

# Updating China's Role in the World Economy: Economic Transformation and Its Policy Implications

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## **Abstract**

When considering various interconnected internal and external factors as well as the volatility of macroeconomic variables from China, Europe, the United States, and other economies, obvious synergies appear through the transmission channels of international trade, international investment, and international finance, promoting policies of transnational relevance. China's economic interaction with the world economy has been significantly strengthened through a system of two-way feedback. In the context of economic globalization and economic interdependence, how can Chinese policies be better coordinated with those of other countries, and how can China fully embrace the role of bilateral and multilateral power? What is the interaction mechanism and transmission of the Chinese business cycle in relation to the global business cycle, and what are the resulting policy implications? This paper investigates the evolution and nature of macroeconomic interdependence between China and other major players in the world economy in order to analyze China's global economic role and aims to answer these questions theoretically and empirically.

*Keywords: "One Belt And One Road"(OBAOR), economic transformation, business cycle transmission, China's role, policy implications*

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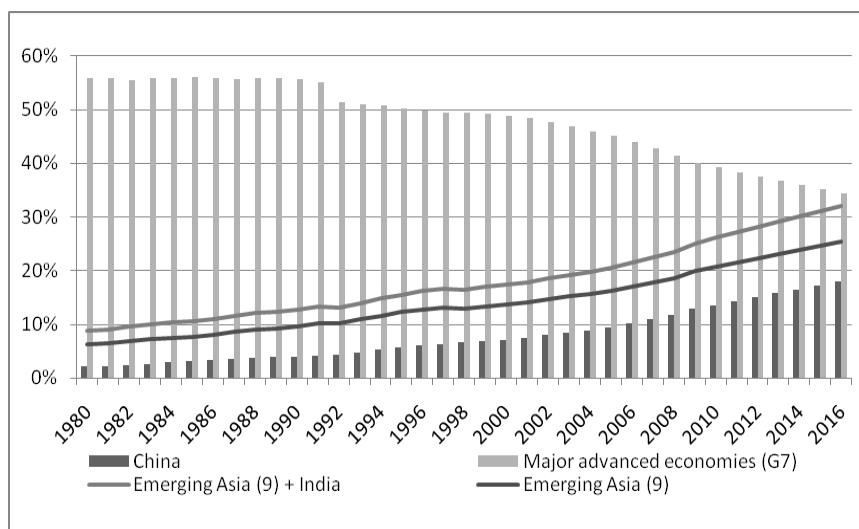
### **Introduction**

Since the 1970s, reform and opening-up policies have promoted China's rapid economic development, gradually integrating it into the global economy. In 2010, China became the second-largest economy in the world, ranking second only to the United States. Maintaining this record, China's GDP reached 63.6463 trillion yuan in 2014 with a growth rate of 7.4% and, for the first time ever, the total amount of GDP exceeded \$10 trillion, only the second country to do so. There has been some debate regarding China's rate of economic growth and its impact on the global economy, such as how it will impact the rest of the world if China's economic growth rate falls below 7%. The next section will further discuss this issue.

As regional economic integration and globalization have gradually become two overwhelming trends in the process of global economic development, the establishment of the Shanghai free trade zone, the APEC meeting held in Beijing in 2014 and a series of milestone events have facilitated China's entry into the new normal economy. China, as the center of the global value chain (GVC) and the world's second-largest economy, plays an important role in promoting sustainable development of the global economy. As the interdependence between China and the global economy is increasing through the transmission of international trade, international investment, and international financial channels, the macroeconomic variables between China and other economies have obvious synchronization in fluctuations, further driving the international relevance of related policies. Therefore, China's economy and its interaction with the global economy have been significantly strengthened, leading to a two-way feedback relationship. On the one hand, China is accepting the challenge of international rules so as to enhance its level of internationalization; on the other hand, China is influencing the global economy and increasing the share of Chinese elements through its growing economic strength (Figures 1 and 2). Therefore, it is valuable to study the business cycle synchronization and transmission mechanism between China and the world, from which plausible policy implications can be drawn.

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Figure 1 GDP Based on PPP % Share of World Total



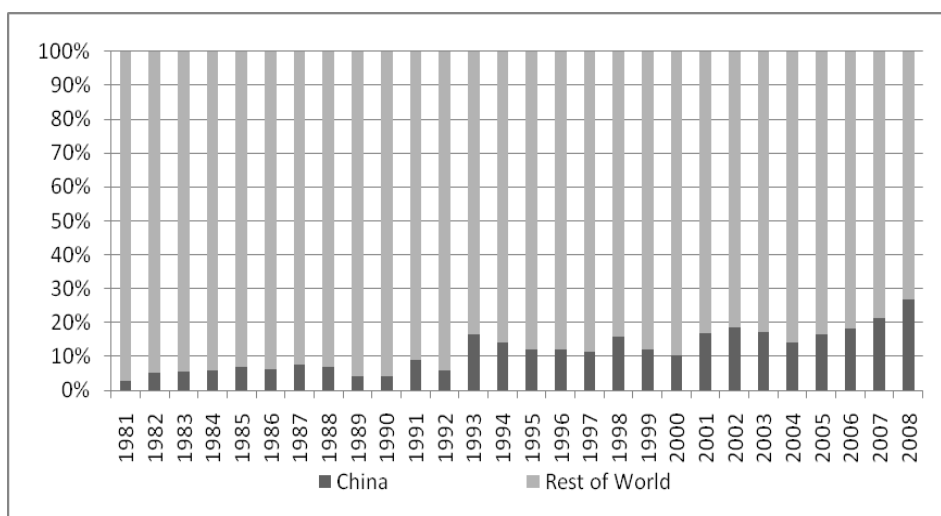
**Note:** Gross Domestic Product is based on Purchasing-Power-Parity (PPP) share of world total. Emerging Asia (9) comprises China, People's Republic of; Hong Kong, China; Indonesia; Korea, Republic of; Malaysia; the Philippines; Singapore; Taiwan, China; and Thailand. India is included due to its impressive growth during recent years. Major advanced economies (G7) include Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.

**Source:** International Monetary Fund (IMF) World Economic Outlook (WEO) Database. The data from 2011 to 2016 were projected by IMF staff.

To update China's economic role in the global economy, under the new normal context of China's economy, this paper investigates the evolution and the nature of macroeconomic interdependence between China and other major players in the global economy. The concept of "counter-cyclical," derived from and the antithesis of traditional cycle theory, has rapidly risen in esteem, especially since the global financial crisis of 2008. In reality, the mismatch of macroeconomic policies and the related cycles may inevitably lead to unexpected results. Therefore, it is important to identify counter-cyclical tendencies and analyze the impact of international economic policy cooperation. Emerging from the discussion of reasonable macroeconomic policies to offset the negative impact of the global financial crisis, the intervention of the government may have multiple, but much-needed, effects. The question of how to create effective macroeconomic policies to cure the economy has become a popular topic. At the same time, international economic policy cooperation has been greatly promoted. To what extent could analysis of business cycle synchronization and its transmission mechanism prove valuable for policymakers? This paper will analyze international economic policy cooperation from the perspective of applied macroeconomics by using standard correlations models. Moreover, it will investigate the direction and magnitude of growth spillovers and business cycle synchronization between China and other major players in the world economy. In this way, it aims to provide important insights for policymakers.

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Figure 2 China's Contribution to World GDP Growth (PPP Basis)



**Note:** China's contribution to world GDP growth has been calculated by using the difference of China's GDP based on PPP in billions of current international dollars from one year to the next divided by that of the world GDP.

**Source:** International Monetary Fund (IMF) World Economic Outlook (WEO) Database. The data from 2011 were estimated by IMF staff.

### The Impact of China's "One Belt And One Road" Strategy

After more than 30 years of rapid growth, China's economy and the global economy have begun shaping a new developmental pattern in a dynamic and evolving process known as the "new normal" transformation stage. In this stage, the theme for economic reform is "Stabilizing Growth, Adjusting Structure, and Improving Quality." In September and October of 2013, Chinese President Xi Jinping put forward the combined strategic concepts of a "Silk Road economic belt" and a "21st Century Maritime Silk Road"—in other words, "One Belt And One Road," or OBAOR—as an important national economic development strategy and the new power source of global economic growth. While China is accepting the challenges from international rules in order to enhance the international level, through its growing economic strength, China is influencing the world economy to increase the proportion of Chinese elements.

As mentioned, there has been some debate over China's economic growth rate and its impact on the global economy, such as the effect on the rest of the world if China's economic growth rate falls below 7%. Of particular concern is the question of whether 7% should mark the threshold of an economic slowdown as well as the impact that a growth rate of less than 7% would have on other Asian economies. Some foreign economists worry about China's economic growth rate and argue that if China's economy growth slows down, the countries and regions whose economies rely heavily on China will face significant decline or demand shock, based on the predictions of their economic models. Other economists are optimistic about China's rate of

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economic growth and argue that a decrease in China's economic growth rate would be a sign of entering a relatively stable, or new normal period, not necessarily an indicator of recession.

First of all, “One Belt And One Road,” as an important national strategy to promote China's reform and opening up as well as the mutual development of other countries along with China in the new normal period, will have great significance and far-reaching influence. The number of countries and regions included in OBAOR exceeds 60, comprising 65% of the world's population. Because most of the countries in OBAOR have large populations and large demand, the economic growth rate in the OBAOR region will be even higher in the future. Although the GDP of the countries in this region seems not decoupled from developed economies such as the United States and those found in Europe, the trade volume is great. As the center of global manufacturing, China's competitiveness will be strengthened due to the widespread global value chain and China's crucial status in it. The role of China in OBAOR is as the leader in the region, similar to that of United States in NAFTA and Germany in the eurozone. Therefore, in the long run, in order to improve a highly effective economic region, division of labor and cooperation in industry, trade, and finance are necessary for efficient allocation of resources and for China to fully play a leading role.

Secondly, economic analysis indicates that “One Belt And One Road” will promote the adjustment of China's regional economic structure through investment stimulation stemming from the construction of transport infrastructure in a series of related projects. These include the Kashgar economic development zone in brewing and the start of highway construction bidding within the China-Pakistan economic corridor. OBAOR will generate positive regional synergy and accelerate the complete openness of provinces along the line. It will not only shift the conventional pattern of openness from developed cities like Beijing, Shanghai, and Shenzhen to developing regions, but will also change the landscape of regional development and strengthen interconnectivity and the transfer of industries between regions. Furthermore, OBAOR will provide power for the growth of exports and promote the innovation model for export by radiating from China through Central Asia, West Asia, Russia, and other large economic corridors, with countries along the line accounting for about 23.9% of total global exports. In the process, labor service, advanced equipment, technology, and management will be exported in the form of project contracting, upgrading from the export of low-end manufactured goods and consumer goods to the export of new and sophisticated technology, establishing a systematic trade industrial chain. In fact, in 2014, China's foreign capital inflows reached 128 billion US dollars and foreign investment was 140 billion US dollars, surpassing Japan to become Asia's largest foreign investor and the third-largest foreign-capital provider in the global economy.

Thirdly, “One Belt And One Road” will promote the development of financial institutions and the internationalization of Renminbi (RMB). China has launched the Asian Infrastructure Investment Bank, BRICS Development Bank, the SCO Development Bank, and the Silk Road Fund; these financial systems, along with other types of funds, will support all kinds of capital investment for countries along the line. At the same time,

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commercial banks will gain abundant opportunities. With regard to Renminbi internationalization, OBAOR will enhance this process significantly, as Renminbi will be more used in regional centers as the currency for valuation, settlement, and investment, promoting the development of offshore Renminbi bond markets in Hong Kong.

Based on the input-output model, the contribution of “One Belt And One Road” will be quite significant for the world economy. In the short run, overcapacity will be dissolved, although “One Belt And One Road” will not dramatically boost China's economic growth. However, in the long run, OBAOR will have great strategic importance in terms of encouraging the integration of the Asia-Pacific region and promoting China's reserve to diversify investment direction. Different from the United States' Marshall Plan, China's “Marshall Plan” will have a much more widespread economic impact on the global economy. Finally, by proceeding step by step, OBAOR will strengthen the crisis-response mechanism and increase the demand for China's downstream products in foreign aid.

### **Model and Analysis**

Generally speaking, there are at least four different channels affecting business cycle co-movements: inter-industry trade, intra-industry trade (horizontal commodity trade vs. vertical fragmentation trade), demand spillovers, and policy correlations. At the same time, capital flow has also become an important channel for business cycle transmission in the context of financial globalization. The first channel implies that increased trade leads to less synchronization of business cycle fluctuations, while the other three channels indicate increased trade would induce more synchronization of business cycle fluctuations.

Three sub-periods have been selected: 1976-1984, 1985-1996, and 1997-2009. Within these sub-periods, the Asian Crisis in 1997-1998 and the ICT (Information and Communication Technology) burst bubble in 2000-2001 could be other points to test whether the hypothesis will distort the data and exaggerate the conventional measure of business cycle co-movement. Another possible testing point could be 1992, the year for the establishment of AFTA (Asia Free Trade Area).

Based on previous studies, it is expected that intra-industry trade plays an important role in the transmission of business cycles from one country to another (Shin & Wang, 2003; Li, 2014). Moreover, Gruben, Koo, & Millis (2003) have shown that the null hypothesis of insignificant coefficients for intra-industry trade is often rejected. Therefore, an intra-industry trade variable is an essential regressor in explaining the transmission of business cycles through the trade channel. Trade intensity is also directly related to business cycle synchronization, but the significance and direction of its coefficient may differ from that of intra-industry trade. Since total trade consists of intra-industry trade and inter-industry trade, these two types of trade can generate opposite effects on business cycle synchronization.

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For the other explanatory variables in the estimation equations, different papers frame them in various ways based on their different perspectives in studying this issue. There is no consensus on choosing other explanatory variables or controls except to add trade intensity and intra-industry trade to the model. The key to choosing other explanatory variables is to let the framed estimation model work well for explaining the results and testing hypothesis.

In this paper, fiscal policy correlation, monetary policy correlation, and exchange rate movement, as controls, are based on OCA criteria. At first glance, correlational relationships may exist among fiscal policy variables measured by the correlation of detrended ratio of general government final consumption expenditure to GDP ratio between country  $i$  and country  $j$ , monetary policy variables measured by the correlation coefficient of the  $M_2$  annual growth rate for each country pair, and exchange rate movement variables measured by the standard deviation of nominal bilateral exchange rates scaled by its mean. If these three policy variables are correlated for the estimation equation, the problem of multicollinearity is hard to avoid. Therefore, before running regressions for the whole estimation equation, it is necessary to check the correlations among these three policy variables quantitatively by using econometric techniques. However, due to the complexity of policy operation in practice, the correlations of these three policy variables may not be that high. Due to the low pairwise correlations for these three policy variables, the three policy variables will not generate major multicollinearity problems.

### Model

$$\begin{aligned} Syn(i, j)_T = & \alpha_0 + \alpha_1 * Trade\ Intensity\ (i, j)_T + \alpha_2 * Intra\_Industry\ Trade\ (i, j)_T + \\ & \alpha_3 * Fiscal\ Policy\ Correlations\ (i, j)_T + \alpha_4 * Monetary\ Policy\ Correlations\ (i, j)_T + \\ & \alpha_5 * Exchange\ Rate\ Movement\ (i, j)_T + \varepsilon_{ijT} \end{aligned}$$

$Syn(i, j)_T$  : Synchronization of business cycles between country  $i$  and country  $j$  in time period  $T$ , measured by using

$$\begin{aligned} Syn(i, j)_T = corr_{trans, ijT} &= \frac{1}{2} * \ln \left[ \frac{(1 + corr(i, j)_T)}{(1 - corr(i, j)_T)} \right] \\ corr(i, j)_T = corr(GDP_{iT}, GDP_{jT}) &= \frac{cov(GDP_{iT}, GDP_{jT})}{[\var{var}(GDP_{iT}) * \var{var}(GDP_{jT})]^{\frac{1}{2}}} \end{aligned}$$

$Trade\ Intensity\ (i, j)_T$  : trade intensity between country  $i$  and country  $j$  in time period  $T$ , using the following different measures:

$$wx(i, j, T) = \ln \left( \frac{1}{|T|} \sum_{t \in T} \frac{x_{ijt}}{X_{it} + X_{jt}} \right)$$

$$wm(i, j, T) = \ln \left( \frac{1}{|T|} \sum_{t \in T} \frac{m_{ijt}}{M_{it} + M_{jt}} \right)$$

$$wt(i, j, T) = \ln \left[ \frac{1}{|T|} \sum_{t \in T} \frac{x_{ijt} + m_{ijt}}{(X_{it} + X_{jt}) + (M_{it} + M_{jt})} \right]$$

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## Analysis and Discussion

Table 1 Effects of Trade on Business Cycle Co-Movement among 11 Asian Countries & US & Eurozone  
(Linear Detrended & Pool Regression)

	1	2	3	4	5	6	7
wx	0.226*** (2.62)				0.183** (2.11)		
wm		0.231*** (2.65)				0.185** (2.10)	
wt			0.281*** (2.99)				0.229** (2.41)
IIT_4				0.669*** (2.84)	0.628** (2.55)	0.614** (2.48)	0.595** (2.41)
FP corr	0.137** (1.98)	0.146** (2.11)	0.132* (1.90)	0.165** (2.42)	0.156** (2.27)	0.162** (2.34)	0.152** (2.19)
MP corr	0.123 (1.38)	0.090 (1.01)	0.115 (1.29)	0.078 (0.89)	0.091 (1.03)	0.062 (0.70)	0.086 (0.97)
NER movement	-1.212*** (-3.42)	-1.182*** (-3.31)	-1.152*** (-3.24)	-1.099*** (-3.15)	-0.982*** (-2.72)	-0.969*** (-2.67)	-0.947*** (-2.62)
constant	0.444*** (5.96)	0.461*** (6.28)	0.431*** (5.75)	0.273*** (2.68)	0.255** (2.45)	0.273*** (2.61)	0.255** (2.45)
# of obs.	193	193	192	198	193	192	192
R <sup>2</sup>	0.1439	0.1447	0.1526	0.1478	0.1728	0.1722	0.1782
Adjusted R <sup>2</sup>	0.1257	0.1265	0.1345	0.1302	0.1506	0.1499	0.1561
Root MSE	0.52823	0.52888	0.52681	0.52171	0.52064	0.52207	0.52019

Table 2 Effects of Trade on Business Cycle Co-Movement among 11 Asian Countries & US & Eurozone  
(Linear Detrended & Panel Regression: Fixed Effects)

	1	2	3	4	5	6	7
wx	0.267 (1.26)				0.089 (0.42)		
wm		0.267 (1.30)				0.068 (0.32)	
wt			0.295 (1.30)				0.114 (0.50)
IIT_4				1.019*** (3.17)	1.051*** (3.09)	1.053*** (3.03)	1.045*** (3.07)
FP corr	0.142 (1.42)	0.140 (1.38)	0.142 (1.40)	0.165* (1.74)	0.168* (1.74)	0.168 (1.71)	0.168* (1.71)
MP corr	0.183 (1.50)	0.174 (1.41)	0.171 (1.38)	0.112 (0.96)	0.131 (1.10)	0.126 (1.05)	0.126 (1.05)
NER movement	-0.691 (-1.40)	-0.670 (-1.35)	-0.650 (-1.29)	-0.444 (-0.96)	-0.365 (-0.75)	-0.369 (-0.75)	-0.345 (-0.70)
constant	0.346*** (3.46)	0.368*** (3.80)	0.338*** (3.31)	0.072 (0.54)	0.048 (0.35)	0.055 (0.40)	0.045 (0.33)
# of observation	193	193	192	198	193	192	192
R <sup>2</sup> <sub>within</sub>	0.0867	0.0882	0.0870	0.1473	0.1586	0.1575	0.1586
R <sup>2</sup> <sub>between</sub>	0.2404	0.2556	0.2726	0.0811	0.1123	0.1094	0.1220
R <sup>2</sup> <sub>overall</sub>	0.1329	0.1323	0.1429	0.1281	0.1465	0.1429	0.1502
Sigma <sub>e</sub>	0.5525	0.5532	0.5546	0.5307	0.5326	0.5352	0.5349
Sigma <sub>u</sub>	0.3297	0.3267	0.3237	0.3576	0.3589	0.3593	0.3567
rho	0.2626	0.2586	0.2542	0.3122	0.3122	0.3107	0.3078

**Note:** The dependent variable is real GDP correlation between any two countries (the eurozone is treated as a whole) for the three sub-periods: 1976-1984 (Period 1), 1985-1996 (Period 2), and 1999-2007 (Period 3).



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*Intra\_Industry Trade*  $(i, j)_T$  : intra-industry trade index between country  $i$  and country  $j$  in time period  $T$ . The measure derived from Grubel and Lloyd (1975) will be used as the following with two, three and four-digit level classification from the International Standard Industrial Classification (ISIC) for manufacturing industry.

$$IIT(i, j, T) = \frac{1}{|T|} \sum_{t \in T} \left[ \frac{\sum_k (x_{ijt}^k + m_{ijt}^k) - \sum_k |x_{ijt}^k - m_{ijt}^k|}{\sum_k (x_{ijt}^k + m_{ijt}^k)} \right]$$

*Fiscal Policy Correlations*  $(i, j)_T$  : measured by using  $corr [Govspending_{it} / GDP_{it}, Govspending_{jt} / GDP_{jt}]$  first and then taking sum to get index for time period  $T$ , that is, the correlation of de-trended ratio of general government final consumption expenditure to GDP ratio between country  $i$  and country  $j$ , instead of using  $corr[(G_{it}-T_{it}) / Y_{it}, (G_{jt}-T_{jt}) / Y_{jt}]$  used by Shin and Wang's measure of Fiscal Policy Coordination, because it estimates the active part of changes in the fiscal variable which is what is relevant.

*Monetary Policy Correlations*  $(i, j)_T$  : measured by using the correlation coefficient of the broad money or  $M_2$  annual growth rates across each pair of countries and then taking sum to get index for time period  $T$ . For Eurozone, the broad money annual growth rates are calculated by using simple average of its members (including Austria, Belgium, Cyprus, Finland, Greece, Germany, Italy, Ireland, Malta, Netherlands, Portugal, Slovak Republic, Slovenia, and Spain). The estimated coefficients are expected to be positive, since countries with similar monetary policies will experience similar business cycles.

*Exchange Rate Movement*  $(i, j)_T$  : exchange rate movement between country  $i$  and country  $j$  in time period  $T$ , measured by using  $Standard\ Deviation\ (NER_{ijt}) / Mean\ (NER_{ijt})$  and then taking sum to get index for time period  $T$ .

$\varepsilon_{ijt}$  : error term in time period  $T$ .

Generally speaking, the coefficients for intra-industry trade stay positive and at the 5% significance level in most cases. For the trade intensity measures, in most cases, the coefficients of trade intensity remain positive and significant at the 5% significance level, except for the case of panel regression with fixed effects. The coefficients for the control variables—fiscal policy correlation measure, monetary policy correlation measure, and exchange rate movement measure—have, on the whole, the expected signs. The fiscal policy correlation measure consistently keeps a positive coefficient, and it is significant on average at the 5% significance level in the pooling regressions and the panel regressions with random effects. At the same time, the coefficient for the exchange rate movement keeps a negative sign, as expected, consistently and at the 5% significance level, indicating that the exchange rate stability (less variability) makes an important contribution to the business cycle synchronization. The coefficient for the monetary policy measure is not stably positive, although in most cases, it is positive. Negative coefficients for the monetary policy correlation measure appear in some cases, but they are never statistically significant and the sizes of the negative coefficients are relatively small.

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For the magnitudes of coefficients, only the exchange rate movement measure and the intra-industry trade measure calculated by using 4-digit SITC classification (IIT4) have coefficients which are greater than the coefficients for other variables. It means that, *ceteris paribus*, increased degrees of intra-industry trade and exchange rate stability carry more weight in explaining business cycle synchronization across different countries than other independent variables in the model. At the same time, business cycle synchronization, the dependent variable, is more sensitive to the change of the intra-industry trade index and to exchange rate stability than the change of other explanatory variables in the model. The size of the coefficient for the intra-industry trade index is usually three to six times the size of other variables except for exchange rate movement, while the size of the coefficient for exchange rate movement is usually five to ten times the size of other variables except for the intra-industry trade index.

The control variables—fiscal policy correlation measure, monetary policy correlation measure, and exchange rate movement measure—on the whole, have expected signs. The fiscal policy correlation measure consistently keeps a positive coefficient, and it is significant on average at the 5% significance level in the pooling regressions and the panel regressions with random effects. At the same time, the coefficient for the exchange rate movement consistently keeps a negative sign as expected, and it is significant at the 5% significance level, indicating that exchange rate stability (less variability) makes an important contribution to business cycle synchronization. The coefficient for the monetary policy measure is not stably positive although in most cases, it is positive. While negative coefficients for the monetary policy correlation measure appear in some cases, they are never statistically significant and the sizes of the negative coefficients are relatively small.

The above analysis shows that co-movements of business cycles are influenced more by the intra-industry trade channel than by the total volume of the trade itself. As for the coefficients for control variables—fiscal policy correlation measure, monetary policy correlation measure, and exchange rate movement measure—they, for the most part, have the expected signs. The coefficient for the monetary policy measure is not stably positive, although in most cases, it is positive. Although negative coefficients for the monetary policy correlation measure do appear in some cases, they are never statistically significant and the sizes of the negative coefficients are relatively small. For the comparison of the coefficients for the three policy correlation measures, the rank for the sizes and the significance level of the three coefficients is the exchange rate movement measure > the fiscal policy correlation measure > the monetary policy correlation measure.

Following standard correlation approaches, various robustness checks have been performed by excluding the exchange rate movement measure or by using different combinations of any two of the three policy-correlation proxies as control variables or any one of the three policy-correlation proxies as a control. In addition, as previously mentioned, the Hodrick-Prescott filter also serves as a robustness check for linear detrending results. In this study, the results of robustness checks lead to the same major conclusion; that is, the coefficients for intra-industry trade are consistently positive and statistically significant at the 5% significance

level in almost all cases, indicating that intra-industry trade has positive and significant weight in explaining business cycle synchronization. In most cases, the coefficients of trade intensity remain positive and significant at the 5% significance level, except in the case of panel regression with fixed effects. Furthermore, the coefficients for intra-industry trade are generally greater and more statistically significant at the 5% significance level than those for trade intensity. Thus, it can be concluded that co-movements of business cycles are influenced more by the intra-industry trade channel than by the total volume of the trade itself.

## Conclusions

This paper aims to update China's role in the world economy by exploring the decoupling hypothesis in East Asia using correlation approaches and considering institutional factors and other Chinese characteristics for policy implications.

The standard approach model confirms the important role of intra-industry trade, indicating that intra-industry trade has a positive and significant weight in explaining business cycle synchronization. With regard to trade intensity measures, in most cases, the coefficients of trade intensity remain positive and significant at the 5% significance level, except in the case of panel regression with fixed effects. Furthermore, the coefficients for intra-industry trade are generally greater and more statistically significant at 5% significance level than those for trade intensity. In this sense, it can be concluded that co-movements of business cycles are influenced more by the intra-industry trade channel than by the total volume of the trade itself.

In addition, three macroeconomic policy measures are applied—fiscal policy correlations, monetary policy correlations, and exchange rate movement. The fiscal policy variable is measured by the ratio of general government final expenditure over GDP, the monetary policy variable is measured by  $M_2$  growth rate, and exchange rate movements are measured by the standard deviation of the nominal bilateral exchange rate scaled by the mean during the period. Policy coordination is mainly measured by correlations of related policy variables, although there may be little or no policy coordination in the real world. Coordination at the level of mutually consistent policies means that authorities pursue mutually compatible target values and adjust the selection of policy instruments as well as their magnitude and timing in order to avoid conflict with other countries. Coordination on exchange rate policy at the level of joint action means not only agreement on the appropriate exchange rate value but also concerted action to achieve that rate. For instance, some proposals for policy coordination combine fiscal and monetary policies with some form of exchange rate, with the goal of achieving external and internal balance simultaneously. However, in practice, when international policy coordination is difficult to realize, domestic macroeconomic policies should be taken into account, given external shocks from the rest of the world. The coordination of internal policies will help to reduce the effects from external shocks to achieve external balance. At the same time, the coordination of a country's own

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policies will promote more rapid growth without inflation, achieving internal balance. The targets for external balance and internal balance must fit together. One country may need to spend more in order to balance a payment surplus while another country may need to spend less in order to balance a payment deficit. In the case of a large group of deficit countries, when all countries spend at the same time, they will not have a large deficit because the spillover effects generated via trade flows among different countries may offset each other. Thus, they may be able to expand without running into balance of payment difficulties.

As mentioned by Kose et al. (2005), from a policy perspective, understanding changes in the nature of world business cycles is of considerable interest in a number of respects. If Asian integration is more significant than globalization, regional factors should be focused on. However, if the influence from the United States helps to explain the dynamics of business cycles, the global factor should be focused on more. The need for regional and global coordination is derived from spillover effects associated with interdependence, and the trade channel is an important source of these spillovers. Regional coordination refers to coordination between different countries which are not necessarily important at the global level but which have a high degree of structural interdependence (Pilbeam, 2006). In the case of the Asia region, regional interdependence in East Asia is deepening, mainly through the structural vertical intra-industry trade channel. Global coordination involves countries from different regions of the world that have a significant impact on the global economy, such as the United States, China, Japan, and Germany (Pilbeam, 2006).

However, it is not necessary to coordinate macroeconomic and exchange rate policies when exchange rate changes truly insulate one country from another. Furthermore, it is not always beneficial to coordinate policies between different countries if desynchronized GDP growth could provide the mechanism of automatic stabilization. Finally, increased business cycle synchronization, as one of the OCA criteria, is overemphasized. Stronger business cycle transmission through trade channels does not lead to direct implications for international policy coordination since it is possible that there has already been some international policy coordination established between different countries. This coordination could result in a high degree of business cycle synchronization, or it could be that more policy coordination is needed if the degree of business cycle synchronization is relatively low. On the whole, the research in this paper provides a different perspective for policymakers reconsidering China's economic transformation and deepening economic reforms, although more precise measures and detailed analysis are needed on the path of transformation.

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