

China's Increasing Economic Linkages with ASEAN and the Potential Spillover Effects

Li Wenlong and Simon Liu Xinyi

ASEAN+3 Macroeconomic Research Office

July 2018

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.



[This page is intentionally left blank]

China's Increasing Economic Linkages with ASEAN and the Potential Spillover Effects

Prepared by Li Wenlong and Simon Liu Xinyi¹²

[Reviewed by Chaipat Poonpatpibul, and approved by Hoe Ee Khor]

July 2018

Abstract

With China's economy growing and economic restructuring further proceeding, China's economic linkages with ASEAN countries have been rising, with potential spillover effects through different channels. Goods trade is the most important channel, as ASEAN's goods exports to China have been increasing continually and the value accounts for a significant share of GDP in several ASEAN countries. Meanwhile, many ASEAN countries have benefited from the increased number of outbound tourists from China. China's outward direct investments (ODIs) to ASEAN have increased steadily and are largely concentrated in manufacturing, wholesale and retail trade, as well as leasing and commercial services. Regional financial centers have played an important intermediary role in facilitating China's ODI to ASEAN. Financial development in China has had an impact on ASEAN, mostly through the effects of market sentiments. Results from macroeconomic model suggest that growth shocks in China have a significant impact on ASEAN. Going forward, China's economic linkages with ASEAN are likely to increase further. China's consumption will rise further and benefit consumer goods producers and those who can better meet the rising demand from China. Policy adjustments should be considered to capture the opportunities as well as cope with challenges stemming from China's increasing spillover effects.

JEL classification: F15, F42, F47, F62, O11

Keywords: Economic Integration; economic Linkage; spillover Effects; international trade; foreign direct investments

¹ Authors' emails: li.wenlong@amro-asia.org; simon.liu@amro-asia.org. The analysis in this study is based on information available up to 1 January 2018. For the sake of brevity, Hong Kong, China is referred as Hong Kong in the text.

² The authors would like to thank Junhong Chang (AMRO's Director), Hoe Ee Khor (AMRO's Chief Economist) and Chaipat Poonpatpibul (Surveillance Group Head for China) for their invaluable advice. All mistakes are the responsibility of the authors.



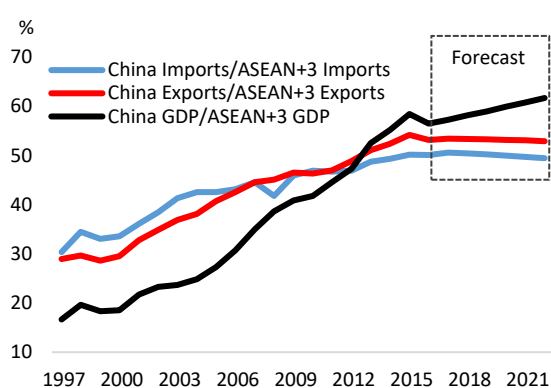
Contents

I. Introduction	2
II. China's Increasing Economic Linkages with ASEAN through Different Channels.....	3
A. Goods Trade	3
B. Tourism.....	5
C. Outward Direct Investments.....	6
D. Financial Markets.....	8
III. Economic Linkage Comparison Among China and Other Large Economies	10
IV. Modelling China's Spillover Effects on ASEAN	12
V. Future Impacts from China's Structural Adjustment	15
Reference	18

I. Introduction

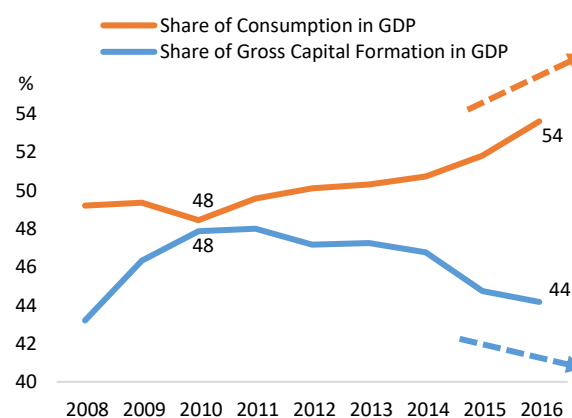
1 **With China's economy growing and economic restructuring further proceeding, China's economic linkages with ASEAN countries have been rising with potential spillover effects through different channels.** With high growth rates over the past 40 years, China has become the largest economy in Asia. China's GDP (market value) accounted for 19 percent of the ASEAN+3 in 2000, and increased rapidly to 57 percent in 2016. Considering that China's growth is likely to be higher than the regional average in the medium term, the share is expected to rise further to more than 60 percent in the next five years (Figure 1). Meanwhile, China's external trade has also increased rapidly over the past three decades. In this region (ASEAN+3), China's share of trade rose to 52 percent as of end 2016, from around 27 percent in 1996. China's increasing economic linkages with ASEAN have led to potentially large spillover effects on ASEAN. At the same time, China's is undergoing economic restructuring and reforms, including—(1) shifting toward a more consumption-driven growth (Figure 2); (2) enhancing environmental protection and energy usage efficiency; (3) further opening up and developing market-oriented financial markets; and (4) increasing ODI through the Belt and Road Initiative (BRI). All these will lead to increasing linkages with ASEAN countries through goods and services trade, investments and financial markets. In the following sections, we summarize China's increasing economic linkages with ASEAN and the potential spillover effects through different channels, use model simulations to further examine and quantify the impacts, and then discuss policy implications.

Figure 1. Shares of China's GDP and Trade in ASEAN+3



Source: IMF, Authorities, AMRO estimates

Figure 2. China's Structural Adjustment: Shares of Expenditure and Investment



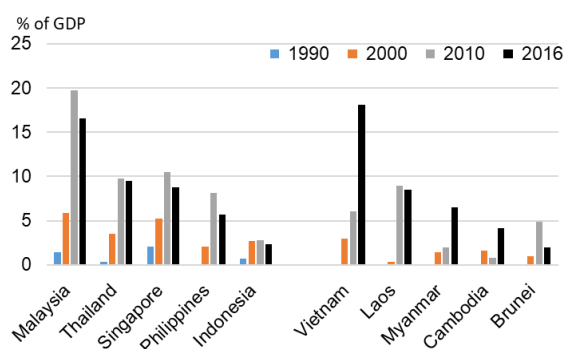
Source: NBS, AMRO estimates

II. China's Increasing Economic Linkages with ASEAN through Different Channels

A. Goods Trade

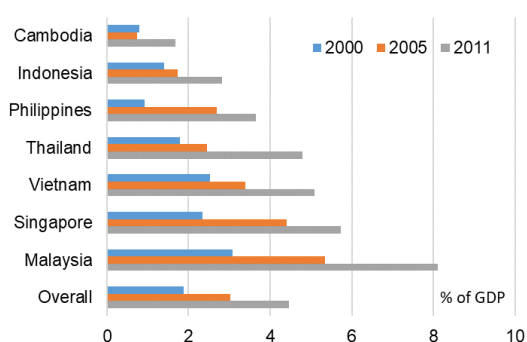
2 **Goods trade is the most important channel, as ASEAN's goods exports to China have been increasing continually and the value accounts for a significant share of GDP in several ASEAN countries.** In 1990, exports to China accounted for only 2 percent of ASEAN's total exports, but by 2016, the value increased to more than 12 percent. Measured by share of GDP, most ASEAN countries saw their exports to China rose to high levels in 2016, especially Vietnam (18 percent), Malaysia (17 percent), Thailand (9 percent), Singapore (9 percent), Lao PDR (9 percent), as shown in Figure 3. Similarly, in terms of value-added, their exports to China show a rising trend. It is clear that the demand from China has become a major source of GDP growth in these countries (Figure 4).

Figure 3. ASEAN's Exports to China as a Share of Their GDP (1990, 2000, 2010, 2016)



Source : UN COMTRADE (reporting country=China for 2000, 2010 and 2016, reporting country= ASEAN for 1990), Authorities, AMRO estimates

Figure 4. ASEAN's Exports (Value-added) to China as a Share of GDP

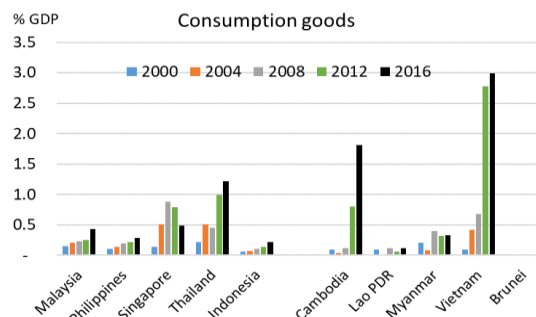
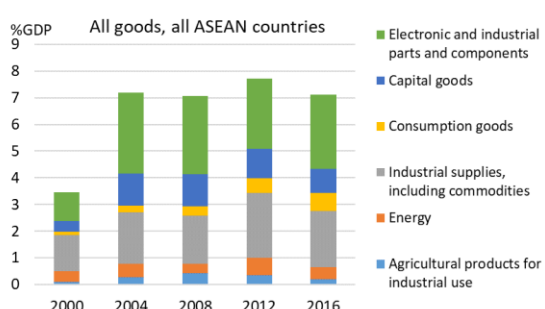


Source: OECD TIVA database, Authorities, AMRO estimates

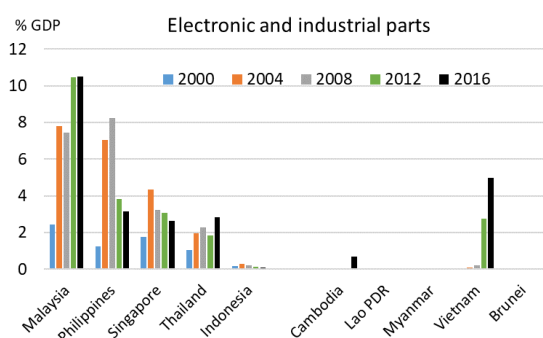
3 **China's re-structuring towards a more consumption-driven growth has also had an impact on ASEAN's goods exports to China.** As a percentage of GDP, China's consumption rose from 48 percent in 2010 to 54 percent in 2016, while investment declined. This will continue to have some impact on ASEAN's goods exports to China. In ASEAN's total exports to China, consumer goods, and electronic and industrial parts have continued to rise, partly due to enhancing assembling capacity as well as the booming domestic demand in China. By comparison, exports of capital goods, industrial supplies (including commodities) and energy peaked in 2012, driven by China's investment-driven growth model then (Figure 5). However, since 2013, the value of these products has declined due to both falling commodity prices and moderating demand from China. By country, exports of consumer

goods to China (as a percentage of GDP) rose across all the ASEAN countries. Electronic and industrial parts and components exports to China rose in Malaysia, Thailand and Vietnam. Industrial supplies (including commodities) exports to China declined in most countries while they rose in Myanmar and Vietnam only. Capital goods exports moderated in most countries except Vietnam. Energy exports also moderated in most countries except in Myanmar where gas exports through a pipeline to Southern China has commenced.

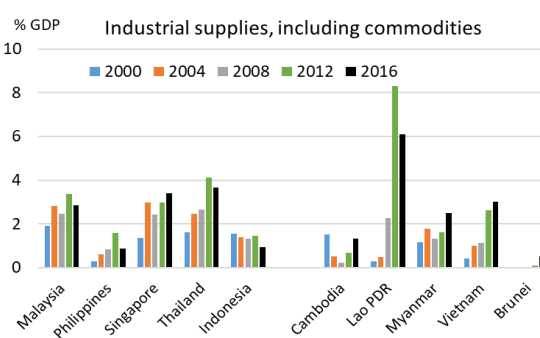
Figure 5. Exports to China in Different ASEAN Countries



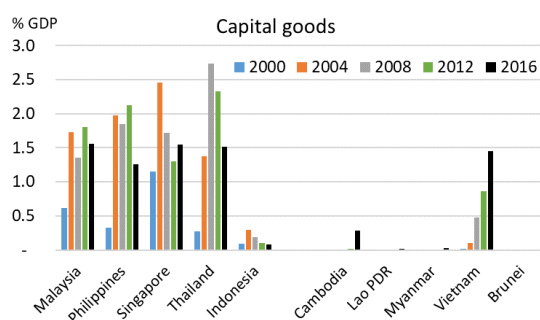
Note: Consumption goods has a BEC code of 112*, 122*, 522*, 61* and 62*



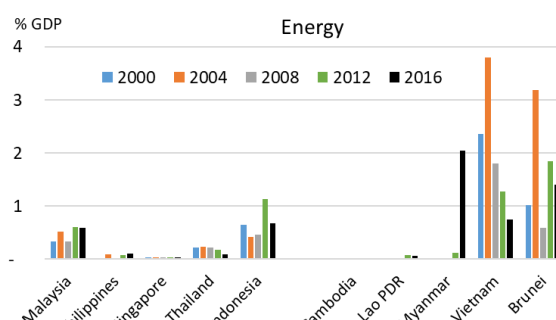
Note: Electronic and industrial parts and components has a BEC code of 42* and 53*.



Note: Industrial supplies, including commodities has a BEC code of 21* and 22*.



Note: Capital goods have a BEC code of 41* and 521*.

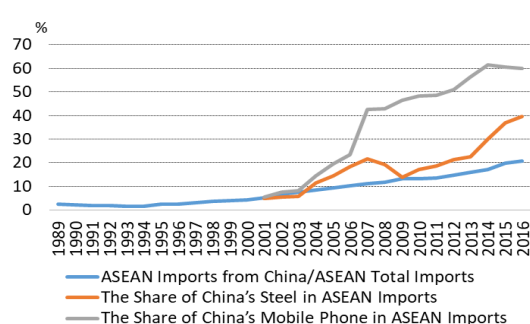


Note: Energy has a BEC code of 31* and 322*.

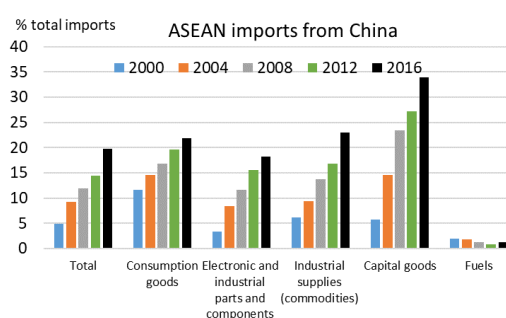
4 On the other hand, ASEAN imports from China have also increased significantly in response to the growing consumers' demand in ASEAN as well as the enlarging

regional production networks. In 1990, Chinese products comprised only 2.2 percent of ASEAN's imports. The amount increased to 20.7 percent in 2016 following China's integration into the regional supply chain and its strengthening manufacturing capacity and competitiveness (Figure 6). For example, Chinese electrical products, machinery appliances, and manufactured products have gained competitiveness, and its exports to ASEAN have increased rapidly in recent years. Due to China's growing capacity and lower prices, the share of steel in Chinese exports to ASEAN has also increased rapidly. In terms of mobile phones, China's share in ASEAN has become the most dominant.

Figure 6. The Share of Imports from China in ASEAN's Total Imports



Source: CEIC, UN COMTRADE, AMRO



Source: CEIC, UN COMTRADE, AMRO

B. Tourism

5 China's outbound tourists and tourism spending have accelerated. The outbound number of tourists has increased significantly since 2012 with rising incomes and a rapidly growing middle-class. As a share of global tourists, China's share rose to 9 percent (or 135 million people) in 2015 from only 1 percent in 1995. At the same time, spending by Chinese outbound tourists has been rising at a faster pace, and its share in global tourism spending rose to 25 percent in 2015, compared to 1 percent in 1995 (Figure 7).

6 Many ASEAN countries have benefited from the increased number of outbound tourists from China. The number of Chinese tourists visiting ASEAN has increased rapidly in recent years. (Figure 8). In 2016, the Chinese tourists made up for the largest share of foreign visitors in most ASEAN countries. In particular, Chinese tourists accounted for 27 percent of all tourists in both Vietnam and Thailand in 2016. As shown in Figure 9, the shares were also high in Singapore (17 percent), Indonesia (14 percent), Lao PDR (13 percent) and the Philippines (11 percent). As a percentage of ASEAN countries' GDP, spending by Chinese tourists is also significant in Thailand (3.2 percent), Vietnam (1.3 percent), Singapore (0.6 percent) and Indonesia (0.2 percent) (Figure 10).

Figure 7. Share of China's Outbound Tourists and Their Spending

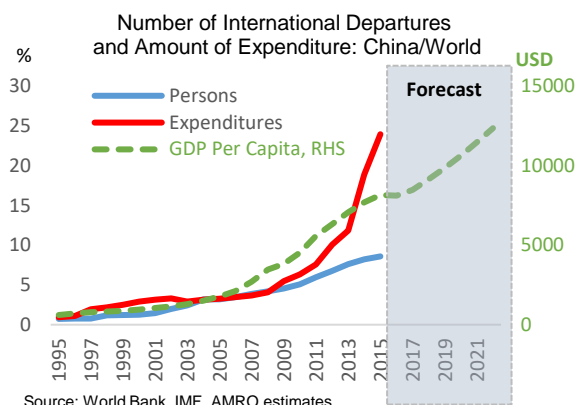


Figure 8. Total Chinese Tourists to ASEAN

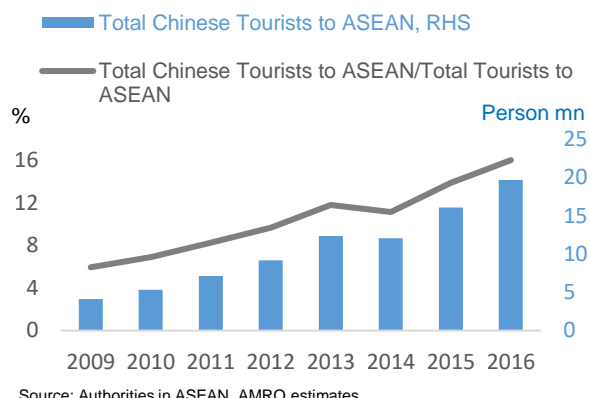


Figure 9. Share of Chinese Tourists in Total Foreign Visitors in Each ASEAN Country

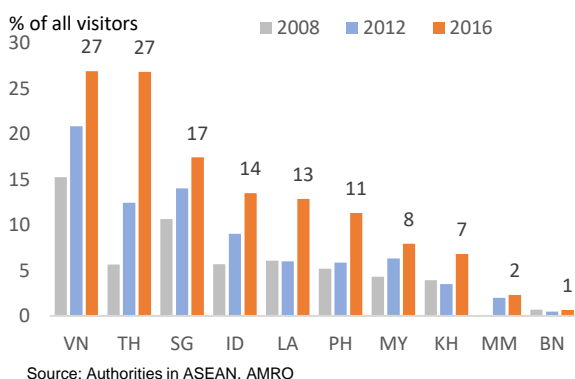
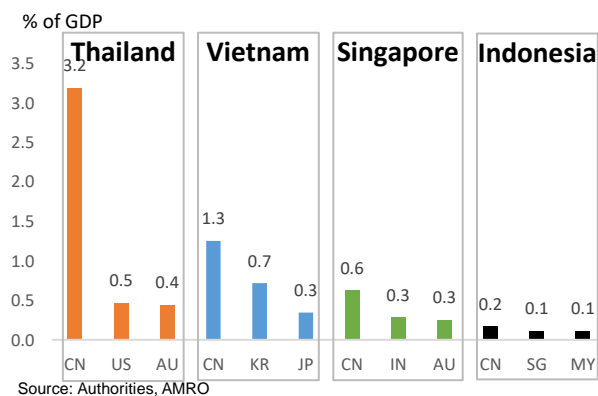


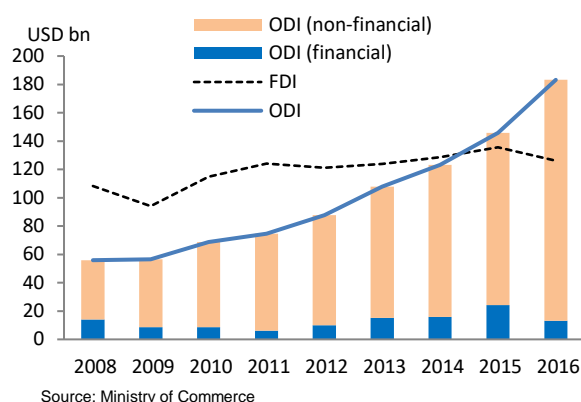
Figure 10. Top Three Tourists Origins by Spending, as a Percentage of Selected ASEAN Countries' GDP in 2016



C. Outward Direct Investments

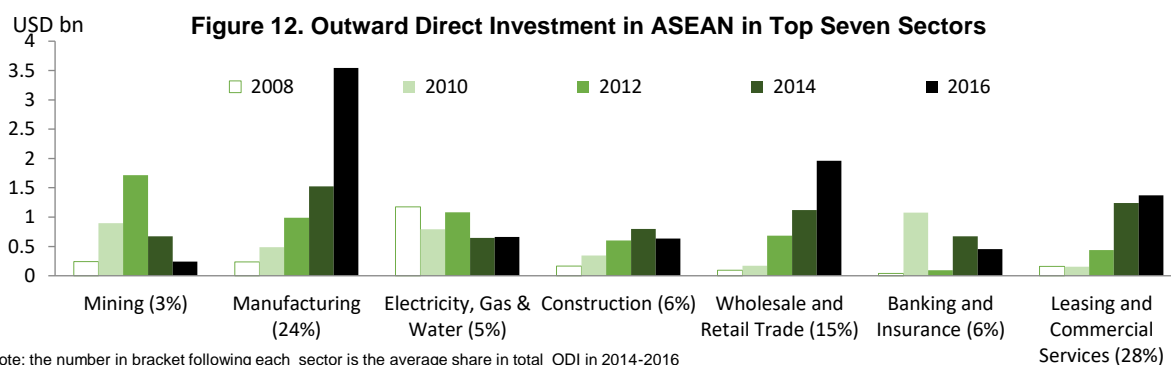
7 China's ODI has continued to grow rapidly in recent years. China's outbound direct investment (ODI) has increased significantly, and it even surpassed China's FDI in 2015. In 2016, ODI rose further to USD183 billion (Figure 11), reflecting continued business expansion in overseas markets, increasing demand for investment diversification, the authorities' strategy to encourage enterprises to invest abroad, and the Belt and Road Initiative (BRI).

Figure 11. Inward and Outward Direct Investment



8 China's ODIs to ASEAN has increased steadily and are largely concentrated in manufacturing, wholesale and retail trade, as well as leasing and commercial services.

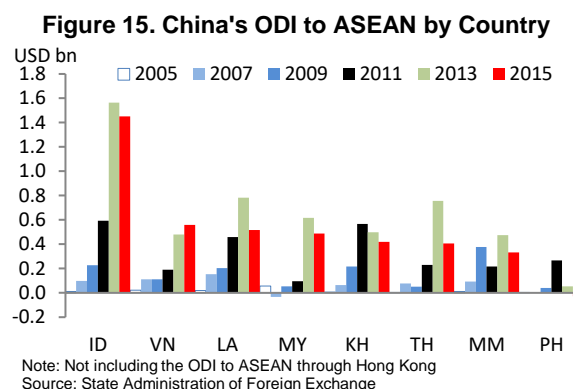
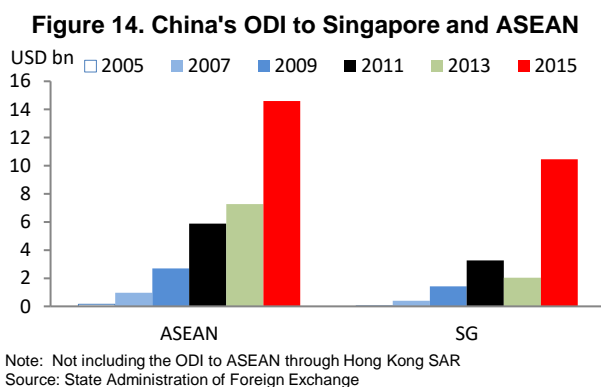
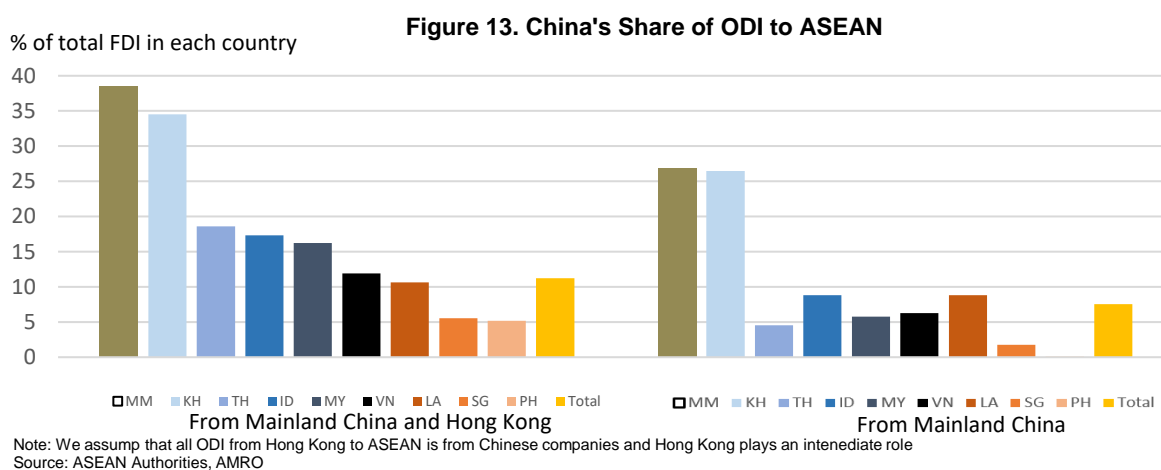
China's ODI to ASEAN has grown at a faster pace than Chinese ODI to other regions. As a percentage of China's total ODI, ODI to ASEAN doubled from 2007 (3 percent) to 2015 (6 percent). The cumulative ODI to ASEAN rose to USD63 billion in 2015 from USD4 billion in 2007. By sector, manufacturing received the largest share, due to establishments of regional supply chain with emerging ASEAN economies and competitive labor costs in developing ASEAN economies. ODI in wholesale and retail trade, leasing and commercial services has also grown rapidly, in line with rapidly-growing consumption in several ASEAN economies (Figure 12). ODI in the mining sector peaked in 2012 and declined afterwards.



9 Regional financial centers have played an important intermediary role in facilitating China's ODI to ASEAN.

A growing share of Chinese firms' overseas investments is from mainland China directly, as Chinese investors have become more familiar with the international markets and practices. Nevertheless, Hong Kong remains an important financial intermediary hub for China's ODI. This is because Chinese firms usually set up major overseas

branches in Hong Kong, where information, funding, and legal system are more favorable for overseas investments. Figure 13 shows that a sizable amount of ODI from China likely comes to ASEAN through Hong Kong. Within ASEAN, China's ODI is much higher in Singapore than elsewhere (51 percent of total Chinese ODI in ASEAN during 2014-2016). (Figures 14-15). This is because most Chinese firms which are expanding their business in ASEAN would set up their regional headquarters/branches in Singapore. A sizable amount of these ODIs is eventually reallocated into other ASEAN economies through regional headquarters/branches in Singapore.

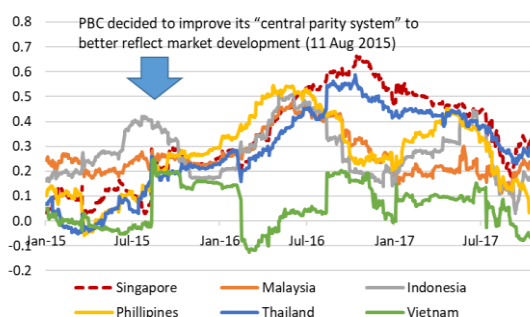


D. Financial Markets

10 China's financial markets have an impact on ASEAN, mostly through the effects of market sentiments. 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, Indonesian Rupiah, Malaysian Ringgit, Singapore Dollar, Philippines Peso and Thai Baht all depreciated. The correlation between the exchange rates also went up (Figure 16). 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 2015 and early January 2016 triggered stock market declines in most ASEAN markets. As shown in Figure 17, similar to the FX market, the correlation between China's stock market and ASEAN stock market went up in this period, before declining recently. Our finding is consistent with [Arslanalp and others \(2016\)](#), who find that shocks from China that lead to rising global risk premium would generate spillovers to the region.

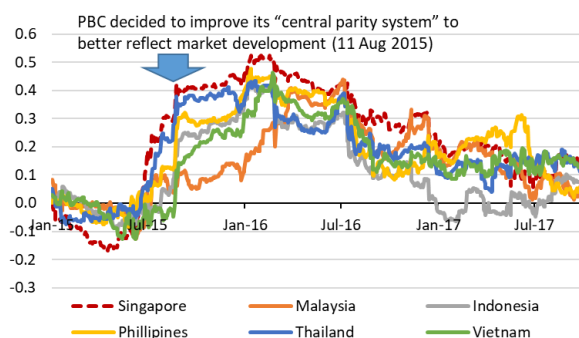
Figure 16. Correlation between RMB Exchange Rate (against USD) and ASEAN Currencies



Note: A moving window of six months is employed.

Source: Bloomberg, AMRO staff calculations

Figure 17. Correlation between China Stock Index and ASEAN Stock Index



Note: A moving window of six months is employed.

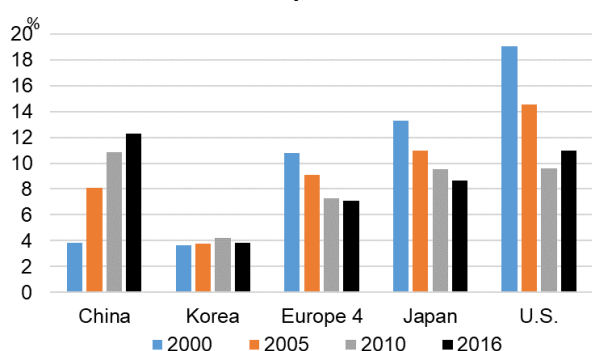
Source: Bloomberg, AMRO staff calculations

11 Chinese banks have been playing an increasingly important role in providing funding to ASEAN. After the Global Financial Crisis (GFC), European banks gradually pulled back from ASEAN. Asian Banks, led by Japanese banks and Singapore's banks, have filled in the gap. Recently, backed by rising ODI, especially through the BRI, Chinese banks have expanded their overseas business, especially in ASEAN. For example, as the financial center of ASEAN, Singapore has attracted seven Chinese banks to set up subsidiaries or branches, and it has become the second largest overseas center for Chinese banks after Hong Kong. Two large commercial banks, ICBC and Bank of China (BOC), have been rapidly setting up branches in most ASEAN countries; and at the same time, China Development Bank and Exim Bank have also lended sizable amounts of financing to ASEAN.

III. Comparison of Economic Linkages of China with Other Large Economies

12 Compared with other large economies, are China’s economic linkages with ASEAN more sizeable? So far we have compared economic linkages from China to ASEAN across different periods. In this part, we compare China’s economic linkages to ASEAN with other large economies’. ASEAN’s trade linkages with China are now larger than with other large economies. In terms of financial markets, ASEAN’s linkages with the U.S. are still stronger than with China, although spillovers from China could be high during stress periods.

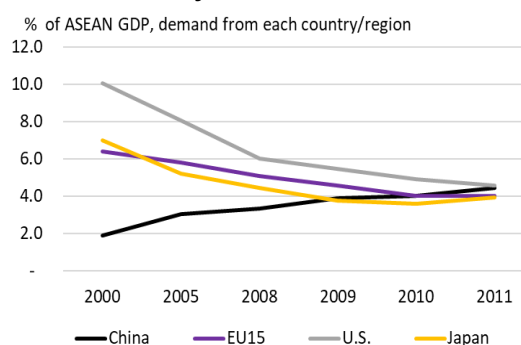
Figure 18. ASEAN’s Exports Destinations, % of Total Exports



Note: Europe 4 refer to Germany, France, UK and the Netherlands.

Source: UN COMTRADE (reporting countries = ASEAN countries), AMRO staff calculations

Figure 19. ASEAN’s Exports (Value-added) to Various Country as a Share of ASEAN’s GDP



Source: OECD, Authorities, AMRO estimates

13 In terms of goods trade, China is the most important export destination for ASEAN.

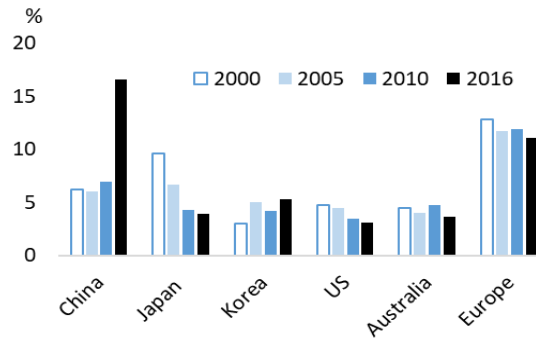
China’s importance has increased compared to the U.S., Japan, Europe and Korea, and it is now the most important market for ASEAN (Figure 18). The U.S. was the most important export market for ASEAN in 2000, but since then, exports to the U.S. have stagnated and its share has declined. The shares of Japan and Europe have also declined, while the share of Korea has remained steady. In terms of ASEAN’s exports (value-added) to various countries as a share of ASEAN’s GDP, those to China only accounted for less than 2 percent in 2000, much lower than the US, EU and Japan (Figure 19). In 2011, those to China rose to 4.4 percent, higher than Japan and EU and was very close to the US. Considering the rising exports to China after 2011, the share of such exports to China is likely to rise further.

14 China has also become the most important source of tourists to ASEAN compared to other major economies.

Statistics for services trade are less detailed than for goods, but tourism is the most important services exports for ASEAN. For ASEAN, 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 20). In contrast, the shares of

tourists from the U.S., Japan, Australia and Europe have declined and become smaller than China.

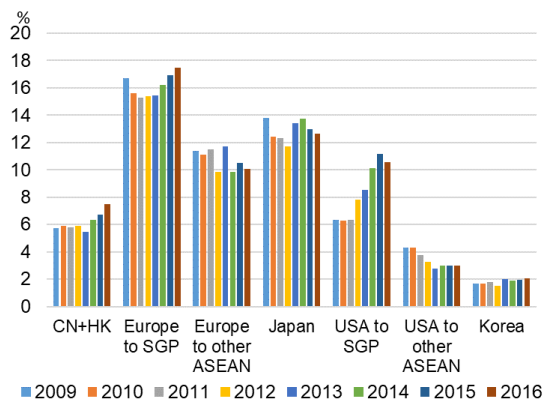
Figure 20. Share of Tourists to ASEAN



Source: Authorities, AMRO staff calculations

15 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. In recent years, ASEAN has been attracting large amounts of FDI. In line with that, China's investments to ASEAN have been growing rapidly, but the pace of growth is similar to that of investments from other countries. Its share has increased to 7.5 percent in 2016, but was still lower than the shares of Europe, Japan and the U.S. (Figure 21). In comparison, the U.S. has substantially increased its FDI stock in ASEAN, in particular to Singapore. Consequently, its share has increased.

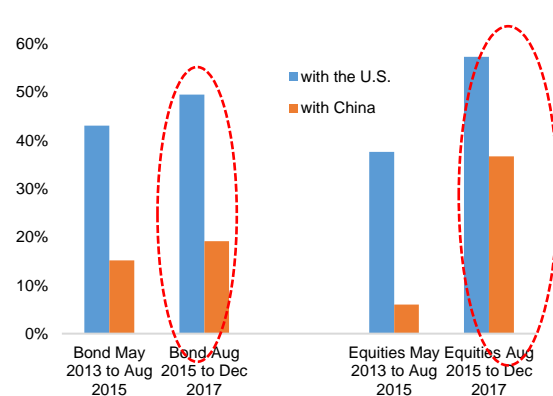
Figure 21. FDI Stocks in ASEAN, % Share



Note: When the data is available, we use inward FDI number reported by ASEAN countries, and when such data is missing, we use the outward FDI number reported by the investor's country.

Source: IMF Coordinated Direct Investment Survey (CDIS), AMRO staff calculations.

Figure 22. ASEAN Asset Price Correlations



Note: Correlation does not indicate causality. This chart plots the correlation between ASEAN-5 asset return to that in the U.S and China. The ASEAN-5 asset return is the simple weighted average of the five economies.

Source: Bloomberg, AMRO staff calculations

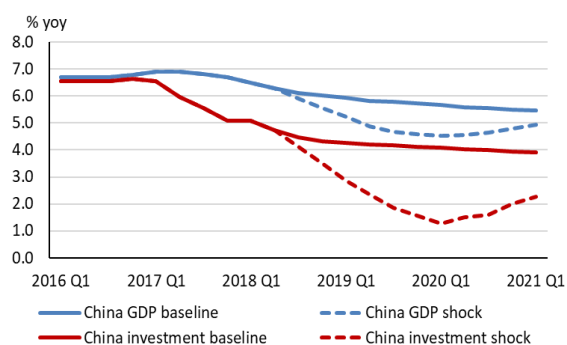
16 In the bond and stock markets, correlations with China have increased significantly, especially in stress periods. As shown in Figure 22, for these two financial assets, ASEAN's linkage with the U.S. as reflected by correlation is still much larger than with China. However, ASEAN's correlations with China have risen since Aug 2015, in part due to China's growing markets, and increasing financial as well as trade linkages with ASEAN, and in part owing to the impact of shocks originating from the China in the later period (August 2015 to December 2017), especially exchange rate adjustments and capital outflows.

IV. Modelling China's Spillover Effects on ASEAN

17 We used two models to empirically to assess spillover effects on ASEAN from a shock originating in China. These are a macro-econometric model developed by Oxford Economics³ and a Global Vector Autoregressive (GVAR) model⁴ to study China's impact on ASEAN's real economy and financial markets.⁵

18 Results from Oxford Economics model suggest that growth shocks in China have a significant impact on ASEAN. We assume that China's GDP growth will fall by 1.0 percentage point in 2020 before bouncing back (Figure 23). It will immediately lower China's demand for imports of goods and services from the world, including from ASEAN. ASEAN-5 countries will see their exports fall by 0.3-0.6 percent in 2020 (Figure 24). At the same time, as most ASEAN countries are highly open to trade and exports comprise a large share of GDP, the impact on ASEAN's GDP is also significant (Figure 25), ranging from 0.1 percent to 0.6 percent.

Figure 23. Shocks from China's GDP

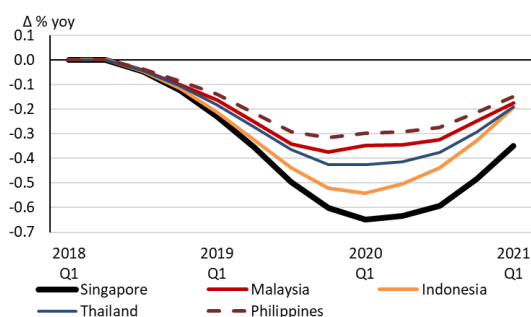


Source: Oxford Economics, AMRO staff assumptions

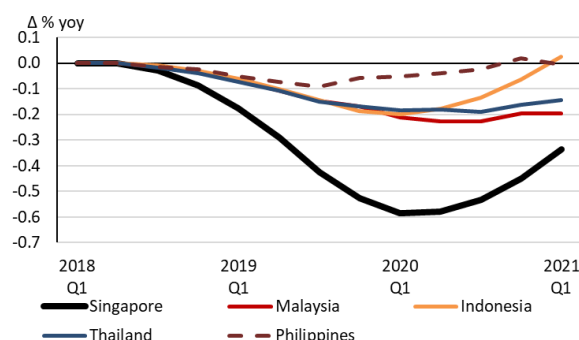
³ The Oxford model captures the key relationships in different countries. In the short-run, shocks to demand will generate economic cycles, but over the long-run, output is determined by supply-side factors.

⁴ The GVAR model is a joint work between AMRO and Professor Tomoo Inoue of Seikei University, Japan.

⁵ The results are broadly consistent with the study by (Dizioli and others 2016), who used three approaches to quantify potential impacts of China's transition on ASEAN.

Figure 24. China Slowdown, Impact on ASEAN Exports


Source: Oxford Economics, AMRO staff calculations

Figure 25. China Slowdown, Impact on ASEAN GDP


Source: Oxford Economics, AMRO staff calculations

19 In the financial markets, simulations using Oxford Economics model suggest that commodity-exporting countries are most sensitive to a large RMB depreciation and all regional stock markets are sensitive to a large equity market swing in China. In the scenario of a large CNY depreciation, the Oxford Economics model calibrates the ASEAN exchange rates using the past two episodes of sharper CNY depreciation as benchmarks: 10-25 August 2015 and the first week of 2016. As shown in Table 1, if the RMB were to depreciate by 5.0 percent, the Indonesian Rupiah and the Malaysian Ringgit—both currencies of commodity-exporting countries—would show the strongest reaction to this shock and depreciate by more than 5.0 percent. As for the equity market shocks from China, the Oxford Economics model also calibrates the reaction of the ASEAN stock market empirically. The simulations show that regional stock markets will decline significantly by 4.8 to 6.1 percent in response to a fall of 10 percent in Chinese stock markets.

Table 1. ASEAN Countries' Reaction to RMB Devaluation and a Stock Market Fall in China

Impact on ASEAN Currencies RMB Depreciates by 5%		Impact on ASEAN Stock Markets China Equity Falls by 10%	
Indonesia	-7.0%	Indonesia	-4.8%
Malaysia	-5.4%	Malaysia	-6.1%
Philippines	-3.9%	Philippines	-5.9%
Singapore	-4.2%	Singapore	-5.4%
Thailand	-3.7%	Thailand	-5.6%

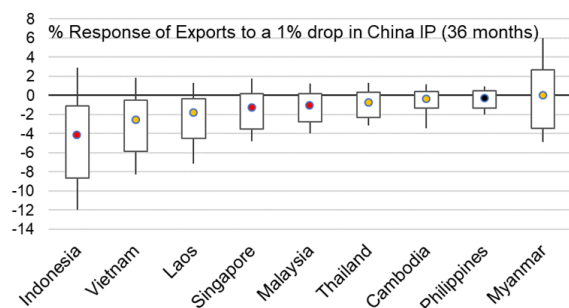
Source: Oxford Economics, AMRO staff calculations

20 Results from the GVAR analysis⁶ also suggest that growth shocks (proxied by industrial production) in China have a significant impact on ASEAN. In terms of nominal export performance (in local currency terms), a sustained 1.0 percent drop in China's industrial

⁶ For the real economy GVAR model, the specification uses economy-specific variables such as industrial production, consumer prices, trade, nominal effective exchange rates (NEERs) and interest rates as well as other global variables such as oil and food prices. Monthly data is used.

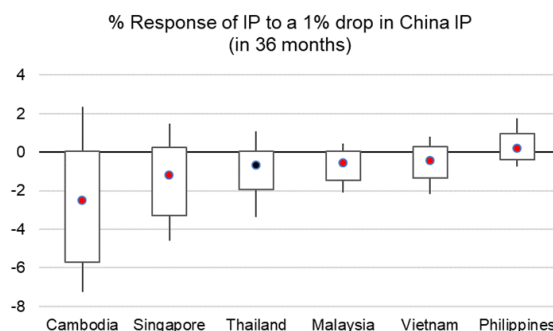
production has negative spillovers to exports from ASEAN (Figure 26), and it also has a significant impact on ASEAN's industrial production (Figure 27). The impact on ASEAN's industrial production from shocks in China is larger and more sustained than shocks originating in other countries such as Japan and the U.S.⁷

Figure 26. Real Sector GVAR, Impact on ASEAN's Exports



Source: AMRO staff estimates

Figure 27. Real Sector GVAR, Impact on ASEAN's Industrial Production



Source: AMRO staff estimates

Table 2 Summary of China's Impacts on ASEAN through different Channels

China	Channels		Projection in the next five years
			ASEAN
<ul style="list-style-type: none"> • Transiting toward more consumption-driven growth • Enhancing environmental protection and energy usage efficiency • Continuing opening up and developing market-oriented financial markets • Increasing ODI through One Belt and One Road Initiative 	Goods Exports to China	Consumer Goods	Continued momentum backed by robust demand in China
		Intermediate, Capital Goods	Moderate growth and some will be affected by China's insourcing
		Commodities and Fuels	Slower growth as demand in China will rise at a gradual pace
	Service Exports (Tourism)		Continued momentum given the growing middle class in China
	Investment from China		Robust growth of Chinese investments
Financial Market	Exchange Rate		Increasing impact of RMB movements especially during stress periods
	Stock Markets		More pronounced impact of China's stock markets

Source: AMRO

⁷ A more detailed discussion on model specification and results can be found in (AMRO 2017).

21 ASEAN economies have benefited from greater linkages with China but some have benefited more than others from China's economic rebalancing. Based on the spillover analysis through different channels, and also based on the model simulation, we have the following findings (Table 2). First, most countries in ASEAN have benefited significantly from China's growing economy, enhanced manufacturing capacity, outbound investments and tourism. Exports from several ASEAN countries are also responding to rising consumer goods' demand in China. On the other hand, capital goods and commodities exporters from ASEAN have continued to face weak demand from China against China's rebalancing toward consumption-led growth. In the financial market, market volatility in China will likely affect most emerging and developed economies in ASEAN. Developing ASEAN will be less affected as their financial markets are less developed.

V. Future Impacts from China's Structural Adjustment

22 China's economic linkages with ASEAN are likely to increase further in the medium-term. Following a period of high growth of 9.7 percent per annum on average during 1980-2016, China is now an upper middle-income country.⁸ Given the ongoing urbanization and huge room for further reforms in the medium- to long-term, and the likely robust growth ahead, the significant positive impacts, which have become more pronounced in recent years, are likely to continue in the medium-term. On the other hand, if China were to experience a hard landing, the negative spillover effects on ASEAN economies will be highly significant.

23 The Asian supply-chain centered on China is likely to evolve further, due to industrial upgrading and adjustment in China, which will provide opportunities but also challenges for ASEAN. Over the last two decades, China has been closely and deeply involved in the development of the Asian supply chain, which has increasingly centered on China as the final processing hub for intermediate parts imported from Japan, Korea and ASEAN countries. However, China's role in the supply chain may change significantly moving forward. In 2015, China announced an ambitious plan to upgrade its manufacturing—called *Made in China 2025*, with the aims to transform China from a manufacturing giant into an advanced manufacturing power by pursuing breakthroughs in developing new information technology such as high-end electronic parts and machinery. If China succeeds in implementing this plan, it will reduce its reliance on high-end electronic parts and machinery from Japan, Korea and the ASEAN region. On the other hand, China may increasingly rely on imports of lower-end manufacturing products such as garments and footwear as some firms

⁸ According to the World Bank, for the current 2018 fiscal year, low-income economies are defined as those with a GNI per capita, calculated using the World Bank Atlas method, of \$1,005 or less in 2016; lower middle-income economies are those with a GNI per capita between \$1,006 and \$3,955; upper middle-income economies are those with a GNI per capita between \$3,956 and \$12,235; high-income economies are those with a GNI per capita of \$12,236 or more.

have gradually moved from China to some developing ASEAN countries due to higher labor costs and stricter environmental protection standards in China.

24 China's consumption will rise further and benefit consumer goods producers and those who can better meet the rising demand from China. Along with rising incomes and an expanding middle class in China, there has been increasing demand for consumer goods in both quantity and quality. Although improvement in technology and manufacturing capacity in China will help meet demand for some higher-end products, there will always be a gap between domestic demand and supply for many products. The gap will provide opportunities for ASEAN countries to export more to China, including tropical fresh fruits and vegetables, high-quality food products and specialty products from the region. In addition, there is still substantial room to attract more tourists due to China's rapidly expanding middle class. All these indicate strong growing demand from China, with ASEAN firms who can meet the evolving change in China's consumer goods benefiting the most.

25 The BRI will increase China's linkages to ASEAN through rising ODI. The BRI aims at strengthening physical, institutional and people-to-people connectivity among all the member economies. In particular, infrastructure investment is one of the most important areas. Since ASEAN is one major part of the 21st Century Maritime Silk Road, China's ODI to ASEAN will boost the region's transportation system, especially highways, railways, airports and seaports connecting with China. This will facilitate increased trade linkages between the two sides, helping increase trade with China. Meanwhile, this increased connectivity will also likely result in more Chinese tourists visiting ASEAN and vice versa.

26 Policy adjustments should be considered to take advantage of the opportunities as well as cope with challenges stemming from China's increasing linkages and spillover effects. Policies to develop industries to meet rising consumer demand in China and to facilitate China's ODI to the region will benefit ASEAN countries. On the other hand, weaker demand by China for electronic components and commodities will weigh on these sectors in ASEAN. Adjusting these industries should be a policy priority. Nonetheless, overall trade and investment between China and ASEAN will increase further, and joint measures to facilitate local currencies for trade and settlement could be helpful. On the other hand, given the growing linkages between financial markets in China and ASEAN, regular and strengthened policy communication between the authorities of ASEAN countries and China could be helpful in mitigating financial shocks. Finally, in light of the growing economic integration and the rise of financial contagion arising from regional shocks, it would be in the interest of ASEAN+3 countries to enhance regional surveillance and regional financial stability mechanism such as

the Chiang Mai Initiative Multilateralization (CMIM), to help safeguard macroeconomic and financial stability in the region.

Reference

- Allan Dizioli, Jaime Guajardo, Vladimir Klyuev, Rui Mano and Mehdi Raissi, 2016, "Spillovers from China's Growth Slowdown and Rebalancing to the ASEAN-5 Economies," IMF Working Paper, WP/16/170, available at <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Spillovers-from-Chinas-Growth-Slowdown-and-Rebalancing-to-the-ASEAN-5-Economies-44179>
- AMRO, 2017, "ASEAN+3 Regional Economic Outlook 2017," available at <http://www.amro-asia.org/asean3-regional-economic-outlook-areo-2017/>
- Christina Kolerus, Papa N'Diaye, and Christian Saborowski, "China's Footprint in Global Commodity Markets", IMF Notes, available at www.imf.org/~media/Files/Publications/.../SpilloverNote6.ashx
- Minsoo Lee, Donghyun Park, and Arief Ramayandi, "How Growth Deceleration in the People's Republic of China Affects Other Asian Economies: An Empirical Analysis", ADB ADB economics working paper series, NO. 484, available at <https://www.adb.org/sites/default/files/publication/183899/ewp-484.pdf>
- Nkunde Mwase, Papa N'Diaye, Hiroko Oura, Frantisek Ricka, Katsiaryna Svirydzenka, and Yuanyan Zhang, "Spillovers from China: Financial Channels", IMF Notes, available at www.imf.org/~media/Files/Publications/SpilloverNotes/SpilloverNote5.ashx
- Patrick Blagrove and Esteban Vesperoni, "Spillover Implications Of China's Slowdown For International Trade", IMF Notes, available at <http://www.atw2017.qut.edu.au/program/documents/Patrick%20Blagrove.pdf>
- Serkan Arslanalp, Wei Liao, Shi Piao and Dulani Seneviratne, 2016, "China's Growing Influence on Asian Financial Markets," IMF Working Paper, WP/16/173, available at <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Chinas-Growing-Influence-on-Asian-Financial-Markets-44187>