3	1.3	0.7	1.0
Core Inflation, excluding food and energy	1.5	1.7	2.4	1.9
External Sector	(in billions of USD, unless specified)			
Current account balance	81.1	84.4	105.9	98.7
Current account balance (percent of GDP)	6.2	6.0	7.7	7.0
Trade balance	44.0	47.2	90.3	89.2
Exports	559.6	572.7	526.8	495.4
Imports	515.6	525.5	436.5	406.2
Financial account balance	80.1	89.3	106.3	100.4
Direct investment, net	15.6	18.8	19.7	16.4
Portfolio investment, net	9.3	30.6	49.5	66.3
Financial derivatives, net	-4.4	-3.8	1.8	-3.2
Other investment, net	43.3	25.9	23.3	13.1
Gross international reserves (end-period)	346.5	363.6	368.0	371.1
Fiscal Sector (Central Government)	(in percent of GDP)			
Consolidated fiscal revenue	22.0	21.6	21.8	22.9 e/
Consolidated fiscal expenditures	21.0	21.0	21.8	21.9 e/
Consolidated fiscal balance	1.0	0.6	-0.01	1.0 e/
Consolidated fiscal balance, excluding social security funds	-1.5	-2.0	-2.4	-1.4 e/
Monetary and Financial Sector	(in percent per annum, end-period, unless specified)			
Bank of Korea base rate	2.50	2.00	1.50	1.25
3-year Treasury bond yield	2.9	2.1	1.7	1.6
3-year, AA- Corporate bond yield	3.3	2.4	2.1	2.1
Broad money growth (percent change)	6.5	8.7	9.0	7.9
Exchange rate (won per USD, average)	1,095.0	1,053.1	1,131.5	1,160.4
Exchange rate (won per USD, end-period)	1,055.4	1,099.3	1,172.5	1,207.7
Memorandum Items				
Nominal GDP (in billions of USD)	13,054.0	14,110.0	13,824.0	14,110.0
Nominal GDP (in trillions of won)	1,429.4	1,486.1	1,564.1	1,637.4

Note:

1) The figures ending with e/ indicate estimates.

Sources: National Authorities, AMRO staff estimates

Lao PDR

Growth of the Lao economy is expected to pick up slightly in 2017 after some moderation in the previous year.

Growth for 2017 is anticipated to increase slightly to 7.0 percent, supported by an emerging hydropower sector and a growing services sector. Headline inflation has continued to be low, but edged up over recent months, and is expected to rise further to around 3.0 percent in 2017, mainly driven by a rise in fuel prices and a pickup in domestic food prices.

The fiscal deficit is estimated to widen to 6.2 percent of GDP in FY2015/16 from 5.2 percent in FY2014/15, as tax revenue declined significantly on account of a fall in profit taxes, VAT and royalties.¹ As for 2017, the fiscal deficit is expected to widen further to 6.9 percent of GDP. Fiscal risks are growing largely due to increasing challenges to revenue mobilization.

Revenue collection will likely continue to face downside pressure. This is because further improvement in commodity prices could be limited, and an improvement in fiscal management could be slow. Efforts to improve tax administration with the implementation of new measures, and to diversify the sources of revenue should be stepped up. As widening deficits are mostly financed by increased external borrowings, risk of debt distress may be building up, and a medium-term fiscal consolidation plan is needed to contain such risks. Furthermore, the Laos-China railway project, is likely to have implications for both fiscal and external debt positions and management.

The current account deficit improved in 2016, but is expected to widen somewhat in 2017. In 2016, the current account deficit is anticipated to decline, mainly due to an improvement in exports and further import contraction. For 2017, the current account deficit is expected to widen somewhat. Imports are likely to increase, reflecting continued construction activities and stronger domestic demand, while exports are projected to increase at a more moderate pace. Official gross reserves have continued to drop since Q2 2015 and reached USD815 million in 2016, sufficient to cover about 1.3 months of imports of goods and services, approximately 3 months of non-FDI related imports, according to AMRO's estimates.²

The kip has appreciated significantly in real effective terms. Since 2015, in terms of nominal exchange rate, the kip has moved within a very narrow range against the U.S. dollar and appreciated against the Thai baht, the Chinese RMB and other regional currencies. In real effective terms, the kip is estimated to have appreciated by as much as 40.0 percent since the global financial crisis period of 2007-08.³

The gap between the parallel rate and the official rate which has narrowed since early 2017 may resume if demand for foreign currencies surges driven by fast rising imports. This could further affect official gross reserves should the official FX rate continue to move narrowly against the U.S. dollar.

Risks related to increasing NPLs and low capital adequacy levels at state-owned banks remain significant. In addition, lending in foreign currencies has also risen rapidly, funded by overseas borrowing through banks. This could lead to increasing currency-mismatch risks. Macroprudential measures could be employed to reduce such risks in view of the rising private sector borrowing in foreign currencies.

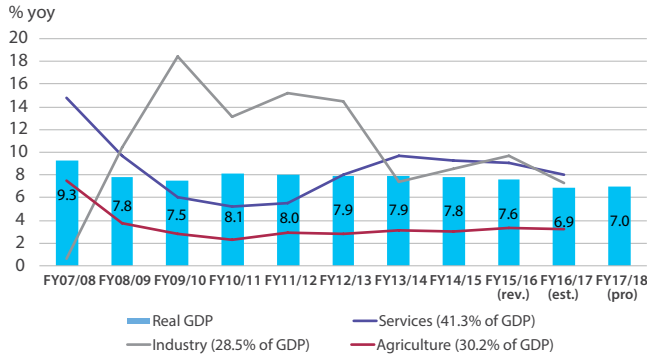
¹ The fiscal year is from October to September. Starting from 2017, the fiscal year will be the same as the calendar year.

² The import cover reported by the BoL was 5.3 months of non-FDI related imports as of end-2016.

³ Based on AMRO's estimates, using exchange rates and inflation rates of 20 trading partners of Lao PDR for the period of 2004-2017.

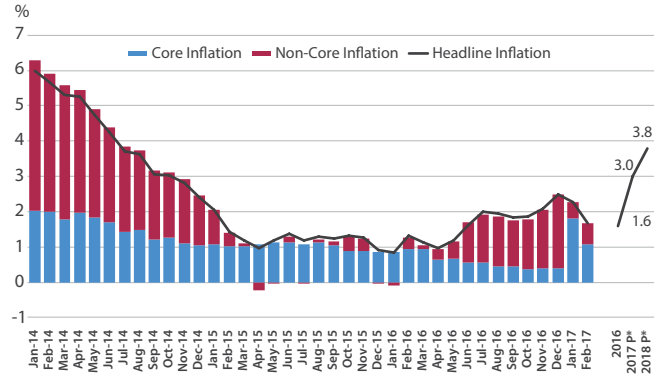
Lao PDR: Selected Charts

After some moderation in the previous year, GDP growth is estimated to slightly pick up in 2017, supported by an emerging hydropower sector and a growing services sector.



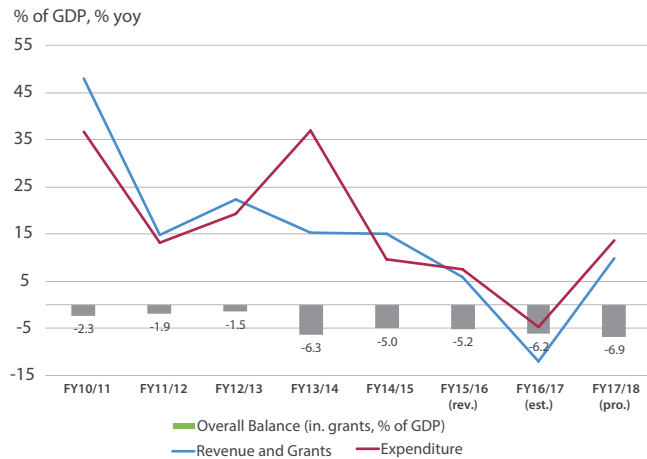
Note: (est.) and (p*) denote estimates and projections of GDP growth. Source: Lao Statistics Bureau

Headline inflation has continued to be low, but edged up over recent months, and is expected to rise further to around 3.0 percent in 2017.



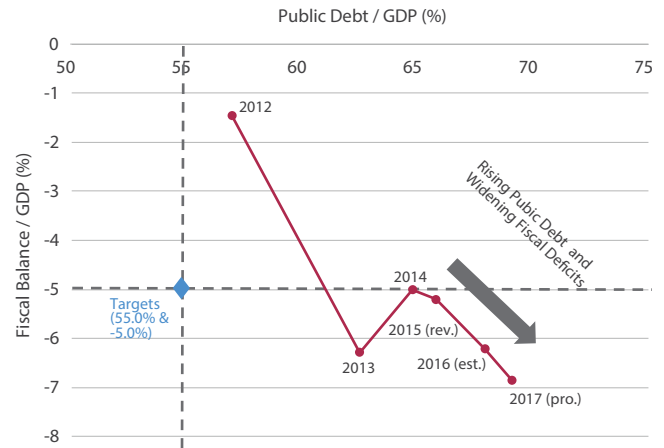
Note: (p*) denotes inflation projections. Sources: Lao Statistics Bureau, Bank of Lao PDR, AMRO staff projections

Expenditure is likely to grow faster than revenue and grants, leading to widening fiscal deficits.



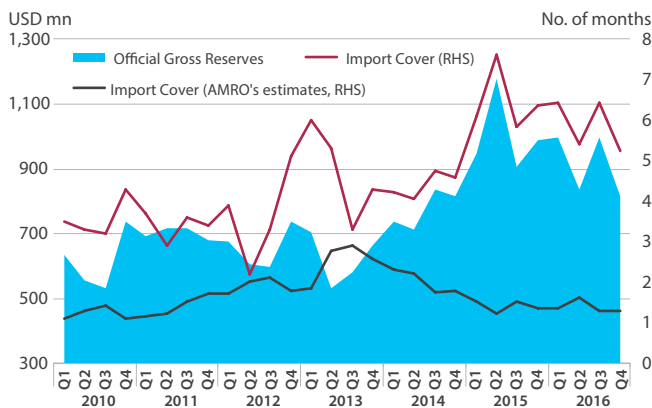
Note: (rev.), (est.) and (pro.) denote revised, estimated and projected fiscal data. Source: Ministry of Finance

Mitigating fiscal risks and increasing fiscal space remain crucial for the authorities.



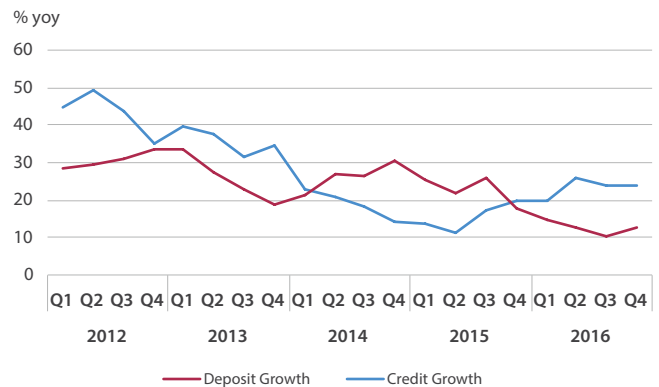
Source: Ministry of Finance

Official gross reserves have continued to drop since Q2 2015 and reached USD815 million at end-2016, able to cover 5.3 months (official calculations) against 1.3 months (AMRO's estimates).



Sources: Bank of Lao PDR, AMRO staff estimates

Since the introduction in August 2015, the new interest rate policy (caps on kip interest rates) has driven a pick-up in credit growth and a significant decline in deposit growth.



Sources: Bank of Lao PDR, AMRO staff estimates

Lao PDR: Selected Economic Indicators

Indicators	2013	2014	2015	2016
Real Sector and Prices	(in annual percentage change, unless specified)			
Real GDP	8.4	7.8	7.6	6.9
Consumer price inflation (average)	6.4	4.1	1.3	1.6
External Sector	(in billions of USD, unless specified)			
Export	3.9	4.7	4.4	4.6
Import	7.4	8.0	7.5	6.9
Trade balance	-3.5	-3.3	-3.1	-2.2
Current account balance	-3.1	-2.9	-2.8	-2.0
In percent of GDP	-30.2	-25.7	-22.9	-14.7
Capital and financial balance	1.3	2.3	2.8	2.4
In percent of GDP	12.8	19.9	22.8	17.3
Overall balance	-0.1	0.2	0.2	-0.2
External debt, gross	4.2	5.4	5.6	-
In percent of GDP	41.2	47.8	45.2	-
Official gross reserves	0.7	0.8	1.0	0.8
In months of imports of goods & services	1.0	1.2	1.5	1.3
In months of non-FDI imports	2.2	2.5	3.4	3.0
Exchange rate (against USD, period average)	7,833	8,042	8,125	8,124
Fiscal Sector (General government)	(in percent of GDP, unless specified)			
Revenue and grants	24.3	24.8	23.7	19.1
Expenditure	30.6	29.9	28.9	25.2
Current expenditure	19.7	18.9	17.6	16.5
Capital expenditure	10.9	10.9	11.1	8.8
Interest payment	1.2	0.9	1.1	1.2
Net lending/borrowing balance (ex. Grants)	-12.4	-10.8	-10.5	-7.9
Net lending/borrowing balance (incl. Grants)	-6.3	-5.0	-5.2	-6.2
Primary net lending/borrowing balance (in. Grants)	-5.1	-4.2	-4.1	-5.0
Monetary Sector	(in annual percentage change)			
Domestic credit	34.5	14.2	19.9	23.7
Credit to the private sector	36.3	11.7	19.3	22.0
Credit to SOEs	28.0	23.7	8.2	46.1
Deposit	18.9	30.3	17.6	12.7
In foreign currencies	16.8	29.6	16.0	19.0
In local currency	21.1	31.1	19.2	6.6
Banking capital adequacy	-	22.3	19.6	17.7
NPLs	2.1	2.2	3.1	3.0
Memorandum Items				
Nominal GDP (in billions of USD)	10.2	11.3	12.4	13.7
Nominal GDP (in billions of LAK)	80,199	90,823	100,413	111,636
Exchange rate (against USD, average)	7,833	8,042	8,125	8,124

Notes:

1) GDP data and fiscal sector data are on a fiscal year basis, up to FY2015/16, starting from October to September. Starting from 2017 onward, the authorities will adopt the calendar year as the fiscal year.

2) Data for external sector in 2016 are AMRO staff estimates.

3) Data for 2016 are AMRO staff estimates.

Sources: Lao Statistics Bureau, Bank of Lao PDR, Ministry of Finance, CEIC, ADB, IMF, World Bank, AMRO staff estimates and projections.

Malaysia

Growth picked up to 4.3 percent in Q3 2016 and 4.5 percent in Q4 2016, after moderating for five consecutive quarters on the back of robust household consumption.

Net exports turned around to register an average positive contribution of 0.5 percentage point (ppt) in the H2 2016, compared to the average negative contribution of 0.54 ppt from Q1 2015 to Q2 2016. Going forward, the outlook is for the economy to expand at a slighter faster pace of 4.5 percent in 2017. Meanwhile, inflation increased to 4.5 percent in February 2017, from 1.3 percent in Q3 2016.

In USD terms, Malaysia's exports contracted in 2015 and in the first seven months of 2016, but turned around starting August 2016.

Overall, both exports and imports have been on a declining trend since 2014 following the sharp decline in oil and commodity prices. However, starting August 2016, exports growth returned to positive territory (except in October 2016). The current account surplus likewise have declined to 0.6 percent of GDP in Q2 2016 but increased to 1.9 percent and 3.7 percent of GDP in Q3 2016 and Q4 2016, respectively.

The government achieved its goal of having fiscal-deficit-to-GDP ratio of 3.1 percent in 2016, and is targeting a deficit of 3.0 percent in 2017.

We commend the government's efforts towards fiscal consolidation. Although low oil prices resulted in significantly lower petroleum-related revenues in 2016, goods and services tax (GST) and fuel subsidy reforms helped strengthen the fiscal sector and enabled the government to achieve the deficit target of 3.1 percent. In 2017, the government targets a deficit of 3.0 percent, and expects a revenue increase of 3.4 percent, as well as operating expenditure and development expenditure to increase by 3.7 percent and 2.4 percent respectively.

Amid heightened external and financial market volatility associated with a series of events starting with the possibility of Fed rate hike, and continuing with the outcome of the U.S. elections, and the actual Fed rate hike in December, capital flowed out in H2 2016.

Exchange rate flexibility helped weather external sector volatilities. Moreover, *Bursa Malaysia* data reveal reduced net foreign selling by foreigners. So too, the ringgit and the amount of international reserves appear to have stabilized. Nonetheless, the need for vigilance remains, as it is possible that the bout of capital flow volatility is not over, considering the possibility of further Fed rate hike(s) in 2017. Although capital outflows seem to have abated recently, they need to be monitored carefully in terms

of financial market volatility and the effect on reserves. As of 15 March 2017, the reserves stood at USD94.9 billion, equivalent to 1.1 times short-term external debt, or 8.3 months of imports.

Though slightly decreased in 2016, household debt as percentage of GDP remains among the highest in the region, and requires continued vigilance.

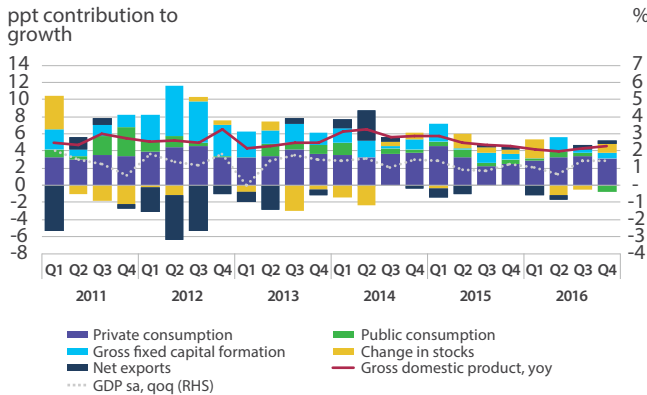
Although macroprudential measures have helped contain the risks and households have substantial financial assets, continued monitoring is warranted.

A slowdown in China, a possible fallout from Brexit, as well as slower-than anticipated growth in the E.U., may pose downside risks to Malaysia's growth prospects. On the other hand, the U.S. fiscal stance may have some positive spillover effects on Malaysia's growth.

AMRO staff studies indicate that on impact, the cumulative response of Malaysia's GDP growth to a China growth shock represents about 65 percent of the China growth shock. With respect to concerns about the possible fall-out from Brexit, our study estimates that a shock to E.U.'s output gap has a smaller impact on Malaysia's output gap as compared to a shock in China. Although China has become Malaysia's top trading partner recently, a large part of the final demand for Malaysia's exports still goes to advanced economies like the U.S. instead of China.

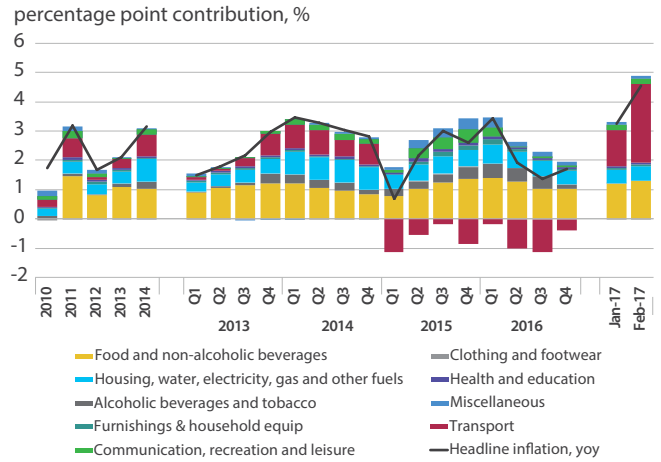
Malaysia: Selected Charts

GDP growth moderated for the fifth consecutive quarter in Q2 2016, but picked up in Q3 and Q4 2016.



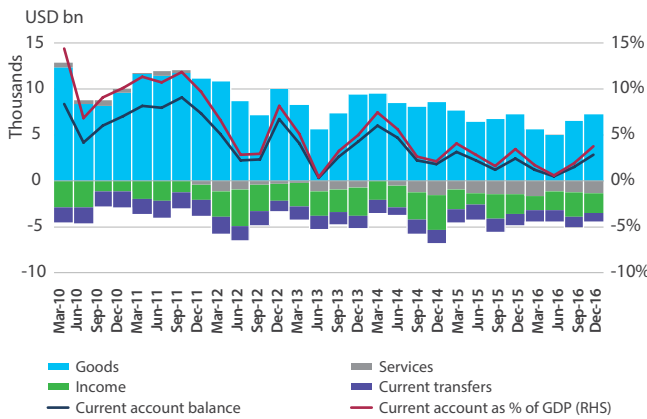
Sources: CEIC, Department of Statistics Malaysia

Inflation has been low, but picked up in recent months.



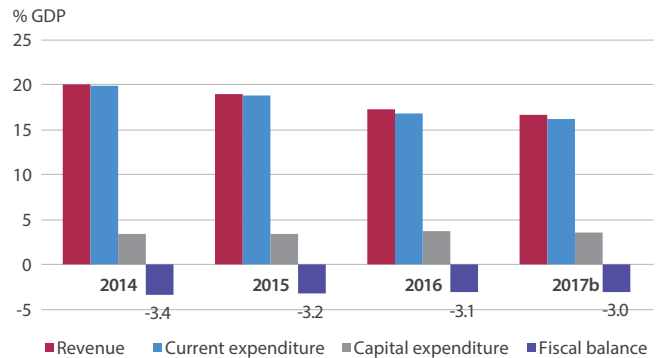
Sources: CEIC, Department of Statistics Malaysia

The current account surplus declined to 0.6 percent of GDP in Q2 2016, but increased to 1.9 percent and 3.7 percent in Q3 and Q4 2016, respectively.



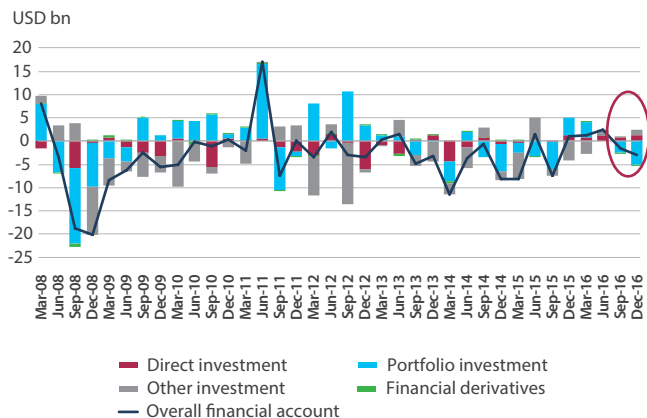
Sources: CEIC, Department of Statistics Malaysia

The government achieved its target of fiscal-deficit-to-GDP ratio of 3.1 percent in 2016, and is targeting a deficit of 3.0 percent in 2017.



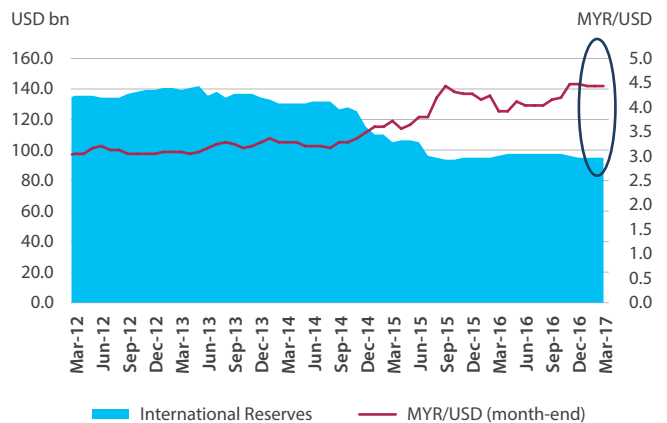
Note: 2017b = 2017 budget estimate by MOF
Sources: CEIC, Bank Negara Malaysia, MOF, Economic Report 2016/2017

Portfolio outflows ensued amid heightened external and financial market volatility in H2 2016.



Sources: CEIC, Department of Statistics Malaysia

The ringgit and reserves have been under pressure, but appear to have stabilized recently.



Sources: CEIC, Bank Negara Malaysia

Malaysia: Selected Economic Indicators

	2013	2014	2015	2016
Real Sector and Prices	(in annual percentage change, unless specified)			
Real GDP (in billions of USD)	303.3	309.5	272.2	267.5
Real GDP	4.7	6.0	5.0	4.2
Private consumption	7.2	7.0	6.0	6.1
Public consumption	5.8	4.3	4.4	1.0
Gross Fixed Capital Formation	8.1	4.8	3.7	0.0
Private	12.8	11.1	6.4	4.4
Public	1.8	-4.7	-1.0	-0.5
Net exports	-9.8	13.2	-3.8	-1.8
Exports	0.3	5.0	0.6	0.1
Imports	1.7	4.0	1.2	0.4
Unemployment rate (in percent of labor force)	3.1	2.9	3.1	3.4
Headline CPI inflation (in percent, average)	2.1	3.2	2.1	2.1
Core CPI inflation (in percent, average)	n.a.	n.a.	n.a.	2.5
External Sector	(in billions of USD, unless specified)			
Exports	228.6	234.0	199.1	189.8
Imports	206.0	208.8	175.7	168.7
Trade balance	22.6	25.2	23.4	21.0
Current account	11.3	14.8	8.9	6.1
Current Account (in percent of GDP)	3.5	4.4	3.0	2.0
External debt (in percent of GDP)	68.4	67.6	72.1	73.9
International Reserves	134.9	115.9	95.3	94.5
Fiscal Sector	(in percent of GDP)			
Revenue	20.9	19.9	18.9	17.3
Expenditure	24.7	23.3	22.1	20.4
Current expenditure	20.7	19.8	18.8	n.a.
Capital expenditure	4.0	3.5	3.4	n.a.
Fiscal balance	-3.8	-3.4	-3.2	-3.1
Federal government debt	53.0	52.7	54.5	52.7
Monetary Sector	(in percent)			
Policy rate (average)	3.1	3.3	3.9	4.1
Treasury bill rate (average)	3.0	3.1	3.1	2.8
10-year government securities (average)	3.7	4.0	4.0	3.8
Memorandum Items				
Nominal GDP (in billions of USD)	323.3	338.3	297.2	296.9
Nominal GDP (in billions of Ringgit)	1,018.6	1,106.5	1,157.1	1,229.4

Notes:

1) As of 2014, external debt has been redefined in line with international standards to include non-resident holdings of local-currency denominated debt paper and other debt-related non-resident financial flows such as trade credits, currency and deposits, and other loans and liabilities. The numbers here follow the new definition.

2) Starting 2016, MYR21.9 billion of debt (approximately 1.8% of 2016 GDP) has been transferred from the federal government to the Public Sector Home Financing Board. The numbers here reflect such change.

Sources: CEIC, Department of Statistics Malaysia, Bank Negara Malaysia, Malaysia External Trade Development Corporation

Myanmar

After a slowdown in FY 16/17 due to the floods, growth will likely improve in FY 17/18. Myanmar's economic growth in FY16/17 (ending 31 March) is expected to moderate to 6.0 percent from the previous year's 7.3 percent due to slowing agriculture and construction and declining gas prices. The economy is anticipated to strengthen in FY17/18 to around 7.0 percent, driven by higher manufacturing growth and a recovery in agriculture. The improvement in medium-term growth prospects could come largely from increased investments with the implementation of the new Investment Law; and improved export performance with the development of Special Economic Zones, including the commencement of production in Thilawa.

Inflation has declined due to base effects and monetary policy tightening. Inflation is expected to be around 6.8 percent in FY16/17, down from 10.0 percent a year ago due to diminished impact of the 2015 floods and tighter monetary policy. Authorities' efforts to enhance the monetary policy framework through stepped-up deposit auctions, full implementation of the new reserve requirement regime, and improved forecasting techniques have enhanced the central bank's ability to better manage inflation. A slightly higher inflation of 7.1 percent is expected in FY17/18 due to continued pressures from money supply and credit growth warrants continued tight monetary policy.

The current account deficit remains high, driven by a widening trade deficit while FDI inflows moderate. Expectations of a modest recovery in exports and high import growth for FY2016/17 are behind the projected widening of the current account deficit to 7.9 percent of GDP from 5.4 percent. Higher tourism receipts and remittances could not fully offset the rise in trade deficit, while FDI is seen to moderate as investors could put on hold new projects pending firmer economic policy pronouncements.

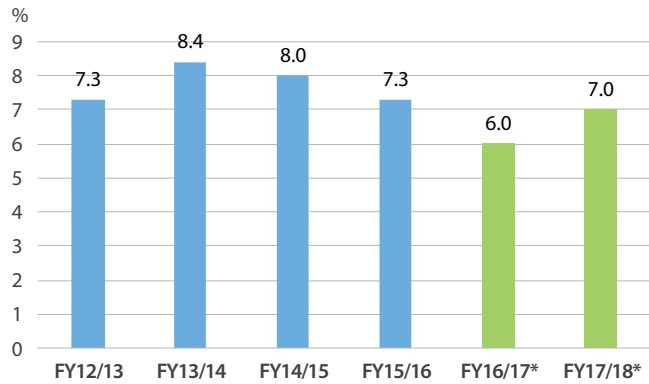
Risks to the financial sector come from continued high credit growth. Domestic credit has stabilized, but remains high at 30.0 percent. Also, non-performing loans (NPLs) have been rising along with loan portfolio, reaching 3.7 percent as of end-September 2016 from 1.7 percent at end-June 2015. The passage of the Financial Institutions Law is a welcome achievement. Regular onsite and offsite supervision for commercial banks and publication of financial soundness indicator are likewise positive measures that would further support financial stability. The issuance and implementation of regulations under the new law will be the next important step for financial sector risk mitigation.

External stability risks remain significant as the current account deficit continues to widen amid elevated global uncertainty. External sector risks emanate from the rising current account deficit. FDI is seen to grow at a slower rate of around 3.0 percent in FY2016/17 following double-digit growth in past years. Central bank foreign reserves are projected to remain below the conventional threshold of three-month import cover. It is essential to ensure that the gap between the formal and informal exchange rates does not widen significantly during the periods of increased FX pressures ahead.

The outlook for the fiscal sector remains challenging as falling revenues will require tighter expenditure management. After rising sharply to 4.5 percent of GDP in FY2015/16 due to falling revenues and rising expenditures, the fiscal deficit for FY2016/17 is expected to increase to 4.8 percent of GDP. Authorities' response in the form of continued enhancements in revenue administration, particularly the introduction of income tax self-assessment at the large taxpayer office is commendable. The authorities have also been exercising prudent spending even as needed social spending has been maintained. However, lower revenues, mainly from the resource sector, could translate to higher deficits. Authorities' commitment to cap central bank financing of the deficit at progressively lower shares of total financing until its full phase-out is thus welcome. Efforts to develop the Treasury bill market through market-determined interest rates and foreign bank participation, along with the launch of the Treasury bonds market are noteworthy. The development of the domestic debt market, allowing greater access to concessional loans and grants, will contribute to the government's objective to fully phase out deficit monetization by the central bank.

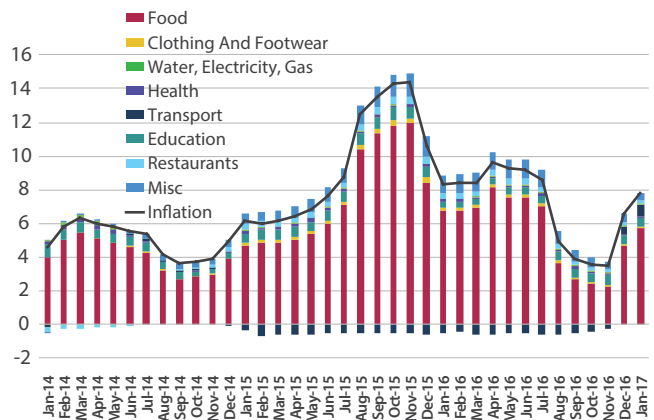
Myanmar: Selected Charts

Growth is expected to dip further in FY16/17 before recovering in FY17/18, driven by manufacturing and stronger agriculture.



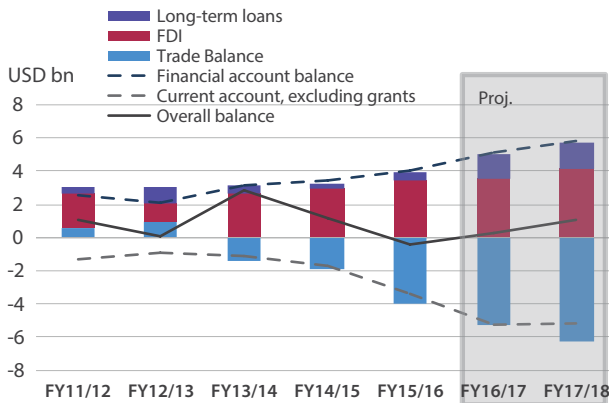
Note: Data for 2016/17-2017/18 represent AMRO staff estimates.
Sources: Planning Department, AMRO staff calculations

After falling due to base effects and tightened monetary policy, inflation has started to rise again driven by rising food and transportation prices.



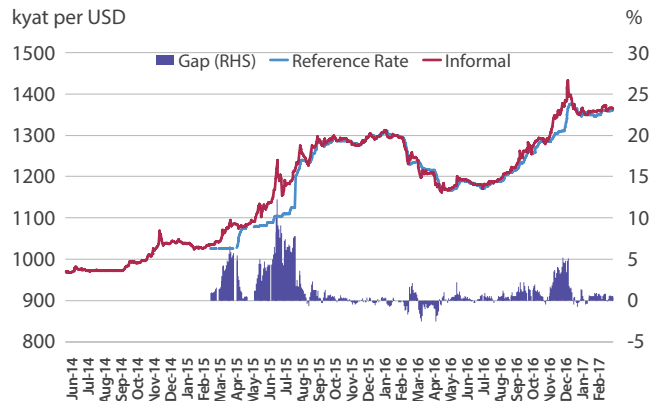
Source: Central Statistics Office

The current account deficit is projected to widen as imports rise while the external environment remains challenging.



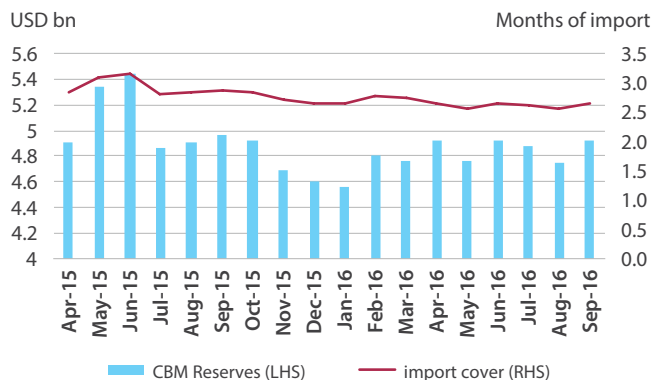
Sources: Central Bank of Myanmar, AMRO staff calculations

The gap between the reference and informal rate widened in Dec 2016 due to some rigidity in the reference rate, but has closed since then.



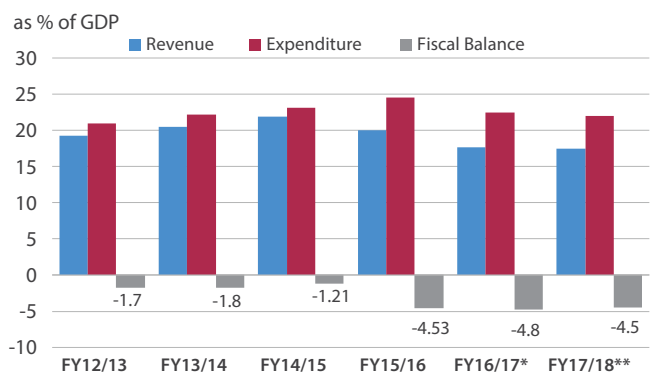
Sources: Central Bank of Myanmar, AMRO staff calculations

International reserves remain below the conventional threshold of three-month import cover.



Note: Import cover is in months of imports of goods and services
Sources: Central Bank of Myanmar, AMRO staff calculations

Revenue is expected to remain stable while lower spending keeps the fiscal deficit in check for FY2017/18.



Source: Budget Department

Myanmar: Selected Economic Indicators

	FY12/13	FY13/14	FY14/15	FY15/16	FY16/17 Est.
Real Sector and Prices	(in annual percentage change)				
Real GDP	7.3	8.4	8.0	7.3	6.0
CPI (base year=2012, end-period)	8.1	6.3	7.4	8.4	7.9
CPI (base year=2012, period average)	3.8	5.7	5.9	10.0	6.8
External Sector	(in millions of USD)				
Current account balance	-931	-1,091	-1,716	-3,413	-5,241
Trade balance	936	-1,395	-1,859	-4,006	-5,217
Exports	8,749	10,270	10,385	9,506	9,647
Gas Exports	3,573	3,024	4,294	3,707	2,719
Imports	-7,813	-11,665	-12,244	-13,512	-14,864
Services, net	-2,371	-891	-1,941	-1,521	-2,350
Transfers, net	1,553	1,684	2,401	2,498	2,748
Financial account	2,090	3,160	3,454	4,029	5,141
Foreign direct investment, net	1,152	2,621	2,916	3,443	3,546
ODA, net	927	525	315	445	1,482
Overall balance	51	2,855	1,169	-419	256
CBM reserves					
in millions of USD	3,156.0	4,419.0	5,124.6	4,764.0	5,019.8
in months of imports goods & services	2.4	2.8	3.4	3.0	2.7
External debt					
in billions of USD	13.7	10.2	7.9	8.5	-
in percent of GDP	23.0	18.0	12.1	12.6	-
Exchange rate (kyat/USD, end period)	879.5	965.0	1,034.5	1,211.0	-
Exchange rate (kyat/USD, period average)	862.7	962.5	997.2	1,218.2	-
Fiscal Sector (Consolidated Public Sector)	(in percent of GDP)				
Total Revenue	19.3	20.5	21.9	20.0	17.6
of which: Tax revenue	6.6	7.7	7.8	8.7	7.9
Non-tax revenue	0.9	1.5	3.6	2.4	1.8
SEE receipts	10.3	9.7	9.5	7.2	6.7
Total Expenditure	21.0	22.2	23.2	24.5	22.4
Fiscal Balance	-1.7	-1.8	-1.2	-4.5	-4.8
Public debt	39.6	34.2	29.7	32.3	-
Monetary and Financial Sector	(in annual percentage change)				
Reserve money	38.5	16.3	4.6	19.6	14.5
Broad money	46.6	31.7	17.6	26.3	18.6
Domestic credit	5.1	24.6	22.9	32.3	26.3
Private sector	50.5	52.5	36.3	34.2	27.1
Memorandum Items	(in annual percentage change)				
Nominal GDP (in billions of USD)	59.4	60.3	65.4	59.7	64.5
Nominal GDP (in billions of Kyat)	51,259	58,012	65,262	72,780	81,878

Notes:

- 1) The fiscal year is from April 1 to March 31
- 2) Real GDP series base year is 2010/11 prices
- 3) Consolidated public sector includes union and state/ region governments and state economic enterprises

Sources: National Authorities, AMRO staff estimates

The Philippines

Philippines' economy softened in the last quarters of 2016 on account of weather-related agriculture production shocks and slowdown in private sector construction. The economy is forecast to grow at 6.8 percent this year, supported by infrastructure investment, investment on transportation equipment, and household consumption. However, the growth may be lower than expected in the occurrence of shocks to the global economy that can affect the domestic economy, for instance through the remittances income as well as export. A stronger-than-expected impact of extreme weather conditions may also hinder food production.

Consumer price index has sped up since Q4 2016 due to weather disturbance's effect on food production and the increasing fuel prices. This year's average headline inflation is forecast to be in the upper band of the target at 3.1 percent, reflecting the diminishing effects of low energy prices and effect of planned excise tax hike on fuel and car in H2 2017.¹ Yet inflation may be higher than this forecast if crude oil prices increase faster than expected and impact of weather disturbances are more severe than expected.

The external position remains strong despite declined international reserves. The balance of payments recorded a deficit of 2.5 percent of GDP in Q4 2016 following an expanded infrastructure-related imports and increased foreign portfolio outflows post U.S. election. The gross international reserve decreased by USD5.4 billion in Q4 2016 but remained sufficient in terms of imports and short-term debt coverage. With faster infrastructure investment and increased price of oil imports expected going forward, the current account balance is forecast to record a deficit of 0.6 percent of GDP in 2017.

External position may be weakened if infrastructure-related imports grow faster than expected and global financial markets condition worsens. The current account balance may also be smaller than estimated if the U.S. protectionist policies unfavorably affect business process outsourcing (BPO) and remittances. Meanwhile, adverse developments in global financial markets may occur going forward, triggered by uncertainty from the Brexit process, further Fed rate hikes, and concerns on geopolitical tensions.

Tax revenue remained buoyant in 2016, while government infrastructure investment quickened, driven mainly by road infrastructure projects. The overall deficit is expected to be at 3.0 percent of GDP this year provided that sufficient revenue-increased tax reform is implemented in H2 2017 as planned. The successful implementation of the comprehensive tax reform is crucial to finance infrastructure spending, as well as to support a more inclusive household consumption and boost business competitiveness. However, fiscal deficit may exceed the target of 3.0 percent of GDP this year if the planned implementation of tax reform in the second half of 2017 is delayed. Government revenue may fall short of the target if the revenue enhancing measures fail to offset the decline in income tax revenue stemming from the income tax rate cut.

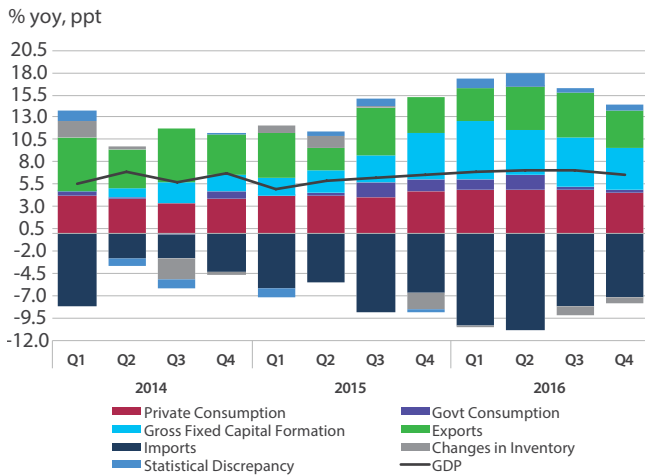
The BSP has been on a tightening cycle since the absorption of liquidity through TDF auction, resulted in increased TDF rate and bank's deposit rate. Despite this liquidity absorption, the position of monetary operation decreased, as the BSP requires trust entities to gradually empty their placement in its deposit facilities by end of June 2017. Yet reserve money softened and money supply (M3) slightly moderated. The interbank money market rates have been relatively stable, indicating a still ample liquidity, as reflected in the bid coverage ratio greater than one.

The banking system has remained sound with adequate capital buffers, sustained profitability, ample liquidity, and a low rate of non-performing loans. Bank loan and property demand slowed down as of end-January 2017 but are expected to strengthen this year, in view of the prospect of accelerated public construction and sustained BPO.

¹ Food inflation is expected to be more manageable, supported by the government plan to lift restriction on rice imports this year.

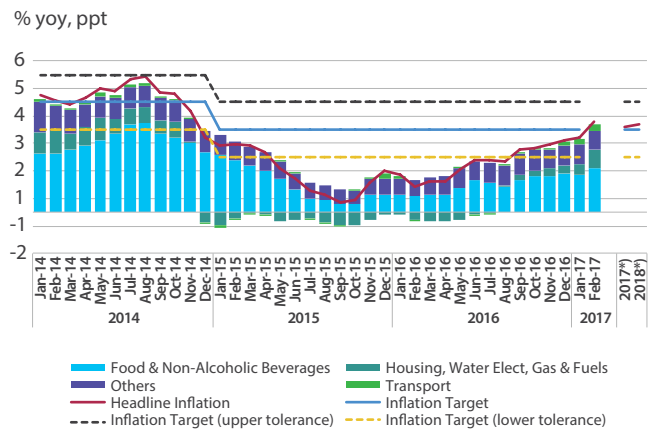
The Philippines: Selected Charts

Real GDP softened in Q4 2016 due to weather-related agriculture production shocks and slowdown in private sector construction.



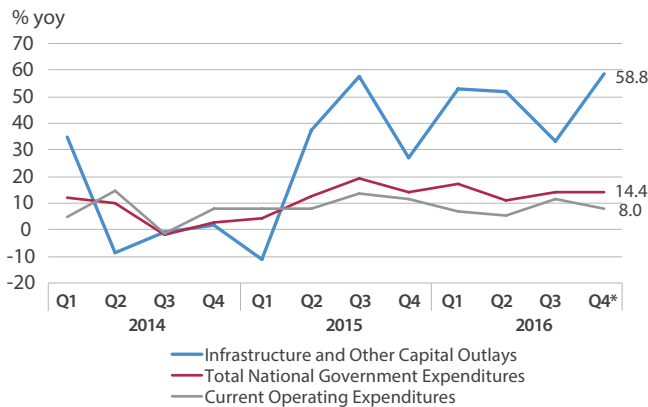
Source: Philippine Statistics Authority (PSA)

Headline inflation accelerated, driven by the crept up oil prices and food supply shocks.



Sources: PSA, Bangko Sentral ng Pilipinas (BSP)

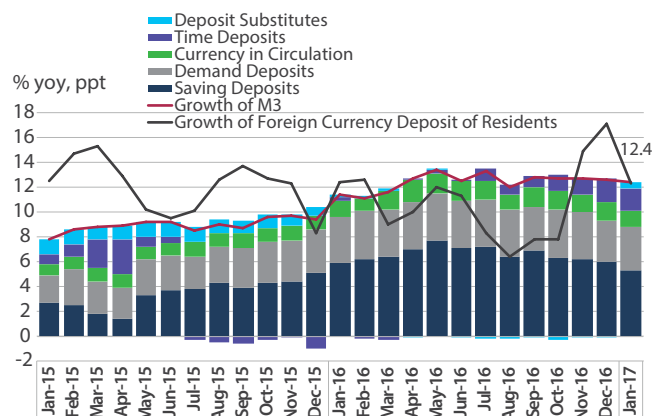
Government infrastructure investment quickened, driven mainly by road infrastructure projects.



Note: *) October-November

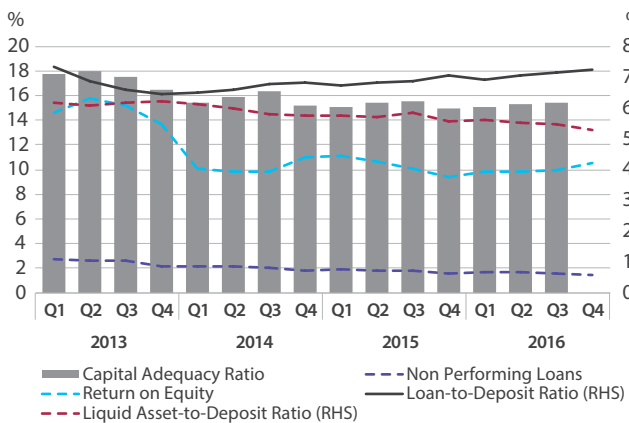
Source: Department of Budget and Management (DBM)

Money supply growth moderated in H2 2016, driven by liquidity absorption through the TDF auction, currency substitution of residents' deposits, and FX intervention.



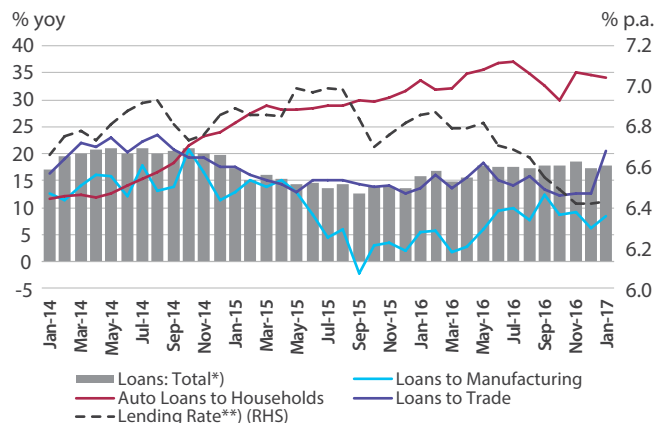
Source: BSP

The banking system has remained sound with adequate capital buffers, sufficient liquidity and a low level of non-performing loans.



Source: BSP

Growth of total loan remained soft, albeit slightly increased, while the fast growth of auto loans sustained.



Notes: 1) Universal & Commercial Banks, Net of Reverse Repurchase Arrangement; 2) High Lending Rates
Source: BSP

The Philippines: Selected Economic Indicators

	2013	2014	2015	2016
Real Sector and Prices	(in annual percentage change, unless specified)			
Real GDP	7.1	6.2	5.9	6.8
Final consumption	5.5	5.2	6.5	7.1
Household consumption	5.6	5.5	6.3	6.9
Government consumption	5.0	3.3	7.8	8.3
Gross fixed capital formation	11.8	6.2	15.2	23.5
Exports of goods and services	-1.0	11.7	9.0	9.1
Imports of goods and services	4.4	9.3	14.0	17.5
Unemployment rate (percent)	7.1	6.8	6.3	5.5
GDP deflator	2.0	3.2	-0.6	1.6
Consumer price inflation (period average)	3.0	4.1	1.4	1.8
External Sector	(in billions of USD, unless specified)			
Current account balance	11.4	10.8	7.7	0.6
Current account balance (In percent of GDP)	4.2	3.8	2.6	0.2
Trade balance	-17.7	-17.3	-23.3	-34.1
Exports, f.o.b.	44.5	49.8	43.2	43.4
Imports, f.o.b.	62.2	67.2	66.5	77.5
Services balance	7.0	4.6	5.6	7.1
Receipts	23.3	25.5	29.3	31.4
Payments	16.3	20.9	23.7	24.2
Secondary income	21.1	22.8	23.5	25.0
Receipts	21.7	23.4	24.3	25.7
Payments	0.6	0.7	0.8	0.7
Financial account balance	-2.4	-9.7	-3.3	-1.1
Direct investment, net	0.1	-1.0	0.1	4.2
Portfolio investment, net	1.0	-2.7	-5.4	-1.4
Financial derivatives, net	0.1	0.0	0.0	0.0
Other investment, net	-3.4	-5.9	2.0	-3.8
Error and omission	-4.2	-4.1	-2.0	-0.2
Overall balance	5.1	-2.9	2.6	-0.4
Overall balance (In percent of GDP)	1.9	-1.0	0.9	-0.1
Gross international reserves	83.2	79.5	80.7	80.3
Gross international reserves (In months of imports of goods & services)	11.6	9.9	9.9	9.5
Total external debt (In percent of GDP)	28.9	27.3	26.5	24.6
Fiscal Sector (National Government)	(in percent of GDP)			
Revenue and grants	14.9	15.1	15.8	15.2
Expenditure	16.3	15.7	16.8	17.6
Overall balance	-1.4	-0.6	-0.9	-2.4
Primary balance	1.4	2.0	1.4	-0.3
Government debt (excl. contingent liabilities)	49.2	45.4	44.7	42.1
Monetary and Financial Sector	(in annual percentage change, unless specified)			
Domestic credit	10.6	17.8	11.5	17.0
Of which: Private sector	16.5	19.9	12.1	16.4
Broad money	28.8	12.4	9.3	13.3
Exchange rate (peso per USD, average)	42.4	44.4	45.5	47.5
Memorandum Items				
Nominal GDP (In billions of USD)	271.8	284.8	292.5	304.3
Nominal GDP (In billions of pesos)	11,538.5	12,645.1	13,307.4	14,449.9

Sources: Philippine authorities and AMRO staff calculations

Singapore

GDP growth was surprisingly strong in Q4 2016 due to electronics and biomedical clusters with a recovery in global demand, nevertheless, most segments will continue to be faced with external headwinds and domestic structural challenges. GDP grew by 2.9 percent yoy in Q4 and manufacturing grew by a whopping 11.5 percent, primarily due to the electronics and biomedical manufacturing clusters. The electronics cluster was driven mainly by a recovery in global semiconductor demand and such recovery is likely to sustain the near future. However, other segments of the economy continued to face external headwinds. Employment has been impacted more strongly than before, with retrenchments increasing in recent quarters. Households have become more cautious and the property sector is undergoing correction. Singapore is also addressing its structural challenge in population and productivity growth. That said, near-term growth will be supported somewhat by electronics, biomedical, tourism, ICT, health and education sectors.

Inflation has increased but remain subdued and the monetary policy stance was kept unchanged in October 2016, following an easing move in April when the rate of appreciation of the SGD NEER policy band was set at zero percent. Upside pressure on core inflation is limited due to subdued demand, although some recovery may be expected in the coming quarters from the pass-through of earlier monetary easing.

In February 2017, to restructure Singapore economy, the Committee on the Future Economy (CFE) proposed seven mutually-reinforcing strategies. The CFE has studied global trends such as subdued growth, increasing protectionism and rapid technological change and re-examined Singapore's operating assumptions and model. CFE aims at building a value creating economy that is open and connected to the world, offering a multitude of opportunities, with sustainable wage growth and meaningful careers for all Singaporeans. It aims at a real growth rate of 2.0-3.0 percent per year on average, which is lower than Singapore's average growth rate in the past 10 years but higher than the performance of most advanced economies.

The budget FY2017 was also announced in February, which has maintained an expansionary stance to support the economy. Fiscal spending is budgeted to increase considerably in FY2017, especially in healthcare. In addition, Budget FY2017 continued to emphasis on long-term economic restructuring, including a budget of SGD 2.4 billion in implementing some strategies proposed by the CFE. CFE proposed strategies such as building strong digital capabilities and strengthening enterprise capabilities, Budget FY2017 proposed initiatives such as SMEs Go Digital Programme and Tech Access Initiative. At the same time, Budget FY2017 is also paying attention to address near-term headwind and building an inclusive society.

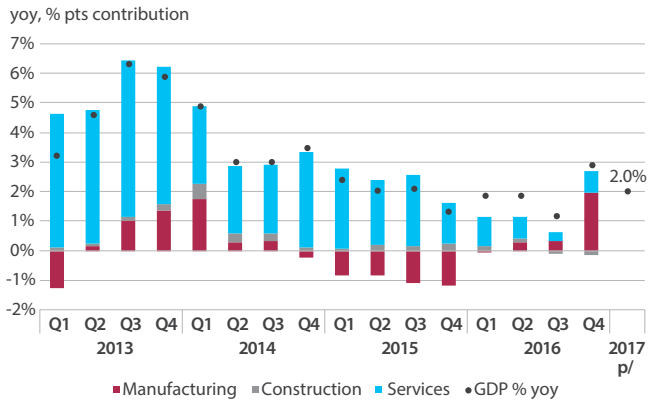
Household debt and corporate debt have stabilized, but some segments of the corporate bond market have come under stress. The household debt level has stabilized, due to the effects of macroprudential measures. The corporate debt level is declining, but remains elevated, and some companies have come under stress, especially in the oil and gas sector, which saw an increasing number of defaults and other credit events.

While the financial system is sound, there are signs of deterioration in credit quality. Although the NPL ratios of banks are still low, they have been edging up persistently over the past few quarters and there has been stress in some sectors, such as marine and offshore engineering. In addition, disruptions in some segments of the corporate bond market may reduce investor confidence.

Property prices continue to fall gradually. The prices are likely to continue to slide gradually. There is a large supply in the pipeline of both residential and commercial properties. On demand side, there has been some recovery in the sales of residential properties and demand has recently increased in the core central region reflecting the still low interest rate environment. Nevertheless, with prospect of a weak economy and looming supply in the pipeline, the property markets need to be closely monitored particularly if interest rates were to rise substantially.

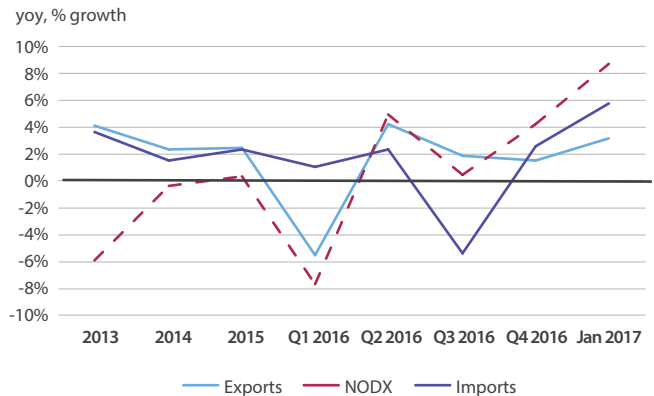
Singapore: Selected Charts

With strong external headwinds for most segments, GDP will grow modestly in 2017.



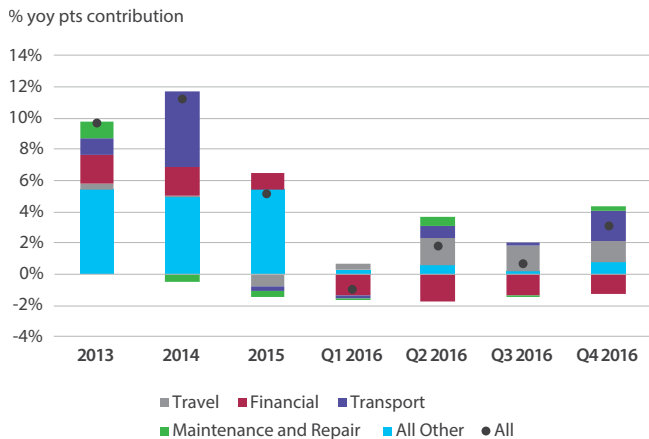
Sources: MTI, Department of Statistics (DOS)

Trade rebounded in recent months in volume terms...



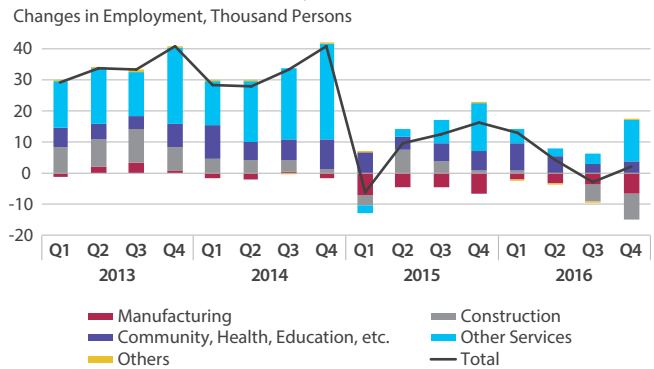
Sources: IE Singapore, CEIC, AMRO staff calculations

and growth in trade benefitted transport service export.



Sources: IE Singapore, CEIC, AMRO staff calculations

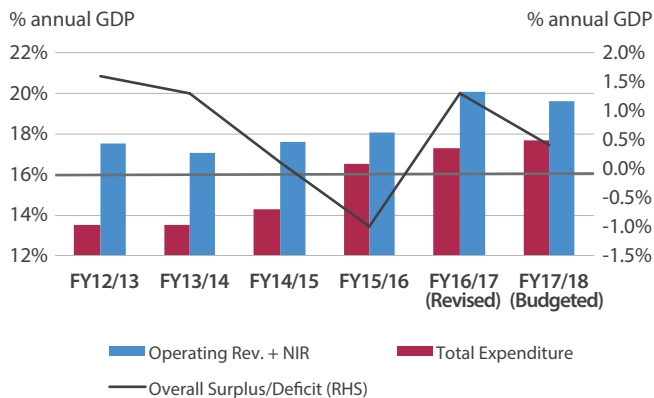
Employment growth has also slowed since 2015, especially in Q3 2016



Notes: "Community, Health, Education, etc." includes Education & Public Administration, Health & Social Services and Other Community, Social & Personal Services

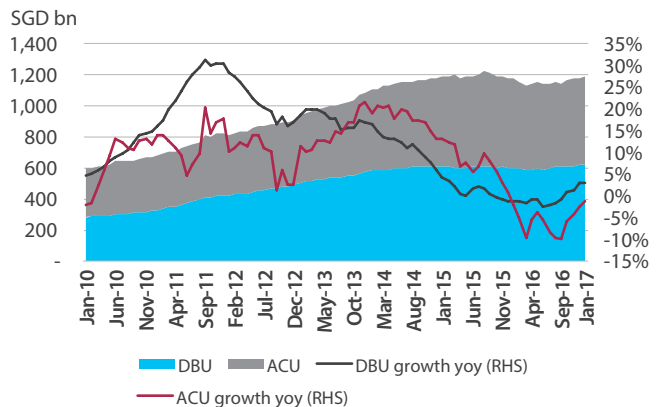
Sources: Manpower Research & Statistics Department, Ministry of Manpower (MOM)

Building on previous year's initiatives, Budget FY2017 continued to be expansionary.



Source: Ministry of Finance, DOS

Bank loans contracted slightly in recent months due to weak loan demand.



Sources: MAS, AMRO staff calculations

Singapore: Selected Economic Indicators

	2013	2014	2015	2016
Real Sector and Prices	(in annual percentage change, unless specified)			
Real GDP	5.0	3.6	1.9	2.0
Private consumption	3.3	2.4	4.6	0.6
Public consumption	11.5	0.1	8.0	6.3
Gross fixed capital formation	5.7	-1.1	1.1	-2.5
Exports of Goods & Services	5.8	4.0	2.6	1.6
Imports of Goods & Services	5.9	3.0	2.9	0.3
Manufacturing	1.7	2.7	-5.1	3.6
Construction	3.0	6.6	3.9	0.2
Services	7.2	3.9	3.2	1.0
Wholesale & Retail Trade	6.8	1.9	3.7	0.6
Transportation & Storage	4.1	3.0	1.6	2.3
Accommodation & Food Services	3.1	2.3	0.7	1.7
Information & Communications	8.0	7.4	-0.6	2.3
Finance & Insurance	17.2	9.1	5.7	0.7
Business Services	5.6	1.8	3.9	-0.9
Labor Market				
Unemployment rate, Annual Average (percent)	1.9	2.0	1.9	2.1
Changes in Employment (thousand)	136.2	130.1	32.3	16.8
Prices				
MAS core inflation	1.7	1.9	0.5	0.9
Consumer price inflation	2.4	1.0	-0.5	-0.5
External Sector	(in billions of SGD, unless specified)			
Current account	64.0	77.1	73.9	78.1
Current account (in percent of GDP)	16.9	19.7	18.1	19.0
Exports and imports				
Exports of Goods	560.2	560.9	521.8	499.5
Exports of Services	174.8	194.4	204.3	206.7
Imports of Goods	466.3	457.3	407.9	385.2
Imports of Services	184.0	202.0	212.4	214.9
Capital and Financial Account	-42.4	-66.5	-70.8	-81.9
Direct investment, net	26.4	27.6	53.9	52.1
Portfolio investment, net	-79.6	-61.1	-74.8	-28.6
Other investment, net	-5.6	-34.1	-67.1	-99.0
Overall balance	22.7	8.6	1.5	-2.5
Official reserve assets (in billions of USD, end-period)	273.1	256.9	247.7	246.6
Fiscal Sector	(in percent of GDP, unless specified)			
Operating Revenue	14.9	15.4	15.9	16.6
Total Expenditure	13.5	14.3	16.5	17.3
Primary Surplus / Deficit	1.4	1.1	-0.6	-0.7
Overall Budget Surplus / Deficit	1.3	0.1	-1.0	1.3
Monetary and Financial Sector				
3-month SGD Sibor (percent end period)	0.4	0.5	1.2	1.0
Straits Times Index (end period)	3,167	3,365	2,883	2,881
Private Residential Property Index (2009Q1=100)	153.2	147.0	141.6	137.2
Spot exchange rate (SGD per USD, period ave.)	1.25	1.27	1.37	1.38
Memorandum Items				
Nominal GDP (in billions of USD)	302.5	308.1	296.8	297.0
Nominal GDP (in billions of SGD)	378.5	390.4	408.1	410.3

Notes:

1) 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 table use the opposite sign, which was in accordance to BPM5.

2) Fiscal sector data are in fiscal year, which is from April to March, 2016 figures are based on revised estimates.

Sources: The Singapore authorities, CEIC, AMRO staff estimates

Thailand

The Thai economy continues to expand amid external and domestic uncertainty. The economic expansion was driven by private consumption, public spending and net exports. The tourism industry rebounded after a temporary dip in Q4 2016 due to King Bhumibol Adulyadej's passing and new restrictions on Chinese zero-dollar tours. Meanwhile, private investment remained subdued due to a prolonged period of sluggish exports and excess manufacturing capacity. On the production side, easing drought and improving global commodities prices led to an increase in agricultural production. Meanwhile, manufacturing production of export-oriented sectors edged up, following a pick-up of exports in the last quarter.

Headline inflation continues on a rising trend, while monetary policy has remained accommodative. Rising global energy prices put an upward pressure on Thailand's consumer prices. Headline inflation has gradually inched up and reached 0.76 percent in March 2017. Nevertheless, core inflation fell largely on the back of high base effect from an increase in excise tax for tobacco. Meanwhile, short-term inflation expectations remained stable at around 2.0 percent respectively. The policy rate has been kept at 1.5 percent since the last rate cut in April 2015.

Expansionary fiscal stance has been employed to support the economic recovery. In the 2017 fiscal year¹, additional measures to stimulate private consumption and front-loaded spending is being implemented, while capital spending of the general government and state-owned enterprises is being expedited. Several Infrastructure projects together with the Eastern Economic Corridor development plan has been executed. Moreover, the additional budget of THB190 billion, with aims of stimulating the grass-roots economy and enhancing SMEs' competitiveness, will help stimulate the economy. In a reflection of low fiscal deficits, Thailand's fiscal position has remained strong with a prudent level of public debt.

External stability remains strong with sizable current account surpluses and ample international reserves. After experiencing a volatility in Q4 2016, the Thai financial markets and capital flows become stabilized, while the baht appreciated against the U.S. dollar and in NEER term. Meanwhile, a large current account surplus and strong international reserves, at more than three times of short-term external debt and 12 months of imports², would provide the economy with a cushion against potential capital flow volatility during future lifts in the U.S. Federal funds rate.

The financial system is sound albeit deteriorating credit quality, a high level of household debt and growing search-for-yield behaviors. The protracted economic recovery result in deteriorating loan quality, particularly small and medium enterprises and retail clients. However, a strong capital position and high loan loss provisions would safeguard commercial banks and state-owned specialized financial institutions against rising credit risks. Meanwhile, a concern on a high level of household debt has been gradually easing due to a moderation of household credit growth and finished debt burden from the first car scheme. Separately, amid low interest rate environment, investors continue search-for-yield behaviors and have a higher risk appetite which warrant a closer monitoring.

Going forward, the economy is projected to expand by 3.4 percent in 2017 and 3.5 percent in 2018. The government spending, infrastructure investment and tourist receipts will be a main growth engine. A broad-based recovery of domestic demand is expected to be stronger. Household purchasing power is expected to improve due to easing debt burden and improving income of exporters and farm households.

Headwinds from external factors and domestic structural issues could weigh on Thailand's economic outlook. A lingering uncertainty in global trade and a greater tendency towards trade protectionism could stall Thailand's exports. The tail risks of the U.S.–China trade tensions and political uncertainty in Europe would have spillover effects to the Thai exports. In addition, a direction change of the Thai baht movements could affect exports performance. Domestically a shortage of human capital in scientific and engineering fields remains a key challenge to the private sector which is striving to move up a global value chain. A fast-growing aging society would also pose labor force constraints to the private sector in the next few decades.

¹ Thailand's fiscal year (FY) extends from October 1 to September 30. For example, FY 2017 starts from October 1, 2016 to September 30, 2017.

² As of January 2017.

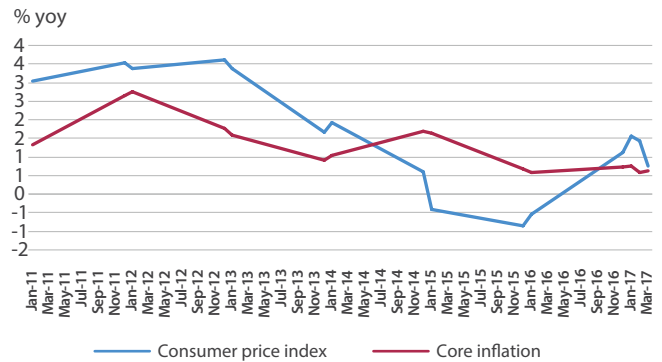
Thailand: Selected Charts

The Thai economy is on a gradual recovery path on the back of public spending and service exports.



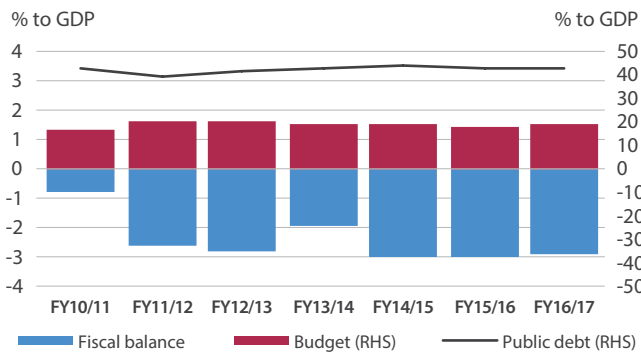
Sources: Bank of Thailand, AMRO staff calculations

Headline inflation gradually edges up, while core inflation remains soft.



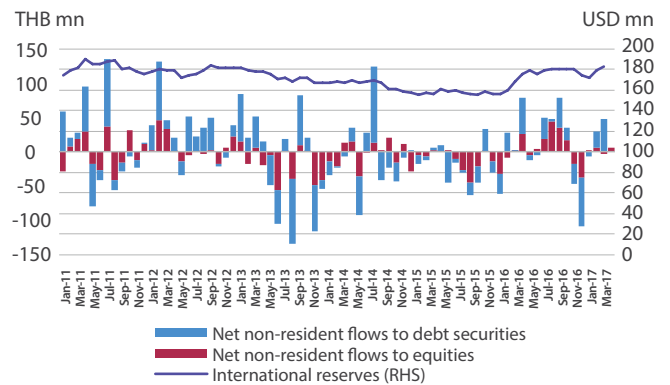
Source: Ministry of Commerce

Ample fiscal space would give the government a room for more fiscal stimulus.



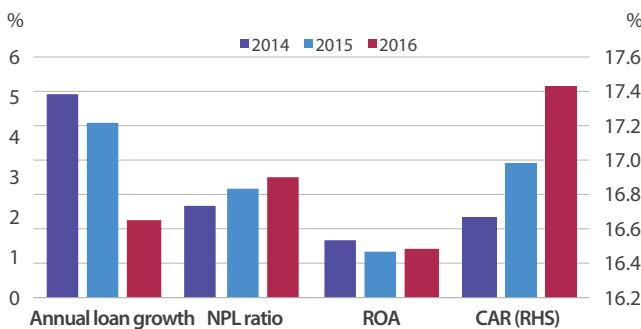
Sources: Fiscal Policy Office, Budget Bureau, Public Debt Management Office

Capital flow volatility becomes moderated in 2017, while external stability is strong with high international reserves.



Sources: Stock Exchange of Thailand, Bank of Thailand, AMRO staff calculations

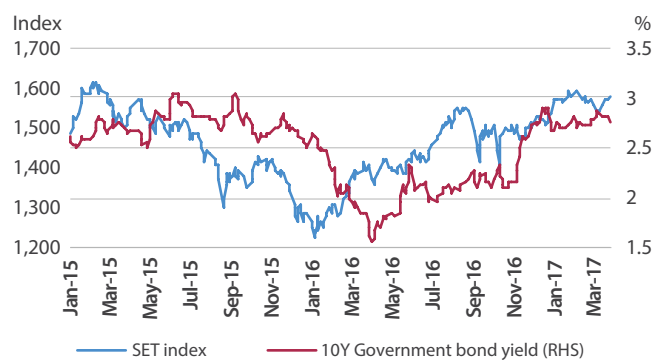
Despite rising non-performing loans, the banking system remains sound with strong capital.



Notes: Loan growth refers to total loans excluding interbank loans of commercial banks which includes Thai commercial banks and foreign bank branches. Non-performing loan ratio (NPL ratio), Return-on-asset ratio (ROA) and Capital Adequacy Ratio (CAR) composite of Thai commercial banks only.

Sources: Bank of Thailand, AMRO staff calculations

After a period of volatility especially at an onset of the U.S. Presidential Election result, Thai financial markets has stabilized.



Sources: Stock Exchange of Thailand, Thai Bond Market Association

Thailand: Selected Economic Indicators

	2013	2014	2015	2016
Real Sector and Prices	(in annual percentage change, unless specified)			
Real GDP	2.7	0.9	2.9	3.2
Final consumption (in percent of GDP)	68.6	69.6	68.7	67.8
Private sector	52.2	52.6	51.4	50.7
General government	16.4	17.0	17.3	17.1
Capital formation (in percent of GDP)	27.4	24.0	22.2	22.0
Private sector	19.7	19.5	18.3	17.8
General government	5.7	5.2	6.3	6.5
Change in inventories	2.1	-0.7	-2.4	-2.3
Savings (in percent of GDP)	26.7	28.0	30.7	33.2
Unemployment rate (percent, average)	0.7	0.8	0.9	1.0
GDP deflator	1.8	1.3	0.6	1.7
Consumer price inflation (period average)	2.2	1.9	-0.9	0.2
Consumer price inflation (end of period)	1.7	0.6	-0.9	1.1
External Sector	(in billions of USD, unless specified)			
Current account balance	-4.8	15.1	32.1	46.8
(in percent of GDP)	-1.0	3.7	8.1	11.4
Trade balance	0.1	17.3	26.8	35.8
Exports, f.o.b.	227.5	226.7	214.1	214.1
Imports, f.o.b.	227.4	209.4	187.2	178.4
Services, net	11.4	10.3	19.2	24.2
Receipts	58.8	55.5	61.8	66.4
Payments	47.4	45.2	42.5	42.2
Primary income, net	-26.9	-21.2	-20.6	-19.9
Secondary income, net	10.6	8.7	6.7	6.8
Financial account balance	-2.5	-16.2	-17.1	-25.7
Direct investment, net	3.8	-0.8	4.0	-10.5
Portfolio investment, net	-4.8	-12.0	-16.5	-2.9
Other investment (including derivatives), net	-1.5	-3.4	-4.6	-12.3
Overall balance	-5.0	-1.2	5.9	4.9
Gross international reserves excluding net forward position	167.3	157.1	156.5	171.9
(in months of imports of goods and services)	8.8	9.0	10.0	11.6
Short-term debt in percent of total debt	43.6	40.2	40.0	40.2
Fiscal Sector ^{1/}	(in billions of Thai baht)			
Revenue	2,163.5	2,075.7	2,207.0	2,411.5
(in percent of FY GDP)	16.8	15.8	16.3	17.0
Expenditure	2,402.5	2,460.0	2,601.4	2,807.4
(in percent of FY GDP)	18.7	18.7	19.2	19.8
Budget balance	-239.0	-384.3	-394.4	-395.8
(in percent of FY GDP)	-1.9	-2.9	-2.9	-2.8
Public debt (in percent of FY GDP)	42.3	43.6	43.1	42.8
Monetary and financial sector	(in annual percentage change)			
Domestic credit	10.0	4.2	5.5	3.5
Broad money	7.3	4.7	4.4	4.2
Exchange rate (THB per USD, average)	30.7	32.5	34.3	35.3
Exchange rate (THB per USD, end of period)	32.9	32.9	36.0	35.8
Memorandum Items				
GDP at current price (in billions of USD)	420.4	406.5	399.2	406.8
GDP at current price (in billions of Thai baht)	12,921	13,204	13,673	14,361

Note:

1) Fiscal year extends from October 1 to September 30. For example, FY 2017 starts from October 1, 2016 to September 30, 2017.

Sources: Thai authorities, AMRO staff calculations

Vietnam

Vietnam's economic growth moderated in 2016 but stayed resilient amid negative shocks. Economic activity expanded at 6.2 percent in 2016, compared to 6.7 percent in 2015, as agricultural production was adversely affected by a prolonged drought and increased saltwater intrusion, and mining and quarrying output contracted. On a positive note, overall growth was supported by solid gains in the manufacturing and services sectors. From the expenditure side, growth slowdown was led by net exports and a moderation in final consumption.

Economic growth is expected to pick up slightly to around 6.4 percent in 2017, as agricultural production recovers and mining and quarrying output normalizes alongside sustained expansion in manufacturing and services. From the expenditure side, growth recovery is likely to be supported by strengthened domestic demand, offsetting the continued weakness in external demand. Real GDP growth rate slowed somewhat to 5.1 percent in Q1 2017, compared to 5.5 percent reported in the same period a year ago, driven mainly by further contraction in mining and quarrying activity.

The external position strengthened in 2016, reflecting an improved trade balance and increased FDI inflows. Against this backdrop, gross international reserves are estimated to have increased significantly in 2016, sufficient to cover about 2.4 months of imports of goods and services, up from about 2 months a year earlier. In light of rising external uncertainties, further efforts to accumulate the reserves buffer, which remains below the three-month conventional threshold, are highly recommended.

The Vietnamese dong has appreciated slightly against the U.S. dollar recently, following episodes of depreciation since November 2016. Greater flexibility has been allowed for the exchange rate with the State Bank of Vietnam (SBV) adopting a wider trading band for the dong since August 2015 and a daily fixing since early 2016.

Monetary conditions have stayed accommodative to support economic activity in light of the still-benign inflationary environment. While headline CPI inflation has picked up since 2016, mainly on the back of higher food and fuel price, and planned hikes in State-administered prices, the underlying inflationary pressures remain contained. After some moderation, credit growth picked up to 18.2 percent

in the final month of 2016. Growth in bank lending to other activities, including to the real estate sector and for other personal consumption purposes, while slowing somewhat, stayed relatively high at 22 percent. In this regard, the SBV in May 2016 issued Circular 06, tightening a number of prudential ratios on bank lending to the real estate sector, effective from January 2017.

The non-performing loan (NPL) ratio in the banking sector has fallen to below 3 percent since end-2015, partly due to banks' transfer of NPLs to the Vietnam Asset Management Corporation (VAMC) in the past years. Latest data suggest that the NPL ratio stood at 2.46 percent of total loans outstanding, as of December 2016. The progress of NPL resolution at the VAMC has been modest, with less than a fifth of the acquired NPLs being resolved thus far. In this regard, it is encouraging that reforms have gathered momentum with the National Assembly endorsing the Economic Restructuring Plan for 2016-2020 in November 2016 and the Government accordingly issuing the Action Plan in February to spell out policy measures to accelerate structural reforms, including banking sector reform and NPL resolution, in 2017.

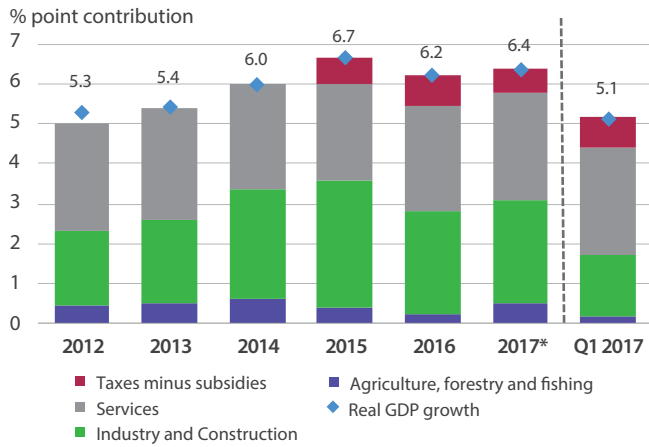
While preliminary data suggest budget implementation in 2016 may lead to some fiscal consolidation, the fiscal deficit remains sizeable, and likely to have stayed above 5 percent of GDP¹. Public debt is hence, estimated to have increased to 63.7 percent of GDP in 2016, compared with the threshold of 65 percent of GDP. In this regard, it is welcome that a lower fiscal deficit of 3.5 percent of GDP² has been set in the Budget Plan for this year. It is also encouraging that the National Assembly recently has approved the Five-Year Fiscal Plan and the Medium-Term Public Investment Plan for 2016-2020, which should help strengthen fiscal discipline going forward and reduce the pressure from rising public debt.

¹ AMRO staff estimates for the fiscal deficit are broadly in line with the GFSM 2001 methodology, which sums up the general government budget deficit reported by the Ministry of Finance of Vietnam (MOF) in its budget account and off-budget state investment activities funded by the issuance of government bonds. According to the authorities, the general government budget deficit reported by MOF, which excludes principal repayments, was about 3.8 percent of GDP in 2016.

² It was shared by the authorities during AMRO annual consultation visit to Vietnam in 2016 that, with the State Budget Law 2015 being effective 1 January 2017, the general government budget from 2017 onwards would also include state investment funded by the issuance of government bonds, and hence should be consistent with the AMRO staff estimates/calculations based on the methodology mentioned in the above footnote.

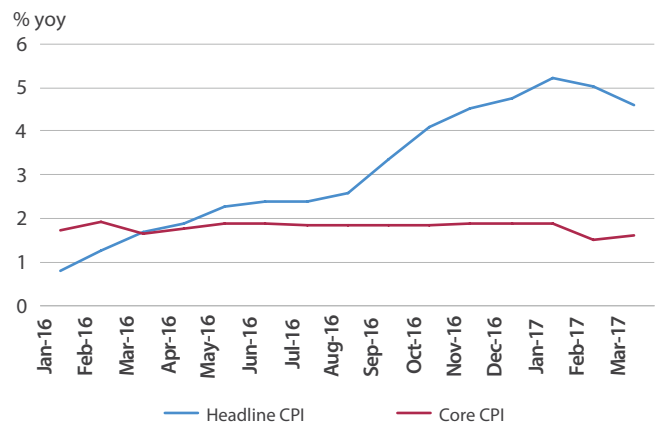
Vietnam: Selected Charts

GDP growth is expected to pick up in subsequent quarters to about 6.4 percent for the whole 2017, following some slowdown in Q1.



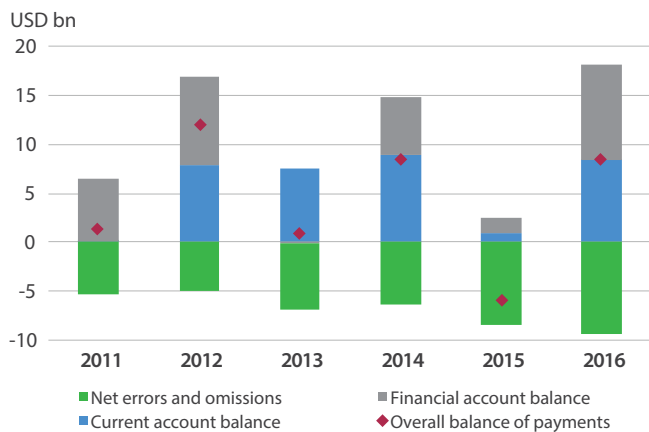
Note: Growth data for the whole year 2017 are AMRO staff projections
Sources: General Statistics Office, CEIC, and AMRO staff calculations

Headline CPI inflation peaked to above 5 percent in January 2017 but has since moderated, while core CPI remains below 2 percent.



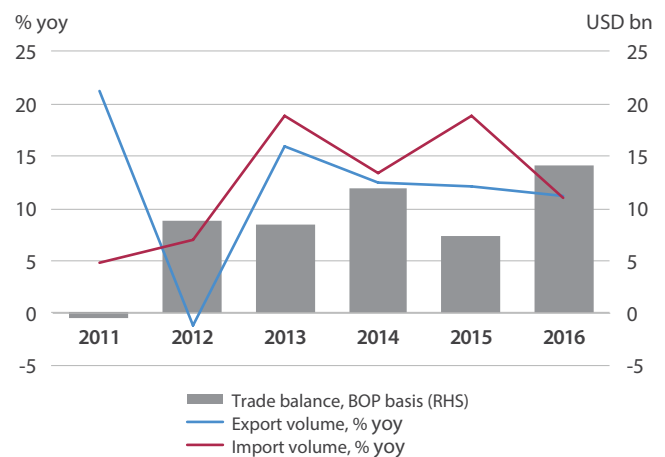
Sources: General Statistics Office, CEIC, and AMRO staff calculations

The overall balance of payments registered a significant surplus in 2016 ...



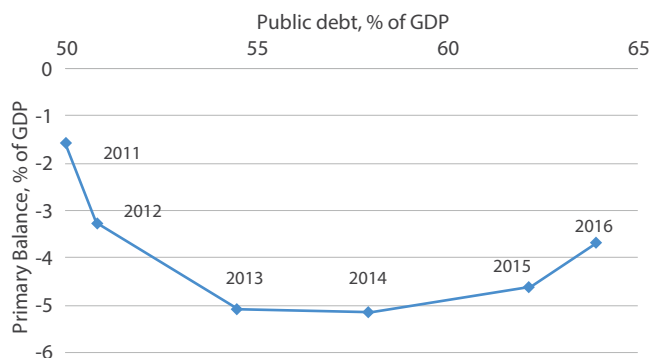
Sources: State Bank of Vietnam (SBV), IMF, and AMRO staff calculations

... as trade balance improved on the back of import growth slowdown.



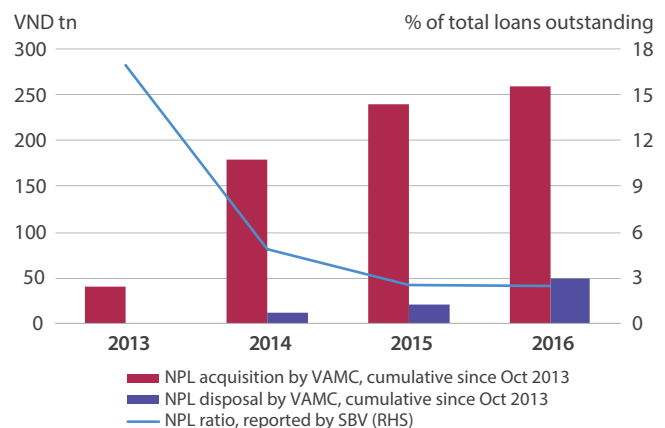
Sources: General Statistics Office, SBV, IMF, and AMRO staff calculations

Despite some fiscal consolidation, fiscal deficit remained sizeable in 2016, giving rise to public debt.



Sources: Ministry of Finance and AMRO staff calculations

The official NPL ratio has been contained below 3 percent, but progress in NPL resolution at the VAMC remains sluggish.



Sources: SBV, VAMC, CEIC, and AMRO staff calculations

Vietnam: Selected Economic Indicators

	2013	2014	2015	2016 Est.
Real Sector and Prices	(in annual percentage change)			
Real GDP	5.4	6.0	6.7	6.2
GDP deflator	4.8	3.7	-0.2	1.1
Consumer price inflation (average)	6.6	4.1	0.6	2.7
Consumer price inflation (end of period)	6.0	1.8	0.6	4.7
External Sector	(in billions of USD, unless specified)			
Trade balance	8.4	11.9	7.4	14.0
Current account balance	7.5	8.9	0.9	8.5
In percent of GDP	4.4	4.8	0.5	4.2
Overall balance	0.6	8.4	-6.0	8.4
Gross international reserves				
In months of imports of goods & services	2.3	2.7	2.0	2.4
Coverage of short-term debt by remaining maturity	2.0	2.3	2.0	2.4
	(in annual percentage change)			
Export volume	15.9	12.5	12.1	11.1
Export unit value (in USD terms)	-0.5	-2.4	-3.8	-1.8
Import volume	18.8	13.3	18.8	11.1
Import unit value (in USD terms)	-2.4	-1.1	-5.8	-5.3
Terms of trade	-0.1	0.6	2.1	2.7
Fiscal Sector (General Government)	(in percent of GDP)			
Revenue and grants	23.1	22.3	23.8	23.1
Expenditure	29.9	29.2	30.4	28.9
Expense	21.2	20.1	20.9	21.7
Net acquisition of non-financial assets	8.7	9.1	9.5	7.2
Net lending/borrowing	-6.8	-6.9	-6.6	-5.8
Primary net lending/borrowing	-5.1	-5.1	-4.6	-3.7
Monetary and Financial Sector	(in annual percentage change)			
Domestic credit	13.9	15.4	20.2	17.7
General government	25.1	29.6	29.9	14.5
Other	12.7	13.8	17.0	18.2
Broad money	21.4	19.7	13.6	19.8
Reserve money	6.1	18.7	19.3	13.2
Memorandum Items				
Exchange rate (VND/USD, period average)	20,933	21,148	21,698	21,935
Exchange rate (VND/USD, end of period)	21,036	21,246	21,890	22,159
Nominal GDP (in USD billion)	171.2	186.2	193.2	205.3
Nominal GDP (in VND trillion)	3,584	3,938	4,193	4,503

Notes:

- 1) Monetary sector (except domestic credit to other sectors rather than the government in the economy) data for 2016 are AMRO estimates.
- 2) General government data are calculated by AMRO staff using Ministry of Finance of Vietnam's final account data for 2013-2014 and estimate data for 2015-2016.

Sources: National authorities, IMF, World Bank, CEIC and AMRO staff calculations

Reference List

- ASEAN Secretariat and UNCTAD. (2016). *ASEAN Investment Report*.
- Bank of Japan. (2016, October). *Financial System Report*.
- Chantapacdepong, P., & Hemvanich, S. (2016, June 21). *The pattern of capital flows into Asia in the last decade*. Retrieved from Asian Development Bank Institute.
- Chen, C., & Liu, L.-M. (1993, March). Joint Estimation of Model Parameters and Outlier Effects in Time Series. *ResearchGate*, 88(421), 284-297.
- Chen, Q., Gray, D. F., N'Diaye, P., P. M., Oura, H., & Tamirisa, N. T. (2010, May 01). International transmission of bank and corporate distress. *IMF Working Paper*, 10(124).
- Dees, S., Holly, S., Pesaran, M. H., & Smith, L. V. (2007, May). Long-Run Macroeconomic Relations in the Global Economy. *European Central Bank*.
- Dees, S., Mauro, F. D., Pesaran, M. H., & Smith, L. V. (2007). Exploring the International Linkages of the Euro Area: a Global VAR Analysis," *Journal of Applied Econometrics*. *Journal of Applied Econometrics*, 22, 1-38.
- Donnery, S. (2017, February 15). Banks with high non-performing loans should set ambitious targets. European Central Bank.
- Eickmeier, S., & Ng, T. (2015). How do US credit supply shocks propagate internationally? A GVAR approach. *European Economic Review*, 74, 128-145.
- Favero, C. A. (2013). Modelling and forecasting government bond spreads in the euro area: a GVAR model", *Journal of Econometrics*. *Journal of Econometrics*, 177(2), 343-356.
- Galesi, A., & Lombardi, M. J. (2009, June). External shocks and international inflation linkages: a Global VAR analysis. *ECB Working Paper Series*(1062).
- Galesi, A., & Sgherri, S. (2009). Regional financial spillovers across Europe: A global VAR analysis. *IMF Working Paper*, 09(23).
- Gauviny, L., & Rebillard, C. (2015, July). Towards Recoupling? Assessing the Global Impact of a Chinese Hard Landing through Trade and Commodity Price Channels. *Banque De France Working Paper Series*(562).
- Hanemann, T., Rosen, D. H., & Gao, C. (2016). *Two-way street: 25 years of US-China direct investment*. National Committee on US-China Relations and Rhodium Group.
- Hiebert, P., & Vansteenkiste, I. (2007, February). International trade, technological shocks and spillovers in the labour market: a GVAR analysis of the U.S. manufacturing sector. *ECB Working Paper Series*(731).
- IMF. (2007, April and October). *Regional Economic Outlook: Asia and Pacific*.
- IMF. (2009, October). *Regional Economic Outlook: Asia and Pacific*.
- IMF. (2016, June). *ASEAN-5 Cluster Report: Evolution of monetary policy frameworks*.
- IMF. (2016, October). *Regional Economic Outlook: Asia and Pacific*.
- Inoue, T., Kaya, D., & Ohshige, H. (2015, October). The impact of China's slowdown on the Asia Pacific region: an application of the GVAR model. *World Bank Policy Research Working Paper*(7442).
- Kawai, M., & Morgan, P. J. (2014, February). Regional financial regulation in Asia. *ADB Working Paper Series*(460).
- Kee, H. L., & Tang, H. (2016, June). Domestic value added in exports: Theory and firm evidence from china. *American Economic Review*, 106(6).

- Khor, H. E., & Kit, W. Z. (2007, November). 10 Years from the financial crisis: Managing the challenges posed by capital flows. *Monetary Authority of Singapore*.
- Lindgren, C.-J., Baliño, T. J., Enoch, C., Gulde, A.-M., Quintyn, M., & Teo, L. (1999). Financial Sector Crisis and Restructuring. *IMF Occasional Paper*(188).
- Luzzetti, M., & Bhava, A. (2017). *US border tax adjustment: Implications for inflation, the Fed and rates*. Deutsche Bank.
- Moody's Investor Service. (2016, December 14). *Most Emerging Asia banking sectors show resilience to Moody's stress tests*. Retrieved from Moody's Investors Service.
- National Committee on US-China Relations, & Rhodium Group. (2015). *New neighbors: Chinese investment in the United States by Congressional District*.
- National Committee on US-China Relations, & Rhodium Group. (2016). *New neighbors: Chinese investment in the United States by Congressional District*.
- Neely, C. J. (2017, January). Chinese foreign exchange reserves, policy choices and the U.S. economy. *Federal Reserve Bank of St.Louis Working Paper Series*(2017-001A).
- Noland, M., Hufbauer, G. C., Robinson, S., & Moran, T. (2016). *Assessing trade agendas in the US presidential campaign*.
- Park, D., Ramayandi, A., & Shin, K. (2013). Why did Asian countries fare better during the Global Financial Crisis than during the Asian Financial Crisis. In C. Rhee, & A. S.Posen (Eds.), *Responding to Financial Crisis: Lessons from Asia then, the United States and Europe now*. Washington DC: Asian Development Bank and Peterson Institute For International Economics.
- Pesaran, M. H., Schuermann, T., & Weiner, S. M. (2004). Modeling regional interdependencies using a global error-correcting macroeconomic model. *Journal of Business & Economic Statistics*, 22, 129-162.
- Pham, M., & Jittapong, K. (2016, June 22). *Southeast Asia steelmakers bid to emerge from China's shadow*. Retrieved from Reuters.
- Pomerleau, K. and Entin, S-J., (2016), "The House GOP's Destination-Based Cash Flow Tax, Explained", Tax Foundation
- Smith, L. (2014). *GVAR Toolbox 2.0*. Retrieved from Global VAR Modelling:
<https://sites.google.com/site/gvarmodelling/gvar-toolbox>.
- The Conference Board (November 2016). *Total Economy Database*
<https://www.conference-board.org/data/economydatabase/index.cfm?id=27762>
- United Nations Conference on Trade and Development. (2013). *World Investment Report - Global Value Chains: Investment and Trade for Development* (Chapter 4).
- Vansteenkiste, I. (2007, January). Regional housing market spillovers in the us: Lessons from regional divergences in a common monetary policy setting. *ECB Working Paper Series*(708).
- Wu, J. C., & Xia, F. D. (2016). Measuring the macroeconomic impact of monetary policy at the zero lower bound. *Journal of Money, Credit and Banking*, 48, 2-3.
- Xing, Y. (2014, August). Measuring value added in the People's Republic of China's exports: A direct approach. *ADB Working Paper Series*(493).
- Yu, X., Chang, H., & Liang, H. (2017). *Impacts of trade protectionism on US and Chinese Economies*. China International Capital Corporation.
- Zhang, Z., & Zeng, L. (2016). *The risk of de-globalization: A US-China trade war?* Deutsche Bank.





ASEAN+3 Macroeconomic Research Office

10 Shenton Way, #15-08


MAS Building

Singapore 079117

 +65 6323 9844

 +65 6223 8187

 enquiry@amro-asia.org

 www.amro-asia.org