



# CHINA'S REFORM AND OPENING-UP:

Experiences, Prospects, and  
Implications for ASEAN



**Disclaimer:** The findings, interpretations, and conclusions expressed in this material represent the views of the author(s) and are not necessarily those of the ASEAN+3 Macroeconomic Research Office (AMRO) or its member authorities. Neither AMRO nor its member authorities shall be held responsible for any consequence of the use of the information contained therein.

### **AMRO Director Dr Chang Junhong:**

“This year marks forty years of China’s opening-up and reform. In such a historically important year of China’s evolution, the world is looking with keen interest at the next stage of China’s development, and equally important, the role of neighboring countries in the shared journey ahead.

This study by AMRO aims to play a small constructive role in helping stakeholders to understand one another better, so that common ground can be found to maximize opportunities and tackle challenges in the years ahead.

It analyzes the key underpinnings of policies which have enabled China to lift itself from a low-income country to one firmly in the upper-middle income bracket, which will reach high-income status in the coming years. It considers how this development has benefited not only the Chinese domestic economy but also the whole of East Asia especially ASEAN economies through rapidly rising trade, investment and tourism. And it suggests several ways in which the continued development of not just China but all countries in the region can benefit from strategic partnerships anchored on commitment to openness of trade, investments, and technology development. It suggests that the region will thrive as long as we continue to understand our common needs and interests, strengthen reform to address remaining challenges, and maximize opportunities offered by the Fourth Industrial Revolution (4IR).”

### **China Finance Minister Liu Kun:**

China’s reform and opening-up have greatly changed China as well as the world in the past forty years, and will continue to provide huge momentum to China’s modernization, and bring new development opportunities to the world in the future. China’s door of opening up will not close and will only open wider. In this regard, we reaffirm our commitment to opening-up, reform and innovation. Together we could make more contributions to global economic stability and prosperity, and build a brighter future for Asia and the world.

### **People’s Bank of China Deputy Governor Chen Yulu:**

“Financial reform and liberalization have been a key element of China’s evolution in the past forty years. The nature of this evolution is now very much geared towards greater innovation, increased integration with the region, and just as importantly, helping to anchor stability in our part of the world and beyond. China has also come a long way in partnering Asian countries to shape the global financial architecture, and we look forward to yet greater collaboration in the years ahead.”

### **Lao PDR Vice Finance Minister Thipphakone Chanthavongsa:**

“Lao PDR is proud to be a part of such a rapidly-growing, dynamic and collaborative region. Since our country’s opening-up, we have received a lot of help from the international community. Much of this has come from the more advanced countries in East Asia, including Japan and now China. I very much hope that in time to come, Lao PDR will become sufficiently developed to become a much a strong contributor to our region’s continued development, prosperity, and resilience.”

**Former Bank of Thailand Deputy Governor Dr Bandid Nijathaworn:**

“East Asia’s development over the past decades has been nothing short of an economic miracle. China’s rise is a big part of the story, to be sure. But countries across the region have also done very well in spurring development and enhancing resilience. Today, importantly, there is a shared understanding that economic benefit must be conceptualized broadly. Security, balance of growth, competitiveness, innovation, social equity, and public service delivery – all these matter. Looking ahead to our shared future: technology, infrastructure and governance are important – to generate economic gains for enterprises, good livelihoods for the people, fiscal resources for governments, and a predictable rules-based framework for countries to trade and grow together.”

**Chairman of Enterprise Singapore and Ministry of Trade and Industry Senior Advisor Peter Ong:**

“Regional integration has accelerated a lot in the past decade, with all countries in this part of the world recognizing that our shared long-term interests lie in greater openness. Many features of China’s strong development in the past forty years are shared by countries across the region: marketization, steady reform, promoting free trade in goods and services, boosting connectivity and cross-border investments. We face many challenges. But as long as we focus on integration as a key way to further our common interests, the future is bright.”

# China's Reform and Opening-Up: Experiences, Prospects, and Implications for ASEAN

*Khor Hoe Ee, Chaipat Poonpatpibul, Li Wenlong, Foo Suan Yong, Simon Liu Xinyi, Tang Xinke and Tanyasorn Ekapirak 1,2*

## **Abstract**

Over the past 40 years of reform and opening-up (1978-2018), China has upgraded itself from being a low-income country to one firmly in the upper-middle income bracket, which will reach high-income status in the coming years. This development has significantly benefited not only the Chinese domestic economy but also the whole of East Asia especially ASEAN economies through rapidly rising trade, investment and tourism. China has become an important engine of growth for ASEAN, while ASEAN has also become a strategic partner and an important market for China. To make further progress towards becoming an advanced economy and achieving high-quality economic development, China needs to strengthen reform to address remaining challenges and grab opportunities offered by the Fourth Industrial Revolution (4IR). For both China and ASEAN, enhanced cooperation based on good understanding of each other's needs, strengths, capacities and priorities will help deepen regional integration and boost mutual benefits.

**JEL classification:** B27, C53, F41, F62, N15, N55, N65, P21, P33

**Keywords:** China's reform and opening-up; ASEAN; economic cooperation and integration; economic linkage; spillover effects; international trade; foreign direct investments

## **<sup>1</sup> Correspondent emails:**

*Chaipat.Poonpatpibul@amro-asia.org;  
Li.WenLong@amro-asia.org;  
Foo.SuanYong@amro-asia.org;  
Simon.Liu@amro-asia.org;  
tang.xinke@amro-asia.org; and  
Tanyasorn.Ekapirak@amro-asia.org*

<sup>2</sup> The authors would like to thank Junhong Chang (AMRO Director) very much for her excellent guidance and insightful comments throughout the whole project period. We are thankful to AMRO Advisory Panel Members, including Mohamad Ikhsan, Maria Socorro Gochoco-Bautista, Akira Ariyoshi, Kyung-Wook Hur, Feng Lu, Mohamad Ikhsan and Bandid Nijathaworn for their very useful suggestions and views about our preliminary results. Comments from the scholars at the roundtable seminar, co-organized by AMRO and Peking University's School of Development in July, 2018 in Beijing were also particularly beneficial. A lot of thanks go to Yoichi Kadogawa, who helped us with the growth projection methodology during his stint at AMRO. All mistakes are the responsibility of the authors.

# Contents

<b>Highlights</b>	7
<b>China's Reform and Opening-Up Process</b>	11
<b>China-ASEAN Engagement and Integration</b>	14
1. Introduction	15
2. Salient Characteristics and Achievements of China's Reform and Opening-up	16
2.1 Unique Characteristics of Reform	17
2.2 Domestic Reforms and Initial Opening-Up (1978-2000)	18
2.3 Greater Integration into International Trade, Strengthened Reforms and Response to the GFC (2001-2017)	23
2.4 Reforms and Growth Achievements	28
3. Challenges and Opportunities	31
3.1 Challenges	31
3.2 Opportunities	35
4. China-ASEAN Engagement: Growth and Resilience	38
4.1 China's Starting Point: Welcome FDI, Pursue Domestic Reform	40
4.2 From WTO to GFC: Leap in Intra-Regional Trade and Investment	40
4.3 Post GFC: Change in Nature of Growth	42
4.4 Spillovers: Will Increase but Remain Manageable	47
5. Prospects for China-ASEAN Integration: Mutual Benefit and Trust	49
5.1 Goods and Services Trade will Flourish as Both Remain Open	49
5.2 FDI, Portfolio Investment and Banking Flows: Bigger, Richer	53
5.3 Ensuring Sustainability, Anchoring Trust	58
6. Conclusion: Anchoring Deeper Integration and Shared Progress	60
<b>Boxes</b>	
Box 5.1: Japan's FDI in ASEAN in the 1980s and 1990s: Aligning Interests and Staying the Course	54
Box 5.2: The Belt and Road Initiative: Opportunities for Deepening China-ASEAN Integration	55
<b>Annex: Estimating China's Potential GDP: Growth-Accounting Approach</b>	65
<b>Reference</b>	64

# HIGHLIGHTS

1. **The world has witnessed China's unprecedented achievements in economic development over the past 40 years of reform and opening-up (1978-2018).** In these years, China has upgraded itself from being a low-income country to one firmly in the upper-middle income bracket; and its poverty rate has fallen from 97.5 percent to just 3.1 percent by 2017. In the same period, its per capita income has increased by more than 50 fold to a point where it can reach high-income status in the coming years.
2. **China's reform journey has some unique characteristics that have been most important in ensuring steady progress.** First, *pragmatism* has allowed the leadership to introduce market forces progressively into different parts of the economy to improve its overall efficiency and performance, and gradually move it out of the central-planning system. Second, a *gradual and experimental approach to reforms* has been a practical way to ensure that proposed reforms are working and effective before they are adopted at the national level. Third, *decentralization* has enabled local governments to become reliable and enthusiastic agents for delivering strong growth. And fourth, *political stability* has allowed the leadership to act decisively when necessary to address social and economic imbalances that emerged during the reform process while remaining steadfast in pursuing the objectives of reform.

## The First Two Decades of Reform

3. **The domestic reform efforts of the first two decades focused on moving away from the central-planning system and on gradually relying more on market mechanisms to improve the efficiency of resource allocation.** China started from agricultural reforms to improve labor productivity and release a large amount of agricultural labor, supplying ample labor to the manufacturing and services sectors. The introduction of a dual price system focusing on the prices of final goods helped to promote the expansion of the market economy by increasing the incentives to producers. The government also established four Special Economic Zones (SEZs), where enterprises enjoy tax incentives and the regulatory framework is more liberal, in order to attract FDIs. State-owned enterprise (SOE) reforms, by granting greater autonomy to these enterprises and allowing more competition among them, also increased production efficiency. However, insufficient focus on liberalizing prices of factors of production and persistent rigidity in the industrial sector led to bottlenecks, broader economic distortions, high inflation, and recurrent overheating of the economy. Meanwhile, these factors, together with mounting non-performing loans (NPLs) in the SOE sector led to banking difficulties in the 1990s.
4. **In response to the unintended consequences of these early reforms, the reforms in the 1990s placed greater emphasis on reforming the factor markets and raising the productivity of capital and labor.** Production and employment by private enterprises increased significantly in this period. The government established a more systematic regulatory framework and liberalized foreign direct investment (FDI) policies further. These policy measures helped China to increase its productive capacity and acquire advanced technologies from overseas. Competition among local governments in pursuing high growth by implementing GDP-boosting reforms, was instrumental in attracting FDIs.

5. **Monetary and financial reforms proceeded more gradually than economic reforms, with a focus on institutional development.** The People's Bank of China (PBC) was established as the central bank along with four state-owned banks, and other commercial banks were also set up sequentially, but the monetary policy framework, which was based on the annual setting of credit quotas, remained unchanged. At the same time, policymakers deliberately developed a select group of Financial Institutions (FIs) to provide supportive credit to the economy. They also undertook multiyear efforts at Renminbi (RMB) exchange rate adjustment to anchor stability in the face of rapidly-changing economic and financial conditions.
6. **On the external front, China's closed capital account and financial system shielded the economy from large swings in capital flows, and kept it largely unscathed by contagion during the Asian Financial Crisis (AFC).** Exchange rate reform, moving in the direction of a more flexible exchange rate regime, began in 1994 in response to persistent current account deficits in the early years of opening-up and to large surpluses in the later years.

## The Past Two Decades of Reform

7. **The past two decades of reform have focused on fuller integration into the global economy, deepening reforms in more fundamental ways, and responding swiftly to the Global Financial Crisis (GFC).** First, the WTO entry was a major milestone that helped to draw more FDI into China, and catapulted China to the "factory of the world" status, which in turn reflected the country's success in plugging into the global value chains and acquiring more advanced technologies. This trade-opening move has benefited China significantly in several ways. First, stability on the external front, in the form of a growing current account surplus and accumulation of foreign reserves. Second, rapid growth over a prolonged period of time, in tandem with consistent improvement in efficiency and deepening of innovative capacity. Third, a catalytic role for even firmer and speedier economic reform. In particular, market-oriented reforms were strengthened significantly, leading to an improvement in SOE performance and an enlargement of the role of private firms in the period leading up to the GFC.
8. **During the GFC, the large stimulus package, heavily focused on infrastructure and industrial development, managed to shore up growth but also brought about unintended consequences, in terms of excessive investments in heavy industries and a sharp rise in SOE and local government debt.** As a result, there was a rebalancing of growth to cope with the excesses in various sectors of the economy so as to achieve a more sustainable growth. Following the GFC, financial sector risks increased due to expanding financial leverage, shadow banking activities as well as rising regulatory arbitrage that led to an increasingly complex financial sector.
9. **Exchange rate reform was gradual and the process fraught with challenges.** Since July 2005, when the RMB was de-pegged from the US Dollar (USD), the RMB exchange rate has become more flexible and appreciated steadily from 8.3 yuan per USD to a peak of 6.1 yuan per USD in August 2015 when a new mechanism comprising a flexible peg against a basket of currencies, was implemented to guide the daily movement of the exchange rate. Since then, the RMB has depreciated by 12 percent against the USD. The authorities have also promoted the internationalization of the RMB since 2010. The RMB has become more widely used for international trade and it was included in the Special Drawing Rights (SDR) basket in October 2016. However, the greater flexibility of the exchange rate has also exposed to the RMB to market speculation, as happened in 2015-2016 when the exchange rate came under downward pressure and triggered large and persistent capital outflows which was brought under control only with the enforcement of capital management measures in late 2016.

10. **China's policy goal has since shifted to focus more on the quality and sustainability of growth rather than just the speed, and also on macroeconomic and financial stability. Boldness of reforms, sustenance of productivity gains, and macro stability have become critical underpinnings for future development.** The new development concept, proposed by the 19<sup>th</sup> National Congress of the Communist Party of China (NPC), de-emphasized high-speed growth and shifted the focus to sustainable growth, while emphasizing quality of economic development, upgrading of economic structure, switching from investment to consumption-led growth, and pursuing green development. Taking direction from this concept, subsequent policy moves have also emphasized addressing risks associated with the legacy of the 2009 stimulus package and risks in the financial and property sectors.

11. **Despite the numerous challenges, China's persistent efforts in reforms and opening-up have resulted in sustained growth, reflecting capital deepening and a massive improvement in total factor productivity (TFP) gains.** China's economic structure has changed dramatically, from an agriculture-based economy to one driven primarily by manufacturing and services, and, more significantly, from a planned to a market-based economy. The "new economy", based increasingly on innovation and advanced technology, has become a powerful engine of growth. On the demand side, the urbanization-industrialization process, which has led to investment playing a lead role in powering the economy, has likely reached an inflection point; and the country is on the cusp of having consumption taking over that lead role in the future, supported by a strengthened social safety net.

## Reforms and Growth Achievements/ Pressing Challenges and Opportunities

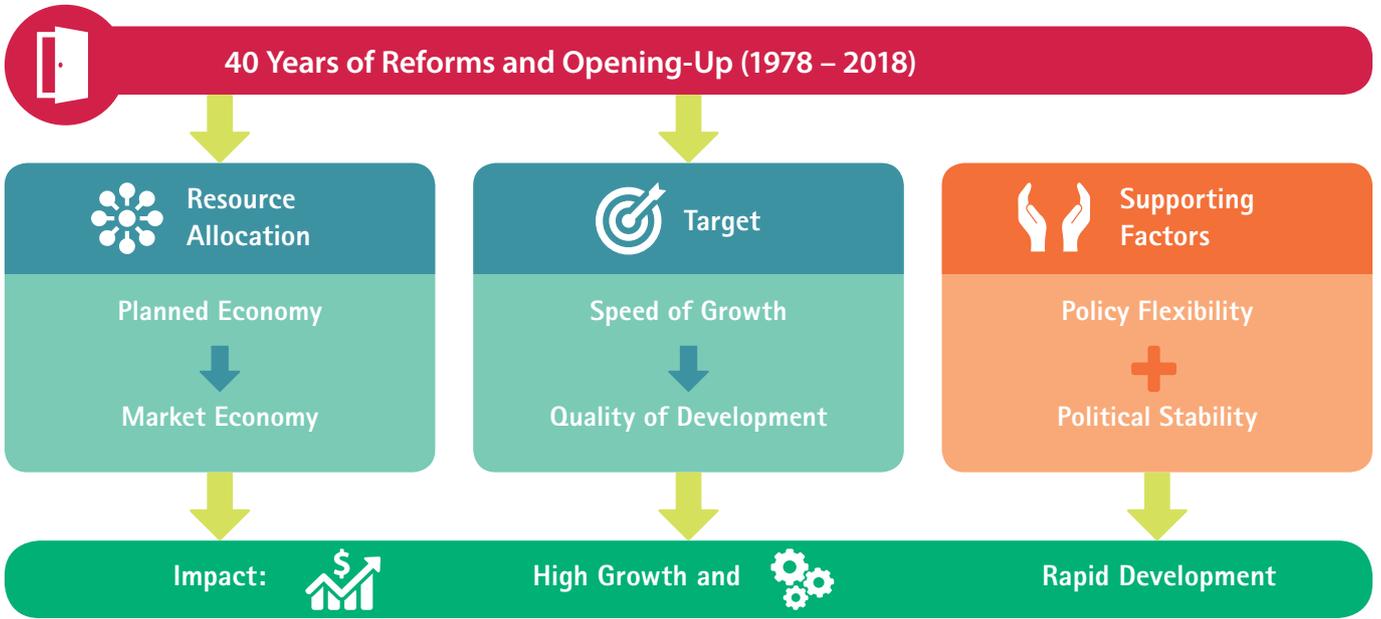
12. **The economic reform and opening-up journey has come a long way but is still not complete – the country has moved from low to upper middle-income status but the challenges to transform itself into an advanced high-income economy are nontrivial.** First, China's population is aging and the surplus labor in the agriculture sector has diminished, hence it will no longer benefit from rapid TFP gain arising from the reallocation of labor from the primary sector to the secondary and tertiary sectors. Population aging also requires a strong policy framework to mitigate the drag on growth, not to mention other associated problems. Second, growing regional disparities and income inequality may become more entrenched moving forward, particularly given that the "new economy" may sharpen the divide between the "haves" and "have nots". Third, legacy problems associated with high corporate sector debt and financial sector leverage, will continue to pose risks to macroeconomic and financial stability for many years to come, as deleveraging will take time. Fourth, rapid growth in the past has led to serious environmental and pollution-related problems that will compound the policy challenge in future. And finally, external frictions and uncertainties, not least those arising from increasingly protectionist policies in trade and technology from the U.S., are likely to persist as headwinds that China will have to manage in its quest for growth. Overall, Chinese policymakers have held the view that focusing on the people's welfare will always be a good guide for staying the course of reform and opening-up.

13. **Looking ahead, even as China seeks to address these challenges, it needs to seize opportunities associated with the Fourth Industrial Revolution (4IR) and press forward with reforms to make the next leap forward.** First, China has demonstrated an ability to learn, adopt and apply new technologies to improve or come up with new products, which will be the key driver behind future productivity gains and economic development. Second, the country has created a growing number of large home-grown private enterprises with

strong branding in global markets, which will lead the country in its competition for markets abroad. Third, continuing urbanization will lift the living standards of households further, create employment, and contribute strongly to growth. Fourth, fiscal policy can still play a significant role in facilitating and supporting supply-side reforms and providing counter-cyclical buffers against shocks. It can also play a more effective role in improving equity and inclusiveness and in narrowing regional disparities. Fifth, strengthened market-oriented reforms will improve the economic efficiency in China further. Moreover, the Belt and Road Initiative (BRI) has the potential to boost regional connectivity greatly, increase cross-border investment and trade, and boost East Asia's growth, which will in turn benefit China and the region.

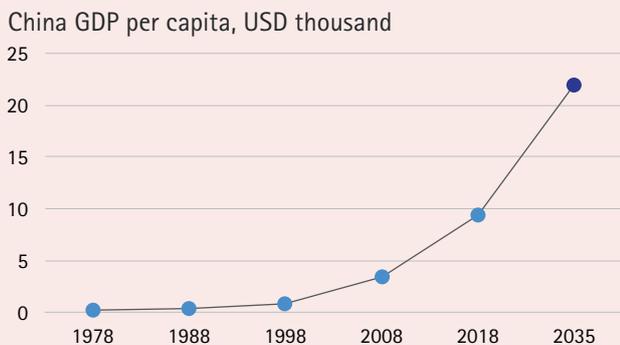
**14. China sees that it has benefited by learning from the region during its earlier phases of development, and recognizes its present responsibility to contribute to macroeconomic and financial stability in the region.** In the minds of Chinese policymakers, China's reform and opening-up have benefited much from East Asia's own growth catch-up and policy adjustments along the way. As the second largest economy in the world, China now has a responsibility to contribute to the development of smaller countries and the institutions underpinning the global economy, and to help anchor development and resilience in East Asia. While China is still striving to catch up with the advanced economies, it is now in a position to contribute to the development of the smaller and poorer economies of the world, and also the development of the institutions underpinning the global economic and financial systems, especially the rules-based multilateral trading systems and the global and regional financial safety nets (GFSN and RFSN). China has projected an increasingly confident voice globally, but at the same time, it has also paid great attention to the needs of the East Asian region. It has partnered fellow ASEAN+3 countries to establish the Chiangmai Initiative Multilateralization (CMIM); sealed bilateral swap arrangements (BSAs) with ASEAN+3 countries; and collaborated with Singapore and others to set up offshore RMB centers to support the internationalization of the RMB.

# CHINA'S REFORM AND OPENING-UP PROCESS



## Achievements

**Rapid increase of China's GDP per capita over time**



**Significant increase of China's shares of world GDP and trade over time**



## Moving Forward



Growing New Economy



Belt and Road Initiative



Rising Home-Grown Private Enterprises



Continuing Urbanization



Ageing Population



High Corporate Debt and Financial Leverage



Regional Disparities and Income Inequality



External Tensions and Uncertainties

# China-ASEAN Engagement: Growth and Resilience

15. **Trade and investment between China and ASEAN have deepened and grown rapidly over the past four decades.** China's economic reforms and opening-up as well as ASEAN's structural reforms especially following the AFC, have supported and facilitated trade and investment, and spurred integration between China and the ASEAN economies. After China joined the WTO and liberalized its trade regime, China quickly became a major trading partner of ASEAN economies. ASEAN benefited from the growing domestic demand in China for various products ranging from consumer goods, commodities, and capital goods; and also from the emergence of China as the center of regional supply chains for manufacturing goods, especially electronics. On the other hand, China also benefited from growing exports to ASEAN in response to the increase in market size, infrastructure needs, as well as further progress in industrialization across ASEAN. Direct investments grew over time as well, led first by ASEAN outward direct investment (ODI) into China in manufacturing, and then followed by fast-rising China ODI into ASEAN in natural resources, industries, and infrastructure projects in the second half of the 2000s.

16. **After the GFC, ASEAN-China trade saw a sharp increase as a share of ASEAN's GDP and total trade – reflecting the rebalancing of growth towards regional demand following the collapse in exports to the US and Europe.** In recent years, China has also increased the size and coverage of its investment in ASEAN and its outbound tourism has given a decisive lift to ASEAN's services exports. Moreover, with Chinese companies continuing to become stronger in technology and manufacturing knowhow, logistics and inventory management, the country has been shifting manufacturing activities to some ASEAN countries as labor costs in China continue to rise. As a share of ASEAN's total goods trade, ASEAN-China trade rose substantially from 1.9 percent in 1993 to 16.7 percent in 2017. On the other hand, as a share of China's total goods trade, ASEAN-China trade rose from 4.4 percent to 10.4 percent over the same period.

17. **China's policy responses to both the AFC and the GFC helped to anchor the region's resilience.** The decision of the Chinese authorities to maintain the stability of the RMB helped to ensure that regional currencies did not plunge further during the most stressful periods in 1997 and 1998. During the GFC, China's massive countercyclical macroeconomic policies supported regional growth – its import of commodities and other goods buttressed ASEAN's growth.

18. **With China now having become ASEAN's top trading partner, spillovers will increase but remain manageable.** The spillover impact of China's financial markets on ASEAN, though still primarily through the sentiment channel, is not trivial. One notable example is the period of heightened stress in China during the second half of 2015, which led to substantial capital outflows from first China and then quickly ASEAN countries. Such spillover risks may also increase over time, as activities such as cross-border bank lending expand.

# Prospects for China–ASEAN Integration: Mutual Benefit and Trust

19. **China and ASEAN countries have complemented one another through different stages of development, and prospects for broader and deeper integration in the next two decades are bright.** China and ASEAN are natural partners, and there has been a big step-up in development capacity, income (GDP) growth, and plug-in to cross-border trade and investments. Indeed China perceives ASEAN as the region most likely to be receptive to its overtures for deeper economic ties. ASEAN recognizes the significant benefits from further integration with China in the areas of infrastructure investment, tourism, manufacturing and digital technology.

20. **Trade in goods between China and countries across ASEAN will continue to thrive.** This will be propelled by not only the increase in market size, but also greater cooperation in facilitating trade, boosting production through exploiting endowment complementarities, and continued relocation of certain types of manufacturing activities from China to ASEAN. China's exports of capital goods to ASEAN are expected to increase considerably, and both China's and ASEAN's exports of research-intensive goods to each other will continue to rise significantly. In addition, ASEAN's exports of consumer goods and food products to China will rise rapidly along with the expansion of the Chinese middle class. And because China's regions are diverse in terms of development, income and consumer needs, trade between China and ASEAN countries – including those which are more newly-emerging – is expected to flourish.

21. **ASEAN's tourism income is expected to increase substantially due to a further rise in the number of Chinese tourists.** ASEAN revenue from Chinese tourists will likely soar. First, the number of Chinese tourists visiting ASEAN is likely to grow rapidly in the years ahead. Second, the per-person expenditure in ASEAN will grow substantially too, given that China's per capita income is projected to rise by 2.3 times by the year 2035.

22. **Broader and deeper economic cooperation, in particular the Belt and Road Initiative (BRI), will foster FDI flows between China and ASEAN.** In addition, China's portfolio investment in ASEAN is expected to increase once China opens up its capital account further to allow its nationals to invest abroad to benefit from diversification and higher yields. The scope for Chinese banks to scale up their cross-border lending in ASEAN to support ASEAN's economic development and rebalancing is also large. Similarly, ASEAN banks will likely further expand their lending in China while institutional investors will diversify by increasing investment in China.

23. **There is significant potential for greater usage of RMB for trade and investment in the region, which could help boost cross-border activities and also reduce FX risk.** The RMB has been used more and more for trade and investment transactions between China and ASEAN in recent years. The payment and settlement infrastructures to support the use of RMB have also been developed and enhanced. Using the RMB as an invoicing and settlement currency, Chinese firms doing business with ASEAN firms can reduce transaction costs and the exchange rate risk that come with trading through a third currency particularly the USD. ASEAN businesses will also benefit from the increasing trade and investment activities with China, and reduced reliance on the USD.

24. **To increase shared benefits from deeper integration, China and ASEAN need to continue collaborating based on enhanced understanding of each other's needs. This is crucial.** Trade, investment and financial cooperation needs to be further strengthened to expand the frontier of benefits as well as to boost resilience to external shocks. China and ASEAN have been cooperating and working together in improving regional surveillance and the RFSN. In this respect, the Chiang Mai Initiative Multilateralization (CMIM) should be strengthened further, and in doing so, policymakers should be bold and forward-looking.

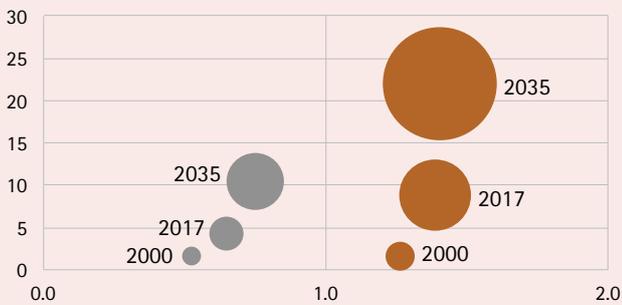
# CHINA-ASEAN ENGAGEMENT AND INTEGRATION



Size of Economy

With rapid economic growth, both China and ASEAN will see their incomes converging to a high level

GDP per capita, USD thousand



Note: Size of bubble denotes size of economy. Grey = ASEAN; Red = China.



Trade

China and ASEAN will become more and more important trading partners of each other

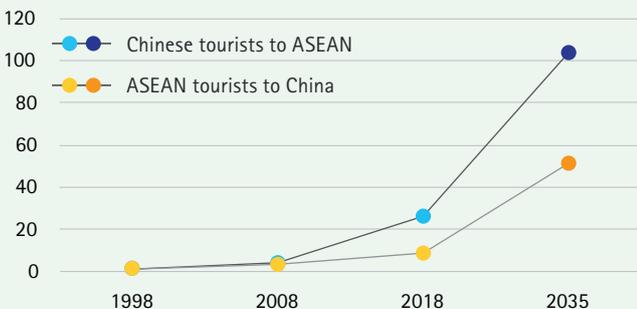
% Share of China-ASEAN trade



Tourism

Cross-border services, especially in the tourism sector, are booming

Tourists, million persons per year



Investment

Cross-border investments in each other are flourishing

FDI stock, USD billion



# 1 Introduction

1. **The world has witnessed China's unprecedented achievements in economic development over a 40-year period of reform and opening-up (1978-2018).** In these years, China has upgraded itself from a low-income country with a per capita income of USD155 to USD 8,800, attaining an upper-middle income level. And it is poised to become a high-income country with a per capita income of USD12,000, within five to eight years if reforms remain on track and annual growth is sustained at 6-7 percent. The economy grew rapidly at an average of 9.4 percent per annum over the past 40 years. As a result, the poverty rate fell sharply from 97.5 percent in 1978 to 3.1 percent in 2017. This rapid pace of development over such an extended period has not been achieved by any other country in world economic history (Fang, Garnaut and Song, 2018).

2. **China's economic reform and opening-up strategy has been underpinned by pragmatism and several unique characteristics.** No mainstream economist could have imagined that China would be able to come this far, judging from the experience of other transition economies. Indeed most Eastern European economies in transition encountered serious difficulties and stumbled during the 1990s. In contrast, China has chosen a different strategy guided by Deng Xiaoping's concept of "*crossing the river by feeling the stones*". The pragmatic and gradual approach to adjust the economy towards a market-oriented direction has yielded impressive results. Nonetheless, the approach and process are still challenging for observers outside China to understand. Therefore, the first objective of this paper is to explain how China has delivered strong results by harnessing labor, accumulating and deploying capital and raising productivity significantly and consistently over time.

3. **Despite its achievements, China still faces many challenges to further reform and opening-up, and the nature of its efforts to tackle these challenges will determine the path of its development ahead with important implications for the region.** China may be compared to a person at the age of 40 who has accomplished a lot in life through successive efforts to better himself. Although he is strong overall, he has also come to have some health problems that need fixing. China needs to ensure that further economic development will be sustainable. Factors such as population aging, income inequality, regional disparities, and remaining distortions, as well rising external challenges may hinder China's development ahead. In this regard, a second objective of the paper is to provide an assessment about these challenges as well as game-changing opportunities that China needs to grasp in the 4IR.

4. **ASEAN has benefited greatly from China's opening up to trade and investment, while China's role in the region has been expanding and evolving.** The reforms over the first two decades – including in agriculture, the household responsibility system (HRS), SOEs, private sector development, establishment of SEZs, and market reforms – gradually but consistently moved the economy towards a market-oriented system and prepared for its fuller integration into the international trading system and investment. China developed into a global factory of manufacturing goods quickly after the WTO entry in 2001, and has assumed several roles in the region, ranging from being a major market of consumer goods and commodities, and the biggest source of foreign tourists to being the center of regional production networks. In addition, China has become a major investor in the region and is now recognized as an innovator in the areas of e-commerce and digital technology and as a major investor in infrastructure projects. The third objective of the paper is to examine the expanding and evolving role of China in the regional economy, its contribution to and impact on ASEAN and vice versa.

5. **ASEAN countries will also need to adjust their economies and look for an engagement approach that will ensure greater mutual benefits.** It is important for ASEAN to better understand China's economic transformation and development to reap benefits and to better manage risks from spillovers as linkages deepen between the two economies. For China, enhanced understanding of ASEAN's needs and views, and building trust is crucial for strengthening engagement and fostering a mutually beneficial relationship with the region.

6. Accordingly, after this introductory section, Section 2 will examine the key characteristics and achievements of China's reform over the past 40 years, as well as how this has strengthened growth and led to changes in its economic structure. Section 3 will focus on pressing challenges and opportunities for further development. Sections 4 and 5 will analyze the progress of China-ASEAN integration and the prospects ahead. Section 6 concludes the paper with some final remarks.

## 2 Salient Characteristics and Achievements of China's Reform and Opening-up

7 **To examine the complex process of reform and opening-up in China, it is helpful to start by identifying important unique characteristics before examining the evolving efforts and results.** We are of the view that among the many characteristics identified by scholars in the vast literature on China's reforms, *pragmatism, a gradual and experimental approach, decentralization of implementation, and political stability* are the backbone of the country's achievements. Reform actions and results can best be examined in two periods: domestically-oriented reforms prior to WTO entry and enhanced reform thereafter. To provide a simple illustration of the complex reform process, Figure 2.1 provides a schematic diagram which captures the different stages of the reform process during the past 40 years in terms of the main focus of the reforms at each stage as well as the problems and challenges that emerged. Table 2.1 shows our assessment of the progress of reforms on various fronts during the above two periods, which will be discussed subsequently.

Figure 2.1 Summary of China's Reform and Opening-up

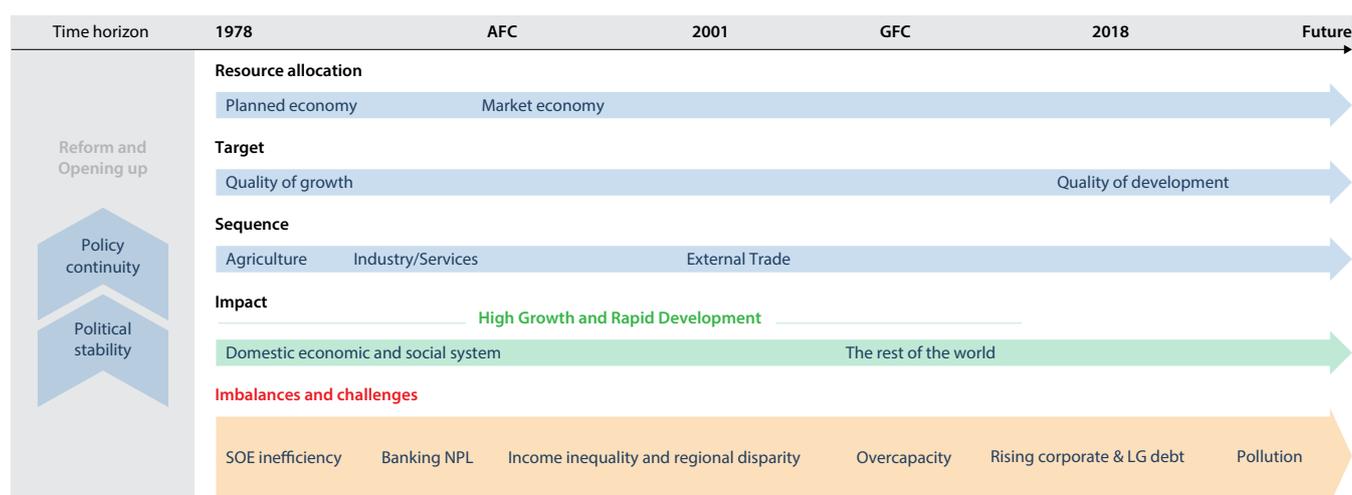


Table 2.1 Progress of Various Reforms

Area	Sector	Domestic Reform and Initial Opening-up		WTO Entry and Strengthened Reform		
		Introducing Market Pricing	Promoting Market Reforms and Private Sector	Integrating into Global and Regional Trade	Coping with the GFC	Rebalancing Growth and Securing Financial Stability
		1978-1991	1992-2000	2001-2008	2009-2012	2013-2018
Real Economy	Agriculture					
	Industrial Sector					
	Services					
Market-oriented Mechanism	Price					
	SOE					
	Private Sector					
	Trade Policy					
	Direct investment Policy					
Financial System	Financial Sector					
	Exchange Rate					
	Capital Account					
Macro Policy and Institutions	Fiscal Policy					
	Monetary Policy					
	Government Institutions					
<b>Overall</b>						

Lowest-income economies    Middle-income economies    Advanced economies

Note: This is based on AMRO staff's analysis and judgment, ranging from the level of the lowest-income economies to advanced economies.

Source: AMRO

## 2.1 Unique Characteristics of Reform

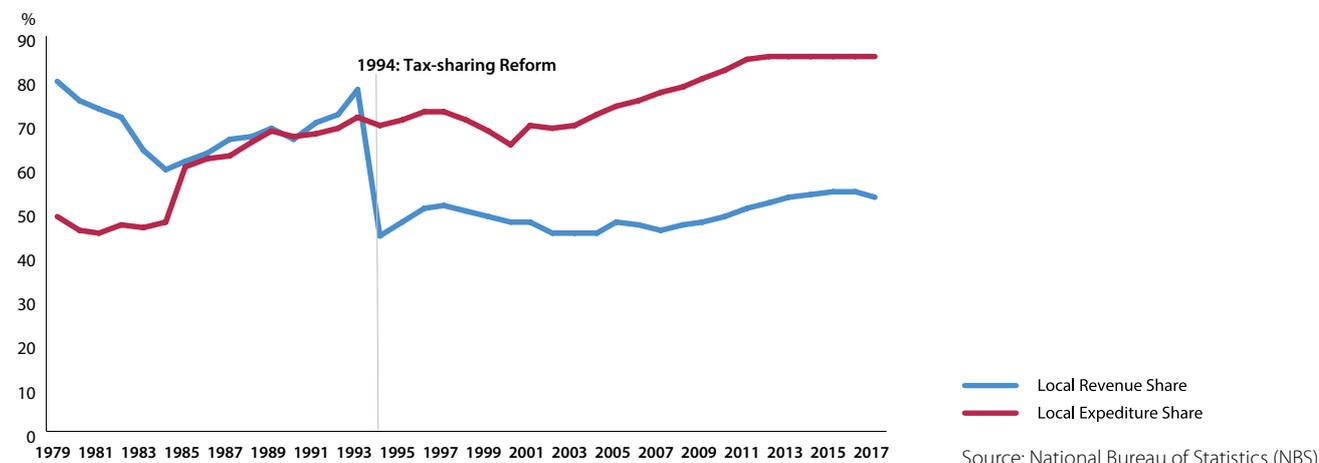
8 Pragmatism has allowed Chinese policymakers to focus on **increasing marketization for allocation of resources, and modernizing enterprises in order to transform the economy.** In this way, the economy grew out of the planned system, the role of market forces expanded under the socialist concept, and China was able to become competitive regionally and globally. *“One should not care whether a cat is black or white as long as it catches mice”* is one of the most well-known wisdoms of Deng Xiaoping that highlights this reform approach (Chow, 2018). This approach has enabled policymakers to introduce policies that allow market forces to play a greater role over time while retaining control over certain aspects of the socialist system such as the size and responsibilities of SOEs without a collapse of production (Hofman, 2018).

9 **A gradual and experimental approach to implementation of reforms is a sensible way to test the effectiveness of policies before they are implemented nationwide in order to minimize the cost of making flawed policies.** In several ways, China has pursued some common prescription reforms to reduce market distortions, diversify ownership, increase urbanization, and open the country to international trade and FDI as other emerging and developing countries have done (Hofman, 2018). However, the approach, in terms of timing, sequencing and pace has been quite different from others. In the 1990s, Eastern European countries and the former Soviet Union abruptly switched from centrally planned systems to market economies with largely adverse results. Reforms in Latin America, on the other hand, followed the “Washington consensus”, with financial market and capital account liberalization and macroeconomic stabilization policies, and there too, the results were poor. In contrast, reforms in China followed the gradual and experimental approach. Essentially, this was a pragmatic approach in an environment with high distortions as well as potential political resistance to reform. Experiments in specific SEZs helped identify what policies could be successful in other areas and this helped convince skeptics before these policies were introduced at the national level.

10 **Decentralization of implementation to local governments and holding them accountable for the results have made them powerful agents of development-enhancing reforms.** Fiscal reform during 1978-93, by shifting from a centralized fiscal management system to a fiscal contracting system, or “eating from separate kitchens”, provided high revenue retention for local governments. In the initial period of reform, the central government did not have enough resources for economic development and therefore provided provincial and local governments with increasing authority to spend and invest, with local governments’ revenue accounting for as much as 80 percent of total government revenue (Figure 2.2). This policy encouraged local governments to be the main agents of growth-enhancing policies. The system led to competition among local governments to pursue growth-enhancing reforms, including institutional reforms to streamline local bureaucracy, and developing investment policies and SEZs to attract FDIs. This system is also consistent with the experimental reform approach. Although a major fiscal reform step was undertaken in 1994 to raise overall revenue and provide the central government with a much greater share of revenue (from 22 percent of total revenue in 1993 to 57 percent in 1994), and the central government subsequently transferred more funds to local governments in need, the role of local governments in spending did not diminish. Local government spending actually increased further, from 70 percent in 1993 to 85 percent of total government spending in recent years, through increased fiscal transfers from the central government.

11. **China’s ability to remain committed and persist with long-term reforms despite the many challenges along the way has been made possible by political stability.** The continuation of reforms has been supported by the country’s strong leadership which has been effective in addressing problems that emerged from time to time during the course of reforms. This is in contrast to several countries whose governments are unwilling to take necessary but difficult policies that are good for their countries in the long run.

Figure 2.1 Local Government Revenue and Expenditure

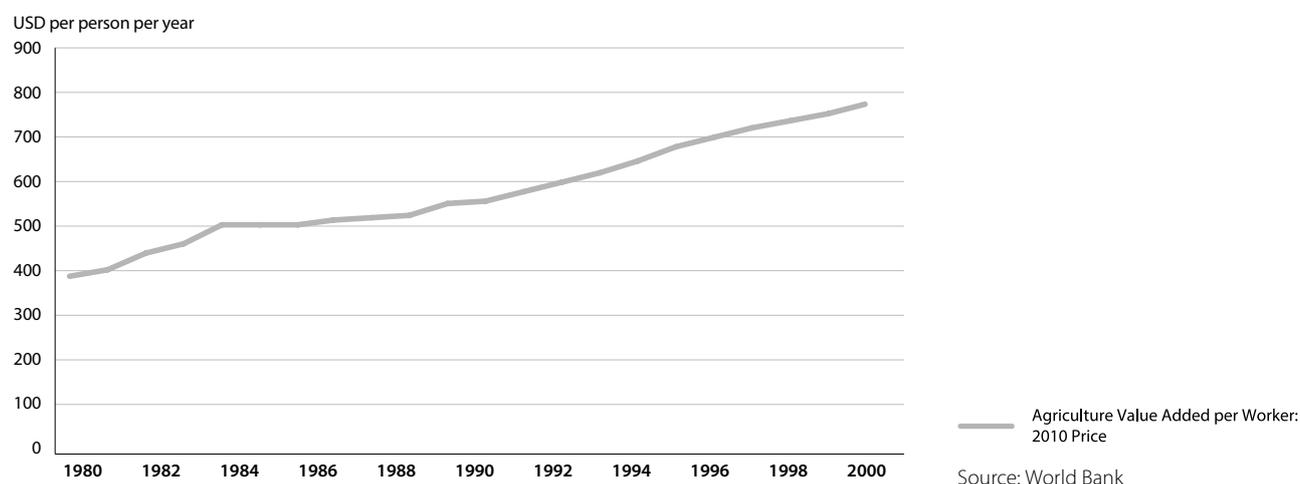


## 2.2 Domestic Reforms and Initial Opening-Up (1978-2000)

12. **The first half of the reform period focused on moving away from the central planning system towards progressive reliance on market mechanisms to improve resource allocation and increase economic efficiency.** The abolition of people’s communes and the introduction of the HSR were the initial steps in the reform process. These led to a significant increase in agricultural production as the new rights to control operations and retain profits incentivized farmers to increase productivity (Figure 2.3).<sup>3</sup> As farmers were allowed to sell their surplus agricultural produce freely once the government agricultural output quotas were fulfilled, market forces started to play an increasingly important role in resource allocation. The development of Township- and

Village-owned Enterprises (TVEs)<sup>4</sup> turned farmers into independent operators, and this became the foundation for the development of the market-oriented economic system and the move towards a more open economy (Ying, 2001 and Zhang, 2003). By the first half of the 1980s, collective farming had been effectively converted into private agriculture (McGregor 2012 and Lardy 2018). Agricultural reforms led to increasing income growth and a rise in aggregate demand, particularly in consumer and light industrial goods. (Li, 2001)

Figure 2.3 Agriculture Production in China: Value Added per Worker



13. **While the introduction of a dual price system focusing on the prices of final goods helped promote the market economy, there was a lack of focus on liberalizing the prices of factors of production, and the industrial sector remained rigid. This led to significant economic distortions and consequently industrial bottlenecks, high inflation and recurrent economic overheating.** The dual price system was introduced in 1984 with official prices and market prices coexisting in the informal market, mostly for agricultural products and imported consumer goods. Over time, this resulted in the size of the market economy increasing. Reform in the markets for factors of production was lacking, as the government continued to set their prices and allocation. Wage reform in the state sector, meanwhile, remained slow, and wage increases required state approval. Rent and land transactions also needed government approval. Interest rates were set administratively at low levels to keep the cost of capital down. The resulting distortions, along with a rigid industrial structure focused on heavy industrial output, and lagging infrastructure development in sectors such as energy and transport, caused severe industrial bottlenecks around 1987 as industrial output did not grow in tandem with rising demand (Li, 2001). Despite reform achievements in this period, such as high growth in income, consumption and savings, little attention was paid to allocation of investment which was determined by central planning. As a result, the reforms led to economic imbalances in the forms of excess demand, high inflation, and lagging industrial output, which reinforced one another during 1992-1993. Meanwhile, an expansion of bank credit, a significant share of which went to projects with low social and economic returns, led to fast-growing money supply and contributed to rising inflation.

<sup>3</sup> The commune system was formally abolished in the mid-1980s as almost all of rural China had adopted the Household Responsibility System (HSR) by the end of 1983.

<sup>4</sup> Township and Village-owned Enterprises (TVEs) are market-oriented public enterprises under the purview of local governments based in townships or villages. They provided some subsidie to agricultural production, supported the social welfare system, and operated primary and/ or high school education. Individual farmers signed a Household Responsibility System contract with the village according to land size and the number of family members (Qing, 2004).

**14. Initial efforts to reform SOEs by granting them autonomy and allowing competition among them led to increased production efficiency, albeit with a setback that contributed to high banking NPL ratios along the way.**

Low efficiency and output shortages were chronic problems under the central planning period as a result of the misallocation of resources and the multiple functions that SOEs were expected to carry out (Song, 2018). From 1978 to the early 1990s, reforms focused on granting autonomy to SOEs and introducing a market mechanism, which led to a significant improvement in SOEs' productivity, efficiency and financial performance. By the 1980s, under the contract responsibility system, SOEs could set employees' compensation, make decisions on employment, purchases and sales of goods and services, and product pricing and cash management for investment (Cai, Garnaut and Ligang, 2018).<sup>5</sup> However, SOEs faced declining financial performance, particularly after the mid-1980s, due to the following factors (Song, 2018). First, "the soft budget constraint" due to easy availability of credit from state-owned banks, subsidies and tax exemption, perpetuated SOEs' irresponsiveness to price signals and inclination to seek state assistance. Second, SOEs bore a significant burden from the legacy of the period of central planned, to provide social services in the forms of education, healthcare and housing for workers. Third, monitoring was inadequate after the separation of ownership and control. The problems were so large owing to the accumulation of SOEs' NPLs that the largest state-owned banks faced very high NPL ratios in the late 1990s (Lardy, 2018). This was referred to as a "triangular debt" problem during the 1990s, as SOEs' slow sales led to delayed or partial payments which, in turn, contributed to increasing debt among them as well as with banks.

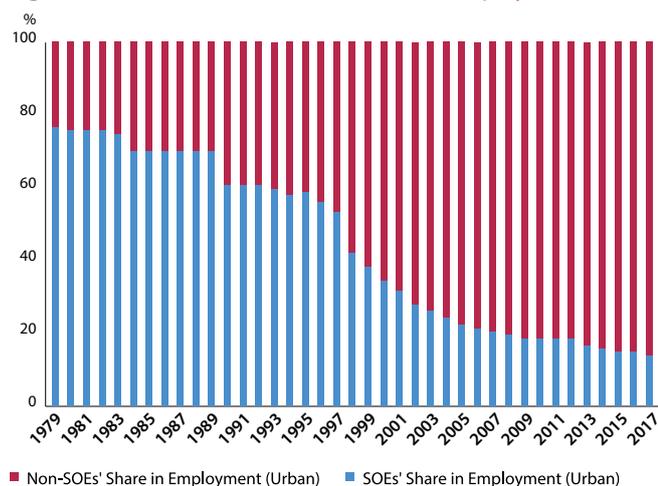
**15. In response to the economic imbalances created by early reforms, the reforms in the 1990s placed greater emphasis on improving resource allocation by reforming the corporate structure of SOEs and promoting private enterprise.**

The government, under the leadership of Premier Zhu Rongji, resolved the SOE crisis by closing thousands of loss-making SOEs (resulting in over 10 million job losses) and writing off a substantial amount of NPLs held by state-owned banks and recapitalizing those banks. The austerity plan, intended to work through credit restrictions, increases in interest rates, banking consolidation, decline in capital funding, and reprioritization of investments to ease industrial bottlenecks, was introduced in 1993 to cool the economy (Li 2001). This was also an important lesson from the early reforms that prompted the subsequent emphasis on promoting investment in infrastructure and other areas that would help sustain economic development and growth. In addition, the above problems were also a driver of ownership reform. In 1997, a two-tier solution was introduced to reform SOEs further. In addition to letting go of 53,000 small SOEs based on the principle of "*grasping the big, letting go of the small*", a shareholding structure for SOEs was proposed. SOEs had to choose from the options of limited liability, joint stock companies or listed companies. Supported by the Company Law of 1993 and the Competition Law of 1994, this reform led to further development of the private sector and the multi-ownership enterprise sector.<sup>6</sup> The number of SOEs decreased from 118,000 in 1995 to 34,000 in 2003, and this was accompanied by a large decline in the number of SOE workers (Song, 2018). The structure of SOEs shifted from state-owned enterprises towards state-controlled enterprises. More importantly, employment and value-added by private enterprises increased significantly, with their shares in total employment and value-added increasing from 41 percent and 46 percent in 1995 to 86 percent and 75 percent in 2003 respectively (Figures 2.4 and 2.5). Over this period, the return on assets (ROA) of private enterprises stood at an average of 5 percent compared to 3 percent for SOEs (Figure 2.6). Better allocation of resources was therefore a major result of the reforms in this period.

<sup>5</sup> Pilot programs on this front were initiated in some cities in the late 1970s before spreading to the whole country in 1980s.

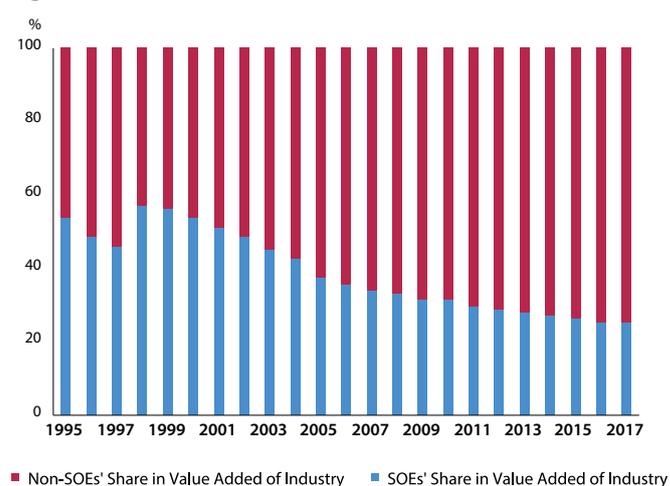
<sup>6</sup> In China, enterprises are classified into 1) State holding enterprises, which consist of state-owned and state-controlled (mixed-ownership) enterprises, 2) private enterprises, 3) other non-state enterprises and 4) foreign- and Hong Kong-, Macau- and Taiwan-funded enterprises.

Figure 2.4 Share of SOEs and Non-SOEs in Employment



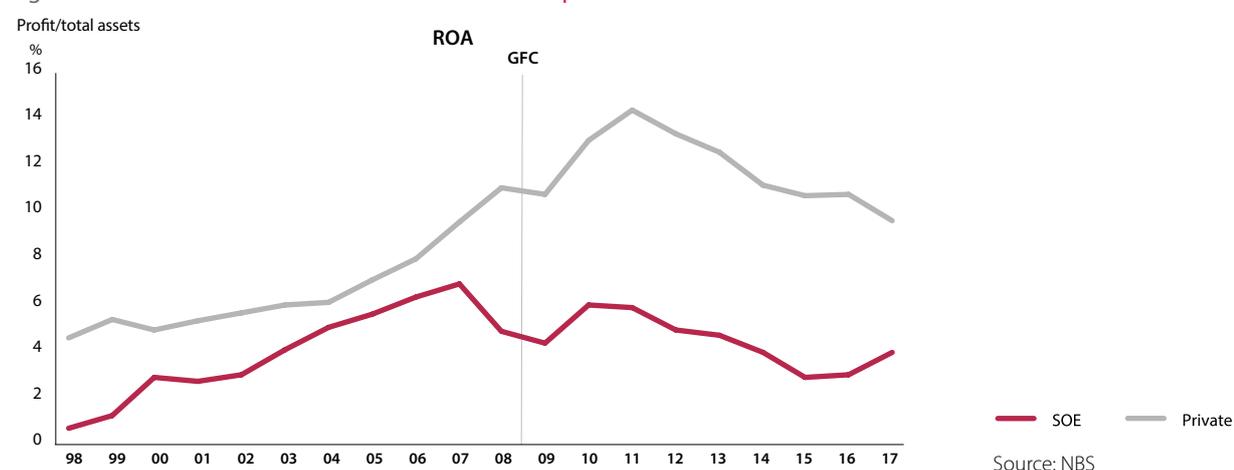
Source: NBS

Figure 2.5 Share of SOEs and Non-SOEs in Value-added



Source: NBS

Figure 2.6 Return on Assets of SOEs and Private Enterprises



Source: NBS

16. In parallel, greater emphasis was placed on attracting FDI as an effective means of expanding productive capacity and acquiring modern technology and equipment. Following the experience of ASEAN and other developing countries, policymakers started to encourage inward FDI in the late 1970s. In the beginning, four SEZs were established in Shenzhen, Zhuhai, Xiamen and Shantou. A series of laws and regulations including special tax incentives were introduced to encourage FDI inflows. The coastal region benefited significantly after an increasing number of SEZs were set up, such as Shanghai Pudong in 1990. During 1979-1991, annual FDI inflows to China averaged USD1.8 billion per annum and most of the FDIs came from Hong Kong, followed by other regional economies such as Taiwan, Japan, Korea and Thailand (Chen, 2018). In the 1990s, the government established a more systematic regulatory framework and liberalized FDI policies further. A nationwide policy for FDI gradually shifted FDI projects to cities in other parts of the country, in order to close the economic development gaps between different regions and cities. FDI grew by as much as 43 times between 1983 and 2000 and most of it was in manufacturing, IT, property and commercial services. In this period, FDI was an important source of technology transfer and human capital development in these areas.

17. Monetary and financial reforms proceeded gradually with a focus on institutional development. Figure 2.7 shows the development of these reforms over time. The most notable financial reform was designating the PBC legally and unambiguously as the central bank in 1995 and granting it autonomy to implement monetary policy, as well as regulate and supervise banks, and emphasizing its role in safeguarding monetary and

financial system stability. At the same time, policymakers deliberately developed a select group of FIs to provide supportive credit to the economy. They also undertook multiyear efforts at RMB exchange rate adjustment to anchor stability in the face of rapidly-changing economic and financial conditions. The PBC mainly conducted monetary policy through credit quantity control and setting the interest rates for all loans and deposits (Figure 2.7 and Figure 2.8). Given the broad scope and challenging nature of these reforms, it is notable that the GFC, far from setting back China's reform process, actually catalyzed its acceleration.

Figure 2.7 Reform of the Monetary, Exchange Rate and Financial Sector Frameworks

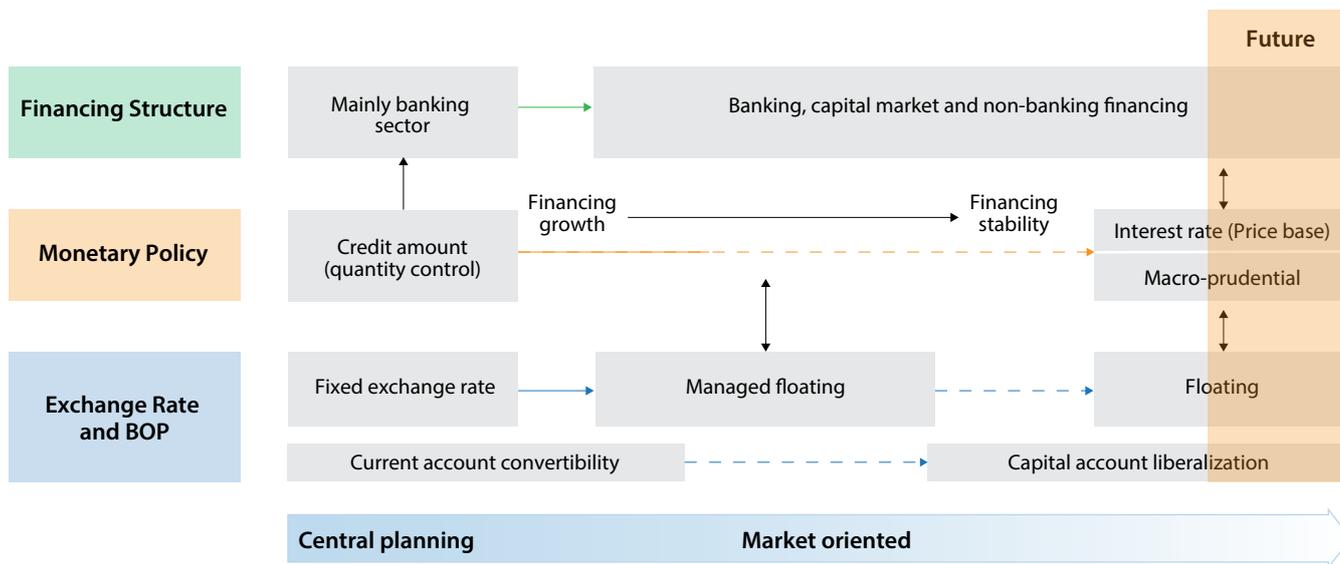
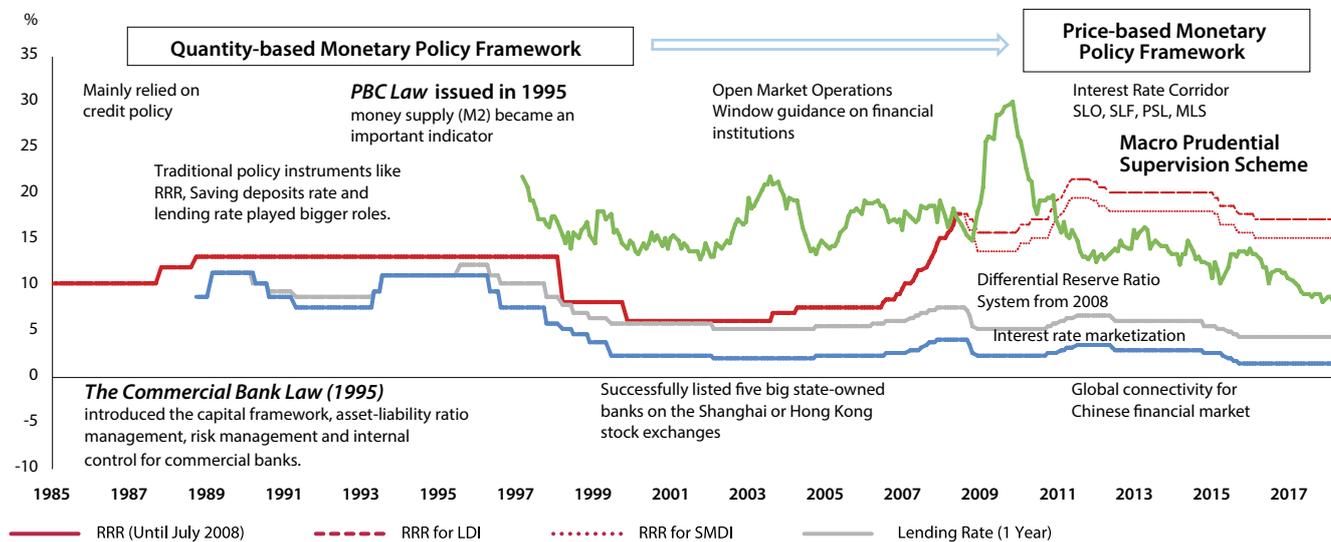


Figure 2.8 Reform of the Monetary Policy Tools, Exchange Rate and Financial Sector Development



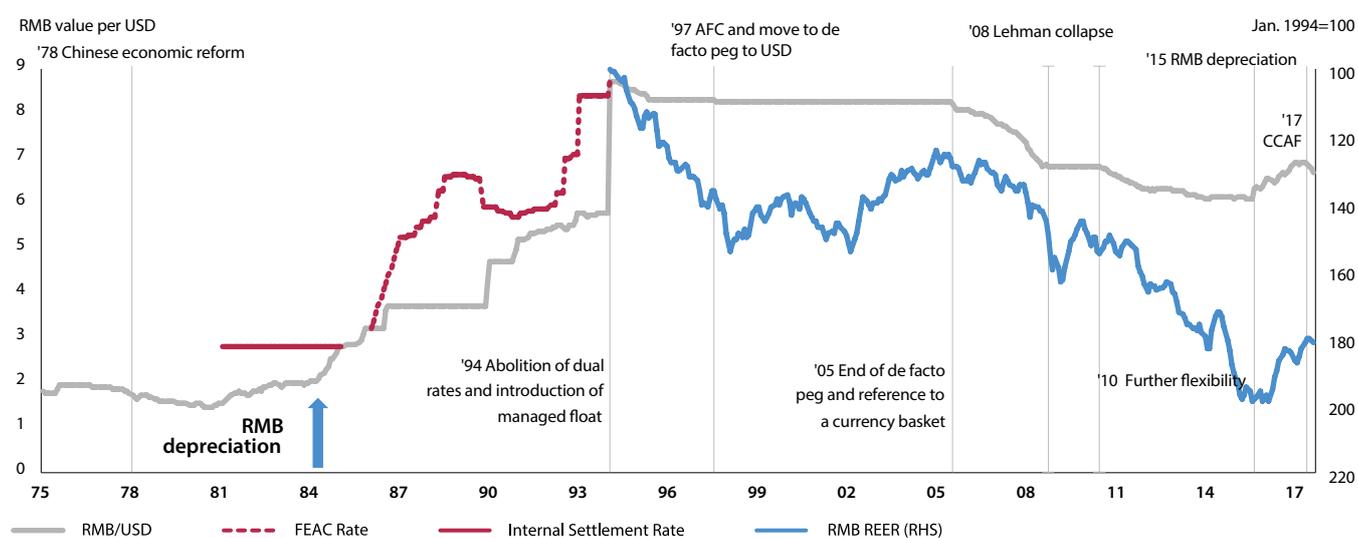
Note: LDI stands for Large Depository Institution; SMDI for Small and Medium Depository Institution.

Source: CEIC; AMRO

18. The exchange rate regime was reformed in response to persistent current account imbalances while a closed capital account and financial system helped shield the economy from capital flow fluctuations and crisis contagion. Figure 2.7 shows the evolution of the exchange rate regime over time in

comparison with the monetary and financial sector reform. The reform towards a more flexible exchange rate regime started in 1994, when the dual exchange rate regime comprising an official and a market-based exchange rates was abolished after the gap between the two exchange rates widened sharply because of economic overheating and persistently widening current account deficits. It was replaced by a unified managed floating exchange rate based on demand and supply when the market rate weakened to as high as 8.7 RMB/USD. During the AFC, the exchange rate was pegged to the USD in 1998 and contributed to the stability of regional countries' exchange rates. The RMB was de-pegged from the USD in 2005 and it appreciated gradually until the GFC, when it was re-pegged to the USD to calm financial markets (Figure 2.9). While EMEs in the region such as Indonesia and Malaysia suffered from crisis contagion that started in Thailand in 1997 following an acceleration of capital account liberalization, China's decision to stabilize its own exchange rate and the fact that it had maintained a closed capital account until then helped shield its economy and financial system from the adverse impact of the AFC.

Figure 2.9 RMB Development



Note: Due to the lack of data, the FEAC series in 1986 was linearly interpolated

Source: CEIC; World Bank (1994), "China: Foreign Trade Reform

## 2.3 Greater Integration into International Trade, Strengthened Reforms and Response to the GFC (2001–2017)

19. **WTO entry was a milestone that helped to expedite China's integration into the global trading system and catapulted China to "global manufacturing factory" status.** In preparation for its accession to WTO in 2001, China lowered its tariff rates significantly, and eliminated a number of non-tariff barriers (NTBs) during the decade prior to WTO entry (Figure 2.10) (Li, 1997; Martin, Dimaranan, Hertel, Ianchovichina, 2000). Since entering the WTO in December 2001, Chinese exports have increased exponentially as it grew to become the center of the regional supply chain (Figure 2.11). The economy attracted more FDI (Figure 2.12), which brought in more advanced technology and plugged it into more extensive distribution networks. As a result, China's share of global exports has increased from 4.3 percent in 2001 to a peak of 12.8 percent in 2017. Overall, this trade opening move has benefited China significantly in terms of (1) stability on the external front owing to persistent current account surplus and very high levels of foreign reserves; (2) sustained growth based on efficiency and innovation (Baden 2011; Cheng, 1999); and (3) a catalytic role for firmer and speedier economic reform.

Figure 2.10 China's Average Tariff Rate on Imported Goods

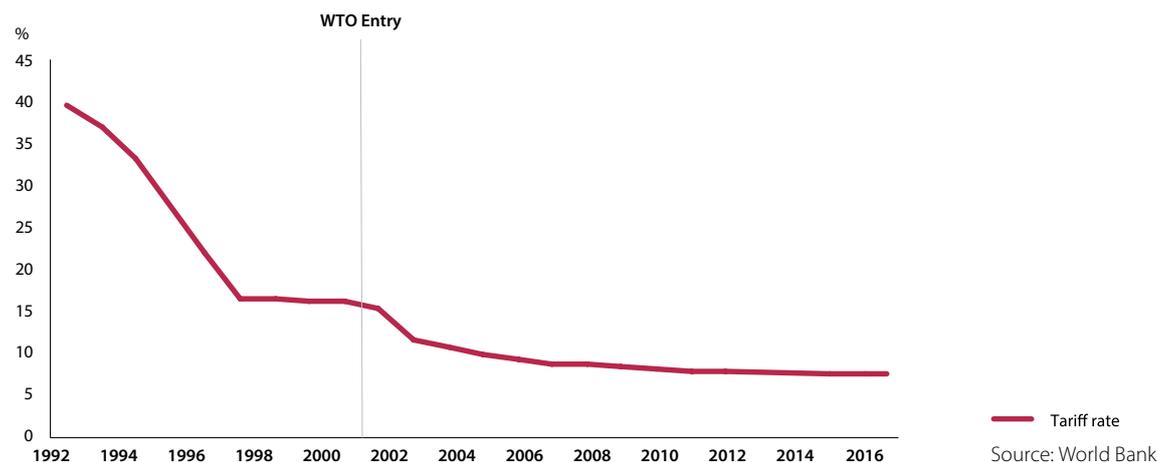


Figure 2.11 China's Total Exports and Share of World Exports

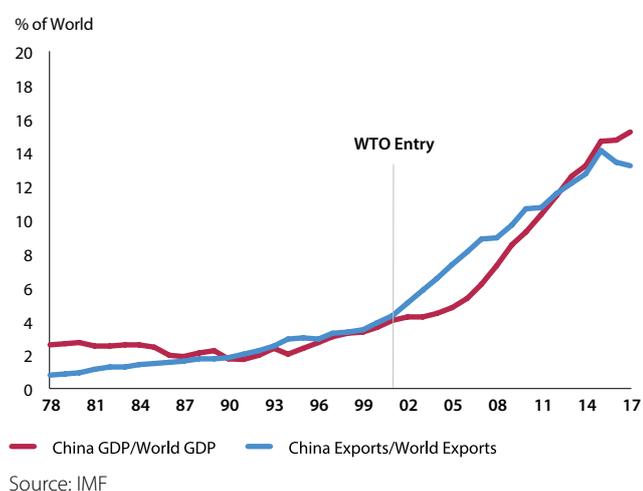
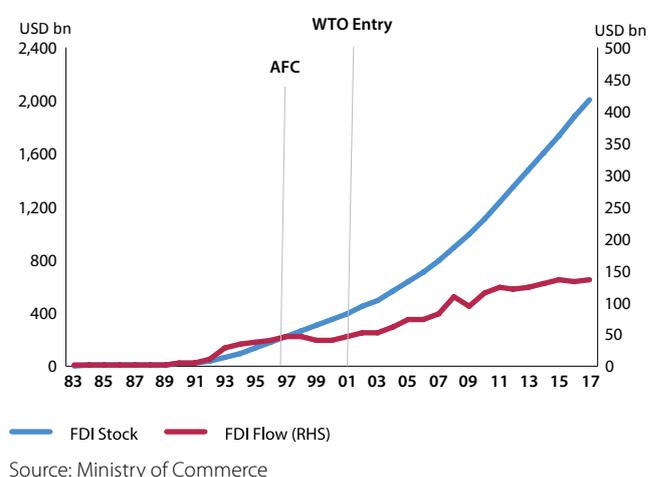


Figure 2.12 China's Inward Foreign Direct Investment (FDI): Stock and Flow



20. In the lead up to the GFC, market-oriented reforms in China had achieved significant success, resulting in improving SOE performances and a greater role for private firms. The State-owned Assets Supervision and Administration Commission (SASAC) was established in 2003 under the authority of the State Council to directly supervise central SOEs (large SOEs in key industries) and to indirectly oversee local SOEs (under the direct supervision of local governments). The focus was on preserving and increasing the assets of SOEs and pursuing ownership reforms to consolidate SOEs (Song, 2018). SOEs were encouraged to expand through public listings in domestic and international stock markets. With an objective of securing access to critical materials, resources and energy, the government also supported international mergers and acquisitions (M&A) by SOEs. However, retaining SOE dominance in four key sectors including high technology, non-renewable natural resources, public utilities and infrastructure services, and national security was emphasized in 1999. A more specific list of industry groups was suggested by the State Council in 2006.<sup>7</sup> On the private sector side, the attitude of the CPC and the Government also shifted more towards supporting the rise of the private sector and lifted restrictions on entry of private firms into a

<sup>7</sup> The goals for the strategic and key industries (defence, power generation and distribution, petrochemicals, telecommunication, coal, civil aviation and shipping) were for the state to maintain 100 percent ownership and increase the amount of state-owned assets. The goals for the basic and pillar industries (machinery, automobiles, IT, construction, steel, base metals, chemicals, land surveying, research and development) were to have absolute or controlling stakes and enhance the ownership share of the state where appropriate. On the other hand, the goals for other industries (trading, investment, medicine, construction materials, and geological exploration) were to maintain necessary influence in key companies and reduce state ownership in non-key companies.

wider range of industries in 2005, and subsequently in 2010.<sup>8</sup> Between 2001 and 2007, efficiency as reflected by the ROAs of both SOEs and private enterprises, increased steadily. However, the ROAs of private firms were higher and the gap between the two groups also narrowed in this period (Figure 2.6). The asset size of private enterprises grew from RMB591 billion in 2001 to RMB5,330 billion in 2007, with their share in total asset rising from 4.9 percent to 8.4 percent over the same period. Between 2003 and 2007, the number of SOE holdings declined from 34,280 to 20,680 as a result of consolidation and restructuring efforts.

## 21. Public investment to counter the adverse impact of the GFC shored up growth successfully.

During the GFC, the government announced a large stimulus package worth RMB4 trillion (USD586 billion), 72 percent of which was for infrastructure spending (including for reconstruction following the Sichuan earthquake) and the rest for technology upgrade, energy conservation and social welfare improvements to mitigate the impact of the GFC on China's growth.<sup>9</sup> SOEs and local governments were the fiscal instruments for implementing this stimulus program. The Central Government funded around one-third of the stimulus package directly, and the remainder came from borrowings by local governments.<sup>10</sup> As local governments could not legally borrow directly, they relied on land sales and set up local government financing vehicles (LGFVs) as local government-owned entities to borrow from banks to finance infrastructure projects, using the land as collateral. Since around two-thirds of the stimulus package was funded through borrowing, expansion of credit also played a critical role. The central bank facilitated credit expansion through increasing in new lending targets and lowering the reserve requirement ratio (RRR).<sup>11</sup> The top commercial banks played a key role in this regard, and were able to do because they had been strengthened prior to the GFC. Three of the four banks had been listed before the outbreak of the GFC, all had undergone significant improvements in their governance frameworks, and China's fiscal reserves had been used to set up Central Huijing to help strengthen these banks financial soundness and by extension, their business practices, governance, and transparency. This put them in a strong position to be agents of the Chinese government's investment-focused stimulus package in response to the GFC. The integrated fiscal and monetary elements of the package delivered strong results, with growth standing at 6.4 percent and 10.6 percent in 2009 and 2010, and estimates suggesting that 2-3 percentage points of the growth were due to the package (McKissack and Xu, 2011).

## 22. However, the stimulus brought about unintended consequences in terms of excesses in heavy industries and rising debt, and also set back the market-oriented reforms.

The stimulus was disproportionately directed towards SOEs and into infrastructure projects with lower rates of return on capital than other projects. This led to a reversal of the process of capital reallocation towards private firms that characterized China's high growth before 2008 (Cong, Gao, Ponticelli and Yang, 2018). An audit of local government debt revealed that the local governments had racked up RMB17.9 trillion in outstanding debt by the end of June 2013 (around 30 percent of GDP) to boost growth. In addition, the stimulus contributed to the rapid growth of shadow banking activities together with a jump in the spread between shadow lending rates and the official lending rate (Chen, He and Liu 2017). The increase in local government debt due to the stimulus package also crowded out investment by private firms (Huang, Pagano, and Panizza, 2016). The ratio of corporate debt-to-GDP in China rose from 96.8 percent in 2007 to as high as 160.3 percent in 2017, and this debt was concentrated in the sectors prioritized under the investment-

<sup>8</sup> In contrast to the experience of other formal centrally-planned economies, the rise of private enterprises has been a result of "the displacement of SOEs" due to a gradual opening-up of space for private firms and their strong growth, rather than due to full privatization of SOEs (Lardy, 2018).

<sup>9</sup> The IMF (2010) estimated that the total size of new stimulatory measures was about RMB2 trillion or 3.1 per cent of GDP in 2009 and 2.7 per cent in 2010. This package predominantly focused on investment as it was deemed to be the most direct and effective method of stimulating activity in a centrally planned and investment-oriented economy investment (McKissack and Xu, 2011). This contrasted with the packages in many advanced economies with significant upfront consumption components.

<sup>10</sup> This way of financing the stimulus allowed the central government to keep the budget deficit within the Ministry of Finance's 3 percent target and reduced the need to increase the transfer funds to the different layers of local governments.

<sup>11</sup> In addition, the PBC also lowered the RRR from 17.5 percent to 13.5 percent for smaller banks and 15.5 percent for larger banks. It reduced the lending interest rate from 7.47 percent to 5.31 percent too, and the deposit rate from 4.14 percent to 2.25 percent.

led growth model, including manufacturing, real estate, utilities, construction and transport. Overcapacity problems emerged, especially in the coal and steel sectors together with a rising number of zombie companies that only had enough funds to service the interests on their loans, but not the debts themselves. Pockets of vulnerabilities associated with declining profits and weakened debt repayment capacities continued to surface until 2016 within the mining and real estate sectors, among manufacturing SOEs, particularly in the steel sector, and to a lesser extent, the construction and utilities sectors (Poonpatpibul, Li, Choi, Liu, and Tang, 2017).

**23. Financial sector risks increased, as the nexus between banks and the government increased from the stimulus package, and as regulatory arbitrage led to an increasingly complex financial sector.** The stimulus strengthened the bank-government nexus, raising systemic risks to macro and financial stability as local governments financed the stimulus projects mainly through bank loans especially in the early stage. Local governments also resorted to non-bank debt financing including shadow banking activities after 2012 due to the mounting rollover pressure from bank debt that was coming due (Cong, Gao, Ponticelli and Yang, 2018). There were widespread perceptions of implicit guarantees, a sense that loss-making SOEs and LGFVs would be bailed out by the government. Moreover, shadow banking activities had grown with increasingly complex investment products, which were challenging to supervise. Banks continued to be at the center of this highly-interconnected system, facilitating and benefiting from indirect lending offered by non-bank financial institutions (NBFIs), including asset managers and insurance companies (IMF, 2017).

**24. Gradual steps of exchange rate reform that allowed for increased flexibility were taken again in 2005.** This process was particularly challenging and unintended consequences materialized in 2015 amid stock market correction, suggesting that timing and improved communication are crucial, and that capital flow management measures should continue to be an available tool in the medium term. The *de facto* peg to the USD remained until 2005, partly due to strong opposition from the export sector to a floating regime. In July 2005, the PBC de-pegged the RMB from the USD and the exchange rate was revalued by 2.1 percent at RMB8.11 per dollar. It was allowed to fluctuate by up to 0.3 percent around the central parity.<sup>13</sup> The RMB was re-pegged to the USD during the GFC (August 2008 to June 2010). It was then de-pegged again, and the RMB appreciated steadily against the USD and the floating range was widened in April 2012 ( $\pm 1.0$  percent) and March 2014 ( $\pm 2.0$  percent) (Figure 2.9). Prior to the IMF's decision to include the RMB in the SDR basket scheduled for October 1, 2016 in August 2015, the authorities introduced a new rule for the RMB/USD central parity pricing mechanism, aiming to increasing market role by referring to the closing rate of the previous day and market supply and demand. This was a bold step towards greater flexibility. However, amid the stock market correction and moderating growth numbers in the second half of 2015, the RMB depreciated significantly under this central parity pricing mechanism, which triggered large capital outflows. Foreign reserves declined sharply from USD3,651 billion in July 2015 to USD3,213 billion as at the end of the first quarter of 2016 reflecting large FX intervention by the PBC to stabilize the RMB exchange rate and prevent it from overshooting. This was an important lesson for policy makers in managing market expectations and dealing with difficult-to-predict capital flows, which emphasize the need for a prudent and gradual approach to opening up the capital account and reforming the exchange rate further.<sup>14</sup> Overall, Chinese policymakers hold the view that the

<sup>12</sup> Provinces with buoyant bank loan growth in 2009 issued greater Municipal Corporate Bonds during 2012-2015 and had significant expansion of shadow banking activities including entrusted loans and wealth management products (WMPs).

<sup>13</sup> The IMF classified the RMB as a crawling-like regime during 2005-2015.

<sup>14</sup> From the second quarter of 2017, large capital outflows receded, and the balance of payments (BOP) returned to surplus. In May 2017, the PBC introduced a countercyclical factor as a measure to curb excessive depreciation of the RMB even as the USD index fell. At the same time, capital flow management (CFM) measures were enhanced to curb capital outflows. The countercyclical factor that was removed in January 2018 was reintroduced in August 2018 stabilize the RMB exchange rate, partly in response to a dip in sentiment associated with perceptions that the impact of the trade conflict was rising. For the countercyclical factor, fourteen major market players are requested to independently provide their views about the exchange rate based on their information about economic fundamentals on a daily basis for the consideration of the central bank's exchange rate daily fixing.

<sup>15</sup> The drivers are continued urbanization, smaller family sizes, and low quality of housing in the past.

inclusion of the RMB in the IMF's Special Drawing Rights (SDR) basket is an indication of how far China has come in the process of financial reform and integration (as well as helping to shape the governance of international finance).

**25. Maintaining macroeconomic and financial stability has become a priority with subsequent policy moves directed towards addressing risks associated with the legacy of the 2009 stimulus package as well as rising financial and property sector risks.**

- **Strong policy efforts have been adopted to reduce overcapacity in the coal and steel sectors and to eliminate zombie SOEs. This has been accomplished by setting targets for reduction, with punitive measures on local government authorities, and has yielded significant results in 2016 and 2017.** Local government debt problems have been addressed by a local government debt-for-bond swap scheme. This scheme allows local governments to swap local government loans for bonds with lower interest rates. Local governments are no longer permitted to borrow through local government financing vehicles (LGFVs). In 2017, the government further restricted local governments from using loans to establish investment funds, from issuing large amounts of debt through public private partnerships (PPPs), and from guaranteeing LGFVs (Hsu, 2018).
- **Curbing financial sector risks has become a policy priority with stepped-up efforts.** The Macro-prudential Assessment (MPA) framework overseen by the PBC was set up in 2016 and strengthened after that to address pro-cyclical effects, interconnectivity and regulatory arbitrage, and improve market-based reforms. Based on the MPA mechanism, the PBC is establishing a double-pillar framework combining monetary and macro-prudential policy to deal with the potential systemic challenges in the financial system and strengthen the counter-cyclical functions of the policy arrangements. Regulatory and supervisory coordination across agencies has been strengthened, leading to reduced regulatory arbitrage possibilities, and financial deleveraging. The Financial Stability and Development Committee (FSDC) was set up in 2017 under the State Council, to play a key role in coordinating financial sector policy and reform. Regulatory authorities have also jointly issued rules for asset management business, to simplify the structures of shadow banking activities including wealth management products (WMPs). The establishment of the China Banking and Insurance Regulatory Commission (CBIRC), by merging the banking and insurance regulatory agencies, has helped to strengthen financial regulation and coordination.
- **Macro-prudential and other measures have been increasingly employed to mitigate risks in the property markets.** Recurring property price booms and busts have been a result of both rising real demand for housing<sup>15</sup> and speculation, against the background of high household saving but limited options for financial investments. Cooper and Cowling (2015) identified three major price cycles in China over 2005-2015 and found that these coincided with government policies to stimulate or dampen residential property market activity.<sup>16</sup> The property sector in China is heterogeneous across different tiers of cities and regions, resulting in variations of demand and supply conditions (Deng, Gyourko and Wu, 2017). Therefore, macro-prudential measures, which can be used to mitigate risks in specific cities or regions, have been used more extensively to curb demand pressure and speculation in the property markets and mitigate associated systemic risks.<sup>17</sup> For example, macro-prudential measures in the forms of higher down payments were effective in slowing the upward momentum of property prices in Tier-1 and Tier-2 cities in 2016 and 2017. To cope with worsening housing affordability, the authorities have also attempted to use other measures such as the establishment of a rental system to moderate demand for housing.

<sup>16</sup> These include measures to constrain demand when prices rose rapidly, and to support demand during the period of weakening price growth. Measures with the aim of boosting supply during strong demand periods were also implemented.

<sup>17</sup> Systemic risks in the property sector and financial stability are related to the following factors. First, construction investment contributes a sizable share of China's economic activity and has extensive linkages to other sectors. Second, although the direct exposure of the banking sector to the real estate market is not very high with household mortgages and loans to property developers accounting for about 14 and 7 percent of banks' lending, the property development sector in China is highly leveraged. Its balance sheets are susceptible to a downturn in property prices. Third, local governments rely significantly on land sales for revenue generation and their land is also used as collateral for LGFV borrowing.

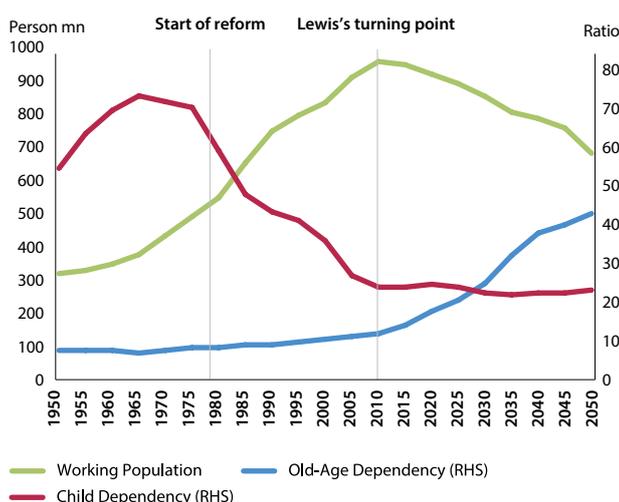
**26. Authorities have been decisive in changing policy goals to cope with existing and new challenges.**

Rapidly growing industrial production means that bottlenecks have been addressed through successive reforms. But at the same time, environmental degradation and pollution, development gaps between coastal areas and inner regions, high corporate debt and financial sector risks imply that the development paradigm that focuses on high growth rates driven by investment is no longer sustainable. A new development paradigm that emphasizes a shift from high-speed growth to sustainable healthy growth, while making significant progress in terms of quality of economic development, upgrading economic structure, switching economic growth engines from investment to innovation and pursuing green development, was announced in 2017 by the 19<sup>th</sup> NPC. The central government also acknowledged that the main challenge in China is that the quality of existing products is lower than the expectation of the general public, and since then, greater emphasis has been placed on the quality and efficiency of development through further strengthening supply-side structural reforms in the 13<sup>th</sup> Five-Year Plan (2016-2020) period and beyond. Maintaining macroeconomic stability was stressed as a key principle governing the economy.

## 2.4 Reforms and Growth Achievements

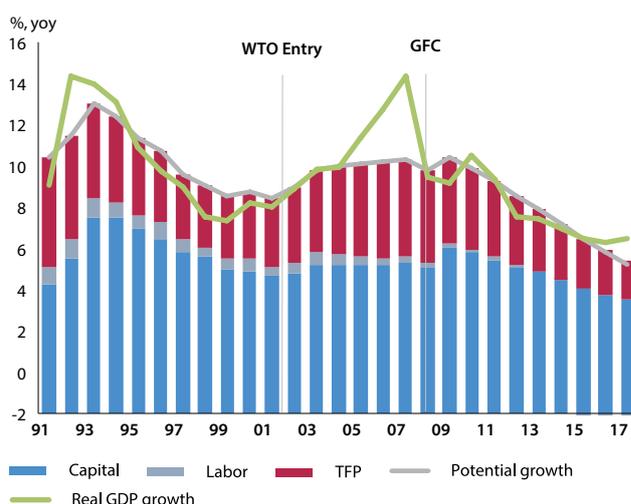
**27. China has continued to enjoy sustained high growth over an extended period of 40 years as the reforms have unleashed the productive potential of the economy, substantially raised the productivity of labor and capital, and increased TFP.** Over the four decades of reforms, China has seen an annual average growth rate of 9.4 percent. The large pool of surplus labor in agriculture sector, and domestic reforms that led to labor migration from rural to urban areas and from low-productivity sectors to higher-productivity sectors have been crucial in improving resource allocation and raising overall productivity. Importantly, China had a golden window of opportunity in terms of a large demographic dividend – from the start of the reform period till around 2010, the country’s working-age population expanded rapidly, while the already-low dependency ratios fell steadily (Figure 2.13).

Figure 2.13 China’s Working-Age Population and Dependency Ratios



Source: AMRO

Figure 2.14 China’s Growth Decomposition: Labor, Capital and TFP



Note: For the methodology, please see Annex: Estimating China’s Potential GDP: A Growth Accounting Approach

Source: AMRO

**28. Several reform measures and factors have also contributed to rapid capital accumulation, the largest contributor to growth.**

Strong public investment in infrastructure in the highly decentralized fiscal system benefited private investment significantly. Since the early 1990s, capital accumulation has been increasingly driven by policies that support exports and FDI, leveraging on China’s large pool of labor for lower-end manufacturing

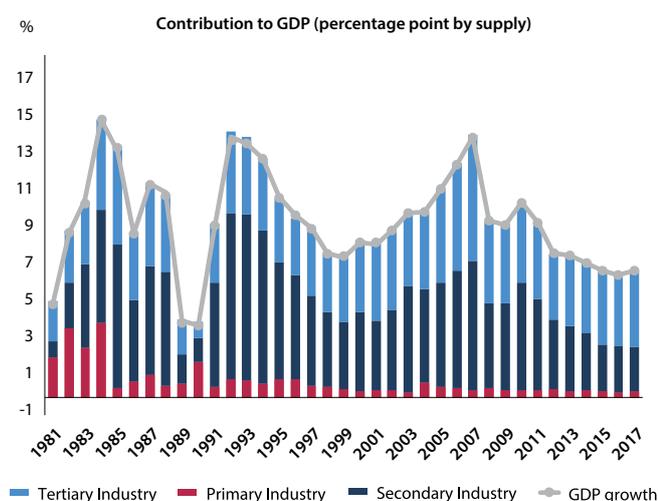
production. Improvements in the investment climate backed by legal and institutional reforms have been crucial. The country has been able to tap on an increasingly large pool of savings partly as a result of dependency ratios staying low for a long time.

29. High TFP growth has been the second most important contributor to growth in China. There are several reasons behind this. First, as noted above, is the efficiency gain from the improvement in resource allocation as a result of the shift in surplus labor from agriculture to industry.<sup>18</sup> Second, China started way behind the technology frontier, and has been very good at adopting technology that comes with FDI to move up the technology ladder. TFP increased markedly after China's WTO entry along with rising FDI and exports (Figure 2.14). The rapidly-increasing size of the private sector, replacing SOEs (that were characterized by lower efficiency) as the main producers of goods and services, has also provided a significant boost to TFP. However, the contribution of TFP to growth has been lower after the GFC alongside the moderation of growth itself. One reason for this could be the "Lewis turning point", as the surplus labor in the rural sector has diminished and the labor force has stopped growing since 2011 because of population aging. Declining returns on capital, partly due to public investment in projects with lower commercial returns such as infrastructure projects as part of the GFC stimulus package, could be another factor behind the decline of TFP (Zhang, 2017).

### 30. China's economic structure has changed dramatically because of continuous structural reform.

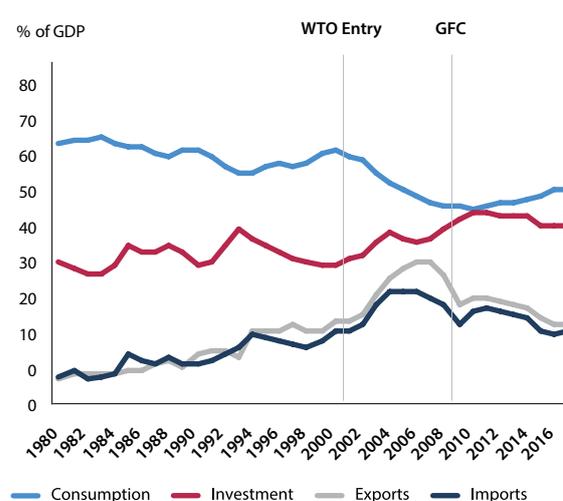
On the production side, the economy has shifted from agriculture to manufacturing and services along with urbanization and marketization (Figure 2.15). The share of the services sector surpassed that of the manufacturing sector in 2012 due to a boom in consumption, especially consumption of services. The rising "new economy", supported by innovation and digital technology, has also become an important powerful engine for growth. On the demand side, the share of investment rose steadily over time, especially from 2000 until 2010, before gradually declining since 2011 (Figure 2.16). In tandem, exports and imports grew rapidly reflecting China's integration into global value chains (GVCs) and the rapid development of regional supply chains after the WTO entry. Since the GFC, however, the shares of both exports and imports have declined reflecting the slowdown in global trade and rebalancing of China's growth towards domestic demand. On the other hand, the share of consumption had declined steadily, albeit unevenly, from 1980 till the GFC in 2008-09. Since then it has risen steadily along with the growing services sector on the production side.

Figure 2.15 Shares in China's GDP: Supply Side



Source: NBS

Figure 2.16 Shares in China's GDP: Demand Side



Source: NBS

<sup>18</sup>This follows the pattern of rural-urban migration of labor according to Lewis' theory. Urban workers in the manufacturing sector tend to produce a higher value of output than their agricultural counterparts. The resultant higher urban wages induce surplus agricultural workers to migrate to cities and engage in manufacturing activity.

31. **On a VA basis, the changes are also in the same direction with the share of consumption reversing back to almost half of GDP in 2017 (Figure 2.17).** As the figure shows, the share of external demand in GDP increased from 18.2 percent in 2000 to a peak of 26.3 percent in 2005-2010, but has since declined to 14.8 percent in 2017 with the sharp fall in exports to the U.S. and Europe during the GFC and the European Sovereign Debt Crises (ESDC) and the rebalancing of growth to greater reliance on domestic demand. Another notable finding is that the share of investment grew to a peak of 37.8 percent in 2011 but has since declined to 36.3 percent in 2017. In comparison, the share of consumption fell from 53.6 Percent in 2000 to a trough of 42.0 percent in 2011 and has since increased to 49.0 percent in 2017.

32. **Rebalancing toward consumption-driven growth will be a by-product of a more sustainable growth path.** Urbanization, complemented by other reforms that moved labor from the agricultural sector to work in the manufacturing sector in the cities resulted in higher VA per worker. Workers' incomes therefore increased, but the increase was less than the increase in VA. As a result, the share of labor in GDP declined, leading to the lower share of consumption in GDP (Huang, 2013 and Ma, Roberts and Kelly, 2018). The decline in consumption as a share of GDP was also amplified by higher saving rates. The weak welfare system, low interest rates and population aging have been key drivers of China's high savings rate, which reached a peak of 52.3 percent in 2008 (Figure 2.18). In particular, inadequacies in social safety nets for migrant workers mean that a significant part of the increase in their incomes have gone to savings, which have been recycled into investments. This process also occurred in other East Asian economies in earlier decades, through a similar urbanization-industrialization course (Huang, 2013). The rebalancing from investment-driven growth to consumption-driven growth in these economies happened after the urbanization-industrialization process reached a certain inflection point and their social safety nets improved significantly. Therefore, China's rebalancing toward consumption-driven growth should not be seen as either the means or the goal of government policy – rather, this rebalancing will occur naturally as a by-product of the country pursuing a more sustainable growth path and enhancing its social safety net.

Figure 2.17 GDP Structure by Expenditure (Value-added and Import-Adjusted Basis)

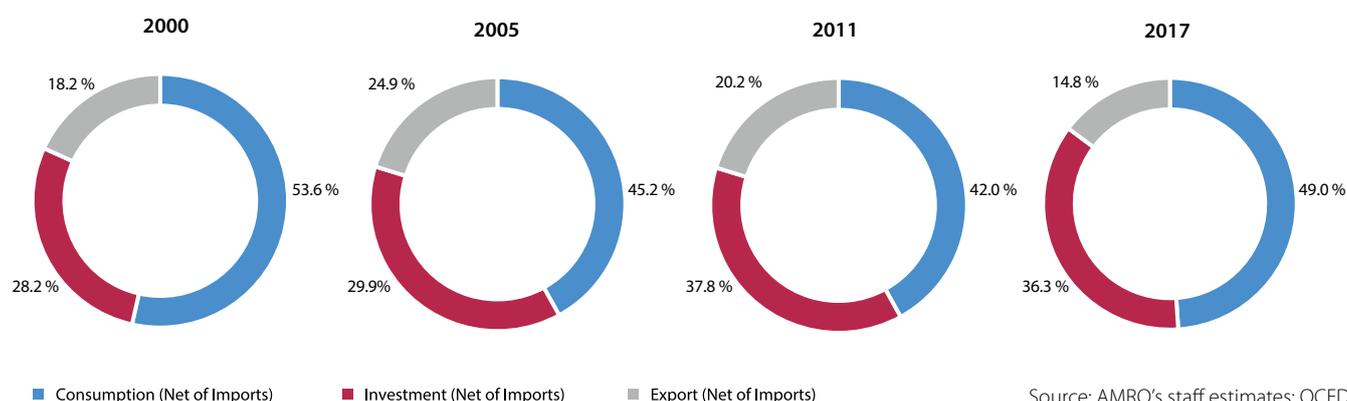
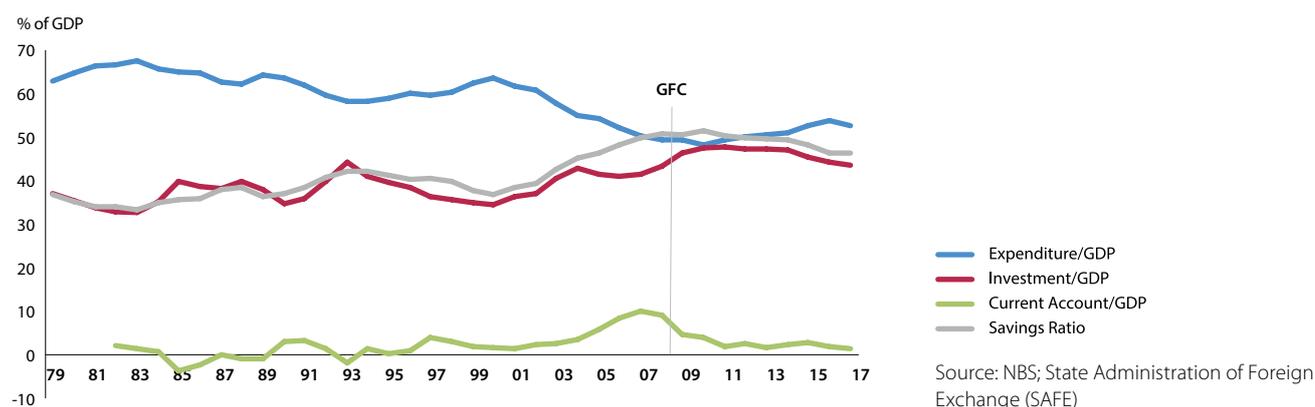


Figure 2.18 Development of Expenditure, Investment and Current Account



## 3 Challenges and Opportunities

### 3.1 Challenges

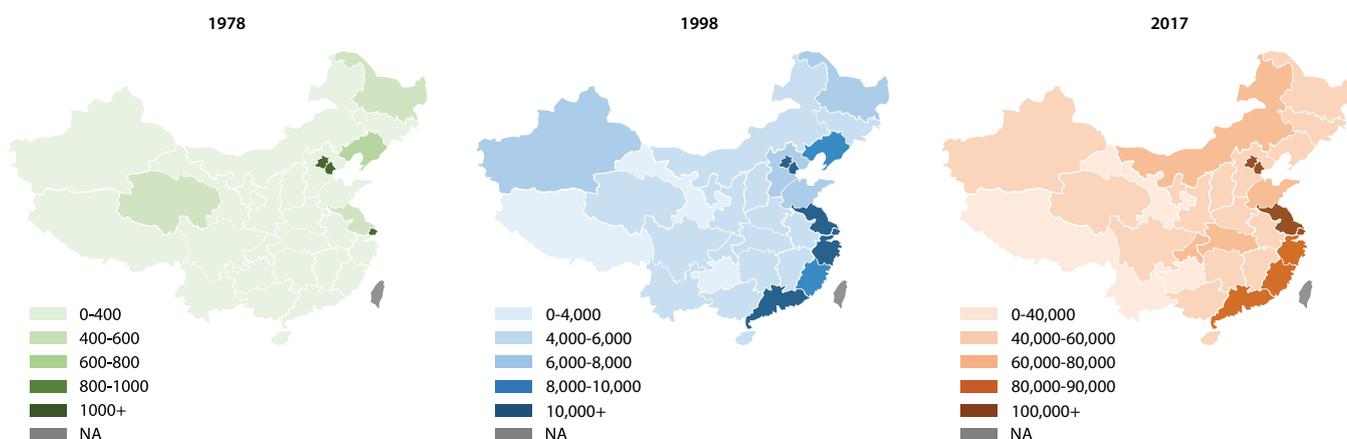
33. **While recent reform efforts have contributed to sustained growth in the short run and profound changes in economic structure and development drivers, several challenges – such as overcoming the middle-income trap and becoming a high-income economy – remain.** In this regard, China's policymakers and thought leaders recognize that focusing on people's welfare will always be a good guide for staying the course of reform and opening-up. Looking at international experience, out of around 100 middle-income economies in the 1960s, only 13 had successfully transformed themselves into high-income countries by 2008 (Kishore, 2018). The challenges of difficult structural problems at later stages of development were the main reason behind this low success rate. For China, these include an aging population, regional disparities, income inequality, legacy problems in terms of high corporate debt and financial leverage, and remaining domestic distortions including those causing environmental and pollution problems. In addition to these structural challenges, external headwinds and uncertainty, especially from increasing protectionism both in terms of trade and technology, will be important challenges that policymakers need to address.

34. **China's demographic structure has transitioned into population aging which will increasingly become a drag on growth and will require new measures to mitigate the impact.** As shown in Figure 2.13, the Lewis turning point (the peak in the working age population including migrant labor) for China was around 2010; this marked the end of benefits from the demographic dividend and rural-urban migration. This poses three important challenges. First, the country can no longer tap on the formerly unlimited supply of labor to support growth. Second, wages in the urban areas, which have been rising rapidly (averaging 9.6 percent per annum between 2010 and 2017), will continue to rise further, affecting competitiveness in the manufacturing sector and also widening the income gap between the urban and rural population. Third, the social security system needs to be enhanced in terms of coverage and benefits. The main challenges of the social security system are: 1) extending the coverage to all groups of people in the society; 2) providing social services such as subsidized medical and educational services to migrant workers in the cities; and 3) ensuring the social security system is actuarially sound and fiscally sustainable.

35. **Widening regional disparities and income inequality may become more entrenched in future.** Per capita income in Beijing in 2017 was RMB 128,927, 4.4 times higher than that in Gansu, the poorest province in the northwest, which had a per capita income of RMB29,326. Figure 3.1 shows that the divergence in provincial per capita income between coastal cities and those in the western and southern regions increased significantly after the first two decades of the reform to become very stark, and has not improved over the past two decades. The disparities in social development, such as access to education and medical care, are also significant. According to Fan, Kanbur and Zhang (2011), the heavy industry-led development strategy played a key role in widening the rural-urban gap in the early period of reforms. Subsequently, openness and decentralization have contributed to the rapid increase in inland-coastal disparities, which have not improved materially despite a series of "western development strategy" (GoWest) that started in the late 1990s, partly in response to the AFC. On the income inequality front, Figure 3.2 shows that China's Gini coefficient worsened from 28 percent in 1984 to a peak of 49.4 percent during the GFC period, before moderating to 46.1 percent in 2016. Despite the recent improvement, the income inequality is among the highest in the world. A recent IMF paper (Jain-Chandra, Khor, Mano, Schauer, Wingender and Zhuang, 2018) identified differences in education and the skill premium, as well as urbanization, the aging population and inadequate policy support, as the main drivers behind the worsening trends in income inequality. Their simulation exercise demonstrated that population aging and further urbanization may lead to a resurgence in income

inequality, and indicated the importance of fiscal policy reforms to enhance equity and inclusiveness, especially through social protection spending and redistribution of this spending to poorer areas.

Figure 3.1 GDP per Capita: Provinces in China (RMB)



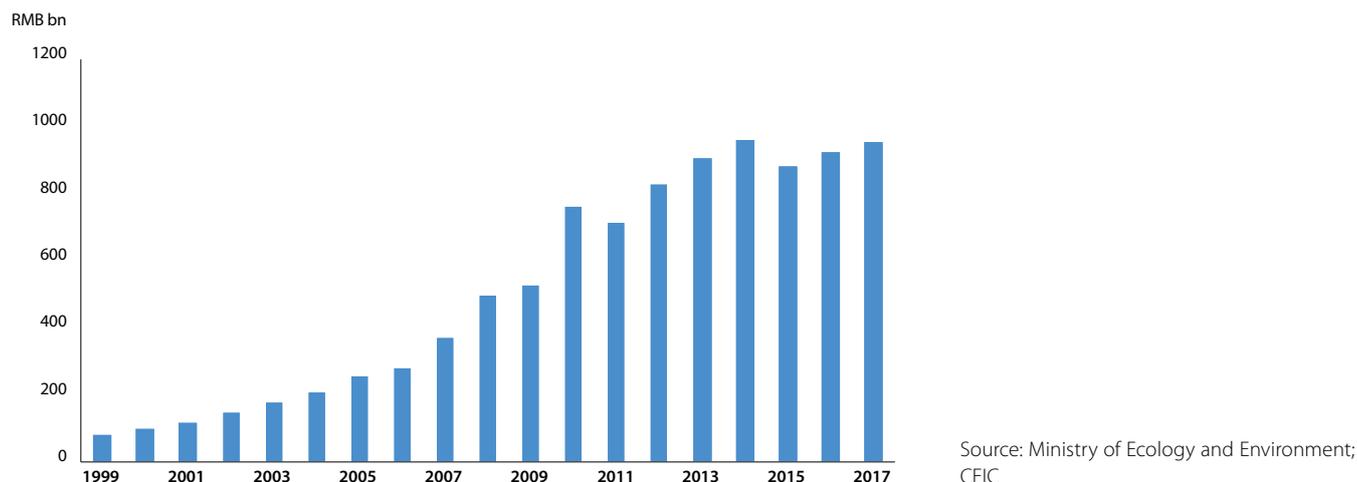
Source: China NBS; CEIC

Figure 3.2 Gini Coefficient: China and Selected Countries



36. **Making the environment much greener is a critical challenge and it may imply somewhat slower growth, and require structural adjustment in the industrial sector, particularly the power generating industry.** For example, in late 2016, air pollution red alerts led to school and factory closures in Beijing and prompted the government to limit the number of vehicles in the city and to promote the production of electric cars instead of the conventional gasoline cars. The imperative of clean and green development has become one of the top policy priorities. The authorities have taken great efforts to replace dirty energy of coal in the northern part with the clean energy such as LNG. However, stringent enforcement of environmental standards on firms to reduce pollution emission also implies a sacrifice in terms of slower growth in the short term. The government has also launched a major program to increase renewable power: wind, solar, and hydro power. However, there have been longstanding technical challenges to integrating these renewable resources into the national electricity system. Furthermore, reforms to improve energy efficiency and promote renewables have adversely affected local state-owned power generating companies (Ho and Nielsen, 2017); and therefore, there has been a reluctance to close down such industries without an assurance of alternative source of jobs and revenue. On the positive side, the government has relied increasingly on incentive programs and credit mechanisms for firms to prioritize emission reduction, leading to increasing investment in pollution treatment (Figure 3.3), which will benefit the country over the long term.

Figure 3.3 China's Investment in Pollution Treatment



**37. High indebtedness will continue to pose risks to macroeconomic and financial stability for many years as the deleveraging process will take time.** The ratio of total debt to GDP is estimated by AMRO staff at 244 percent in 2018, comprising non-financial corporate debt (156 percent), government debt (36 percent) and household debt (52 percent). There are several challenges in this area. First, despite commendable progress in curbing the high level of corporate debt, which has led to a decline in the ratio of corporate debt to GDP from its peak, it is still at a very high level. Moreover, vulnerabilities associated with declining profits and debt repayment difficulties may easily re-emerge in some sectors such as mining, real estate and construction. Second, while total official government debt is not high, total LGFV liabilities, a major part of government contingent liabilities, have been growing rapidly – from 45 percent of GDP in 2014 (the year local government debt was audited and a significant portion classified as government debt was moved to the government balance sheet) to 55 percent of GDP in 2017. This is because the growth-oriented mentality of local government officials remains unchanged and the transformation of LGFVs into market-oriented entities and the profitability of several LGFVs has continued to be weak.<sup>19</sup> Third, household debt in China is growing rapidly although it is still at a low level compared to most other countries. While there is room for household debt to grow further, a good monitoring system needs to be established and stringent credit standards are important to ensure that credit is extended to only those households with repayment capacity. Lastly, the threat to growth from the trade conflict and other domestic and external uncertainties may also compel the government to defer the deleveraging process to mitigate the adverse impact on growth, slowing the progress.

**38. In the financial sector, while the regulatory and supervisory regime has been strengthened, vulnerabilities remain due to continued market distortions and inefficiency, and rising complexity of the financial system.** China has developed a diversified financial system over the years. It has improved financial institutions' governance, strengthened market forces, and enhanced competitiveness. China has also opened up its financial services sector to foreign players, which has encouraged competition and brought the best practices to China. Going forward, China should continue to reform the financial system to i) improve the allocation of financial resources; ii) improve the transmission mechanism of a price-based monetary policy; and iii) maintain the soundness of the financial system. At the same time, China should develop multi-level capital markets further, so that risks are not unduly concentrated in the banking sector. This will help important institutional investors such as pension funds and insurance funds to become less susceptible to pro-cyclical behaviors. Finally, China should open up the

<sup>19</sup> Part of the PPP projects, which amounted to 17.8 trillion RMB (21.5 percent of GDP) by the end of 2017, could also add to contingent liabilities due to previous local government borrowings based on procurement contracts between local government and private firms disguised under the PPP projects until the restriction was put in place in 2017 (Hsu, 2018).

capital account further and welcome even more overseas investors, which will improve the market micro-structure and support RMB internationalization. China should also increase the flexibility of exchange rate as a buffer against external shocks while intervening judiciously to avoid excessive volatility. Nonetheless, the timing and sequencing of these policies need to take both domestic and external factors into account.

**39. An escalation of the trade conflict between the U.S. and China will have adverse effects on both economies and on those of their trading partners in the short- and medium- term.** The large U.S. trade deficit with China is the primary cause of the dispute between the two countries.<sup>20</sup> The unilateral imposition of tariffs by the U.S. on imports from China has led to a similar imposition of tariffs by China on its imports from the US. Most recent assessments – including AMRO's – of the effects of the trade war show that the impact on growth in both countries will likely be significant.<sup>21</sup> In addition, the negative impact on regional economies especially for those, who are highly open and plugged into the regional supply chain, will also be large. Although there could be trade and investment diversion to the region from China, these effects take time to materialize. The disregard for international institutions and a rule-based multilateral trading system sets a dangerous precedent. This calls for the region, among the most open to international trade, to defend this international system.

**40. Tensions over intellectual property rights (IPR) and technology transfer issues are set to rise as the U.S. has accused China of forcing US companies to transfer their technologies to Chinese companies through joint ventures (JVs).** There have also been increasing concerns in the US about the Made in China 2025 policy, which is aimed at establishing China as a manufacturing powerhouse in new high-tech areas including advanced microchips, as part of the country's transition toward innovation-driven growth.<sup>22</sup> To counter such allegations of forced technology transfers, China should enhanced its IPR framework to demonstrate to the US and other advanced countries that its IPR standards are as high as – if not higher than – those of the US. Similarly to counter the claim on “forced technology transfer”, China can also consider liberalizing its FDI policies further, across more sectors of the economy. Finally, China may have to maintain its high expenditure on R&D, in order to achieve its goal of moving the economy towards an innovation-driven growth model in the 4IR.

**41. Looking ahead, overcoming these challenges will not be easy, but policymakers are aware of how complex they are, and have demonstrated strong determination to overcome them.** The above challenges will continue to be difficult for policymakers to address as there will be no one-size-fit-all policy prescription. Notwithstanding, it is encouraging that policymakers have reiterated in the 19<sup>th</sup> CPC that the main approach to reduce macroeconomic and financial risks over the long term is deepening reforms. They also emphasize the key role of the market in resource allocation. In addition, greater attention will be paid to strengthening cooperation and coordination among governmental agencies. As for the complex global environment, in addition to the efforts to strengthen cooperation in international macroeconomic policies, increasing agility and flexibility in engagement will be crucial to foster a stable and conducive environment for trade and investment.

---

<sup>20</sup> Although the U.S. trade deficit has declined from a peak of 6.0 percent of GDP prior to the GFC in 2006 to 4.2 percent in 2017, the component of the deficit with China has continued to rise over time to 1.9 percent (46.5 percent of the total U.S. trade deficit) in 2017 and this is expected rise further in 2018.

<sup>21</sup> AMRO staff estimates show that in the scenario that the U.S. imposes a 25 percent higher tariff on all Chinese exports and China imposes a 25 percent higher tariff on all U.S. exports, the impact on GDP growth reduction in China and the U.S. will be 0.6 and 0.5 percent.

<sup>22</sup> These new high-tech areas include artificial intelligence (AI), robotics, advanced microchips, new energy vehicles, aviation and space travel, autonomous driving systems, solar cells, machine tools, biopharmaceuticals, medical devices, telecommunication devices and electronic sensors.

## 3.2 Opportunities

42. **There are some unique opportunities in the 4IR that China needs to grab in order to leap ahead.** Past reforms have transformed the economy from a central-planning to a market-based economy and greatly improved its efficiency and productive capacity. They have also strengthened its macroeconomic fundamentals, its governance framework, and the soundness of its financial system. Going forward, China needs to ensure that it can fully capture the following domestic and external opportunities to achieve its longer-term goal of modernizing the economy so that it gets on par with other advanced economies globally.

43. **China has demonstrated a strong ability to adopt digital technology and come up with innovative products, which will be the key driver for future development as it moves closer to the technology frontier.** The sheer size of China's economy, its enterprises and human capital pool have provided great potential for achieving breakthroughs from new ideas at large scale, thereby entrenching strong competitive advantages. China is also building up its human capital advantage in key areas, not least in creating a huge pipeline of science, technology, engineering and mathematics (STEM) graduates. In 2016, China produced some 47 million STEM graduates, far more than India (26 million), the U.S. (0.57 million) and other countries across the advanced and emerging market economies. This will help ensure that the country has enough highly qualified talents to drive the development of various high value added sectors ranging from AI-enabled automobile manufacturing to pharmaceuticals and digital financial services. These sectors, in turn, form part of the new economy. The young Chinese market is enabling the rapid commercialization of digital business models on a large scale partly as the consumers' preference is not sticky to the old technology platforms. Electronic means of transactions, order placements, and financial payments, are now used for a wide range of consumer goods and services.

44. **China is now home to an increasing number of large private enterprises which are global companies with strong branding in different industries and products.** Several Chinese tech companies have become world leaders in various market segments quite quickly. Among them are: Alibaba, the largest online retail and payment platform in the world; Tencent, the top online social, communication and payment company; Huawei, the world's top cellular equipment maker and a leader in developing 5G technology; Lenovo, a world-class maker of personal computers. The next step is to go up the VA ladder by delivering high-quality products and developing marketing strategies to increase trust in "made in China" products and capture larger market shares.

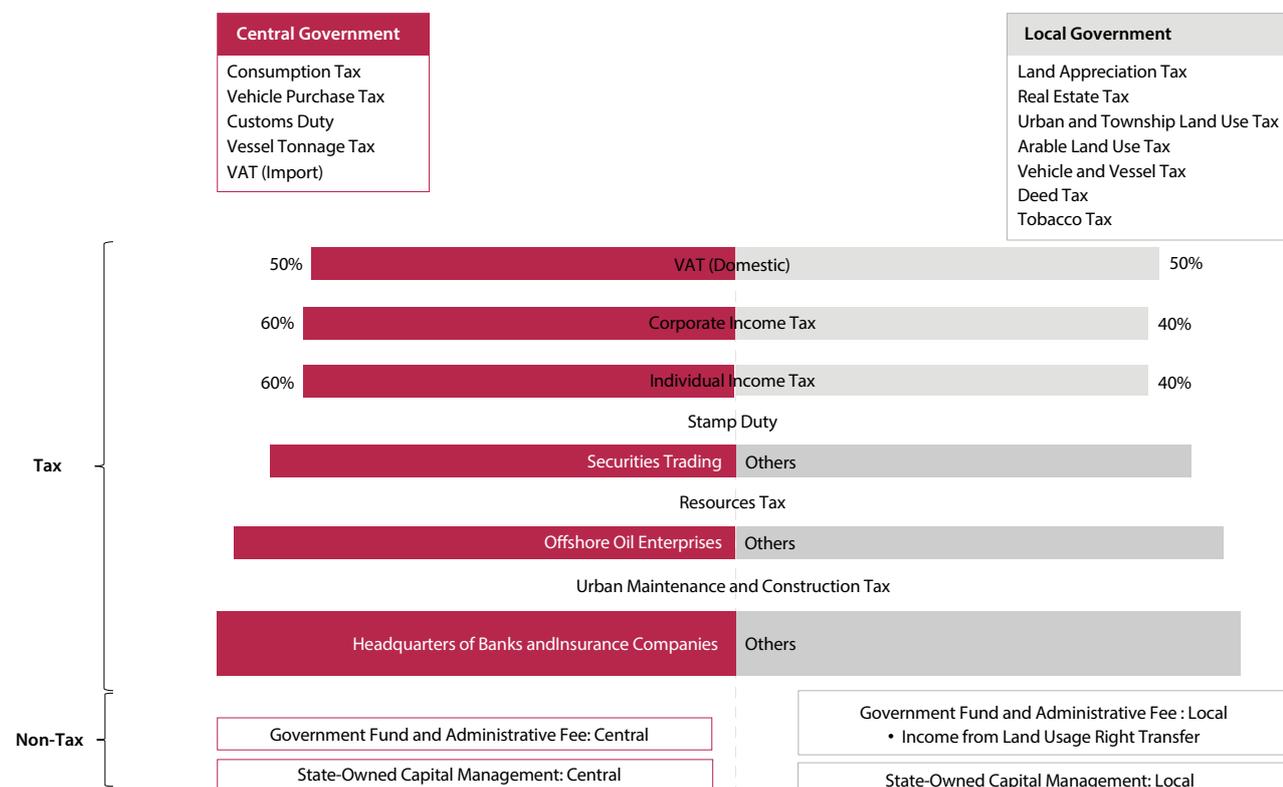
45. **China's urbanization, which is far from complete, will continue to provide an increasing contribution to the economy ahead.** The urbanization rate in China has risen quickly from 42 per cent to 55 per cent over the past decade. It is expected to rise further, and the authorities have announced a target of 60 per cent for the year 2020 (Cooley and Cowling 2015). Greater urbanization will lift the standards of living of Chinese households further, create employment and contribute significantly to growth. The limited relaxation of the "hukou" system under the National New-type Urbanization Plan (2014-2020) that allows some migrant workers to settle in the cities and obtain a number of welfare benefits of urban residents has also increased the benefits of urbanization to the economy (Aquino, 2015).<sup>23</sup>

<sup>23</sup>The National New-type Urbanization Plan (2014-2020), in trying to address various problems as a result of the fast urbanization process, aims to shorten the 17.3 percent gap between urban residents who live in cities but do not carry urban hukou and urban residents with urban hukou in 2012 by 2 percent by 2020. Meanwhile, it also intends to offer welfare entitlements such as education, welfare housing and health care to at least 90 percent (about 100 million) of migrant workers by 2020.

**46. Fiscal policy in China can continue to play a significant role in strengthening supply-side reform and providing a counter-cyclical buffer against shocks, and can increase its contribution to improving equity, inclusiveness and regional disparities.**

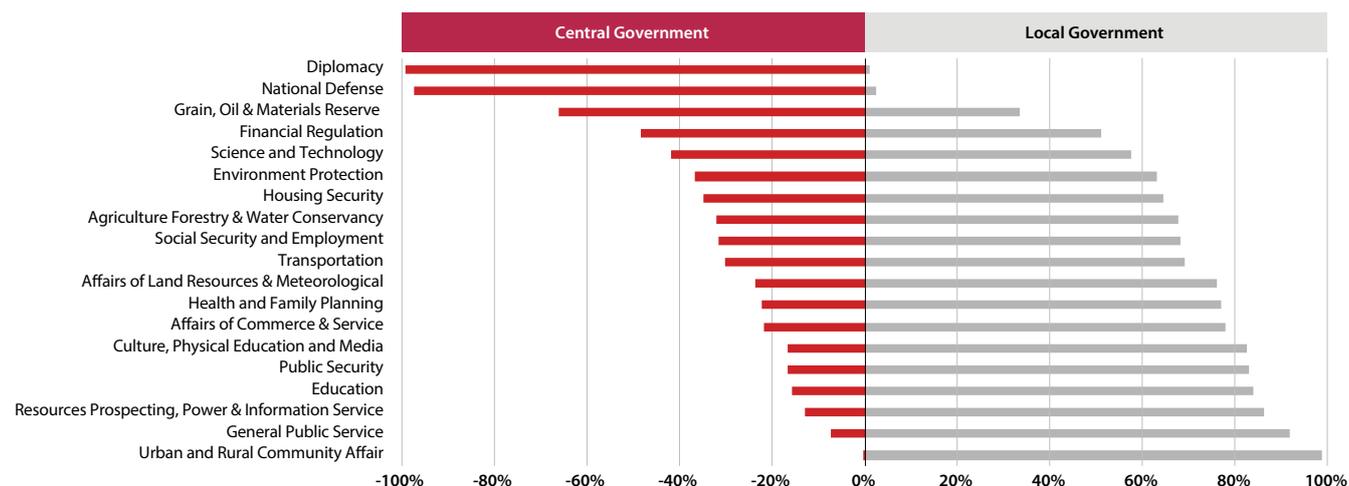
China's fiscal sector has a high degree of decentralization and strong incentive for local governments to deliver results. The government has relied significantly on fiscal policy to support supply-side reform and to boost aggregate demand through infrastructure investment. More recently, the focus has shifted more toward using tax policy to boost productivity of firms. Counter-cyclical fiscal policy has been deployed effectively to deal with negative shocks to the economy, aided by local governments spending. For the past few years, the government has used fiscal policies to support SOE restructuring, especially in industries with excess capacity, and restructuring high local government debt following the GFC period by strengthening local government debt management. In our view, the major opportunity moving forward comes from the reform plan to establish a sound system of intergovernmental relations based on the experience that, given the strong incentives for the local governments to spend to support growth, limited revenue autonomy and insufficient intergovernmental transfers could lead to financing problems for the local governments. Figures 3.4 and 3.5 show that while revenue shares do not differ significantly between the central and local governments, the local governments have a significantly bigger role in spending. Determining the appropriate level of decentralization of social spending is a core element of this reform. The plan to shift social spending in low-income housing, social security and health care to the central government is a sound and useful policy move. This is because "policies and financing of the social safety net should be established at the highest level possible given administrative and political constraints since it embodies elements of insurance and redistribution" (Escolano and others 2015, and Wingender, 2018). The policy based on this principle will help reduce the cost of risk pooling, facilitate the benefits for migrant workers, and ensure more equitable distribution of benefits across regions. The proposed property tax, which is under consideration by the Standing Committee of the NPC, will also help mitigate inequality going forward. Progressive personal income tax could also be an area for consideration for this purpose, given the relatively low level of income tax in China compared to other countries.

Figure 3.4 Fiscal Revenue Shares Between Central and Local Governments



Source: China Ministry of Finance (CMOF)

Figure 3.5 Fiscal Expenditure Shares Between Central and Local Governments



Note: the calculation was based on available data in 2014/15.

Source: CEIC

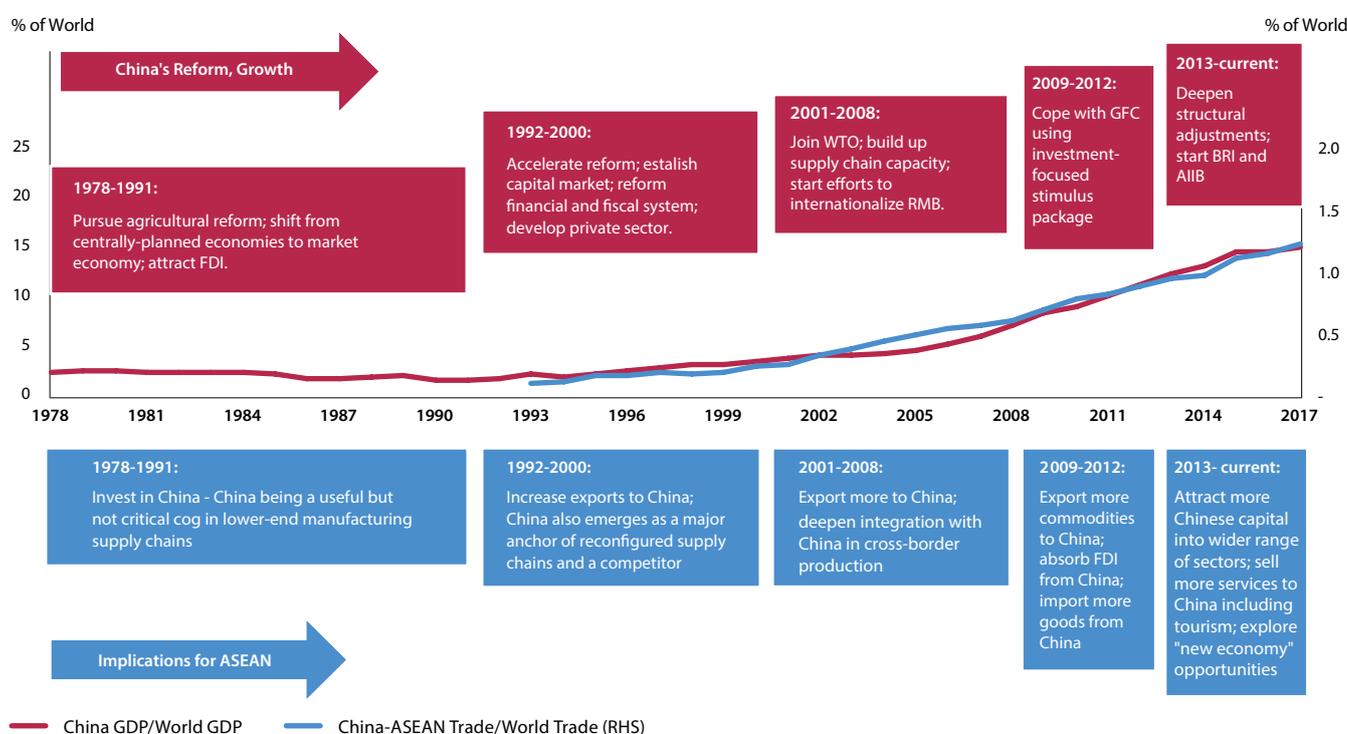
**47. China's role as a new economic power provides it with an opportunity to influence reforms in global rule setting.** China and other Asian EMEs have shifted the center of gravity of the global economy from west to east, and China has played a key role in buffering the global economy from a sharp downturn during and in the aftermath of the GFC. Despite its expected growth moderation moving forward, China will continue to be the biggest contributor to global growth for many years to come, bolstered by pragmatic economic policymaking. While China's role in the international monetary system has become more prominent as indicated by an increase in its IMF quota to 6.39 percent from 4 percent (climbing from sixth to third place) since 2010, it is still far behind the U.S.'s quota of 17.46 percent. Therefore, there is a lot of room for China to enlarge its role in this regard. Over time, China will be able to assume a more prominent role in shaping the international financial architecture. In the increasingly multipolar world that we are seeing, once the financial markets in China are deep and resilient, and the soundness of macroeconomic policy is enhanced further, the RMB will play an increasing role in international finance, which will be beneficial for global investment diversification and financial stability. In the area of international trade, China's strong adherence to WTO rules shows its intention to support the rules-based multilateral trading system that has generated substantial benefits for all trading nations over the years.

**48. Regional connectivity has increased and will be expanded further by the BRI, which has a large potential to benefit investment and trade.** While the potential benefits emanating from regional connectivity are high, the actual size of benefits will still depend on whether China and other BRI countries can find effective strategies for further enhanced engagements, which will be analyzed in Section 5 for the case of China and ASEAN.

## 4 China-ASEAN Engagement: Growth and Resilience

49. While China was undertaking the first two decades of reform (1978-1998), ASEAN countries were also undergoing their own structural changes and adjustments (Figure 4.1). ASEAN countries grew rapidly in the 1970s and 1980s, spurred by strong FDI inflows and manufacturing exports. In 1997-98, the region was struck by the AFC and the EMEs (Malaysia, Thailand, Indonesia and Philippines) were badly damaged (AMRO AREO, 2016). Since then, they have undertaken painful structural reforms and strengthened their macroeconomic fundamentals and their financial systems. By the early 2000s, both sides were well prepared to become more plugged in to cross-border trade and investment, and complement each other in spurring regional integration.

Figure 4.1 China's Reform and Developments, and ASEAN's Strategic Response

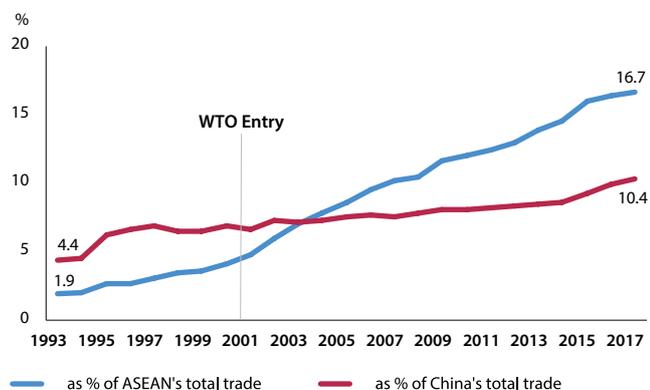


Source: AMRO

50. Trade between China and ASEAN deepened over the next two decades, prompted by China's accession to the WTO in 2001, and ASEAN countries' exploitation of their competitive advantages through the regional production networks. In 2001, goods trade between China and ASEAN was only 6.7 and 4.7 percent of total trade for China and ASEAN respectively (Figure 4.2). ASEAN's external demand was anchored in the advanced countries led by the U.S., Europe and Japan. China itself had limited trade linkages across the world. This picture changed dramatically after China joined the WTO and liberalized its trade regime. Its entry into the international trading system made its trade linkages with both advanced countries and EMEs much broader and deeper, and the rapid expansion of its trade with ASEAN (as a proportion of its total trade) reflected this trend. For multinational companies (MNCs) with production in the ASEAN countries, China with its large pool of cheap labor and attractive policy for FDI, was a natural location for them to send their intermediate goods for final processing into consumer goods before the goods were exported to final markets in the U.S. or Europe. As a result, China became the center of the regional production networks, and quickly became a major trading partner of almost all ASEAN economies (Figure 4.2). In 2017, goods trade between China and ASEAN reached 10.4 and 16.7 percent of GDP for China and ASEAN, respectively. Measured by share of GDP, most ASEAN countries saw their exports to China rise to

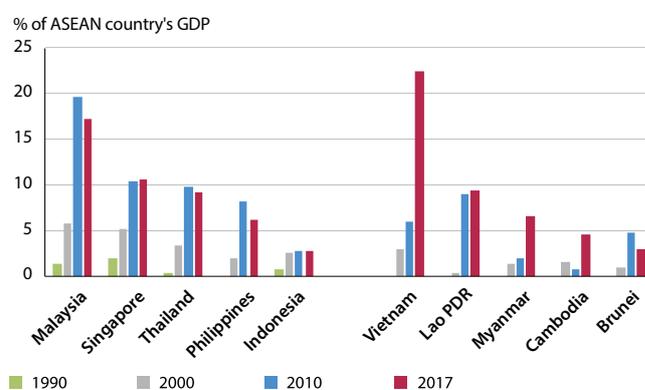
high levels in 2017, especially Vietnam (22.5 percent), Malaysia (17.3 percent), Thailand (9.1 percent), Singapore (10.6 percent), Lao PDR (9.4 percent) as shown in Figure 4.3. China’s exports to ASEAN as a share of GDP stood at 10.1 percent of ASEAN’s GDP in 2017.

Figure 4.2 China-ASEAN Merchandise Trade to Total Trade



Source: CEIC; AMRO staff calculations

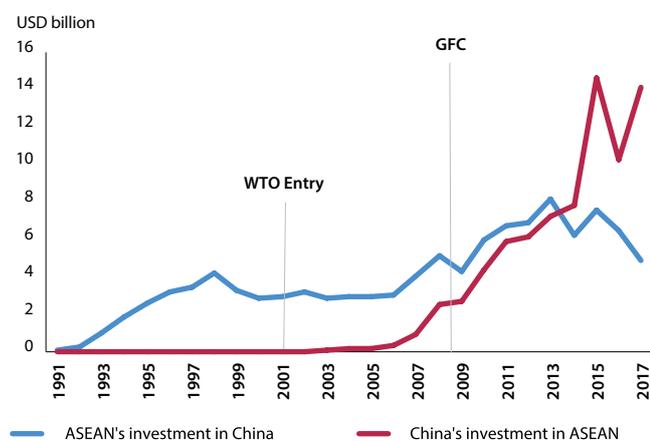
Figure 4.3 ASEAN Countries’ Exports to China as a Share of Their GDP



Source: CEIC; AMRO staff calculations

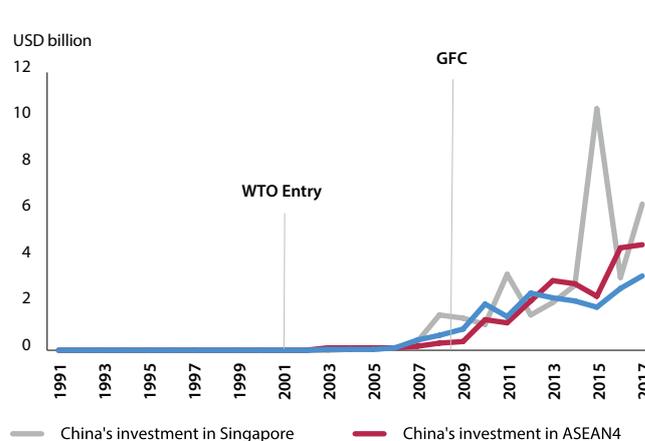
51 For cross-border investments, ASEAN ODI into China started in the 1990s but China ODI into ASEAN began almost two decades later, reflecting a switch from China being a recipient of investments from ASEAN to China becoming a provider of investments to ASEAN and other countries (Figure 4.4). In the earlier years, ASEAN invested more in China than China did in ASEAN, because firstly, ASEAN5 were ahead of China in embarking on the manufacturing for export growth strategy and were therefore more advanced; and secondly, China was keen to attract foreign investments as a way to expand its production capacity and acquire newer technologies and knowhow. ODI from China to ASEAN took off much later, starting around 2007.<sup>24</sup> It rose steeply over the following decade, driven by Chinese companies’ growing appetite for overseas investments.<sup>25</sup> Further dissecting China’s investment in ASEAN (Figure 4.5), China has increased its investment in both the more developed ASEAN4 EMEs and the BCLMV frontier economies, with Singapore being the gateway for channeling China’s ODI to both sub-groups (ASEAN4 and BCLMV). As of 2016, China’s ODI stock in ASEAN stood at USD 121.6 billion, from almost zero a decade ago.<sup>26</sup>

Figure 4.4 ASEAN and China FDI



Source: Ministry of Commerce

Figure 4.3 China ODI in ASEAN



Source: Ministry of Commerce

<sup>24</sup> ODI regulations were shifted from a requirement for examination and approval to only approval in 2004, to support overseas investment as “going out” was a key strategy in the 10th Five-Year Plan (2001-2005). See Wang and Gao (2018).

<sup>25</sup> ODI activities in 2016 slowed because of strengthened regulations on ODI that the government deemed unproductive.

<sup>26</sup> In 2016, China also became the second largest outward investor in the world after the US with ODI flows of USD 196.2.

## 4.1 China's Starting Point: Welcome FDI, Pursue Domestic Reform

52. **During the first two decades, China was a beneficiary of strong investments from East Asian economies including ASEAN.** At that time, the more developed ASEAN countries were quite some way ahead of China in terms of manufacturing knowhow, while China's low labor cost constituted a strong comparative advantage for the country. The economic rationale for these ASEAN countries to set up labor-intensive manufacturing establishments in China and export from China was compelling. China benefited from technology absorption, job creation and wage uplift. A prime example is the experience of Thai agri-food company Charoen Pokphand (CP) Group. In 1979, CP became the first foreign firm to invest in the China market by setting up a feed subsidiary in the Shenzhen economic zone. As it grew and diversified its businesses from the 1980s to the present day and set up operation in more countries ranging from Indonesia and Malaysia to Cambodia and India, it continued to anchor the bulk of its business in China and home country Thailand. China's government authorities, SOEs and private sector businesses, on their part, welcomed CP's foray into China and sought to develop mutually-beneficial collaborations. The outcome was impressive: by the early 1990s, CP had expanded its presence in China to more than 200 subsidiaries, employing a large number of Chinese workers. ASEAN FDI to China grew robustly during the first half of the 1990s (Figure 4.4).

53. **China's responses to the AFC contributed to regional macroeconomic and financial stability, and had far-reaching implications for regional integration in the subsequent period.** First, Chinese authorities' decision to fix the value of the RMB against the USD helped ensure that regional currencies would not plunge further during the most stressful period in 1997 and 1998. As FDI from ASEAN and other East Asian economies to China dried up because of the AFC, China responded by broadening its engagement to other important global players, to develop itself as a key regional and global manufacturing hub.

## 4.2 From WTO to GFC: Leap in Intra-Regional Trade and Investment

54. **Between China's accession to the WTO in 2001 and the onset of the GFC in 2008, China jumpstarted regional trade in several ways.** It ramped up demand for commodities exported by several ASEAN countries, in particular, Indonesia, Malaysia, Myanmar and Lao PDR. It boosted trade in intermediate goods and also sparked a nascent revival of ASEAN countries' FDI into China in line with the formation of intra-regional production networks. For CMLV countries, a variant of the "flying geese" model started to take shape, i.e. gradual relocation of manufacturing activities from China to this group of countries as China itself moved further up the technology ladder (Figure 4.6).

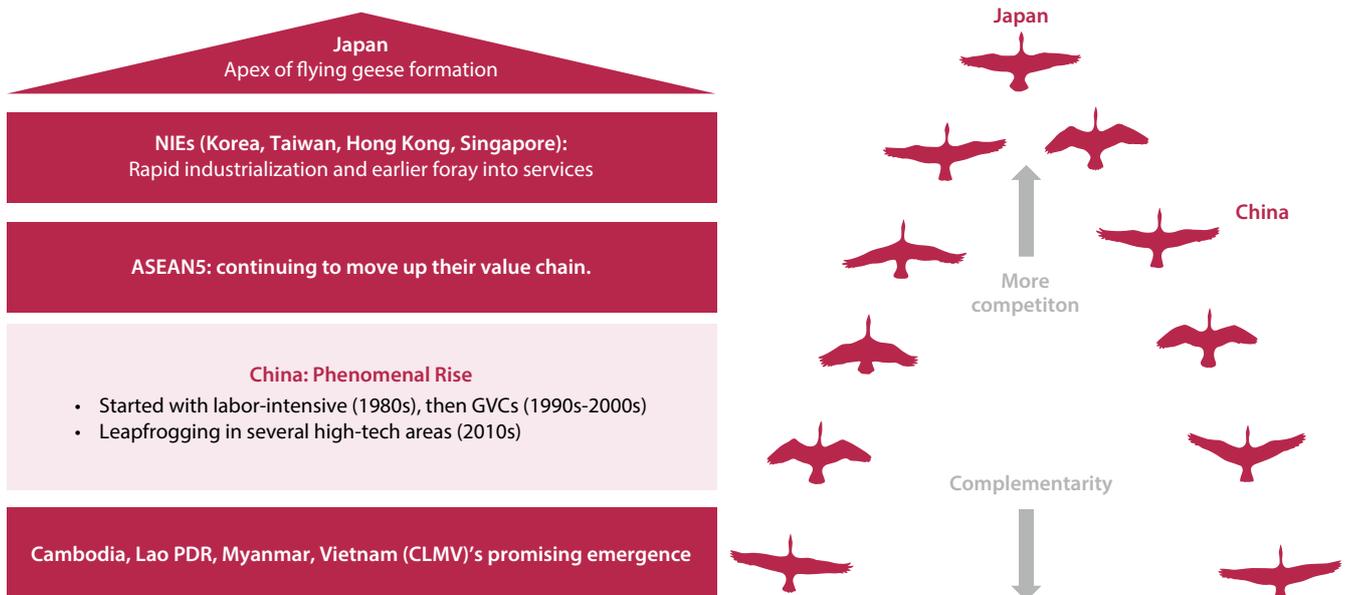
55. **The impact of China's entry into the global economy and link-up with ASEAN as a bloc comprising diverse economies with different comparative advantages was powerful.** It explains why the region's "manufacturing for exports" strategy has been so much more success than other EM blocs'. The key for success of the China-ASEAN production network was the coming-together of a well-connected production platform through excellent logistics, a huge demand base, and pooling of physical and human capital. This resulted in strong self-reinforcing dynamics which raised economic growth, improved productivity and lifted wages in China-ASEAN dramatically. As the manufacturing sector was generally the fastest growing sector and the one with the highest productivity in the economy, the boost to manufacturing capacity by exports and FDI pulled up overall productivity

---

(Wang and Gao 2018).

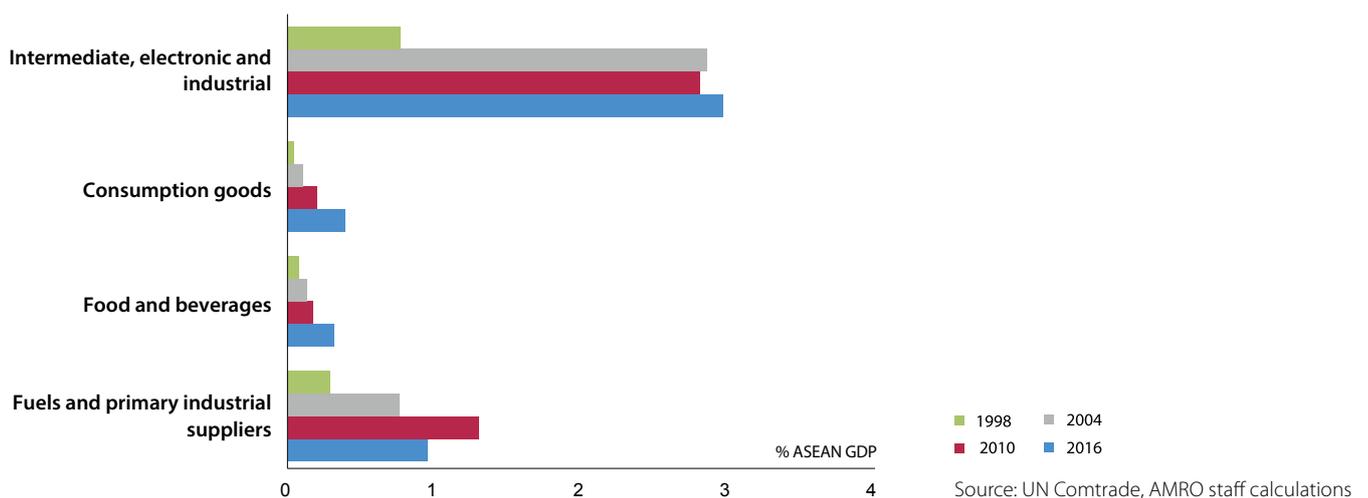
in the economy. [AMRO (2018). ASEAN+3 Regional Economic Outlook: “Resilience and Growth in a Changing World”.] ASEAN exports of intermediate, electronics and industrial products increased substantially from around 0.8 percent of ASEAN GDP in 1998 to almost 3 percent in 2004 (Figure 4.7). In terms of employment, individual countries benefited by shifting labor from lower-productivity sectors such as agriculture to manufacturing, while the bloc as a whole benefited by deploying increasingly-skilled human capital where it was needed most, often from areas with adequate supply. [AMRO (2017). “Background Paper on Lancang-Mekong Sub-Region Economies”.] Real wages were pulled up along with productivity, most sharply in China but also in ASEAN.

Figure 4.6 The Flying Geese Model: China’s Phenomenal Rise



Source: AMRO

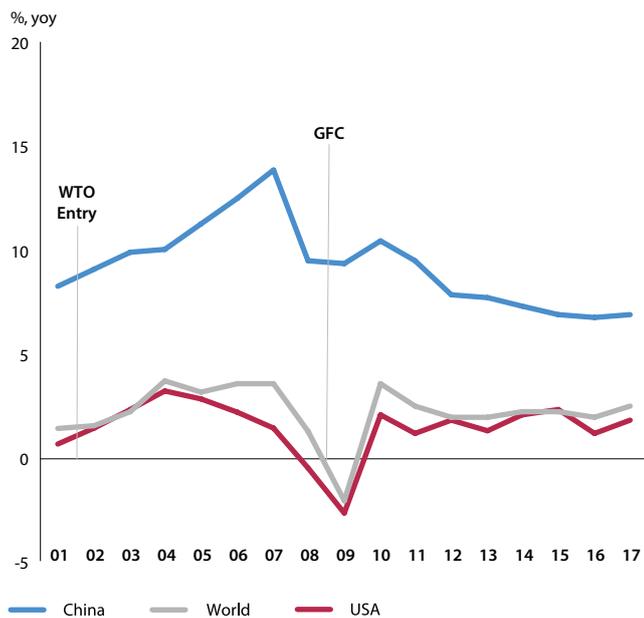
Figure 4.7 ASEAN Exports to China: Selected Items



56. **During the GFC, China’s countercyclical macroeconomic policies anchored the region’s resilience.** By the time the GFC hit the region in 2008, ASEAN exports to China had risen to 7.0 percent of ASEAN’s GDP, providing an important cushion against the shock. The strong investment focus of the policy stimulus measures which China took to support its growth momentum also helped maintain its imports from ASEAN countries, especially the several commodity exporters among the ASEAN countries – Indonesia, Malaysia, Lao PDR, Myanmar and Vietnam – and allowed them to continue growing through a steep global downturn. The fourth quarter of 2008 and practically the

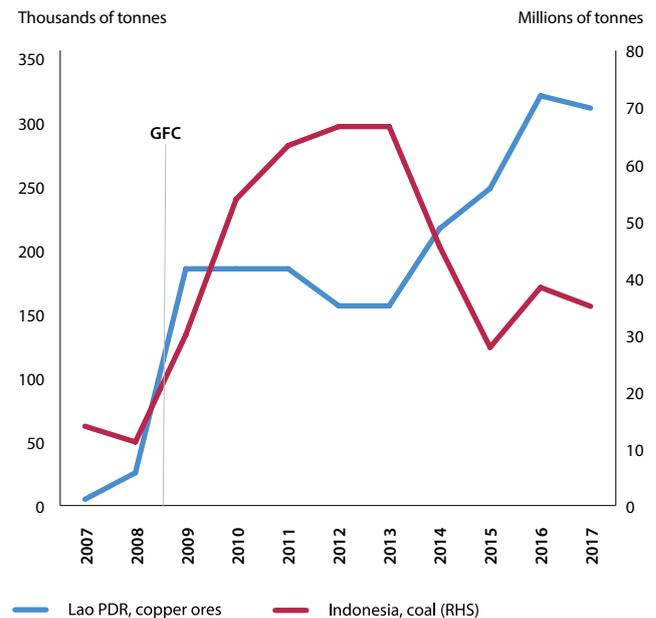
whole of 2009 was marked by a synchronized recession across all major advanced economies (Figure 4.8) which had been the bedrock of final demand for EM Asia's exports for decades. In 2009, when the full impact of the GFC on the economy was felt, the U.S., EU and Japan registered negative growth of -2.8, -4.4, and -5.5 percent respectively. Between them, these advanced economies had accounted for about 20 percent of ASEAN10's total exports in VA terms, clearly an important driver of their growth over the preceding decades. When these advanced economies dipped into recession, several ASEAN countries' growth also slumped. China, with its own growth remaining resilient (Figure 4.8), proved to be the key anchor of global and regional demand. For example, as shown in Figure 4.9, China's import of copper from Lao PDR and its import of other primary goods from ASEAN actually grew strongly during and after the GFC, thereby cushioning these countries from impact of the global economic recession.

Figure 4.8 GDP Growth: China, U.S. and Global



Source: World Bank

Figure 4.9 China's Import of Selected Primary Goods from ASEAN

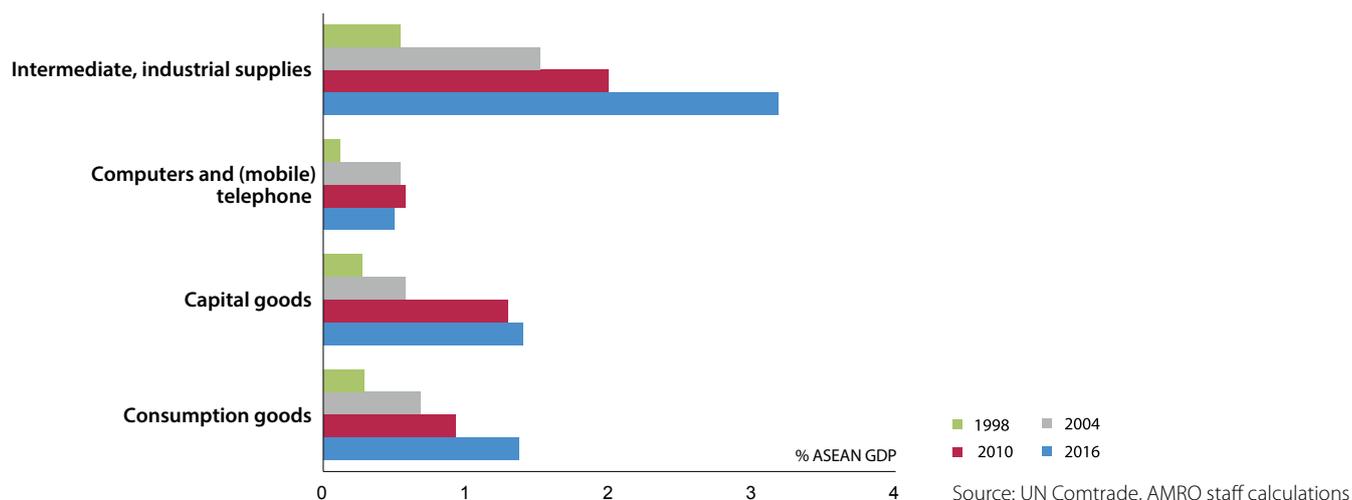


Source: UN Comtrade

### 4.3 Post GFC: Change in Nature of Growth

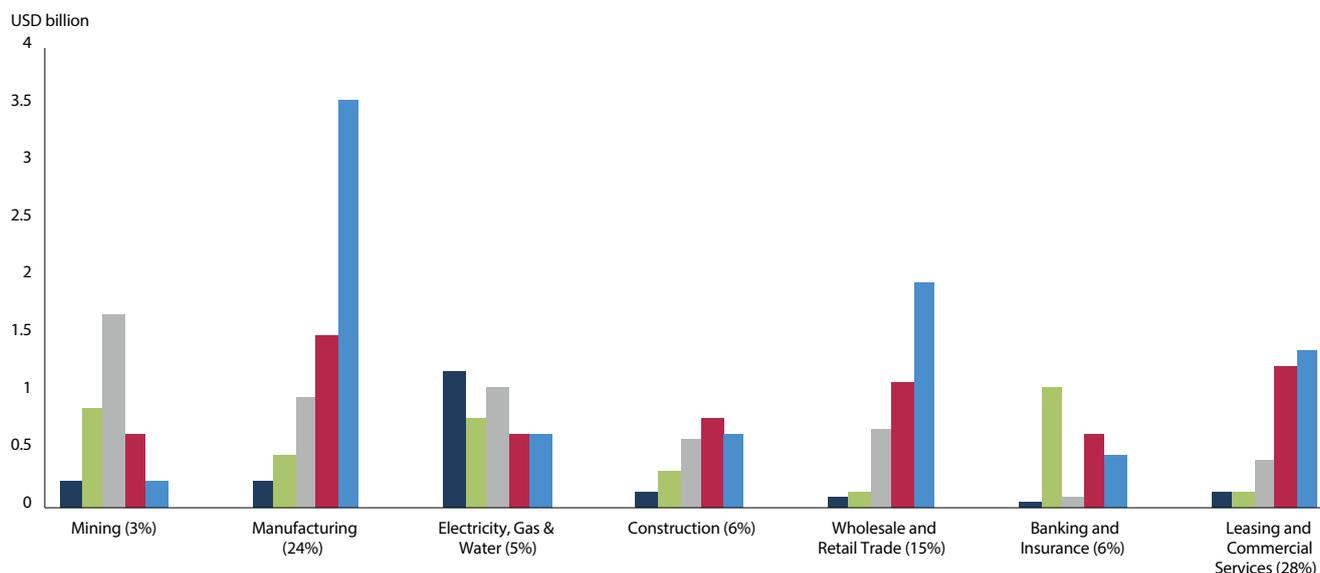
57. **ASEAN-China trade as a share of ASEAN's GDP increased significantly from 2009-2010 onward, due to China's rebalancing of growth from dependence on final demand in the U.S. and Europe to greater reliance on domestic and regional demand.** ASEAN's trade with China to total ASEAN trade grew briskly, rising from about 12 percent in 2010 to about 17 percent in 2017 (Figure 4.2). First, ASEAN's own industrialization and infrastructure-building drive spurred a sharp increase in its import of intermediate goods and industrial supplies from China – these rose from around 2 percent of GDP in 2010 to nearly 3½ percent of GDP in 2016 (Figure 4.10). Second, China's efficiency in producing low-priced manufactured goods propelled a sharp increase in its export of consumer goods to ASEAN – from about 1 percent of ASEAN GDP in 2010 to about 1½ percent of ASEAN GDP in 2016 (Figure 4.10). Apart from these trends, the China trade benefited Brunei, Cambodia, Lao PDR and Myanmar (BCLM) significantly. China's imports of fuels and primary industrial supplies from BCLM also grew steadily to nearly 1½ percent of BCLM GDP, while its imports of intermediate and industrial supplies from BCLM nearly doubled from around 3 percent in 2010 to about 6 percent of BCLM GDP. However, ASEAN exports of intermediate, electronic and industrial goods to China, the most important components of trade between China and ASEAN – equivalent to about 3 percent of GDP – increased only slightly over this period (Figure 4.7), as GVC activities plateaued.

Figure 4.10 ASEAN Imports from China: Selected items



58. In recent years, China has also increased the amount and broadened the sectoral coverage of its investment in ASEAN (Figure 4.11). While China’s ODI into ASEAN in total has continued to grow significantly, it has diversified from its earlier focus on mining and power sectors, to invest more heavily in wholesale and retail trade, and leasing & commercial services (see examples in Table 4.1). At the same time, given the rising cost of labor in China, manufacturing companies have long begun shifting production activities to lower-cost locations in ASEAN such as the CLMV countries, and ODI in this sector has also risen sharply.

Figure 4.11 China's Outward Direct Investment in ASEAN: Top Seven Sectors



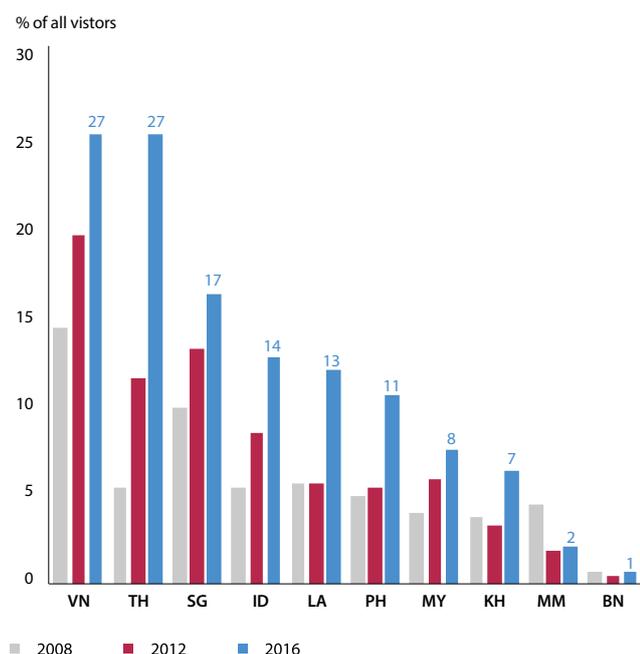
Note: The number in bracket following each sector is the average share in total ODI during 2014-2016.  
 Source: China Ministry of Commerce

Table 4.1 Chinese Companies' FDI in ASEAN Countries: Selected Examples

Sector	Company	FDI Activities
Automobile	Wuling	Started operation of an automobiles-part production plant in Indonesia in 2016
	Geely	Acquired 49.9% share of Proton in Malaysia in May 2016
Light vehicles	Sichuan Grand Royal Group	Together with its joint-venture partner (Try Pheap Group), opened a US\$20 million motorcycle assembly plant in Cambodia in 2018, to add to a heavy Chinese presence in the country's textiles and garments industry
Computers	Lenovo China	Established its regional hub in Thailand in 2017 (which would also be the business unit coordinating operations targeting ASEAN countries)
Mobile / IT	Huawei	Set up its regional headquarters in Malaysia in 2016
Online shopping	Alibaba	Acquired a majority stake in Lazada
Business Process Outsourcing (BPO)	China Online Innovation	Invested in the Philippines' BPO sector in 2016-2017 to provide solutions mainly for Chinese clients in China
Power / Energy	China Electrical Equipment Corporation	Completed power plants in Lao PDR in 2016
Commodities / Resources	Wanbao Mining Copper Consortium	Started copper production in Myanmar in 2016

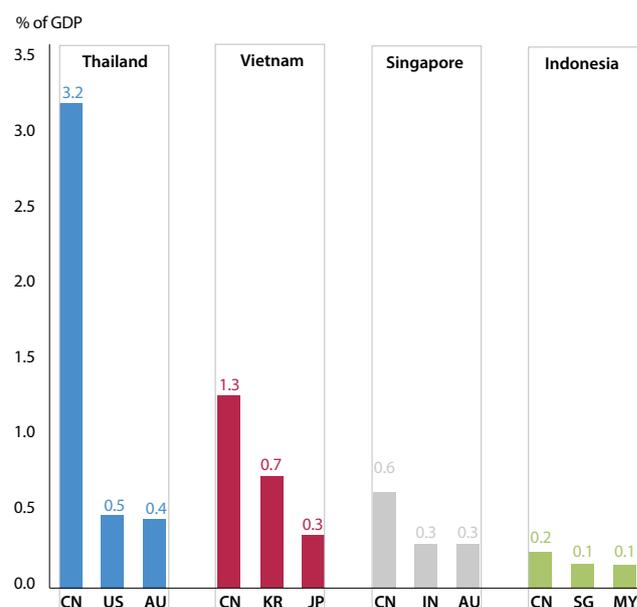
59. Furthermore, ASEAN's services exports also got a boost from China's outbound tourism, with the Philippines witnessing a lift in its export of BPO services to China. China's share of global tourist trips rose from just 1 percent in 1995 to 9 percent in 2015, while its share of tourist spending jumped from 1 percent in 1995 to 19 percent by 2016. In particular, ASEAN countries have benefited greatly from the sharp increase in China's outbound tourist trips and spending over the past decade or so. Figure 4.12 shows that Chinese tourists accounted for the largest share of foreign visitors to most ASEAN countries, led by Vietnam and Thailand (27 percent of total tourist arrivals) in 2016. As a percentage of GDP, spending by Chinese tourists was also sizeable for Thailand (3.2 percent), Vietnam (1.3 percent), Singapore (0.6 percent) and Indonesia (0.2 percent) (Figure 4.13). As for BPO services, while China has certainly developed its own BPO services, it has nevertheless tapped on the Philippine's expertise opportunistically. For example, the Philippine people's proficiency in the English language has enabled the country to provide call centre services to Chinese companies. Another example is China Innovation Nolin's investment in the Philippines' BPO sector in 2016-2017 to provide solutions mainly for Chinese clients in China.

Figure 4.12 Share of Chinese Tourists in Total Foreign Tourists: Selected ASEAN Countries



Source: Authorities in ASEAN, AMRO staff calculations

Figure 4.13 Top Three Tourist Spending by Source Countries: Selected ASEAN Countries



Note: 2016 GDP

Source: Authorities in ASEAN, AMRO staff calculations

**60. With Chinese companies continuing to get stronger in technology and manufacturing knowhow, and logistics and inventory management, China has been shifting manufacturing activities to selected ASEAN countries.** Since the GFC, Chinese companies have used several channels proactively to learn new technologies and apply them commercially<sup>27</sup>. Joint ventures have been a popular channel.<sup>28</sup> Another channel is simply reverse-engineering of products produced by firms from advanced countries, from cars to mobile phones. Besides, China's industrial policy requires that foreign investors in certain industries must form joint ventures with a domestic Chinese partner. As China's manufacturing sector move up the technology ladder to become more advanced and skill-intensive, labor-intensive industries have been relocated to ASEAN countries especially CLMV. Chinese companies have started to play a greater role in infrastructure building in ASEAN, leveraging on the expertise and technology built up over the past decades in China. An example is the railway project from Kunming to Lao PDR and Thailand under the BRI. Meanwhile, China's giant e-commerce platforms have allowed ASEAN manufacturers to reach Chinese consumers.

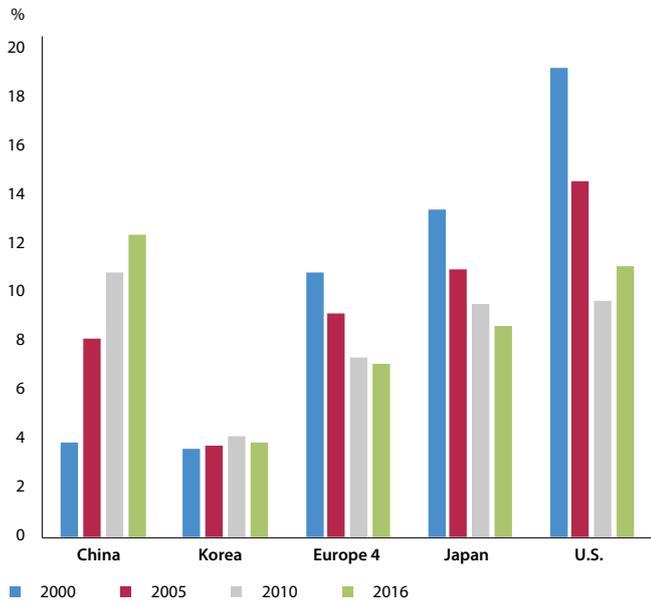
**61. All in all, China's importance to ASEAN in terms of trade and tourism has surpassed that of other trading partners including the U.S. and Europe, Japan and Korea.** The U.S. was the most important export market for ASEAN in 2000, but since then, exports to the U.S. have stagnated and its share has declined. The shares of Japan and Europe have also declined, while the share of Korea has remained steady. China is now the most important market for ASEAN (Figure 4.14). ASEAN's trade linkages with China are also expected to be larger than those with other countries in value-added term (OECD global input data is still available just until 2011) (Figure 4.15). The proportion of Chinese tourists has been increasing exponentially since 2010, and by 2016 the region saw more tourists from China than from any other country (Figure 4.16). The number of ASEAN tourists in China has also grown

<sup>27</sup> China Investment Corporation acquiring French electric utilities company GDF Suez' exploration business and Geely taking over Swedish carmaker Volvo, to Shenyang Machine Tool Corporation's purchasing German speciality too-maching maker Schiess.

<sup>28</sup> A few high profile cases include: Bank of China (BOC) and Baidu partnering British chip designer Arm Holdings to pick up advanced semiconductor technologies; China National Petroleum Corporation (CNPC) partnering British Petroleum (BP) to acquire expertise in oil production and recovery methods; and – even in the frosty climate of 2018 – RealMax Group linking up with RealWear to develop industrial wearable computers.

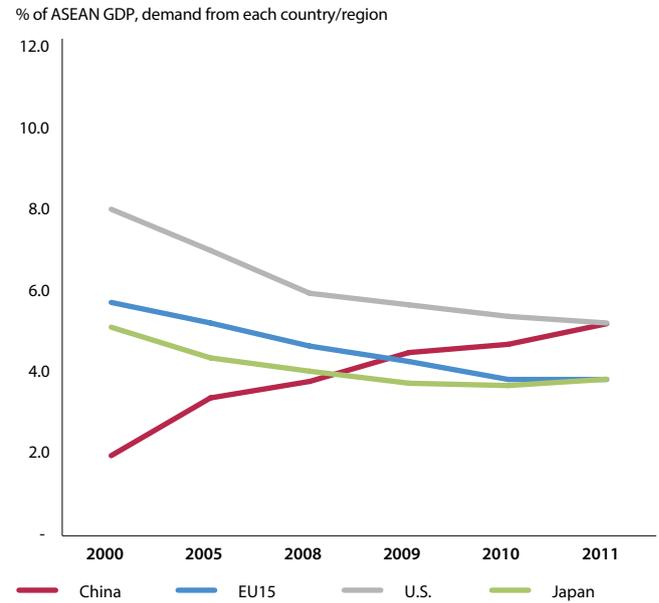
from 4.9 million person in 2010 to 7.8 million person in 2016. However, ASEAN's financial linkages with developed economies are still stronger than those with China. In terms of both FDI and portfolio investment, the U.S. is still the most important investor in ASEAN (See further details in Li and Liu (2018)).

Figure 4.14 ASEAN's Exports Destinations, Percentage of Total Exports



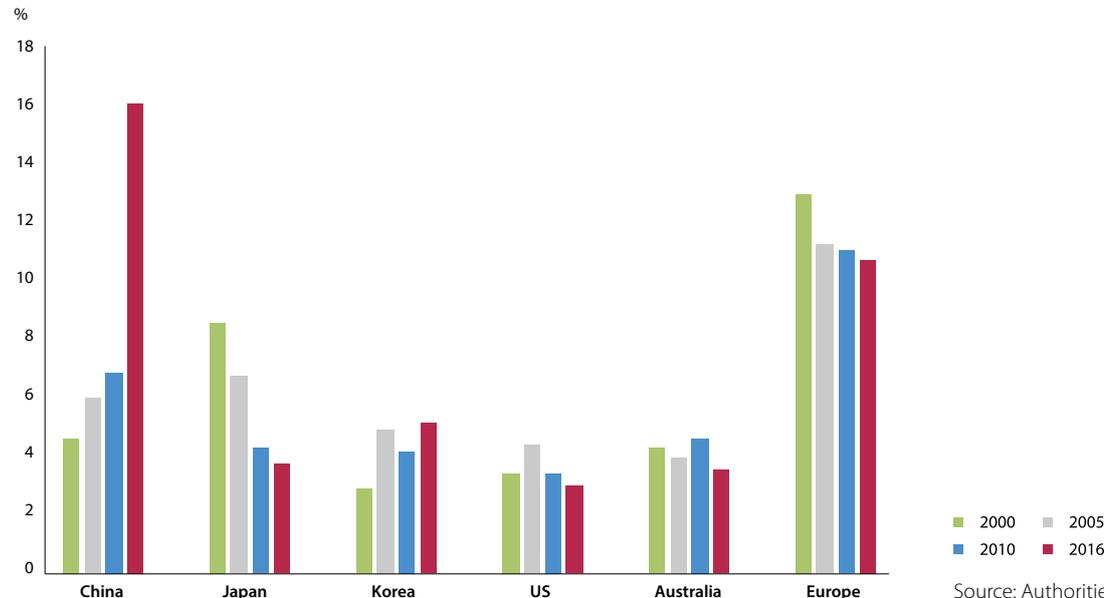
Note: Europe 4 refer to Germany, France, UK and the Netherlands.  
 Source: UN COMTRADE (reporting countries = ASEAN countries), AMRO staff calculations

Figure 4.15 ASEAN's Exports (Value-Added) to Various Countries as Share of ASEAN's GDP



Source: OECD TiVA database; Authorities; AMRO estimates

Figure 4.16 Share of Tourists to ASEAN Region

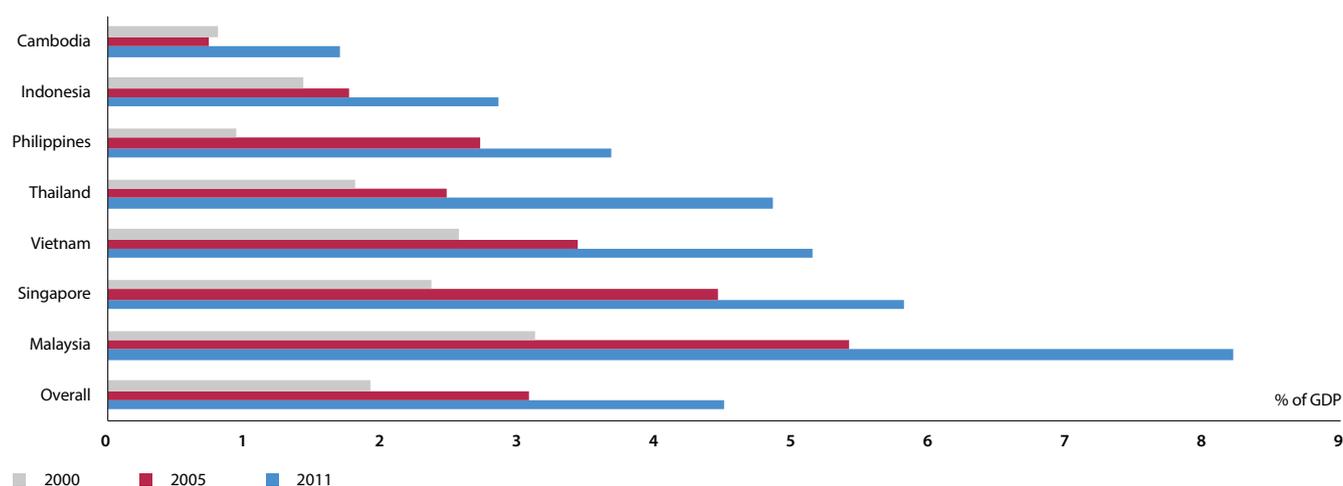


Source: Authorities, AMRO staff calculations

## 4.4 Spillovers: Will Increase but Remain Manageable

62. **As China is now the top trading partner for ASEAN, a slowdown in China's growth (or even in the sectors that have linkages with ASEAN economies) can have significant spillovers on ASEAN.** ASEAN needs to be mindful of the implications of close linkages with China in two respects. First, ASEAN's business cycles are now more closely linked to China's so that whenever China's economy slows down, ASEAN can expect its own economies to slow in tandem. Furthermore, any shock to China can be transmitted to ASEAN through the trade links and by contagion effects. A prime recent example is the trade conflict between the U.S. and China, as several ASEAN economies supply intermediate goods to China for various final products that are subject to tariff hikes by the US. An example of a sectoral shock is the case of Lao PDR which was affected by sharp falls in China's imports of copper, just when the country had committed to significant fiscal expenditures in the period ahead. In addition, in terms of structural challenges, it remains to be seen how China's shift from investment-led growth to consumption-led growth and the inevitable slowdown from its current high growth rate to more moderate pace will affect its trade and investment relations with ASEAN. Individually, each ASEAN country – and there are marked differences in countries' linkages with China (Figure 4.17) – will need to assess how China's ongoing economic rebalancing may affect them, and respond accordingly.

Figure 4.17 ASEAN Countries' Exports (Value-Added) to China as Share of GDP



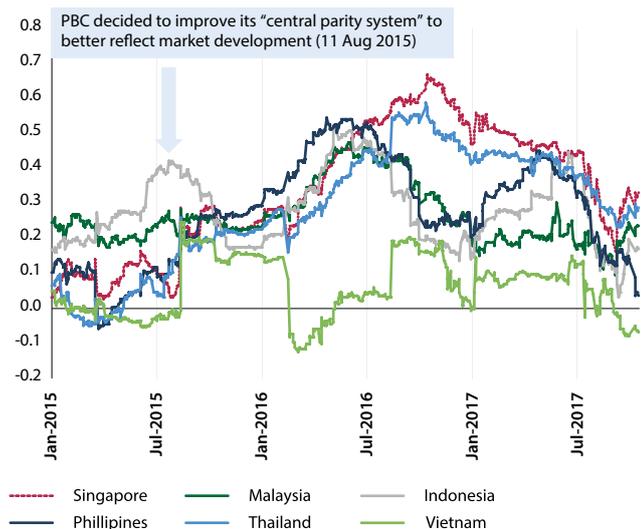
Source: OECD TIVA database; Authorities; AMRO estimates

63. **The spillover impact of China's financial markets on ASEAN, though still primarily through the sentiment channel, is nontrivial, and is likely to get bigger over time as financial linkages between China and ASEAN countries expand and grow stronger. This is where China has to always bear in mind the need to pace liberalization such that its financial system and the region always remain resilient to turbulence in financial markets.** So far, ASEAN investors' portfolio exposure to China's financial markets is quite limited, and vice versa. Nevertheless, given that China is the largest economy in the region, and a key growth engine and export market for ASEAN, volatility in China's financial markets has affected sentiments in ASEAN's financial markets and led to greater volatility. For instance, in August 2015, when China reformed its RMB/USD central parity pricing mechanism, the RMB depreciated against the USD by 2.0 percent on 11 August after the announcement. Following the RMB's depreciation, regional currencies came under pressure and also depreciated. The correlation between the exchange rates also increased significantly (Figure 4.18). At the same time, China's stock market volatility also had a significant impact on the region. China's stock market corrections in both late August

<sup>29</sup> Our finding is consistent with Arslanalp and others (2016), who find that shocks from China that lead to rising global risk premiums would generate spillovers to the region.

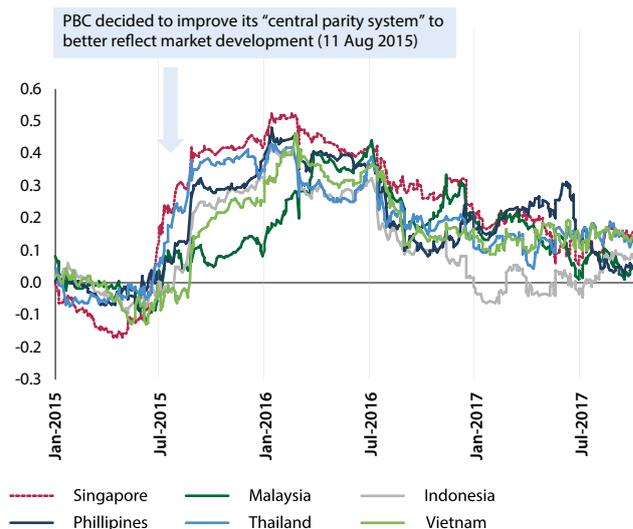
2015 and early January 2016 triggered stock market drops in most ASEAN markets. As shown in Figure 4.19, similar to the FX market, the correlation between China's stock market and ASEAN stock market went up in this period, before declining subsequently.<sup>29</sup> Figure 4.20 shows that capital outflows from ASEAN-5 surged in 2015 Q3 and again in 2016 Q4, following the outflow episodes in China. Looking ahead, as China's financial system grows larger and becomes more integrated with the region, its own policies would have significant bearing on ASEAN countries. China's commitment to ensure that its policies are aligned with the interests of the region, and to work with partner countries on enhancing financial safety net arrangements, is therefore welcome.

Figure 4.18 Correlation Between RMB Exchange Rate (Against USD) and ASEAN Currencies



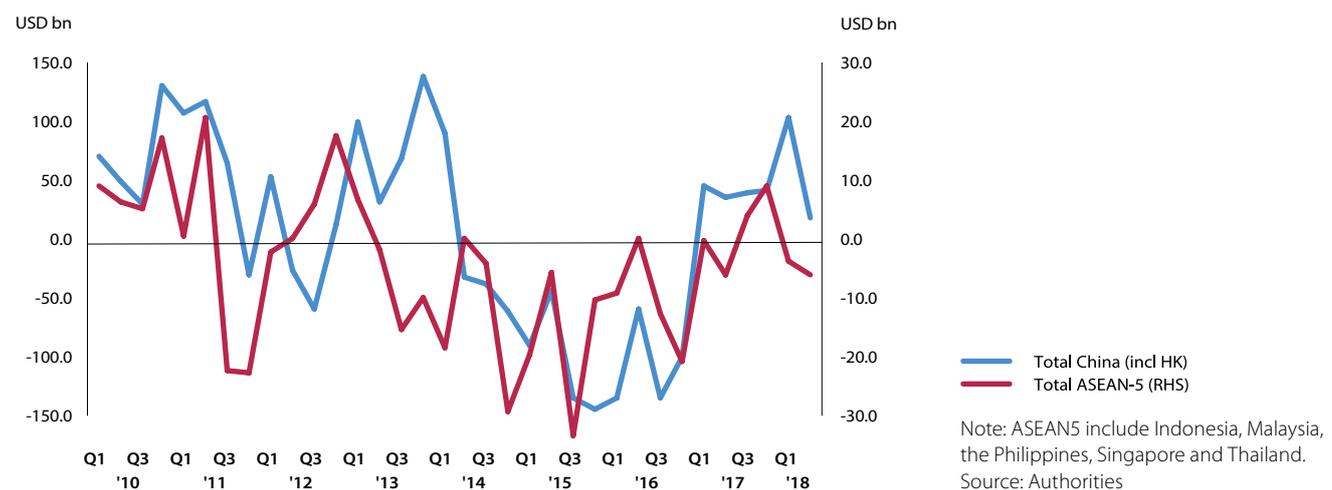
Note: A moving window of six months is used.  
Source: CEIC; AMRO staff calculations

Figure 4.19 Correlation Between China Stock Index and ASEAN Stock Index



Note: A moving window of six months is used.  
Source: CEIC; AMRO staff calculations

Figure 4.20 Capital Flows: China and ASEAN5



Note: ASEAN5 include Indonesia, Malaysia, the Philippines, Singapore and Thailand.  
Source: Authorities

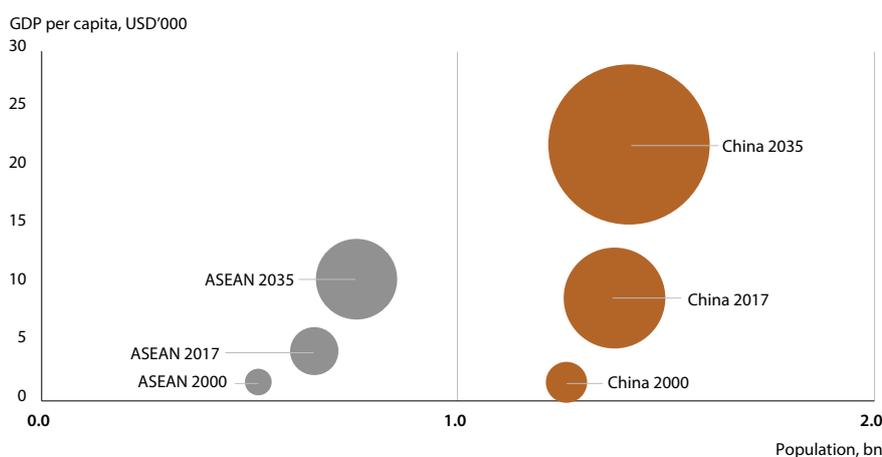
## 5 Prospects for China-ASEAN Integration: Mutual Benefit and Trust

64. **China and ASEAN countries have always complemented one another very well through different stages of development reflecting their different factor endowments and comparative advantages.** Prospects for broader and deeper integration in the next two decades are bright as both continue to have a lot of complementarities. While China and practically all ASEAN countries are still EMEs, there has been a big step-up in development capacity, income (GDP) growth, and cross-border trade and investments. In other words, while not yet advanced economies, China and ASEAN now have sufficient knowhow, market size, maturity and incentive to integrate further and leverage on each other's strengths to grow together in the coming decades.

### 5.1 Goods and Services Trade Will Flourish As Both Remain Open

65. **Moving forward, as the Chinese and ASEAN markets expand and become more integrated with each other, the flow of goods (trade), money and technology (FDI) and people (tourism) will increase substantially, providing yet more impetus for growth.** In 2017, China's and ASEAN's GDP were USD12.2 trillion and USD2.8 trillion respectively. China's GDP is already the second largest in the world while ASEAN's GDP is the sixth largest. They have both risen to middle income status with China's per capita income at USD 8,800 and ASEAN's at USD 4300. However, these are still well below the OECD average of USD 38,100, and still have a long way to catch up. By 2035 (the year by which China aims to become a global leader in digital technology and achieve the standards of a high income country), we project that China's and ASEAN's GDP would have increased to USD30.9 trillion and USD7.8 trillion respectively (Figure 5.1). On China's side, the per capita GDP would have risen to around USD 20,000 (growing on average at 5.2 percent yearly) as continued structural reform and sound macroeconomic management sustain rapid (albeit gradually slowing) growth. On ASEAN's side, rising per capita GDP will likewise be the key driver (growing on average at 5.1 percent yearly), and similarly underpinned by persistent reform since the AFC period. In the case of several countries, population growth will be an important contributor as well. (Figure 5.1).

Figure 5.1 China and ASEAN GDP and Population, 2017 and 2035



Note 1: The size of the bubble reflects the size of GDP in 2017 price.

Note 2: Population projection is from the United Nations (UN).

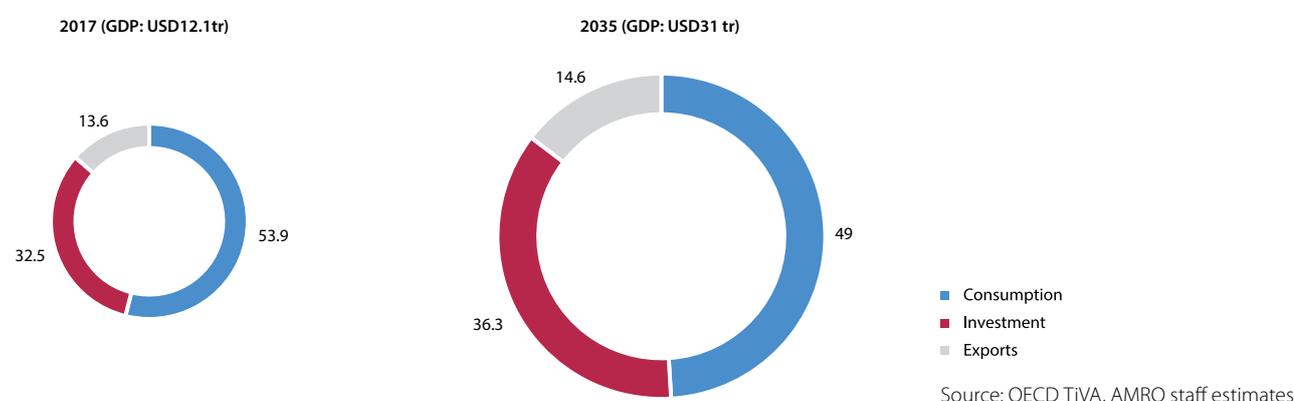
Note 3: ASEAN GDP growth is based on a slight downward adjustment of the aspiration targets taken from Figure 2.2 of "ASEAN 2030: Toward a Borderless Economic Community" by ADBI.

Source: CEIC, UN, AMRO staff estimates

66. **Trade in goods between China and ASEAN will continue to thrive, propelled by not only the increase in market size, but also greater connectivity and cooperation in facilitating trade, boosting production through exploiting endowment complementarities, and continued relocation of certain**

**types of manufacturing activities from China to ASEAN.** China has been ASEAN's largest trading partner since 2012, while ASEAN has been China's third largest trading partner since 2015. According to AMRO's estimates using the VA approach, by the year 2035, the size of private consumption in China will have expanded sharply from USD 4.3 trillion (35.4 percent of GDP) in 2017 to USD 12.4 trillion (40.1 percent of GDP) (Figure 5.2).<sup>30</sup> Alongside this, greater trade cooperation and the ASEAN Economic Community (AEC) taking shape will enable producers of goods and services from both sides to reach increasingly-affluent consumers in each other's population. This is predicated on both China's and ASEAN's resilience and capacity to cope with the trade- protectionist tendencies exhibited by certain advanced countries, and on China's strengthened efforts in the area of technology and innovation to counter technology protectionism. Furthermore, as both China and ASEAN have benefited greatly from investing directly in each other's manufacturing sectors in the past, it is reasonable to assume that the regional production network will continue to grow as China's manufacturers continue to relocate certain types of production activities to different parts of ASEAN to optimize production by exploiting the competitive advantage of each country in terms of cost of labor and other factors of production. Similarly ASEAN countries will also optimize production by specializing in areas of their competitive advantage, and invest in China to tap its huge consumer market. This will in turn induce greater trade in capital-, intermediate- and final goods between the two sides. Therefore, a logical supposition is that the trend seen between 2008 and 2017 will continue and perhaps even become more accentuated. We project that ASEAN's exports to China will grow faster than ASEAN's GDP, and that the ratio of ASEAN's export to ASEAN's GDP will increase steadily (Figure 5.3). Specifically, ASEAN's exports to China will grow from USD236 billion (or 8.5 percent of ASEAN's GDP) in 2017 to USD911 billion (11.6 percent of ASEAN's GDP) by 2035. On the other hand, China's exports to ASEAN will rise from USD283 billion (2.4 percent of China's GDP) to USD 860 (2.8 percent of its GDP) over the same period (Figure 5.4). Importantly, because China's regions are diverse in terms of development, income and consumer needs, trade between China and ASEAN will include countries across ASEAN countries – including those which are more newly-emerging – is expected to thrive.

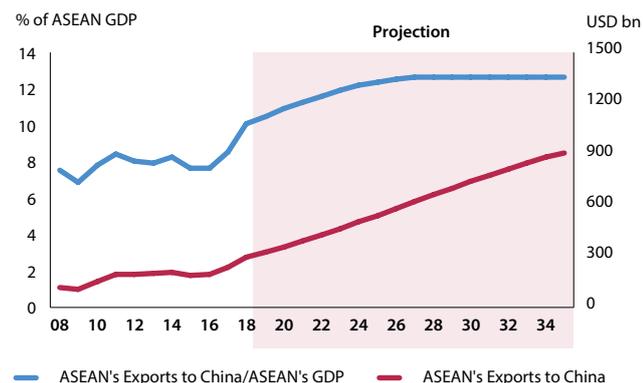
Figure 5.2 China's GDP in Value-added Terms, Net of Imports



**67. With both China and ASEAN countries moving up the technology ladder, both sides' competitive advantages in trade and the nature of demand for imports will shift.** On balance, China will age more rapidly than ASEAN (Figure 5.5), while the pace at which its industries become high-technology may be faster than ASEAN as a whole. China's working population will decline significantly by 2035. As shown in Figure 5.5, in 2017, 61 percent of China's population were in the 20-59 year-old age range, higher than 56 percent in ASEAN. However, in 2035, only 51 percent of China's population will be within this working age range, lower than the 55 percent in ASEAN. This implies that ASEAN will, on average, be younger and more likely to have an edge in producing labor-intensive goods.

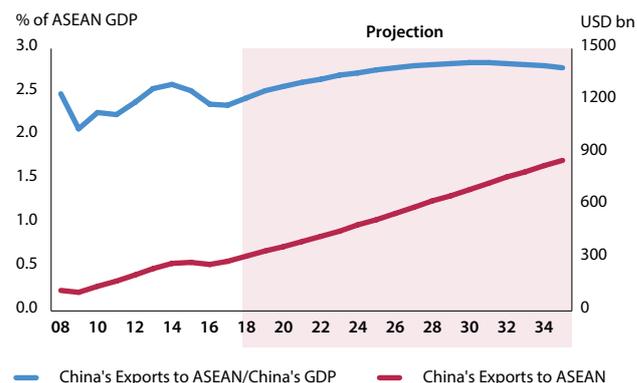
<sup>30</sup> The share is different from the headline consumption in GDP. In 2017, consumption accounted for 54 percent of GDP, or USD 6.6 trillion. By 2035, we expect that the share of headline consumption in GDP will be 60%, or USD18 trillion.

Figure 5.3 Projection of ASEAN's Goods Exports to China



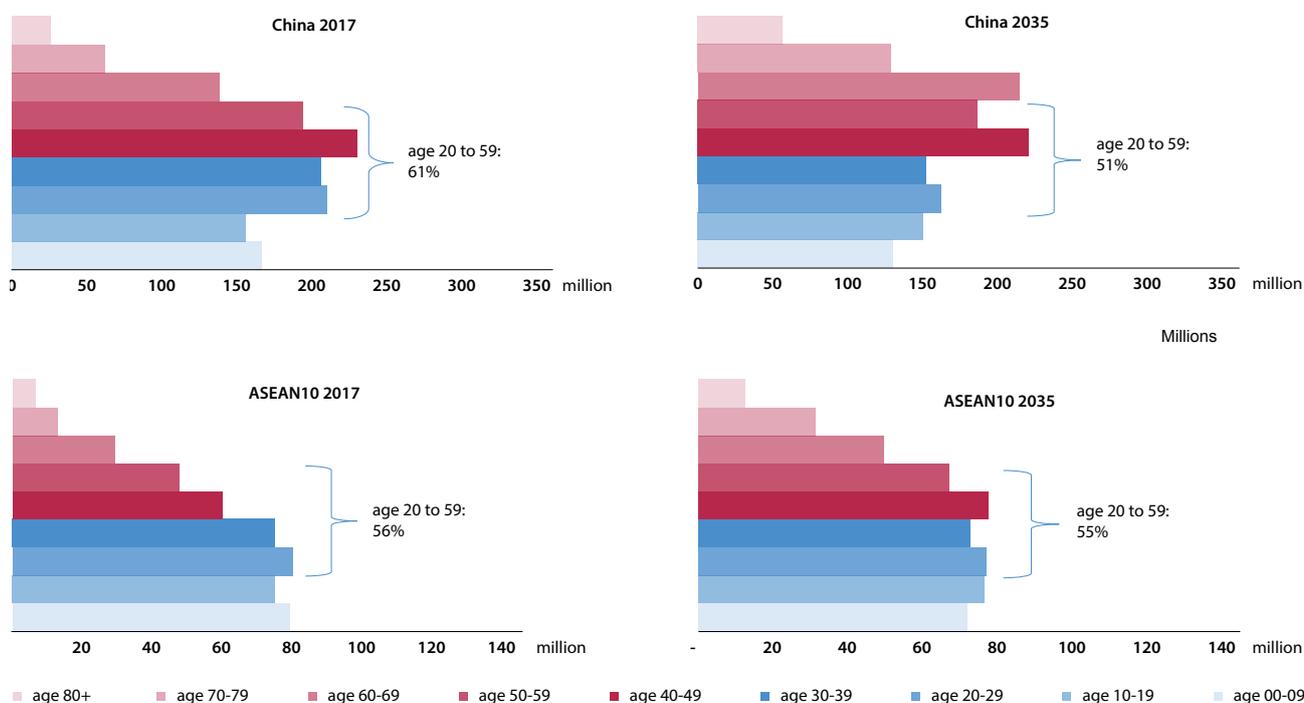
Note: China's imports and exports projection is based on Figure 5.1 (China GDP projection). We also assume that ASEAN will gradually gain a greater share of China's trade, and project China-ASEAN trade value.  
Source: CEIC, AMRO staff estimates

Figure 5.4 Projection of China's Goods Exports to ASEAN



Source: CEIC, AMRO staff estimates

Figure 5.5 Population of China and ASEAN, 2017 and 2035



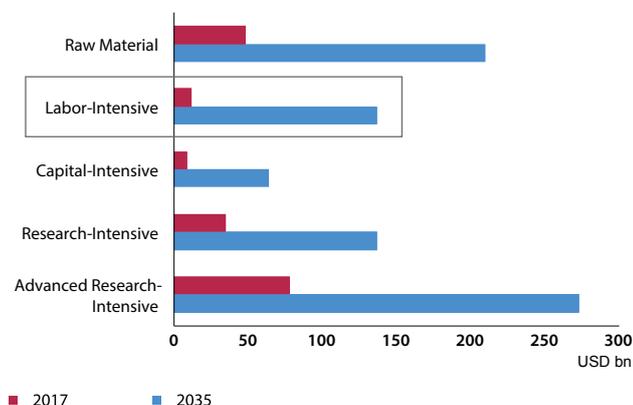
Source: CEIC, UN, AMRO staff estimates

68. **China's exports of capital goods to ASEAN are expected to increase considerably, and both China's and ASEAN's exports of research-intensive goods to each other will continue to rise significantly.** As ASEAN becomes more industrialized and enhances its infrastructures including through BRI projects, its demand for China's capital-intensive goods will rise sharply (Figure 5.7). At the same time, with "Made in China 2025" potentially making major breakthroughs and China liberalizing its trade regime further, two-way flows of research-intensive goods between China and ASEAN will increase greatly (Figures 5.6 and 5.7).

69. **ASEAN's exports of labor-intensive goods to China will rise rapidly, and its exports of raw materials to China will also grow significantly.** In 2017, ASEAN's exports of labor-intensive goods were much lower than most other types of exports to China. By 2035, ASEAN is expected to export considerably more of these

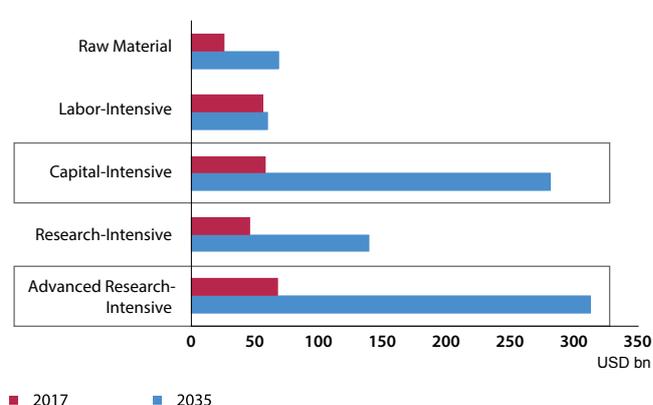
products to China (Figure 5.6), and this trend will benefit CLMV countries especially. ASEAN will also continue to be one of the major sources of China's raw materials, implying continued benefits for ASEAN's commodity exporters. In addition, China's demand for imports of goods and services will also shift towards serving meeting the needs and preferences of the older and more mature population – sectors such as healthcare and tourism are likely to thrive.

Figure 5.6 Breakdown of ASEAN's Goods Exports to China, 2017 and 2035



Note: The product classification is in accordance to Yilmaz, Bahri. 2002. "Turkey's Competitiveness in the European Union: A Comparison with Greece, Portugal, Spain and the EU/12/15."  
Source: UN Comtrade, AMRO staff estimates

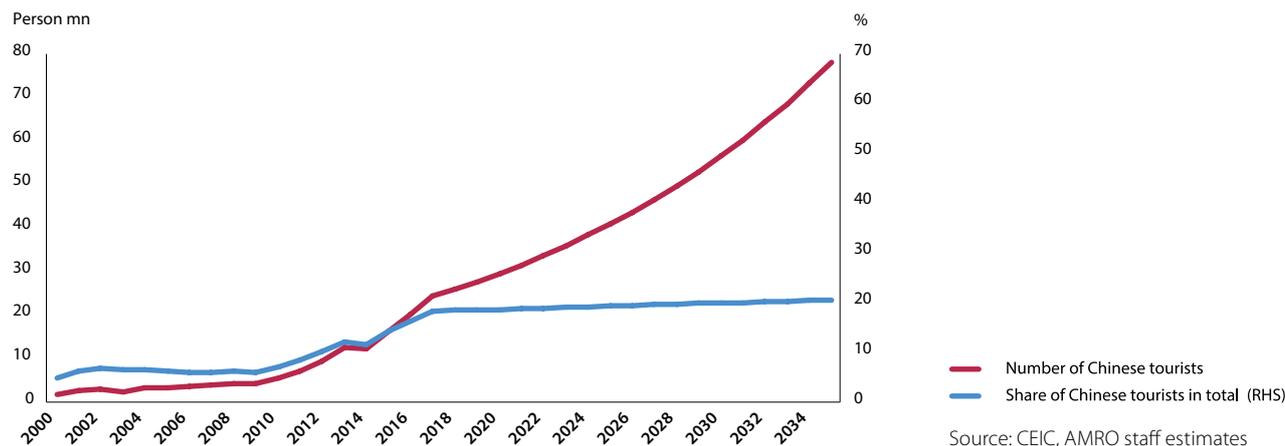
Figure 5.7 Breakdown of China's Goods Exports to ASEAN, 2017 and 2035



Source: UN Comtrade, AMRO staff estimates

**70. With China's per capita income rising from the current USD 8800 to about USD 20000 by the year 2035, ASEAN's tourism sector will soar, as both the number of Chinese tourists visiting ASEAN and the per-person expenditure in ASEAN will grow substantially.** China has maintained its position as ASEAN's largest source of foreign tourists since 2012, with 23 million Chinese tourists visiting ASEAN in 2017. According to the World Bank, for high-income economies, the ratio of outbound visitors to total population was 62 percent in 2016, rising from 43 percent in 1997; this can serve as a useful benchmark. Other factors, such as improvement in infrastructure and connectivity, also matter. We conservatively project that in 2035, 20 percent of the Chinese population will travel overseas, 20 percentage points lower than what is seen in high-income economies in 2017, and further, that a quarter of these outbound Chinese tourists will visit ASEAN, a similar proportion to that seen in 2017. On this basis, the number of Chinese tourists to ASEAN is expected to reach around 72 million, which is more than 200 percent higher than in 2017 (Figure 5.8). ASEAN countries, especially those with better infrastructure and tourism facilities, are expected to benefit considerably. In the other direction, ASEAN's visitors to China now account for 25 percent of total visitors to China — a sharp increase from 15 percent in 2007; this too will rise rapidly as ASEAN household incomes rise and ASEAN countries become much more well-connected to China, including through the rapidly-developing low-cost airline industry.

Figure 5.8 Chinese Tourists to ASEAN



## 5.2 FDI, Portfolio Investment and Banking Flows: Bigger, Richer

71. FDI flows between China and ASEAN will also flourish due to broader and deeper economic cooperation, manifested in initiatives including (improved) FTAs, bilateral investment treaties (BITs), and projects carried out under the ambit of the BRI and the Master Plan for ASEAN Connectivity (MPAC). More Chinese manufacturers will relocate to ASEAN to tap ASEAN's final demand and young labor force. And more ASEAN manufacturers will invest in China to better meet China's burgeoning household demand. FDI and trade will become more complementary as China has developed strong capabilities in infrastructure construction, digital technology and modern logistics, and renewable energy, and will invest more in ASEAN to enhance infrastructures and connectivity. This will create a virtuous cycle. In the medium term, there could also be gains for a number of economies in the region due to positive trade and FDI diversion effects arising from the protectionist policies of some major countries, such as relocation of plants by firms in affected Chinese industries. For example, Vietnam, Cambodia, Malaysia and some other ASEAN countries could benefit significantly due to their high complementarity, diversified economic structures, improved infrastructures and lower wages. However these effects will take time to materialize. In the meantime, the spillovers on the region will be significant and negative. More importantly, the disregard for international institutions and a rules-based multilateral trading system sets a dangerous precedent, and the region, among the most open to international trade, has to rally to defend this international system that has worked so well for so many nations.

## Box 5.1 Japan's FDI in ASEAN in the 1980s and 1990s: Aligning Interests and Staying the Course

**Japan's FDI in ASEAN countries during the 1980s and 1990s reflected an alignment of multiple interests on both sides.** The rise of Japanese MNCs coincided with a period where production efficiencies were found in expansion of cross-border production networks. The sharp appreciation of the Japanese Yen following the 1985 Plaza Accord also impinged on Japanese firms' export competitiveness. ASEAN countries, most of which were still relatively poor, were in the same geographical region as Japan. However, several had developed their infrastructure and had a large pool of (semi-)skilled workers, so that they complemented Japan well in the well-known flying geese model, and at the same time, gain from rising wages, accumulating capital stock, and picking up technical and management skills from the Japanese. From the standpoint of diversification, ASEAN countries were also keen on having Japanese FDI alongside US and European FDIs. Another critical factor was that the Japanese investors recognized the benefit and cost effectiveness of integrating with ASEAN partners as much as possible along the entire value chain. As Edgington and Hayter (2000) put it aptly, "Japanese networks rest(ed) upon technological leadership and functional connections among a wide range of affiliated assembly factories and parts suppliers, together with regional management centres and R&D centres". Until today, the Japanese have persisted with this mode of engagement.

**A prime example can be found in Japanese carmakers' investments and modus operandi in Thailand. Put simply, these Japanese MNCs have allowed and enabled Thai component suppliers to do what they can do best at different points in time, and to upgrade their capacity, so that both parties become more competitive as the automobile industry itself becomes more advanced and high-technology.** In the beginning, Thai companies would produce small components and auto-parts. Then, benefiting from technology transfer by the Japanese, Thai companies upgraded to assembly work. Over time, the automotive industry continue to grow, the country became an important production and export hub for Japanese automotive MNCs. Most recently, Thailand has also come to host regional R&D centres for the Japanese auto makers, as well as intensified efforts to move up the technology ladder, such as developing AI techniques. Its human capital base has developed substantially. There are about 700,000 Thai workers in the automotive industry, 29 universities and other institutes providing automotive and mechanical engineering programs. Industry leaders expect about 60% of the workforce in this industry to be highly-skilled workers by the year 2021. Today, Thailand is the top automotive producer in Southeast Asia and 12th in the world. It is strong in particular segments, notably one-ton pick-up trucks (second in the world) and commercial vehicles (sixth in the world). At the same time, Thai companies in different tiers or niches continue to play specialized roles and develop well. For example, besides production and assembly (for which Japan accounts for seven of the 18 firms operating in Thailand), the Thai automotive parts sector comprises more than 700 tier 1 suppliers and more than 1700 tier 2 and 3 suppliers. Of the 700+ tier 1 suppliers, a good 39% are Thai majority owned. Overall, the auto parts industry is expected to see its growth pick up in future. Some firms produce relatively simple parts such as tyres, hosing, belts and window seals. Others produce more sophisticated components such as radiators, fuel systems, ignition systems and gears. Indeed, it is widely acknowledged that Thailand's automotive industry has been able to remain competitive today because the supply chain has been so well developed.

**Thailand's industry leaders and government officials have acknowledged the instrumental role which Japanese MNCs have played in this over the past few decades.** Importantly, the trust generated by demonstrably good economic outcomes for both partner countries has formed a strong basis for even deeper integration.

72. **China's portfolio investment in ASEAN is expected to increase sharply once China opens up its capital account further to allow its nationals to invest abroad to benefit from diversification and higher yields.** China's outward portfolio investments have increased sharply since the start of this decade, rising from about US\$250 billion to about US\$1.25 trillion. This will continue rising, and a bigger share will go to higher-yield financial assets in the emerging world, including ASEAN.

73. **The BRI has the potential to bring about transformative change in China and ASEAN.** It involves many countries over several continents collaborating to improve connectivity for boosting cross-border trade and investment and generating inclusive economic benefits. It seeks to address large infrastructure gaps and improve countries' capacity for growth. And it helps countries needing to plug savings-investment shortfalls but often unable to do so on manageable financial terms within robust governance frameworks. The BRI includes the Silk Road Economic Belt and the 21<sup>st</sup>-century Maritime Silk Road and the ASEAN is the core part of the latter. China and the ASEAN countries are among the BRI partners working closely to make concrete progress in project selection and implementation, identify challenges, devise solutions, and improve risk management and governance.

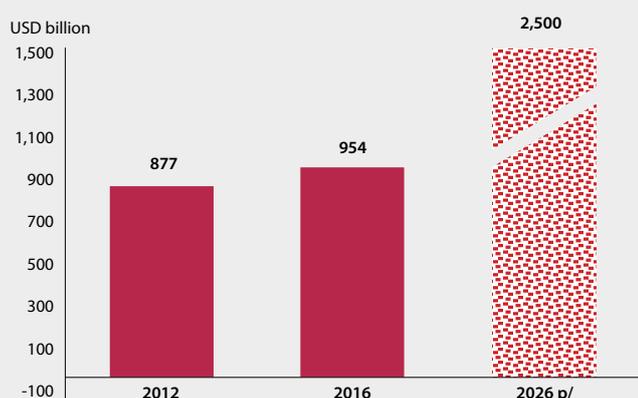
## Box 5.2 The Belt and Road Initiative: Opportunities for Deepening China – ASEAN Integration

**The BRI has the potential to benefit China and the numerous partner countries substantially for many years to come.** It involves more than 60 countries (which make up 60 percent of the world's population and 30 percent of global GDP) collaborating to improve connectivity for boosting cross-border trade and investment and generating inclusive economic benefits. It seeks to address large infrastructure gaps and improve countries' capacities. And it helps countries needing to plug savings-investment shortfalls but often unable to do so on manageable financial terms within robust governance frameworks. The BRI is arguably the first of its kind – a very comprehensive attempt by an EME to help accelerate the growth catch-up of so many other EMEs across continents, drawing heavily from its own development experience, knowhow and financial resources. This is possible for three reasons. First, China has made more progress than commonly associated with the conventional development model: While China has kept up an impressive pace in overall growth catch-up, it has gained a lot of ground in services while still not fully advanced in manufacturing. And it has produced global companies which have become established on the world stage even though the majority of its enterprises are still far from cutting-edge frontiers. Second, China has accumulated vast financial resources, and the disparity in size between China and many partner countries means that a small fraction of these resources can give these countries a big lift. Third, the lessons China drew from its own development journey are useful reference for EMEs in the BRI loop. China's conceptualization and execution of BRI has encompassed the need to anchor resilience by investing in basic infrastructure and "old economy" sectors, as well as pursue future growth by investing in "new economy" sectors (e.g. e-commerce platforms and modern logistics/distribution networks).

**ASEAN countries are a big part of the BRI, and much of the foundation for the BRI's progress lies precisely in the prospect for deeper China-ASEAN integration in the years ahead.** China's *trade* with BRI countries has grown significantly over the years, and will continue to gain momentum. Figure A shows that China's

trade with countries involved in the BRI is just under USD1 trillion in 2016 (or 25.7 percent of China's total trade). At the 2015 Boao Forum for Asia Annual Conference, President Xi indicated that he expected this figure to surpass US\$2.5 trillion within a decade due to improved trade interconnectedness and market access. The top 10 BRI trade partners with China are Vietnam, Thailand, Singapore, United Arab Emirates, Russia, Indonesia, Philippines, India, Malaysia, and Saudi Arabia, six of which are in ASEAN (Figure B). In terms of *infrastructure*, considering the still large developmental needs in ASEAN, these economies are poised to benefit from the BRI, in terms of improved energy supply, infrastructure and connectivity, facilitating further regional integration. China's *ODI* is mainly concentrated in the energy, transportation and real estate sectors, with China's investment and construction contracts in these three sectors cumulatively accounting for 74 percent of China's ODI in ASEAN economies from 2005 to 2016 (Figures C and D). Through helping to fill the infrastructure investment gap in the region, BRI is also expected to have second-order positive impact through crowding in *private investment*. Figure E shows that the estimated annual infrastructure investment needs in emerging and developing ASEAN economies amounted to USD15 billion per year on average, from 2017 to 2030. Simulations suggest that BRI-related public investment will crowd in private investment, especially for countries with large gap in investments. Assuming that BRI investment helps fill 20 percent of the infrastructure investment gap, this could crowd in private investment by as much as 0.3 percent of GDP within the next two years, with the crowding-in effect most pronounced in the Philippines and in Indonesia, (Figure F).

Figure A China's Trade with BRI Countries



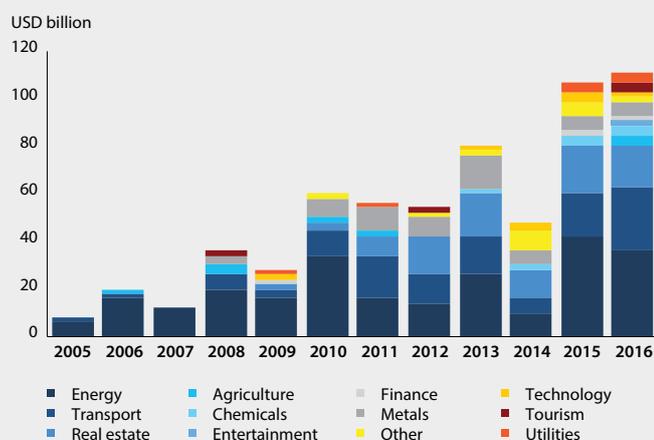
Source: Belt and Road Portal, Reuters

Figure B Top Ten BRI Trading Partners of China



Source: IMF, DOT

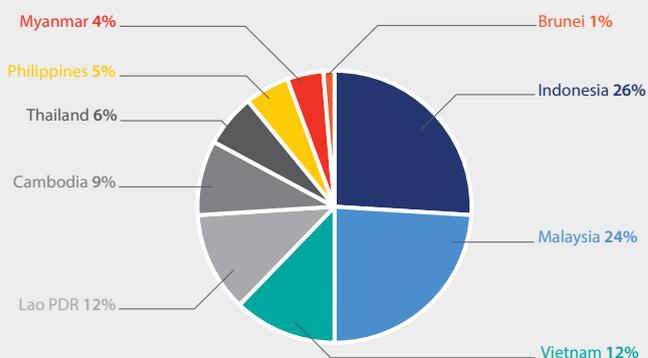
Figure C China's Investment and Construction Contracts in ASEAN Economies: by Sector



Note: Investments here are the sum of both investments and construction contracts defined by American Enterprise Institute and The Heritage Foundation

Source: American Enterprise Institute and The Heritage Foundation

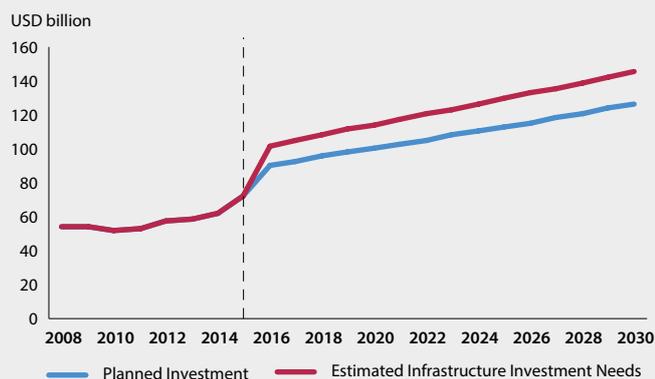
Figure D Distribution of Chinese Investment and Construction Contracts in ASEAN Economies (Cumulative 2010-2015, Share)



Note: Investments here are the sum of both investments and construction contracts defined by American Enterprise Institute and The Heritage Foundation.

Source: American Enterprise Institute and The Heritage Foundation

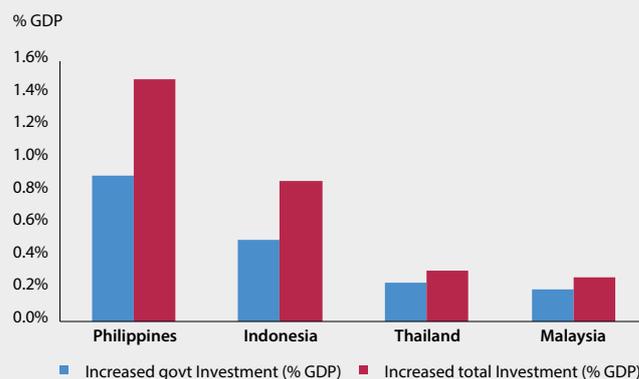
Figure E Infrastructure Development Needs in ASEAN Economies (2017-2030)



Note: Data refers to emerging and developing ASEAN economies, excluding Lao PDR and Vietnam.

Source: Global Infrastructure Hub

Figure F Impact of Total Investment and Crowding-In of Private Investment in ASEAN4, Change over 2019 to 2020 (Simulation)



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

Sources: Oxford Economics and ARMO staff estimates.

**74. The scope for Chinese banks to scale up their cross-border lending in ASEAN to support ASEAN's economic development and rebalancing is large.** As Chinese banks support Chinese companies' business operations and investments overseas, and as they develop more expertise and diversify their risks, lending to non-Chinese companies will also rise. As ASEAN countries' economies continue to grow and restructure, from lower to higher-end manufacturing, from goods to services production, and from generic infrastructure to new types of sector/purpose-specific infrastructure, Chinese banks can deploy their strong capital base and growing technical expertise acquired through experience from lending to the likes of Tencent, Alibaba, and Ant Financial Services Group. Indeed, some of this is already happening in the syndicated financing space and will continue to grow.

**75. In the other direction, ASEAN banks will likely further deepen their capacity and network while institutional investors will increase their investment in China as capital markets are opened up.** The ASEAN Banking Integration Framework (ABIF) was concluded in March 2015<sup>31</sup>, providing a mechanism for indigenous ASEAN banks to work with their home authorities and prospective host country authorities to enter foreign markets. If ABIF develops well, there will be more ASEAN banks which have richer experience in cross-border banking and deeper understanding of companies in the region including those which (plan to) have operations in China. This should stand ASEAN banks in good stead to enter the Chinese market, perhaps serving needs in specialty segments where Chinese banks are less engaged. ASEAN institutional investors are also growing stronger. Sovereign wealth funds (SWFs) and private equity firms have been taking a diversified approach in their portfolio investments in Asia. This means spreading their investments across sectors (ranging from natural resources and telecommunications to

<sup>31</sup> ABIF was concluded in March 2015 at the ASEAN Finance Ministers and Central Bank Governors Meeting (AFCGM). Bank Negara Malaysia (BNM) and Bank Indonesia (BI), as co-chairs of the Taskforce on ABIF, were responsible for developing the key principles of the Framework. Under ABIF, indigenous ASEAN banks first express to their home regulators their interest in banking a Qualified ASEAN Bank (QAB) in another ASEAN country. If the home country is supportive of the bank's intention, the home and host countries will then enter into negotiations, which would cover, among other things, the number of QABs which would be admitted, the nature of market access to be granted, and the degree of operational flexibility to be allowed. After the bilateral negotiations have been concluded, the host country will decide whether to admit a specific QAB candidate based on the host country's prudential requirements. The specific concessions for QABs which have been agreed between the home and host countries will then be entered into each ASEAN Member State (AMS)'s Schedule of Commitments under the ASEAN Framework Agreement on Services (AFAS), and will be considered FTA commitments.

financial services and consumer/retail businesses) in ASEAN countries as well as China. Much of the funds are routed through the financial centres of Hong Kong and Singapore.

**76. There is significant potential for greater usage of RMB for trade and investment in the region, which could help boost cross-border activities and also reduce the FX risk.** The RMB has been used more and more for trade and investment transactions between China and ASEAN in recent years. The payment and settlement infrastructures to support the use of RMB have also been developed and enhanced. Using the RMB as an invoicing and settlement currency, Chinese firms can reduce transaction costs and the exchange risk that come with trading through a third currency particularly the USD, with ASEAN. ASEAN businesses will also benefit from the increasing trade and investment activities with China.

### 5.3 Ensuring Sustainability, Anchoring Trust

**77. Enhanced understanding between China and ASEAN about each other's needs will help deepen integration.** China has contributed a lot to the region's development and stability in the past. China has played a key role in deepening trade, production networks, and more recently, the drive to transition to "new economy" activities. China's opening-up and financial reform, and the actions it took during crises times have been helpful to the region's stability. However, the growing integration between the two economies had also engender some concerns because of the spillover and contagion risks as noted above.

- China and ASEAN should enhance regional cooperation in macroeconomic surveillance and strengthen the RFSN. Indeed, on top of the foreign reserves at the country level, and the GFSN operated by the IMF, China and several ASEAN countries have also boosted the RFSN, by establishing bilateral swap arrangements (BSAs). Each of these swap arrangements better enables the two central banks which are parties to the arrangement, to provide liquidity support to each other in the event of a shock that could destabilize the economy. China and ASEAN countries, together with Korea and Japan, have also established the CMIM, a liquidity facility of USD240 billion, and AMRO, an international organization, to conduct macroeconomic surveillance and provide support to CMIM. The BSAs and CMIM constitute the RFSN which can play an important role in strengthening the resilience of the countries in the region against the direct or spillover impact of shocks emanating from within the region or from outside.
- For the BRI, the financial commitments needed are often heavy but ASEAN countries do see the prospective economic benefits of BRI projects, and that China's development model, based in large part on infrastructure investment to improve connectivity and crowd in private investment, has worked very well for China. Hence, the challenge is to learn from China's experience and take what is applicable to the region, and adapt it to boost ASEAN's future development.

**78. Keeping China-ASEAN engagement on an even keel requires conscious effort, and international organizations (IOs) can play an instrumental role.** China is changing rapidly, and ASEAN is far from a homogeneous bloc. Understanding both sides' economic and socio-political challenges will help ensure that investments, whether BRI-related nor not, achieve the desired outcomes. China and ASEAN can collaborate to help IOs become more effective at identifying needs, pooling resources, managing risks, and setting terms of engagement. The Asian Infrastructure Investment Bank (AIIB), launched in early 2016, has played a growing role. It has granted US\$1.7 billion of loans for nine projects so far, with several of these in ASEAN. These include a dam improvement project in Indonesia, a national slum upgrading project also in Indonesia, a flood management project in the Philippines, and a gas turbine power plant in Myanmar. Looking at the nature of these projects, it is reasonable to believe that the

partner countries themselves would be the first to benefit from the completion of the projects. The ADB has done much work on the region's infrastructure gaps, complete with estimates of financing gaps, and mapped on to its own projections of countries' growth between now and 2035/2040. The ADB may also have more insights than individual countries on cross-border infrastructure. The World Bank will have a good handle of how the "new economy" calls for different types of infrastructure compared to the types we have been familiar with. For example, there is talk of needing to build a "digital silk road", to facilitate e-commerce and digital services to drive the next stage of EMEs' growth. More broadly, IOs are better-equipped to help align long-term interests among countries. Governance will become critical, and IOs are best placed to shape rules of engagement for fostering ownership by participating countries, and also reconciling credit-debtor interests with equal-standing relationships between sovereigns.

**79. Managing collaboration and competition is also key.** Since China-ASEAN integration will run concurrently with the transition to the new economy by both economies and their further climb up the technology ladder, competition between China and ASEAN will arise or intensify in some areas, and efforts must be made to have this play out in mutually-beneficial ways. The scope of the "new economy" – at the national, regional and global levels – is enlarging rapidly and becoming more complex. There will be plenty of scope for China and ASEAN to develop some common platforms jointly, and other platforms perhaps on distinct tracks but to make sure they are inter-operable.

## 6 Conclusion: Anchoring Deeper Integration and Shared Progress

80. **Due to reform achievements over the past 40 years, China has moved up the income ladder steadily, attaining upper middle income status, with strong potential to becoming a high income economy in the coming years.** The country started out with a pragmatic and gradual approach to build strong foundations for driving rapid economic development, and embraced market-oriented reforms and opening-up to mitigate the costs and maximize the benefits from its integration into the global economy. It has leveraged on several characteristics unique to itself – including political stability that has supported implementation and continuity of economic policy, and massive urbanization – to pull off a miracle in economic development. In the past decade, it has also emerged as a leader in several high-technology areas of the “new economy” and it has been an important driver of growth for ASEAN, as both strive to become developed economies.

81. **China sees that it has benefited by learning from the region during its earlier phases of development, and recognizes its present responsibility to contribute to macroeconomic and financial stability in the region.** In the minds of Chinese policymakers, China’s reform and opening-up has benefited much from East Asia’s own growth catch-up and policy adjustments along the way. And the current juncture provides good opportunities for China to work with ASEAN countries to spur the region’s development and strengthen its resilience.

82. **ASEAN, having also strengthened its economic fundamentals, is well-positioned to pursue broader and deeper linkages with China to reap shared benefits ahead.** While China has developed rapidly, ASEAN has complemented China well – in global value chains, in natural resource endowments, and more recently, in services trade. In more recent years, ASEAN countries have sharpened their competitive advantages in a wide range of economic sectors further – ranging from BPO in the Philippines and more advanced manufacturing in Malaysia to pharmaceuticals in Singapore and tourism in Thailand. Reflecting the complementarity between the Chinese and ASEAN economies, the BRI and other ODI from China – as well as ASEAN’s continued investments in China – will strengthen integration in the region further, providing greater opportunities for both economies. Potential benefits are substantial not only in manufacturing but also many other areas such as tourism, technology, healthcare and education.

83. **Importantly, both sides understand that mutual benefit has to be understood from a broad and long-term perspective.** Policymakers are paying close attention – as they indeed should – to several areas including: security, balance of growth, competitiveness, innovation, social equity, and public service delivery. Within this, technology, infrastructure and governance are important – to generate economic gains for enterprises, good livelihoods for the people, and fiscal resources for the government; and a predictable rules-based framework for countries in the region to trade and grow together.

84. **To further increase shared benefits from deeper integration, China and ASEAN need to continue collaborating based on enhanced understanding of each other's needs.** Both China and ASEAN still have their own significant challenges in pushing ahead with structural reforms and strengthening their economic fundamentals in order to achieve sustainable and inclusive growth. ASEAN recognizes that China has contributed a lot to the region in fostering regional growth through linkages in trade and investments and in maintaining financial stability during the AFC and GFC. Trade, investment and financial cooperation needs to be further strengthened to push the frontier of benefits as well as to manage spillovers. The scope for private sector enterprises to play a key role in driving economic collaboration is large, including in areas where the overarching frameworks may be created at the government-to-government level, for example, in areas such as development of Smart Cities, infrastructure financing, and RMB internationalization. Fostering understanding of each other's needs and concerns is also very important, as it will help build trust and facilitate integration. In this regard, greater interactions in different sectors and at various levels should be enhanced.

# Annex: Estimating China's Potential GDP: Growth-Accounting Approach

*This annex briefly outlines the methodology for our estimation of China's potential growth rates, as referred to in Section 2 of this paper.*

## Methodology for potential GDP estimation from 1991 to 2017

We assume a standard Cobb-Douglas production function with constant returns to scale to estimate the overall potential growth rates as well as respective contributions of factor inputs:

$$\ln Y = \ln A + \alpha \ln K + (1 - \alpha) \ln L$$

where  $Y$ : Potential GDP,  $A$ : Total Factor Productivity,  $K$ : Capital Input,  
 $L$ : Labor Input,  $\alpha$ : output elasticity of capital

For  $K$ , 1978 is set as the benchmark year, and capital input is obtained by accumulating investments every year, assuming a constant depreciation rate of 5 percent.

For  $L$ , we take ILO data as reference for labor force size, and apply the HP filter to actual unemployment rates to derive structural unemployment rates. Working hours per worker are assumed to constant, and therefore have no impact on  $L$ .<sup>32</sup>

For  $\alpha$ , given the fact that labor shares (compensation of employees/GNI) fluctuate within a narrow between 48.5 percent and 53.3 percent during 2000 to 2013, it is assumed constant at 0.5.

$A$  is estimated as a trend component of the residual between actual real GDP growth rate and  $\alpha \ln K + (1 - \alpha) \ln L$ .

Lastly, the potential growth rate is obtained by adding up all three estimated inputs.

## Methodology for projection to 2035 based on a growth-accounting framework

We use ILO estimates of countries' workforces up to the year 2030; and for the years thereafter, use the WB's population projections and multiply labor force participation rates, which are extrapolated from the 2020-2030 trends. An assumed structural unemployment rate of 4.5-4.7 percent is used to calculate the potential number of workers, and working hours per worker are assumed constant over the projection period.

For capital input, we begin by estimating national savings rates in 2018, and derive projections based on demographics. The correlation coefficient between dependency ratios and savings rates is high and negative at -0.84 during 1980-2017.<sup>33</sup> Using the projection for dependency ratio based on WB's population projection, we project that savings rates will decrease from the current 45.9 percent to 35-40 percent by the year 2035. On the other hand, investment-to GDP ratios should decline at a similar pace to the savings ratio in general. We further assume a capital depreciation rate of 5 percent, and in this way, derive projections for capital input.<sup>34</sup>

Finally, for TFP growth, international experience suggests that that TFP growth rates tend to decline as economies move into the later phases of growth catch-up. The decline of China's TFP in the 2010s may have reflected this to some extent. Also, population aging is commonly assumed to press down on TFP. However, increasing R&D investment and improving educational attainment may well raise TFP going forward, especially given that China's GDP per capita is still below USD10,000 and therefore there remains a lot of scope for catch-up. A univariate forecasting approach suggests that TFP will trend up again by 2022, albeit with possible large dispersions. In this study,  $\alpha$  is assumed to decline from 0.5 to 0.45.

---

<sup>32</sup> According to ILO's data, the mean weekly hours actually worked was relatively stable at around 46 hours during 2005-2014, and there was no visible upward or downward trend.

<sup>33</sup> Dependency ratio =  $100 * ((\text{number of people aged 0-14} + \text{number of people aged 65 and over}) / (\text{number of people aged 15-64}))$

<sup>34</sup> The depreciation rate can be different based on scenario and period. For example, under the comprehensive reform scenario, a firm may recognize larger depreciation rate to amortize unproductive capital quickly, and the rate can be smaller at later stage if a firm can increase cutting-edge investments thanks to restructuring of unproductive capital in the past. However, to avoid complexity, we set constant depreciation rate of 5 percent for any scenario.

# Reference

1. ADB. (2017). Meeting Asia's infrastructure needs. <https://www.adb.org/publications/asia-infrastructure-needs>
2. Aquino, C. (2015, December 28). Challenges and opportunities China faces in 2016. *China Daily*. [http://www.chinadaily.com.cn/opinion/2015-12/28/content\\_22840536.htm](http://www.chinadaily.com.cn/opinion/2015-12/28/content_22840536.htm)
3. ASEAN and China. (2017, November 13). China-ASEAN joint statement on infrastructure connectivity. [https://asean.org/storage/2017/11/China-and-ASEAN-on-Cooperation-Connectivity-CN-ASEAN\\_adopted.pdf](https://asean.org/storage/2017/11/China-and-ASEAN-on-Cooperation-Connectivity-CN-ASEAN_adopted.pdf)
4. ASEAN and China. (2017, November 13). China-ASEAN joint statement on tourism cooperation. <https://asean.org/storage/2017/11/JS-ASEAN-China-Tourism-171106-clean-date.pdf>
5. ASEAN and UNCTAD. (2017). ASEAN investment report 2017. <https://asean.org/storage/2017/11/ASEAN-Investment-Report-2017.pdf>
6. ASEAN Secretariat. (2016). ASEAN tourism strategic plan 2016-2025. <https://www.asean.org/storage/2012/05/ATSP-2016-2025.pdf>
7. Asia Times Staff. (2017, October 24). China can be a high-income country by 2023: economist. *Asia Times*. <http://www.atimes.com/article/china-can-high-income-country-2023-economist/>
8. Bhaskaran, M. (2018). Maintaining momentum. *Finance & Development*, 55(3). <https://www.imf.org/external/pubs/ft/fandd/2018/09/future-of-southeast-asia-bhaskaran.htm>
9. Cai, J., & Tang, F. (2017, October 20). Has China really avoided the middle income trap? *South China Morning Post*. <https://www.scmp.com/news/china/economy/article/2116295/has-china-really-avoided-middle-income-trap>
10. CBBC and Tsinghua University. (2016). China-Britain belt and road case studies report. [http://www.cbbc.org/cbbc/media/cbbc\\_media/4.%20Files/China-Britain-Belt-and-Road-Case-Studies-Report.pdf](http://www.cbbc.org/cbbc/media/cbbc_media/4.%20Files/China-Britain-Belt-and-Road-Case-Studies-Report.pdf)
11. Chen, C. (2018). The liberalization of FDI policies and the impacts of FDI on China's economic development. *China's 40 Years of Reform and Development: 1978–2018* (pp.595-617). Australia: ANU Press. <http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
12. Chen, Z., He, Z., & Liu, C. (2017). *The financing of local government in China: Stimulus loan wanes and shadow banking waxes* (NBER Working Paper No. w23598). [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2920030](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2920030)
13. China may become the world's largest importer within five years. (2017, December 4) *The Economic Times*. <https://economictimes.indiatimes.com/news/international/business/china-expected-to-become-worlds-largest-importer-in-5-years-investment-firm/articleshow/61919413.cms>
14. Chow, G. C. (2018). China's economic transformation. *China's 40 Years of Reform and Development: 1978–2018* (pp.93-115). Australia: ANU Press. <http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>

15. Cong, L., Gao, H., Ponticelli, J., & Yang, X. (2018). Credit allocation under economic stimulus: Evidence from China. *Chicago Booth Research Paper*, 17-19.  
[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2862101](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2862101)
16. Cooper, A., & Cowling, A. (2015). China's property sector. *Reserves Bank of Australia's Bulletin, March Quarter*.  
<https://www.rba.gov.au/publications/bulletin/2015/mar/pdf/bu-0315-5.pdf>
17. Das, S. B. (2018). Do the economic ties between ASEAN and China affect their strategic partnership?. *ISEAS*, 32.  
[https://www.iseas.edu.sg/images/pdf/ISEAS\\_Perspective\\_2018\\_32@50.pdf](https://www.iseas.edu.sg/images/pdf/ISEAS_Perspective_2018_32@50.pdf)
18. Deng, Y., Gyourko, J., & Wu, J., (2017, August 2). Evaluating risk across Chinese housing markets. *VoxChina*.  
<http://www.voxchina.org/show-3-29.html>
19. Dollar, D. (2018). Decentralization, local innovation and competition among cities. *China's 40 Years of Reform and Development: 1978–2018* (pp.155-163). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
20. Eloot, K., Huang, A., & Lehnich, M. (2013). New era for manufacturing in China. *McKinsey*.  
<https://www.mckinsey.com/business-functions/operations/our-insights/a-new-era-for-manufacturing-in-china>
21. Escolano, J., Benedek, D., Jin, H., & Cottarelli, C. (2015). Distribution of fiscal responsibilities in federations. *Designing a European fiscal union: Lessons from the experience of fiscal federations*. London: Routledge.  
<https://www.taylorfrancis.com/books/e/9781317667513/chapters/10.4324%2F9781315768793-5>
22. Fan, C. C. (2008). *China Urbanizes: Consequences, strategies, and policies*. Washington, DC: World Bank.  
[http://siteresources.worldbank.org/INTEAECOPRO/Resources/3087694-1206446474145/Chapter\\_3\\_China\\_Urbanizes.pdf](http://siteresources.worldbank.org/INTEAECOPRO/Resources/3087694-1206446474145/Chapter_3_China_Urbanizes.pdf)
23. Fan, S., Kanbur, R., & Zhang, X. (2011). China's regional disparities: Experience and policy. *Review of Development Finance*, 1(1), 47-56.  
[https://ac.els-cdn.com/S1879933710000023/1-s2.0-S1879933710000023-main.pdf?\\_tid=dd41ec2f-8b40-47f2-a70d-d1b5b2b86b85&acdnat=1538399652\\_ee83404c6eabe64e85473ae0ea3318ea](https://ac.els-cdn.com/S1879933710000023/1-s2.0-S1879933710000023-main.pdf?_tid=dd41ec2f-8b40-47f2-a70d-d1b5b2b86b85&acdnat=1538399652_ee83404c6eabe64e85473ae0ea3318ea)
24. Fang, C. (2018). How has the Chinese economy capitalized on the demographic dividend during the reform period?. *China's 40 Years of Reform and Development: 1978–2018* (pp.235-255). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
25. Fang, C., Garnaut, R., & Song, L. (2018). 40 years of China's reform and development: How reform captured China's demographic dividend. *China's 40 Years of Reform and Development: 1978–2018* (pp.5-25). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
26. Garnaut, R. (2018). 40 years of Chinese economic reform and development and the challenge of 50. *China's 40 Years of Reform and Development: 1978–2018* (pp.29-51). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
27. Gohd, C. (2017, October 21). Study: 1 in 6 deaths worldwide caused by pollution in 2015. *Futurism*.  
<https://futurism.com/pollution-deaths-worldwide/>
28. Green, A. (2018). The new frontier: Can ASEAN be this decade's China?. *Asia Society*.  
<https://asiasociety.org/australia/new-frontier-can-asean-be-decades-china>

29. Gregory, B., & Meng, X. (2018). Rural-to-urban migration and migrants' labor market performance, 2008–16. *China's 40 Years of Reform and Development: 1978–2018* (pp.395-426). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
30. Ho, M., & Nielsen, C., (2017). Challenges to reducing air pollution in China amid economic slowdown. *Resources for the Future*, 195.  
<http://www.rff.org/research/publications/challenges-reducing-air-pollution-china-amid-economic-slowdown>
31. Ho, S. (2017, December 20). Ten e-commerce trends that will shape Southeast Asian e-Commerce in 2018. *eCommerce*.  
<https://www.acommerce.asia/ecommerce-trends-2018/>
32. Hofman, B. (2018). Reflections on 40 years of China's reforms. *China's 40 Years of Reform and Development: 1978–2018* (pp.53-66). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
33. Hofman, B. (2018, January 2). Reflections on forty years of China's reforms. *World Bank*.  
<http://blogs.worldbank.org/easiapacific/reflections-on-forty-years-of-china-reforms>
34. HSBC. (2017). RMB internationalization survey 2016.  
<https://www.hsbc.com/-/media/hsbc-com/newsroomassets/2016/pdfs/rmb-customer-report-final.pdf>
35. Huang, Y. (2008). *Capitalism with Chinese Characteristics*. New York: Cambridge University Press.  
<https://www.cambridge.org/core/books/capitalism-with-chinese-characteristics/CECD36DB2C3623DEE4670F7897BAA3CB>
36. Huang, Y. (2013, September 13). Understanding China's unbalanced growth. *Financial Times*.  
<https://ftalphaville.ft.com/2013/09/04/1622742/guest-post-understanding-chinas-unbalanced-growth/>
37. Huang, Y. (2018, March 13). China's economy is not normal. It doesn't have to be. *New York Times*.  
<https://www.nytimes.com/2018/03/13/opinion/china-economy-corruption.html>
38. Huang, Y., & Wang, X. (2018). Strong on quantity, weak on quality: China's financial reform between 1978 and 2018. *China's 40 Years of Reform and Development: 1978–2018* (pp.291-312). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
39. Huang, Y., Pagano, M., & Panizza, U. (2016). Local crowding out in China. *SSRN*.  
<http://dx.doi.org/10.2139/ssrn.2820682>.
40. Huang, Y., Pagano, M., & Panizza, U. (2017, June 28). The dark side of the Chinese fiscal stimulus: Evidence from Local Government Debt. *VoxChina*.  
<http://vochina.org/show-3-17.html>
41. IMF. (2017). Asia-Pacific regional economic outlook. Washington, DC: IMF.  
<https://www.imf.org/en/Publications/REO/APAC/Issues/2018/04/16/areo0509>

42. IMF. (2017). People's Republic of China: Selected issues (Country Report 17/248). Washington, DC: IMF. 2018. *China's 40 Years of Reform and Development: 1978–2018* (pp.291-312). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
43. IMF. (2017). *People's Republic of China's financial system stability assessment* (IMF Country Paper 17/358). Washington, DC: IMF.  
<https://www.imf.org/en/Publications/CR/Issues/2017/12/07/people-republic-of-china-financial-system-stability-assessment-45445>
44. Irwin, N. (2014, October 24). Why China won't keep growing fast forever. *The New York Times*.  
<https://www.nytimes.com/2014/10/26/upshot/china-will-keep-growing-just-ask-the-soviets.html>
45. Jain-Chandra, S., Khor, N., Mano, R., Schauer, J., Wingender, P., & Zhuang, J. (2018). *Inequality in China – Trends, drivers and policy remedies* (IMF Working Paper 18/127). Washington, DC: IMF.  
<https://www.imf.org/en/Publications/WP/Issues/2018/06/05/Inequality-in-China-Trends-Drivers-and-Policy-Remedies-45878>
46. Jun, Z. (2018). China's price liberalization and market reform: A historical perspective. *China's 40 Years of Reform and Development: 1978–2018* (pp.215-234). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
47. Kharas, H. (2017). *The unprecedented expansion of the global middle class* (Brookings Institute Global Economy and Development Working Paper 100).  
[https://www.brookings.edu/wp-content/uploads/2017/02/global\\_20170228\\_global-middle-class.pdf](https://www.brookings.edu/wp-content/uploads/2017/02/global_20170228_global-middle-class.pdf)
48. Khor, H. E., & Tan, K. S. (2005). *China's changing economic structure and its implications for regional production, trade and integration* (Institutional Knowledge at Singapore Management University Working Paper).  
[https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=2203&context=soe\\_research](https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=2203&context=soe_research)
49. Kishore, N. (2018, April 12). Beware of the Chinese dragon: Overcoming the middle income trap. *The Market Mogul*.  
<https://themarketmogul.com/china-middle-income-trap/>
50. Kui-Wai, L. (2001). The two decades of China's economic reform compared. *World Economy and China*, 9(2), 55-60.  
[https://www.researchgate.net/publication/241625106\\_The\\_Two\\_Decades\\_of\\_Chinese\\_Economic\\_Reform\\_Compared](https://www.researchgate.net/publication/241625106_The_Two_Decades_of_Chinese_Economic_Reform_Compared)
51. Lardy, N. (2018). Private sector development. *China's 40 Years of Reform and Development: 1978–2018* (pp.329-344). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
52. Li, K., & Jiang, W. (2018). China's foreign trade: Reform, performance and contribution to economic growth. *China's 40 Years of Reform and Development: 1978–2018* (pp.575-593). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
53. Li, W., & Xinyi, S. L. (2018). *China's Increasing Economic Linkages with ASEAN and the Potential Spillover Effects* (ASEAN+3 Macroeconomic Research Office Staff Working Paper 03/2018).  
<https://amro-asia.org/chinas-increasing-economic-linkages-with-asean-and-the-potential-spillover-effects/>
54. Lin, J. Y., & Shen, Z. (2018). Reform and development strategy. *China's 40 Years of Reform and Development: 1978–2018* (pp.117-134). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>

55. Lockett, H. (2015, September 16). Regional disparities in China: Time for a lift up. *CKGSB Knowledge*.  
<http://knowledge.ckgsb.edu.cn/2015/09/16/chinese-economy/regional-disparities-in-china-time-for-a-lift-up/>
56. Love, H., & Chen, C. (2017). Chinese Renminbi Internationalization: Guide to Recent Developments. *PNC*.  
<https://www.pnc.com/content/dam/pnc-ideas/articles/CIB-TM-China-Whitepaper-Update.pdf>
57. Lui, W. (2018). GDP and the new concept of development: Understanding China's changing concept of development in regards to GDP after the reform and opening-up. *China's 40 Years of Reform and Development: 1978–2018* (pp.67-74). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
58. Ma, G., Roberts, I., & Kelly, G. (2018). China's economic rebalancing: Drivers, outlook and the role of reform. *China's 40 Years of Reform and Development: 1978–2018* (pp.187-213). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
59. Mathai, K., Gottlieb, G., Hong, G. H., Jung, S. E., Schmittmann, J. M., & Yu, J. (2016). *China's changing trade and the implications for the CLMV economies* (Departmental Paper 16/10). Washington, DC: IMF.  
<https://www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2016/12/31/China-s-Changing-Trade-and-the-Implications-for-the-CLMV-43679>
60. Mazars. (2018). Global e-commerce report 2017.  
<https://www.mazars.com/Home/News/Our-publications/Surveys-and-studies/Global-E-commerce-Report-2017>
61. McKinsey. (2017). Jobs lost, jobs gained: Workforce transitions in a time of automation.  
<https://www.mckinsey.com/mgi/overview/2017-in-review/automation-and-the-future-of-work/jobs-lost-jobs-gained-workforce-transitions-in-a-time-of-automation>
62. McKinsey. (2018). China's fast climb up the value chain.  
<https://www.mckinsey.com/featured-insights/china/chinas-fast-climb-up-the-value-chain>
63. McKissack, A., & Xu, J. Y. (2011), Chinese macroeconomic management through the crisis and beyond. *Asian-Pacific Economic Literature*, 25, 43-55.  
[https://static.treasury.gov.au/uploads/sites/1/2017/06/Tsy\\_WorkingPaper\\_11\\_1.pdf](https://static.treasury.gov.au/uploads/sites/1/2017/06/Tsy_WorkingPaper_11_1.pdf)
64. Moody's. (2017). China's belt and road initiative: BRI report card: Positive factors outweigh negatives for China and recipient countries.  
[https://www.moody's.com/research/Moodys-Chinas-Belt-and-Road-Initiative-is-credit-positive-overall--PR\\_372698](https://www.moody's.com/research/Moodys-Chinas-Belt-and-Road-Initiative-is-credit-positive-overall--PR_372698)
65. Morgan Stanley. (2017, May 23). The next decade of China's transformation. *Forbes*.  
<https://www.forbes.com/sites/morganstanley/2017/05/23/the-next-decade-of-chinas-transformation/#2041d85356ba>
66. Nakao, T. (2018, March 28). China's achievements over the past forty years and challenges in the new era.  
<https://www.adb.org/news/speeches/chinas-achievements-over-past-40-years-and-challenges-new-era-takehiko-nakao>
67. Naughton, B. (2018). State enterprise reform today. *China's 40 Years of Reform and Development: 1978–2018* (pp.375-391). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>

68. Oxford Economics and Cisco. (2018). Technology and the future of ASEAN jobs.  
[https://www.cisco.com/c/dam/global/en\\_sg/assets/csr/pdf/technology-and-the-future-of-asean-jobs.pdf](https://www.cisco.com/c/dam/global/en_sg/assets/csr/pdf/technology-and-the-future-of-asean-jobs.pdf)
69. Perkins, D. H. (2018). The complex task of evaluating China's economic reforms. *China's 40 Years of Reform and Development: 1978–2018* (pp.135-154). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
70. Poonpatpibul, C., Li, W., Choi, J., Xinyi, S. L., & Xinke, T. (2017). *High corporate debt in China: Macro and sectoral risk assessments* (ASEAN+3 Macroeconomic Research Office Staff Working Paper 01/2017).  
<http://www.amro-asia.org/wp-content/uploads/2017/12/High-Corporate-Debt-in-China-Macro-and-Sectoral-Risk-Assessments-re-submit.pdf>
71. PWC. (2017). E-commerce in China: The future is already here.  
<https://www.pwccn.com/en/retail-and-consumer/publications/total-retail-2017-china/total-retail-survey-2017-china-cut.pdf>
72. PWC. (2017). Transportation and logistics 2030.  
<https://www.pwc.com/gx/en/transportation-logistics/tl2030/assets/pwc-tl2030-pub.pdf>
73. Schellekens, P. (2013). *A changing China: Implications for developing countries*. Washington, DC World Bank.  
<http://documents.worldbank.org/curated/en/212821468214810664/A-changing-China-implications-for-developing-countries>
74. Song, L. (2018). State-owned enterprise reform in China: Past, present and prospects. *China's 40 Years of Reform and Development: 1978–2018* (pp.345-373). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
75. Tobin, D., & Volz, U. (2018). *The development and transformation of the financial system in the People's Republic of China* (ABDI Working Paper 825).  
<https://www.adb.org/sites/default/files/publication/411136/adbi-wp825.pdf>
76. UBS (2018). Stepping into the future.  
<https://www.ubs.com/magazines/markets-research/en/white-papers/2018/stepping-into-the-future.html>
77. Wang, J. (2017, October 13). China outperforms on innovation. HSBC.  
[https://www.gbm.hsbc.com/insights/global-research/china\\_outperforms\\_on\\_innovation](https://www.gbm.hsbc.com/insights/global-research/china_outperforms_on_innovation)
78. Wang, X. (2018). China's macroeconomics in the 40 years of reform. *China's 40 Years of Reform and Development: 1978–2018* (pp.167-186). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
79. Will an integrated ASEAN region challenge China?. (2014, January 2015). *Knowledge @ Wharton*.  
<http://knowledge.wharton.upenn.edu/article/will-an-integrated-asean-region-challenge-china/>
80. Wingender, P. (2018). *Intergovernmental fiscal reform in China* (IMF Working Paper 18/88). Washington, DC: IMF.  
<https://www.imf.org/en/Publications/WP/Issues/2018/04/13/Intergovernmental-Fiscal-Reform-in-China-45743>

81. Woo, W. T. (2018). A US perspective on China's external economic disputes in the past 40 years and in the coming 40 years. *China's 40 Years of Reform and Development: 1978–2018* (pp.637–658). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
82. World Trade Organization. (2017). Global value chain development report 2017: Measuring and analyzing the impact of GVCs on economic development.  
[https://www.wto.org/english/res\\_e/publications\\_e/gvcd\\_report\\_17\\_e.htm](https://www.wto.org/english/res_e/publications_e/gvcd_report_17_e.htm)
83. Xia, L. (2018, August). *Fighting an uphill battle: The overcapacity in China's steel industry*. Paper presented at the Brazilian steel Conference 2018 in São Paulo, Brazil.  
<https://www.bbvarsearch.com/en/publicaciones/fighting-an-uphill-battle-the-overcapacity-in-chinas-steel-industry/>
84. Yao, Y. (2018). The political economy causes of China's economic success. *China's 40 Years of Reform and Development: 1978–2018* (pp.75-92). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
85. Yu, Y. (2018). The reform of China's exchange rate regime. *China's 40 Years of Reform and Development: 1978–2018* (pp.313-328). Australia: ANU Press.  
<http://press-files.anu.edu.au/downloads/press/n4267/pdf/book.pdf?referer=4267>
86. Zhang, J. (2017, November 14). China's Vision for the Next 30 Years. *Project Syndicate*.  
<https://www.project-syndicate.org/commentary/china-19th-congress-development-blueprint-by-zhang-jun-2017-11?barrier=accesspaylog>
87. Zhang, J. (2018, March 28). Beyond GDP Growth in China. *Project Syndicate*.  
<https://www.project-syndicate.org/commentary/china-local-government-incentives-gdp-growth-by-zhang-jun-2018-03?barrier=accesspaylog>
88. Zhang, Y. (2017). Productivity in China: Past Success and future challenges. *Asia-Pacific Development Journal*, 24(1).  
[https://www.unescap.org/sites/default/files/chap%201\\_0.pdf](https://www.unescap.org/sites/default/files/chap%201_0.pdf)





**ASEAN+3 Macroeconomic Research Office**

10 Shenton Way, #15-08

MAS Building

Singapore 079117

☎ +65 6323 9844

📠 +65 6223 8187

✉ [enquiry@amro-asia.org](mailto:enquiry@amro-asia.org)

🌐 [www.amro-asia.org](http://www.amro-asia.org)