

# ***Four decades of reforming China's international economic role***

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## 1. Introduction

*China and Russia challenge American power, influence, and interests, attempting to erode American security and prosperity. They are determined to make economies less free and less fair, to grow their militaries, and to control information and data to repress their societies and expand their influence. ... These competitions require the United States to rethink the policies of the past two decades—policies based on the assumption that engagement with rivals and their inclusion in international institutions and global commerce would turn them into benign actors and trustworthy partners. For the most part, this premise turned out to be false.*

■ *National Security Strategy of the United States, 2017*

It is fashionable in Washington now to argue that the strategy of engagement with China has failed. There are two components to this engagement-has-failed notion. The first is the idea that engagement with China should have led to the country becoming more politically open with freer press and speech and moves towards democracy. The second is the notion that engaging China and including it in the international institutions should have led the country to become more of a market economy, integrate into the world economy, and subscribe to global norms of trade and finance. This paper looks at this second notion. It reviews four decades of reforming China's international economic role in order to see what has been achieved with China's opening and to make a judgment on whether or not China is following global norms.

The paper is divided into different issues that naturally have some overlap. Section 2 examines China's rise as a trading nation. Section 3 looks at exchange rate and balance of payments issues. Inward direct investment, and related issues of forced technology transfer, are taken up in Section 4. Section 5 then looks at the recent phenomenon of capital outflow from China, through outward direct investment (ODI) as well as through lending for infrastructure projects including along the Belt and Road. Section 6 focuses on China's growing role in the international economic institutions, the World Trade Organization, the International Monetary Fund, and the Multilateral Development Banks.

The concluding section tries to make an overall assessment. The notion that economic engagement has failed seems too extreme and hard to square with an objective assessment. China's integration into the world economy has been an important factor in global poverty reduction, first in China itself, but also throughout the developing world. Advanced economies have benefited as well through higher incomes and consumption. The "China shock" has caused some painful adjustments within rich countries, some of which have handled this better than others through their safety nets and retraining programs. The largely positive story, however, is tempered by some worrisome factors. China today is less open to FDI than other large emerging markets and it uses its restrictions to encourage technology transfer, especially to its state-owned enterprises. China's growing capital outflow, natural at this stage of development, has a number of troublesome characteristics. State-owned enterprises are trying to buy their high-tech competitors abroad, though they are protected at home from similar competition. The Belt and Road Initiative, led by lending from China's big policy banks, lacks transparency and raises questions of debt sustainability for the borrowing countries. China's role within the international economic institutions is largely supportive, but China's unique features present new challenges to the WTO. The launching of the Asian Infrastructure Investment Bank will most likely result in positive changes to the system of multilateral banks, but nevertheless raises fears that China is bent on creating an alternative system.

The evidence at this point is consistent with the view that engagement has largely succeeded and that China is increasingly conforming with global norms. As the largest trading nation and soon to be largest investor, naturally it wants a large say in the evolution of institutions and norms. However, the practices that do not conform to current norms are serious problems so there is an open question as to how things will develop in the future. Deng Xiaoping's famous judgment was that Mao Zedong was 70% good and 30% bad. I do not necessarily agree with that assessment but those numbers strike me about right as the probability that China will increasingly conform to global norms (which it will have shaped),

versus the probability that China goes rogue. Of course, if the established powers move away from engagement, then China is more likely to go rogue.

## **2. Trade**

Over four decades China has gone from a virtually non-existent trader to the largest trading nation. While it is a remarkable story, it is largely what would have been predicted from trade theory. China before 1978 was essentially a closed economy with neither foreign trade of any scale nor foreign investment. A key part of *gaige kaifang* was to open up the economy in order to expose producers to competition. China's opening to foreign investment was initially confined to four special zones. In 1984 fourteen more cities were given the same opportunities as the special zones. In 1993 this was expanded to the more than 30 provincial capitals plus five inland cities along the Yangzi River and nine border cities (Eckaus 1997). Thus, within a relatively short period of time dozens of Chinese cities had opened up to foreign trade and investment.

The implicit contract between central leaders and these local governments was clear. The government "has no money. So we will give you a policy that allows you to charge ahead and cut through your own difficult road," was what Deng Xiaoping told party leaders at a policy meeting on the special zones in 1979 (Vogel, 2011: 398). Coastal cities in particular competed amongst themselves to attract foreign investment, and this competition drove improvements in investment climate. Cities that could provide reliable power and decent transport infrastructure were able to attract investment. The resulting growth and tax revenue fed further improvements in infrastructure.

The great attraction for most of the initial foreign investors was the huge labor force, with decent basic education, working at low wages. China's integration into the world economy is sometimes referred to as the "China shock." What was the shock? In 1978 the ten largest industrial economies

produced the vast majority of world GDP. Most trade occurred among them. They had 300 million workers. China had 450 million workers, counting all of the farmers. China had a negligible capital stock; only about 5 percent of what the industrial countries had. China was also natural resource poor relative to its population. Thus, China's entry more than doubled the global labor force, while leaving the world capital stock and world natural resource stocks virtually unchanged. The expected effect of this would have been to raise wages in China, lower wages for low-skilled workers in advanced economies, and raise the rate of profit worldwide as well as the return to natural resources such as oil and minerals.

In terms of trade, China would have been expected to export labor-intensive products and to import ones intensive in the use of capital, technology, and natural resources. This is generally what happened in the four decades since the beginning of opening and reform. China quickly emerged as a major exporter of footwear and clothing, as well as toys and simple plastic products. China also emerged onto the scene as global value chains were taking off (and the attraction of China no doubt spurred the break-up of the production process for many goods). The GVC phenomenon enabled China to export products that are often labeled as "high-tech," such as computers, smart phones, and televisions. However, China's role is largely that of assembler. Figure 1 shows the global value chain for China's exports of computers and electronics in 2009. The vertical axis show compensation per hour, a measure of high versus low valued added activities. The horizontal axis maps the production process from initiation to the consumer. Inputs are indicated by country-sector codes: At the beginning of the process are high-value design and financial inputs from advanced economies. Then come some sophisticated parts from Germany, Japan, the U.S., Korea, and Taiwan. China is towards the end of the production process, assembly at low wages and production of some simple parts. The high value inputs at the end are mostly services as products are brought to market in the U.S., Europe, and Japan. The size of the value added contribution is indicated by the bubble. China in fact has a large amount of value added in these

products; this pattern enables China to employ a large number of low-skilled workers. For China's export of these products to the U.S., a bit less than half of the total value added comes from China. The point is that breaking up the production process in this way enabled a large number of different labor-intensive activities to settle in China and enhanced the country's ability to exploit its comparative advantage.

Analyzing China's trade in terms of value added provides some additional insights. A majority of China's exports (measured as gross value) come from foreign-invested enterprises. Much of China's success is associated with Hong Kong entrepreneurs who pioneered the garment and footwear exports, and later with firms from Taiwan, Korea, and Japan assembling in China as part of global value chains. In terms of the value added in China's exports, however, the largest single share comes from domestic private firms. State-enterprise contributions are minor (Dollar et al. 2017). Thus, the export-oriented model enabled the private sector to expand its share of the economy – both foreign investors and the domestic private sector. These tend to be more productive than SOEs, so this structural shift was a contribution to total factor productivity and growth at the macro level (Lardy 2014).

Figure 2 shows the evolution of China's value added exports from 1978-2014, compared to that of the 10 largest industrial economies. China's share of total exports grew from basically zero to 25 percent over the period. Over the same period China's employment increased to 200 percent of industrial country employment; its capital stock reached 50 percent of theirs; and its PPP GDP also reached 50 percent of theirs. Its export share was somewhat lower than its share of PPP GDP, but that is not surprising for a large, continental country. The main point is that the amount and composition of its exports was what one would have expected from trade theory.

### ***3. Trade balance and currency issues***

In the early years of economic reform, China ran a trade deficit as is typical for a developing country that needs to import capital and technology. Chinese leaders, however, were determined not to see the country become overly indebted, something they associated with colonialism. The country switched from a modest trade deficit to a modest surplus at an early stage of development. Figure 3 shows the current account balance relative to GDP; this is the broadest measure of the trade balance including directly traded services as well as “factor services” – the main one being net earnings on capital. China went from an average deficit of about 2 percent during 1985-1989 to an average surplus of about 2 percent during 1990-1992.

The main capital inflows into China were foreign direct investment (FDI). A key part of China’s reform was opening to FDI, but up until today it has maintained a positive list system that permits FDI in certain favored sectors and restricts it in others (more on this below). For the balance of payments, FDI provided a modest, steady inflow during the 1990s. Other parts of the capital account were kept severely closed, especially capital outflows. During the 1990s China accumulated reserves at a steady but unspectacular rate. Its reserves provided an asset to match the FDI liabilities. Throughout the 40 years of reform, China was only a net debtor for a very short period, 1986-1989 (Lane and Milesi-Ferretti 2007). For the whole reform period China’s current account balance averaged just above 2 percent.

In the early years of reform China had a multiple currency system in which foreign exchange certificates (FEC) were required for certain international transactions. FEC were denominated in yuan but traded at a premium to domestic currency. This was an awkward system subject to inefficiency and corruption. The currency was unified and the unified rate devalued in 1994. Then began a long period in which the currency was pegged to the U.S. dollar at the rate of 8.3:1. A pegged exchange rate is a reasonable choice for a poor developing country trying to establish macroeconomic stability and credibility with foreign partners and the domestic audience alike. While China pegged to the dollar, it

had substantial trade with other Asian partners such as Japan, Taiwan, and South Korea, plus Europe. And these areas all had currencies that fluctuated against the dollar.

In examining whether a currency level is appropriate or not, it makes sense to look at the trade-weighted, or “effective” exchange rate. Figure 4 shows the evolution of China’s effective exchange rate from 1994 to today. While pegging to the dollar in 1994 provided stability in the yuan in one sense, ironically it resulted in fairly rapid appreciation of the effective rate between 1994 and 1998. It turns out that this was an appropriate path for China because the country had commenced its rapid productivity growth in tradables. The problem with a fixed exchange rate in an economy with rapid productivity growth is that the country becomes competitive in more and more sectors and starts to run a trade surplus. China avoided this initially as the dollar was appreciating from 1994-1998. However, after 2001 the dollar began to depreciate, and China chose to follow it down. It can be seen in Figure 4 that China’s effective exchange rate depreciated 20 percent between 2002 and 2005.

It was shortly after this that China started to run large current account surpluses, nearly 6 percent of GDP in 2005, rising to nearly 10 percent in 2007. There was a certain amount of pride in China at this export prowess in the mid-2000s, but large trade surpluses are not necessarily a good thing for a developing country. And of course they have to be matched by someone else’s deficit, leading to trade friction and questions about sustainability.

China had the very large trade surpluses for only four years, 2005-2008, and it is a mistake to think that it was the result only of exchange rate under-valuation. But the exchange rate was crucial because it had so many spillover effects in other areas. To maintain the 8.3:1 peg against the U.S. dollar, in the face of rising trade surpluses, the central bank had to buy excess dollars and keep them as reserves. The reserves grew to \$4 trillion. These are low-return assets and having more than a country needs for stability has real costs. The central bank was basically borrowing from Chinese people in

domestic currency and lending to the U.S. treasury at low interest rates. It was clear that the currency would eventually have to appreciate, so the central bank was setting itself up for capital losses. It was also reluctant to raise Chinese interest rates to levels that would have been appropriate for a fast-growing developing country because that would complicate its sterilization task. So, the effort to maintain the peg led to financial repression in China that encouraged investment and a housing boom, at the expense of consumption.

The undervalued exchange rate was a great stimulus to the export sector. But it created inflationary pressure on the prices of non-tradables and on assets, especially housing. In the heyday of the surplus, 2005-2008, China kept its fiscal policy very tight, and put off needed expenditures in health, education, and infrastructure. That was the real cost of the trade surplus. China was making a lot of stuff for Americans and getting paid with IOUs, while under-spending on its own domestic needs.

The costs of undervaluation were becoming apparent by 2005, and China moved off the peg that year. It began a period of gradual appreciation against the dollar. Referring to the effective exchange rate in Figure 4, starting in 2005 it appreciated steadily until 2015. Over that decade it appreciated more than 50 percent. This apparently corrected the earlier undervaluation and accounted for ongoing productivity growth. China's trade surplus dropped during the global financial crisis, and then continued to drop further, reaching 1.4 percent of GDP in 2017. The IMF and most economists consider it fairly valued as it is keeping any trade imbalance at a very modest level.

The fluctuations in the effective exchange rate in the past few years are interesting. Starting in 2014 the U.S. dollar began appreciating, probably because the U.S. was recovering faster than other advanced economies and the Fed was signaling that it would start to normalize interest rates. Initially, China followed the dollar up and in Figure 4 there is a sharp appreciation in 2014. But by the middle of 2015 Chinese leaders began to worry that the appreciation was too much. So they wanted to signal to the

market that they were de-linking from the dollar, but they did it together with a 2 percent “mini-devaluation” of the yuan that roiled markets globally. Eventually the authorities did a better job communicating that they planned to manage the currency with respect to a basket. They managed it back down towards trend, and have kept it relatively stable for the past year.

While China keeps the vast majority of its foreign reserves in U.S. dollars, it has become an increasingly vocal critic of a dollar-dominated global financial system. China’s central bank governor, Zhou Xiaochuan, wrote an article in 2009 criticizing the dependence of the world on the dollar and launching a period in which China actively promoted the internationalization of its currency.<sup>1</sup>

Initially there was steady and rapid increase in measures of internationalization, such as the yuan’s share in global payments (Figure 5). However, the growth came to an end in the middle of 2015, and since then China’s share has declined modestly. Up until 2015 there was an expectation that the Chinese currency would continue to gradually appreciate, so that by itself created some incentive for agents to be willing to accept yuan. However, once the expectation of appreciation disappeared, there was not much attraction to holding RMB.

How do we understand the stalled progress in the emergence of the yuan as a major currency? China’s prospects to be the largest economy in the world in about ten years have not changed, and that is one factor influencing the internationalization of currencies. But other factors that are relevant for reserve currency status are coming increasingly into play. Prasad (2015) identifies factors relevant to reserve currency status, in addition to market size:

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<sup>1</sup> Zhou, Xiaochuan (2009), ‘Reform the international monetary system’, People’s Bank of China official website, March 23, 2009, <http://www.pbc.gov.cn/english/130724/2842945/index.html>

- *Open capital account*
- *Flexible exchange rate*
- *Macroeconomic policies*
- *Financial market development*

At the moment, China has limitations on capital account openness and exchange rate flexibility that severely limit the usefulness of holding RMB. It is not surprising that the initial enthusiasm over RMB internationalization has waned to some extent: China is a long way from meeting the conditions to be a major reserve currency country.

While the yuan is far away from being a major international currency, China in 2016 did get it included in the IMF's basket currency, the "special drawing right," along with the big four: dollar, euro, yen, and pound. This was a reasonable, forward-looking decision on the part of Fund management and shareholders. The yuan will eventually be a significant currency. To be included China had to agree to some technical reforms about setting the daily fixing of the currency and allowing foreign central banks access to various markets in China. Foreign central banks can now usefully hold yuan, and that points the way to the kinds of reforms that would be needed so that ordinary foreign investors in the future can also hold and trade yuan.

#### ***4. Foreign direct investment and technology transfer***

A key part of China's reform was opening up to direct investment from abroad. There is ample evidence that FDI accelerates technological development in developing countries and enhances overall growth. Multinational firms bring frontier technology, brand names, connections to markets, and management experience. Throughout the 1960s and 1970s there were a lot of restrictions on direct investment throughout the developing world, fearing that these foreign companies would dominate domestic markets and prevent the development of strong domestic firms. However, it turned out in

practice that there were beneficial spillovers from MNEs to domestic firms. For example, the supply chain for China's exports of computers and electronics, illustrated in Section 2, is largely organized by MNEs from Japan, South Korea, and Taiwan. These firms rely on domestic suppliers, mostly private firms in the case of China. The MNEs help upgrade the capacity of the domestic suppliers by insisting on quality control, sharing certain technology, and often providing finance. Over time, most developing countries have come to welcome FDI.

In China's case, inflows of direct investment were modest throughout the 1990s and then really took off after China joined the WTO in 2001 (Figure 6). (FDI is depicted as negative entries because it is a financial liability for the country; China's outward direct investment (ODI) is shown as a positive item on the same graph and will be discussed in the next section.) While China started opening up to FDI right from the beginning of its reform, it initially tried to control the process. Virtually all of the initial investments were required to partner with Chinese firms, usually state enterprises. This was an awkward arrangement that limited the inflow. China gradually opened up more and more sectors to 100% foreign investment, including clothing and footwear and much of consumer electronics. Most of China's exports come from these fully foreign firms.

But China has always retained a policy of requiring joint ventures in some key sectors. In automobiles, for example, foreign investors have to operate in 50:50 joint ventures with domestic firms, most of whom are state enterprises. In financial services such as investment banking, the equity cap has been less than 50%. The aim of this restrictive policy is to build up the capacity of domestic firms. The OECD calculates an FDI restrictiveness index for its members plus key developing countries. The earliest year for the index is 1997. The first panel of Figure 7 shows the index for China – total and some key sectors – as well as South Korea as a comparator. Keep in mind that Korea is at a much higher stage of development than China. In 1997, China and Korea were measured to be quite similar. China was slightly above 0.6 for the whole economy, on a scale in which 1 equals completely closed and 0 is

completely open. Korea was modestly more open with an index of slightly above 0.5. China had some completely closed sectors such as communications and media, and some highly restricted sectors such as transport and financial services.

By 2016 Korea had become almost completely open. For the whole economy, the index around 0.1 is similar to the OECD average. Telecom is much more open and financial services almost completely open. China overall had become significantly more open, reaching about 0.3 on the index. China remains very closed in telecom and media, and mostly closed in financial services. The story for China is mixed: it is more open than Korea twenty years ago, and China is about 20 years behind Korea in terms of development so that is a reasonable comparison. On the other hand, the whole world has become more open to direct investment. China's restrictiveness today is about twice the level of the other developing country members of the G20. So, China is outside the norm on FDI openness, but it has moved significantly in the right direction over time.

FDI restrictiveness is very important because it is tied to the issue of "forced technology transfer" that has become a hot-button political matter. International auto firms cannot simply produce and sell in China. They have to join a 50:50 joint venture and share their technology with the domestic partner. In quite a few manufacturing and service industries, foreign firms are basically training up their competitors for the future. The Chinese government does not like the adjective "forced" because the companies are making a choice to enter the China market on these terms. If they want to profit from their technology in the huge China market, then they have to share the technology and speed their obsolescence. Many MNEs accept the bargain and figure that they can invent new technologies fast enough that they will always remain ahead of their Chinese competitors. In general, FDI in China has a high return, so the bargain is working out well for the average MNE so far. But it remains to be seen what happens in the future.

The issue of forced technology transfer coerced by China's restrictive investment policies is one of the key tensions between China and its main partners – the U.S., European Union, and Japan. But there are also more general issues of intellectual property rights protection in China. Aside from sharing technology through joint ventures, many foreign companies have had their patents and brands compromised, and feel that they have poor redress through the Chinese legal system. As China has developed, foreign investment has gradually moved into higher-tech sectors and services. These are sectors in which there will be more potential disputes than in simple sectors such as clothing and footwear or electronic assembly. A key question for China then is whether, as it develops, its legal system is keeping up?

This is not an easy question to answer, but empirically we can look at the Rule of Law index from the World Governance Database, which “captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.” The index, which has a mean of zero and standard deviation of 1.0, is available for a large number of countries starting in 1996.

Figure 8 shows the Rule of Law index in 2016 plotted against log per capita GDP in PPP terms, for a large number of countries. China and Korea are identified. The graph also includes the data for those two countries in 1996. China in 1996 had rather poor rule of law (about half a standard deviation below the global mean); however, China was a poor country and *had rule of law measured to be good for its income level*. That is, it was above the regression line by about half a standard deviation. Between 1996 and 2016 China's income grew enormously but rule of law barely improved. By 2016 China was well below the regression line, with poor rule of law for its income level. Note that Korea in 1996 was at about the same income level as China in 2016, but had much better rule of law.

So, in looking at investment openness and the related issue of property rights and rule of law, China is lagging global norms. Its leaders are talking about opening up more sectors of the economy to direct investment. However, if the rule of law is poor, then it is difficult to really create a level playing field in complicated sectors that require high-technology (in the case of manufacturing) or complex regulation (in the case of modern services).

##### **5. *Outward direct investment and the belt and road initiative***

China in recent years is becoming a major source of capital for the rest of the world. It was noted in Section 3 that China has generally run current account surpluses. They were only large relative to the economy for a few years in the mid-2000s and in recent years have been in the range of 2% of GDP. But China's GDP keeps growing, so that 2% now is more than \$200 billion. Hence, China is in a position to provide different kinds of financing around the world. Its highest profile effort is the Belt and Road Initiative. This is Xi Jinping's vision of providing infrastructure and connectivity along the ancient Silk Road as well as along a so-called "maritime route" that goes South from China, past Southeast Asia and South Asia, and on to Europe through the Suez canal.

China is providing two main types of financing: outward direct investment (ODI) and Chinese development finance (CDF), that is, loans to developing countries primarily for infrastructure and largely coming from the two policy banks, China Development Bank and China EXIM Bank. ODI is commercial, and the state and private firms making these investments expect to make a profit. CDB and EXIM are referred to as policy banks in China. They borrow on domestic and international capital markets and lend with a spread, so they expect to be financially self-sufficient. But as the name "policy bank" suggests, they carry out various policy directives of the government. In recent years they have been tasked with lending to other developing countries for infrastructure and other development projects. These activities are analogous to the non-concessional lending of the World Bank, which is known as

development finance. The motivation for China is partly economic: the economy has excess savings and under-employed construction companies and heavy industry. Also, if infrastructure is improved in neighboring countries then China benefits indirectly as trade expands. There is also strategic motivation as China gains friends and influence through these projects.

China's Ministry of Commerce reports data by recipient country on China's ODI. The total volume increased rapidly in recent years, reaching \$200 billion in 2016, before falling back in 2017 (Figure 6). More than half of the outflow is recorded as going to Hong Kong. It is unlikely that that is the final destination for all of this investment so it is impossible to know where this finance is going. For CDF, the policy banks do not report detailed lending to individual countries. They do report that their overall portfolio of overseas lending was \$675 billion at end-2016, more than twice the size of the World Bank. At the time of the Belt and Road Forum, in May 2017, they announced that as of end-2016 about one-third of their lending had gone to BRI countries.

A data-set on China's development finance has been compiled by Dreher et al. (2017) under the title AidData. This dataset contains project-level information on Chinese official development finance to Africa, Asia, Europe, and Latin America from 2000-2014. The dataset was collected in two stages. In stage one, AidData identified projects undertaken in a particular country and supported by a specific supplier of development finance using Factiva, a Dow Jones-owned media database that draws on approximately 28,000 media sources worldwide in 23 languages. It also searched relevant government websites including Chinese Embassy websites, Economic and Commercial Counselor websites, and recipient aid information management systems to identify other potential projects, which might have been overlooked by media sources. In stage two, it conducted tailored searches on individual project records with Google and Baidu to confirm or disconfirm a project's existence and refine the accuracy of a record. The dataset does not include military aid. This approach should generate an unbiased estimate of commitments. It would be more difficult to estimate the flow of disbursements.

According to AidData, China's development finance was quite modest up until the Global Financial Crisis, after which it increased significantly. It reached a peak of \$50 billion in 2009 and since then has moderated to about \$40 billion per year. About one-half has gone to BRI countries in the most recent years, which is a bit higher than the aggregate figures reported by the policy banks. The data-set also has a breakdown of projects by sector. By far the two biggest areas are transport (39% of total financing) and power generation (32%). Less than 3% of the lending is in Chinese Renminbi. Most of the lending is in dollars at variable interest rates. Most of these loans would be considered non-concessional as they reflect the policy banks' borrowing costs plus a spread. However, many developing countries would not be able to borrow from any other source at such attractive rates, so in that sense it is a benefit to those countries. The attraction for borrowing countries is that they get access to a large amount of financing in order to meet their serious infrastructure gaps. The projects are generally carried out by Chinese construction companies, who often bring many of their workers with them.

China's ODI is similar to Western direct investment in that it is attracted to larger markets and to natural resource wealth, as measured by natural resource rents as a share of GDP (Dollar 2018). It is unlike Western investment, however, in that it is uncorrelated with a measure of property rights and rule of law. It is interesting to introduce BRI into that analysis. After controlling for those other variables, an indicator for the 64 BRI countries has a negative, insignificant coefficient.<sup>2</sup> The dependent variable is the stock of ODI at end-2015, the most recent year for which there is comprehensive, cross-country data. It probably should be no surprise that BRI has had no impact on China's direct investment, as that should be largely commercial with much of it going to the U.S. and other advanced economies.

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<sup>2</sup> The belt and road countries are identified by the Hong Kong Trade Development Council, 2017, *The Belt and Road Initiative: Country Profiles*, <http://china-trade-research.hktdc.com/business-news/article/The-Belt-and-Road-Initiative/The-Belt-and-Road-Initiative-Country-Profiles/obor/en/1/1X000000/1X0A36I0.htm>

Turning to CDF, a curious thing about the cross-country allocation is that it is hard to explain it at all. Population is the main variable that has consistent explanatory power. Neither the size of GDP nor natural resource wealth matters. Unlike China's direct investment, its development finance is not aimed at natural resource rich countries. Political stability and rule of law are uncorrelated with the allocation. And an indicator variable for belt and road countries has an insignificant negative coefficient. Just looking at the raw data, 37% of China's financing in the 2012-2014 period went to Africa; 25% to maritime Asia; 14% to Latin America; and only 14% to landlocked Asia (Dollar 2018). In Africa in recent years, China has been providing about one-third of the external financing for infrastructure, which is very welcome given the infrastructure deficit on the continent.

There is modest evidence that strategic considerations are important. First, no country that does not recognize the People's Republic of China received development finance. Second, UN voting patterns do have influence. Developing countries that vote more with China and less with the U.S. in the UN tend to get more financing.

Some additional insight can be gained by focusing on the top 20 recipients of Chinese development finance, 2012-2014 (Table 1). The list does include some Asian economies that are along the Belt and Road, such as Iran, Pakistan, Kazakhstan, and Indonesia. But it also includes eight African countries: Angola, Cote d'Ivoire, Ethiopia, Kenya, Nigeria, South Africa, Sudan, and Tanzania; and three Latin ones: Venezuela, Ecuador, and Argentina. Looking at the top 20 recipients, several have rule of law that is above the mean for developing countries, such as Indonesia, Sri Lanka, Kazakhstan, Ethiopia, Kenya, South Africa, and Tanzania; but others are rated very poorly on rule of law: Venezuela, Ecuador, Angola, Nigeria, Sudan, Iran, and Pakistan. This means that significant amounts of Chinese finance are going to risky environments. The fact that there is no geographic pattern to China's development finance suggests that it is more demand-driven, by which countries are willing to borrow, than supply-driven by a Chinese master plan.

Among the top 20 borrowers there are some that are estranged from the U.S., which can be seen in their UN voting. The average developing country has a correlation with U.S. voting of 0.21, and with China of 0.73. The reason that the UN voting does not have more explanatory power is that most countries vote with China, and few with the U.S. But in Table 1 it can be seen that Venezuela, Angola, Sudan, and Iran have especially low voting correlation with the U.S. This could mean that China is particularly willing to finance countries that are not allies of the U.S. It could also mean that these countries have poor access to global capital markets and that therefore Chinese financing is especially welcome.

China's growing development finance raises several issues of global governance, one of which is debt sustainability. Developing countries have suffered severe external debt crises from time to time: Latin America in the 1980s, East Asia in the 1990s, and Russia in 1998 are just some of the examples. As a result of these bitter experiences developing countries have become more aware of the issue of debt sustainability. External debt is different from domestic debt in that it has to be serviced ultimately through exports. Capital flows to developing countries go through cycles: at times, in the search for yield, global investors are willing to lend a lot at relatively low interest rates. It is attractive then to borrow externally in order to fund infrastructure. There is always a risk, however, of capital flow reversal and increases in interest rates. Chinese banks are secretive about their lending terms, but most of these loans are in dollars at flexible, commercial rates. Only about one-quarter of China's development finance, 2012-2014, is concessional enough to meet the standard of "official development assistance."

For the non-concessional lending, as interest rates rise in New York and London, the cost of servicing loans from China will rise. The ability to service external debt also depends on the value of one's exports. Looking at the list of major borrowers from China, many are exporters of energy or minerals: Venezuela, Ecuador, South Africa, Nigeria, Angola, Iran, and Sudan, for example. Servicing

debt may be reasonable at one price for exports, but become burdensome if the price falls significantly. The fall in the prices of energy and minerals in recent years is raising the specter of a new round of debt crises. The current trend of low commodity prices and rising dollar interest rates is putting the squeeze on the finances of developing countries.

Some, but not all, of the countries that have borrowed heavily from China in recent years are at risk of debt distress. The World Development Indicators include recent data on external debt relative to gross national income for most of the countries included in the database on CDF, including all of the top 20 borrowers. For these 20 countries, debt to GNI increased from 35% in 2008 to 50% in 2015. For the other 77 developing countries there was a modest increase in external debt, from an average of 45% of GNI in 2008 to an average of 48% in 2015. The average level of debt for the major borrowers from China is not alarming. But the rapid increase is something of a concern. More important, the average disguises large variation at the country level. In the last couple of years large increases in debt, taking countries to risky levels, were experienced by Angola, Belarus, Cote d'Ivoire, Ethiopia, Kenya, South Africa, Ukraine, Venezuela, and Tanzania. A number of these countries have very poor governance, and it is not surprising that debt has not been used productively. The rise of Chinese development financing is too recent a phenomenon to have careful studies of its impact on growth. The rise in external debt to GDP is an indicator to watch because a strong growth impact would increase GDP and tend to keep the ratio stable; whereas a weak growth effect would show up in debt to GDP rising to unsustainable levels.

Is China violating norms of global finance? At this point it would be hard to argue that. Of the countries that have borrowed heavily from China, several currently have IMF programs to help with unsustainable fiscal and balance of payments problems: Cote d'Ivoire, Kenya, and Ukraine (IMF 2017). Other countries that have borrowed heavily from China, on the other hand, are in good fiscal and financial shape: Kazakhstan and Indonesia would be examples.

On the issue of debt sustainability, a balanced assessment is that most of the developing countries taking advantage of Chinese finance for infrastructure are in sound fiscal condition. A few have taken on excessive amounts of debt, and they have turned to the IMF for the traditional medicine of adjustment policies and emergency finance. Venezuela is the one case in which China's financing may have enabled poor economic policies to persist. But China has reduced its exposure and it seems likely that Venezuela will go the IMF in the end.

#### **6. *China in the international economic institutions***

Along with China's rise as a trading and investing nation has come greater Chinese participation in the international economic institutions, that is, the World Trade Organization, the International Monetary Fund, and the network of Multilateral Development Banks. Is China supporting the international order or subverting it?

In the case of the WTO, China has become a very active member. Between 2006 and 2015, forty-four cases – representing more than a quarter of the WTO caseload – involved China as a complainant or as a respondent. Only the U.S. and the E.U. had more active cases over the period. Furthermore, in general when China has lost cases it has changed the necessary laws and regulations and complied with the ruling. Based on this one could conclude that China's integration into trade dispute settlement has been quite successful.

Wu (2016), however, makes a compelling case that the situation is not so rosy. China presents a number of unique challenges for the trading regime and "since the Great Recession WTO litigation has increasingly bifurcated into an 'Established Powers versus China' dynamic." (p. 264). Between 2009 and 2015 China-related cases accounted for 90% of the cases brought by the four large economies against

each other. While cases among the U.S., E.U., and Japan used to be common, now increasingly they line up together against China.

The problem according to Wu is that “China, Inc.” is *sui generis*. “What distinguishes China, Inc.? Contradictions pervade the Chinese economy today. While one might think of the economy as state-dominated, private enterprises drive much of China’s dynamic growth. In addition, economic intervention does not always flow through the state. Alongside the state is the Chinese Communist Party (“Party”), a separate political actor that plays an active role in the management of state-owned enterprises (“SOEs”). The economy embraces market-oriented dynamics, yet it is not strictly a free-market capitalist system. ... These elements make it difficult to determine certain legal issues under WTO rules – such as whether an entity is associated with the state, or how to characterize the overall form of China’s economy. These elements also raise the stakes associated with certain activities that fall outside the scope of the WTO’s present jurisdiction.” (p. 265)

It is difficult for the WTO to deal with the investment restrictions, forced technology transfer, and IP theft discussed in Section 4. The established powers would like to see the WTO evolve to handle these issues, but China would have to agree. Can the established powers and China negotiate reform of the WTO or separate side agreements? Without this kind of evolution there is a risk that the WTO will become increasingly irrelevant and that the established powers plus China will feel free to pursue unilateral measures that they deem necessary to address “unfair trade.”

China’s relationship with the IMF has undergone an interesting transformation. At the time of the Asia financial crisis China was one of the many vocal Asian critics that believed that IMF assistance in the crisis was insufficient and IMF conditionality unnecessarily strict and intrusive. China did not need to borrow and suffer this indignity directly, but it voiced concerns similar to those of the affected countries – Thailand, Indonesia, South Korea. By the mid-2000s China’s relationship with the IMF became even

more antagonistic. As China's currency became undervalued in the mid-2000s and its current account surplus ballooned towards 10% of GDP, the U.S. Treasury put pressure on the IMF to highlight the issue of global imbalances and currency misalignment. There were several years in the mid-2000s in which the IMF team was not welcome in Beijing to carry out their annual Article IV review of macroeconomic policies.

Given that background, it is remarkable how the China-IMF relationship has subsequently evolved. Quota reform in the IMF, pushed by the U.S., shifted shares towards emerging markets, especially China, primarily at the expense of Europe. China became the number 3 shareholder in the IMF and, given agreements on quota evolution, it will emerge before long as number 2. China now has a lock on one of the senior positions (deputy managing director) in the Fund. The global financial crisis gave rise to a series of very large IMF bailout packages for European economies. Even with the quota increase, the IMF did not have sufficient resources. So, the IMF turned to surplus countries that were willing to contribute to its New Arrangements to Borrow (NAB), which was essentially lending in parallel with IMF core resources. This was appealing to China in that it was a use of reserves alternative to simply buying Treasury bonds.

Given China's growing role in the Fund, it was natural for it to include the yuan in its Special Drawing Right when the SDR underwent its usual periodic review, in 2016. As China becomes an increasingly important creditor in the world, it is natural to deepen its relationship with the IMF, the international institution that oversees international capital flows and comes in with rescue programs when sovereign borrowers are unable to pay their debts.

An interesting recent development is that China is providing \$50 million to fund a China-IMF Capacity Development Center.<sup>3</sup> This virtual center will be under IMF administration, will be anchored in Beijing, and will offer courses both inside and outside China on core Fund topics. Roughly half the participants will be Chinese officials, and half, officials from other developing countries, including countries along the Belt and Road Initiative. One of the important topics that will be emphasized initially is debt sustainability analysis. The People's Bank of China is the driving force behind this initiative, and curiously PBC represents China in MDBs such as the African Development Bank and the Inter-American Development Bank. PBC naturally has more awareness of this issue than other Chinese agencies and wants the knowledge to be spread within China, and also wants to strengthen the capacity of other developing countries. In the end it is the governments of borrowing countries that need to demonstrate discipline and far-sightedness.

Turning to the multilateral development banks, China has had a long and positive relationship with the World Bank, starting with a famous meeting between Deng Xiaoping and Robert McNamara. Deng told McNamara that China would modernize with or without World Bank assistance, but it would do so more rapidly with the assistance. For many years China was the largest client of the Bank in terms of loan amount and number of projects. The Bank started with infrastructure projects in power and transport and moved on to more complicated issues such as watershed management, urban water supply and sanitation, reforestation, and urban transport.

The relationship had some bumps along the way, notably when the Bank yielded to international pressure and canceled a poverty project in Western China because it involved resettlement

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<sup>3</sup> IMF, *IMF and the People's Bank of China Establish a New Center for Modernizing Economic Policies and Institutions*, May 14, 2017, <https://www.imf.org/en/News/Articles/2017/05/14/pr17167-imf-and-china-establish-a-new-center-for-modernizing-economic-policies-and-institutions>

of Tibetans.<sup>4</sup> Chinese officials came to feel that the Bank was getting away from its original mandate to fund infrastructure and growth and getting bogged down in a lot of trendy new issues. It was also getting bogged down in complex rules about environmental and social aspects of infrastructure projects. So much so that many clients stopped coming to the Bank for infrastructure. In the early years of the Bank, infrastructure accounted for 70% of lending; that figure has dropped to about 30% in recent years. Developing countries have become frustrated with the complex regulations and long delays involved in Bank infrastructure projects (Humphrey 2015).

Around the time of the GFC an international commission under the chairmanship of Ernesto Zedillo examined the performance of the World Bank and the other MDBs and made recommendations for modernizing them (Zedillo 2009). This commission had good representation from the developing world (including Zhou Xiaochuan from China) and made a series of practical recommendations: increase the voting shares of developing countries to reflect their growing weight in the world economy; abolish the resident board as an expensive anachronism given modern technology; increase the lending capacity of the MDBs to meet growing developing world needs; re-establish the focus on infrastructure and growth; and streamline the implementation of environmental and social safeguards in order to speed up project implementation.

China generally shared these criticisms of the World Bank, and its sister institutions such as the Asian Development Bank. In the wake of the Zedillo report, however, there was no meaningful reform. This frustration with lack of reform in the World Bank, combined with a general dissatisfaction with the U.S.-led global financial system, influenced China to launch a new development bank. He (2016 pp. 3-4) notes: “Indeed, China and other emerging powers have criticized the World Bank and the IMF for their inefficient and over-supervised processes of granting loans. The current gap between the demands for

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<sup>4</sup> Mallaby (2004), Chapter 10, has a good description of this incident.

infrastructure investment and available investment from existing international financing organizations in developing countries creates an opportunity for emerging economies to establish a new type of bank with a directed focus in this area.” The new bank is also a way for China to put its excess savings to use through a multilateral format, to complement (and perhaps provide some competition with) its bilateral efforts. While the bulk of the current funding for BRI described in the previous section comes from the existing policy banks, in the future the Asian Infrastructure Investment Bank (AIIB) will also play a role.

The charter of the AIIB follows very much in the spirit of the charters of the World Bank and ADB, but it also incorporates virtually all of the Zedillo report recommendations: majority ownership by the developing world, no resident board, authority to lend more from a given capital base, a focus on infrastructure and growth, and environmental and social guidelines that should be implemented “in proportion to the risk” (per AIIB website).

The issue of environmental and social safeguards was a key factor in the brouhaha around the founding of the new bank. The U.S. and Japan opposed the effort primarily due to concerns over governance, including the issue of environmental and social safeguards. Other major Western nations such as the United Kingdom, Germany, France, and Australia all chose to fight these battles from the inside. AIIB has promulgated environmental and social policies which on paper are similar to the principles embodied in World Bank safeguards: environmental and social assessments to analyze risks; public disclosure of key information in a timely manner; consultation with affected parties; and decision-making that incorporates these risks. The AIIB approach, however, differs from that of the World Bank by avoiding detailed prescriptions for how to manage the process. The World Bank’s detailed regulations – literally hundreds of pages – inevitably make implementation slow and bureaucratic.

AIIB’s leadership hopes that the bank can meet international standards but be more timely and cost-effective. This is largely a matter of implementation and it will take time and experience on the

ground to see if the effort is a success. In its first two years of operation AIIB lent about \$3 billion, with three-quarters of its projects co-financed with the World Bank or regional development banks. It will take time for AIIB to build up a portfolio of projects that it developed on its own. If AIIB can meet environmental standards more efficiently, that would be a very positive innovation. If AIIB's activities can put pressure on the World Bank and the regional development banks to streamline their procedures and speed up their infrastructure projects, then this would be a positive change to the global system that emanated from China.

## **7. Conclusions**

Has engaging China economically and integrating it into international economic institutions succeeded? The argument for “yes” would be as follows: China, the most populous country in the world, has emerged as the largest economy in PPP terms, the largest trading nation, and before long the largest net creditor. Thus, its strong integration into the world economy is undeniable. Its export prowess up to now has relied mainly on labor-intensive activities, while it imports goods and services intensive in technology, high skills, and natural resources. Given that China is so large, this integration has put downward pressure on wages for semi-skilled labor and upward pressure on returns to capital, including knowledge stocks, skills, and natural resources. Given that so many developing countries depend on the export of natural resources, China's demand has spurred growth throughout the developing world, especially Africa in the past 15 years. China's emergence has coincided with a strong period of global growth and unprecedented poverty reduction both in China and elsewhere in the developing world.

In rich countries, owners of capital, skills, and natural resources have benefited from the China shock, whereas semi-skilled workers have seen the disappearance of manufacturing jobs and downward pressure on their wages. All of these distributional effects were predictable. Some rich countries,

particularly in Northern Europe, have spread the benefits widely through their safety nets and retraining programs. In the U.S., on the other hand, public policy has generally reinforced rather than counteracted the market trends towards higher inequality.

In terms of direct investment, China has opened up sufficiently to be the largest developing country recipient of FDI and number 2 overall after the U.S. MNEs in China are generally highly profitable and reinvest their retained earnings, a sign that they find the investment climate – while not ideal – sufficiently good to keep them investing. MNEs account for a majority of China’s exports. But the largest share of value added in the exports come from China’s domestic private sector. This is consistent with the fact that most GDP in China now comes from the private sector.

In recent years China has emerged as a major source of capital in the world, with its direct investment primarily going to the U.S. and other advanced economies. Aside from direct investment, China lends about \$50 billion per year to other developing countries to finance their infrastructure. While this is branded as the “Belt and Road Initiative,” it is in fact global with more financing going to Africa than to Asia.

In his keynote address at this year’s Boao forum, President Xi Jinping argued that China is a supporter, not a subverter, of the international economic order. China has had a long and productive relationship with the World Bank, has emerged as a key player in and financier of the IMF, and engages actively in dispute settlement within the WTO.

Against these positive outcomes, what would be the argument that engagement has failed? The key to this argument is that there is still a large state-owned enterprise sector in China. It may not have much involvement in trade, but it is a major distortion. Furthermore, the Communist Party has its fingers in all significant private enterprises, raising questions as to whether they truly behave as private firms or not. Overall property rights and rule of law have not progressed in China as would be expected

in a rapidly developing market economy. China maintains an active industrial policy and in particular has identified ten frontier industries that it intends to dominate by 2025. It restricts investment in some of these industries in order to attract foreign technology on favorable terms. It plans to subsidize their development through its state-owned banking system. Most of these practices will be difficult to discipline through the WTO.

China's outward investment deviates from global norms in several dimensions. It controls outward direct investment through an approval process that favors state enterprises trying to buy high-tech firms in the West, in the very sectors that China keeps closed. Its development finance for infrastructure is largely welcomed by other developing countries, but it lacks transparency, is carried out on commercial terms, and risks precipitating a new round of third world debt crises.

What makes an overall assessment difficult is that it requires some speculation about how things will evolve in the future. I am inclined to say that the weight of the evidence (around 70%) favors the view that engagement has been and will remain an effective strategy. In thinking about the future, I am skeptical that China's industrial policy will be terribly successful. Most of China's success up to now has come from MNEs and the domestic private sector. Favorable policies for SOEs are mostly going to be a waste. China will probably have some successes, and the whole world benefits from those. But the idea that China will dominate all the high-tech industries does not seem plausible. As China pursues its industrial policy, it will find that certain measures are WTO inconsistent and likely will adjust. I expect that over time China will gradually become more open.

I also expect China to become more transparent in its overseas lending. China recently established an office under the state council to coordinate its development financing. This is a positive step in the direction of how other countries manage development finance. Once there is an agency in

charge, it is natural for it to issue regular reports and to coordinate with other international sources of finance. There is always some speculation that China will set up an “alternative set of international institutions.” However, this would be very difficult, and it is not at all clear why China would want to do so. The existing institutions work well and China has growing influence within them. China may very well want some changes that the U.S. opposes, but if anyone thought that China would simply accept U.S.-dominated institutions, that would have been the height of naivete.

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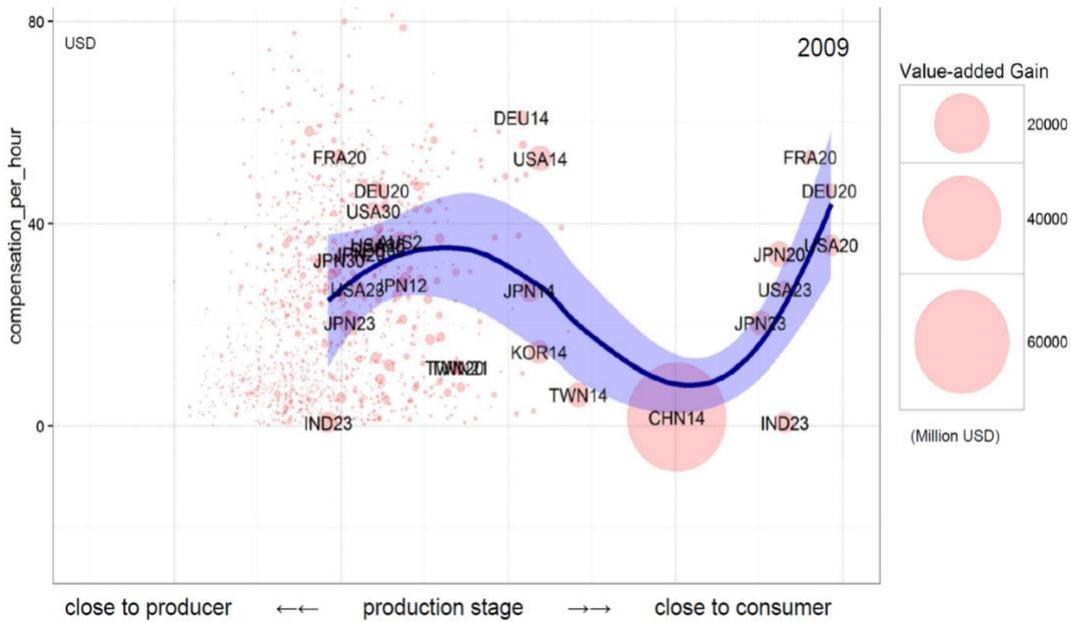
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Table 1: Chinese development finance: Top 20 borrowers, 2012-2014

Country	Average annual borrowing 2012-2014 (USD Billion)	Rule of Law 2015	UN voting with China	UN voting with the US
Pakistan	4.16	-0.79	0.83	0.19
Laos	2.74	-0.75	0.79	0.13
Ethiopia	1.85	-0.44	0.73	0.14
Venezuela	1.82	-1.99	0.76	0.12
Angola	1.65	-1.07	0.87	0.09
Belarus	1.48	-0.79	0.76	0.16
Sri Lanka	1.45	0.07	0.76	0.21
Kenya	1.29	-0.49	0.76	0.15
Cote D'Ivoire	1.25	-0.62	n/a	n/a
Ecuador	1.19	-1.03	0.79	0.18
Ukraine	1.02	-0.8	0.49	0.46
Cambodia	0.95	-0.92	0.83	0.18
Nigeria	0.94	-1.04	0.77	0.15
Argentina	0.92	-0.8	0.76	0.27
Indonesia	0.91	-0.41	0.76	0.16
Tanzania	0.86	-0.43	0.77	0.15
Kazakhstan	0.85	-0.37	0.78	0.21
Sudan	0.74	-1.18	0.78	0.11
South Africa	0.73	0.06	0.78	0.19
Iran	0.71	-0.95	0.81	0.14

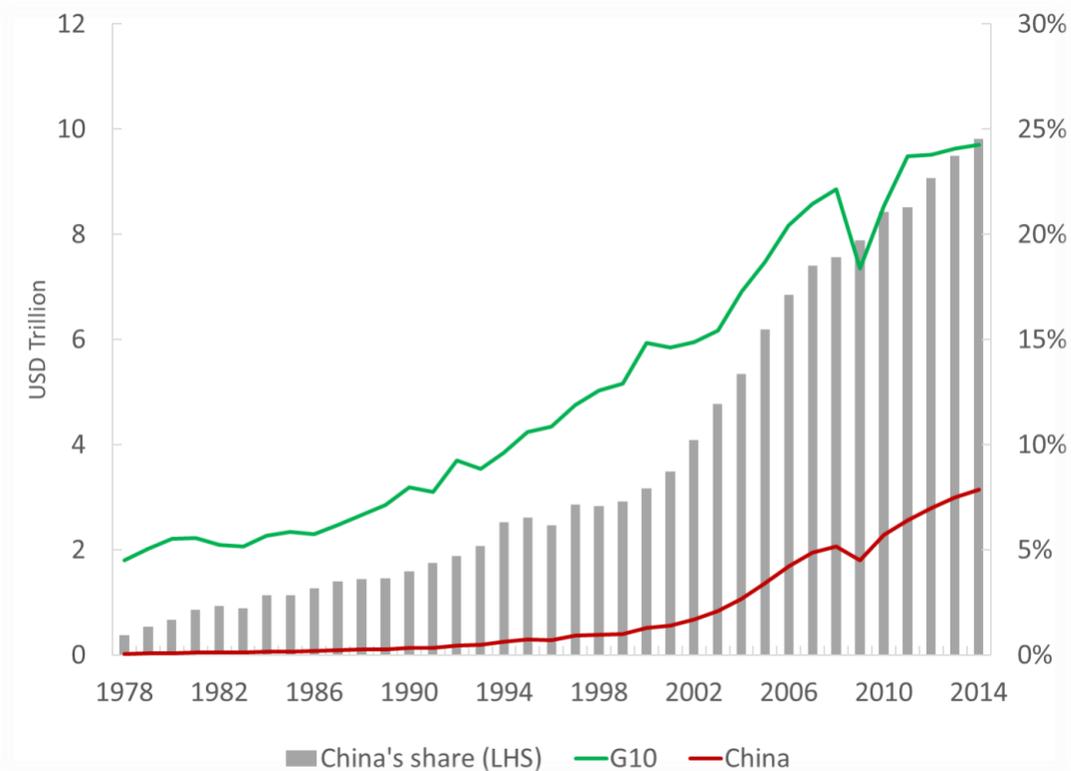
Source: AidData, World Governance Indicators, and Bailey, M.A., Strezhnev, A. and Voeten, E. (2015)

Figure 1: Value chain for China's exports of electrical and optical equipment, 2009



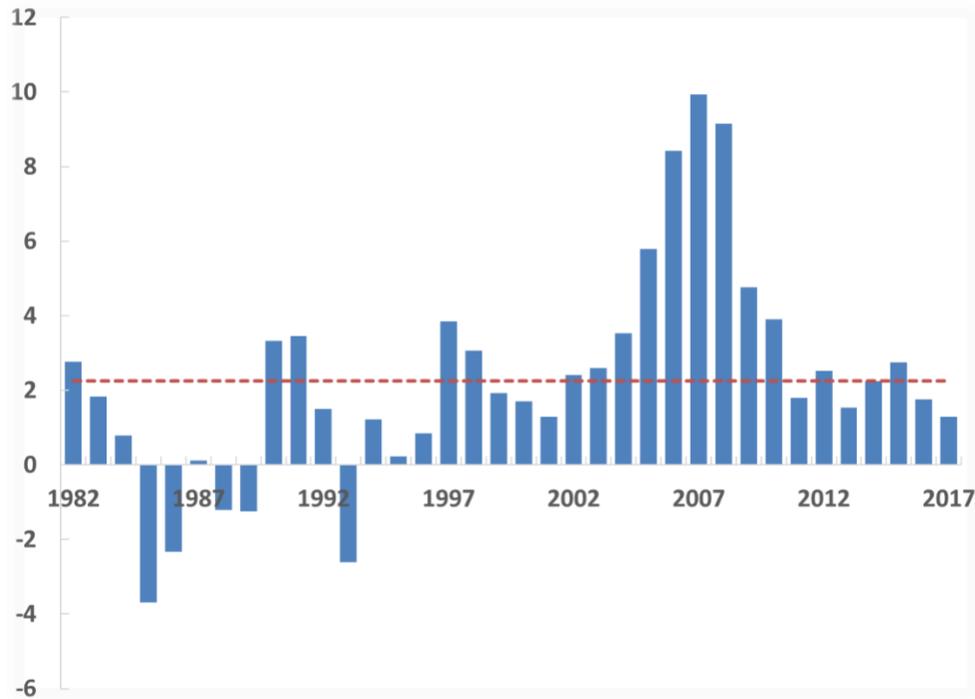
Source: Dollar et al. 2017.

Figure 2: Value added exports, China and ten largest industrial economies



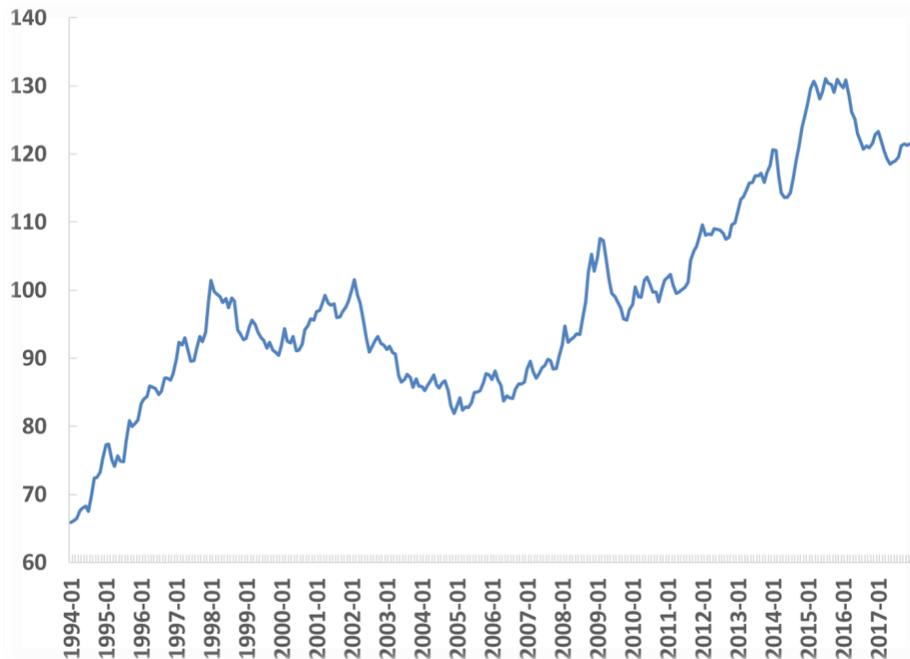
Source: Feenstra, Robert C., Robert Inklaar and Marcel P. Timmer. 2015.

Figure 3: China's Current Account Balance (% of GDP)



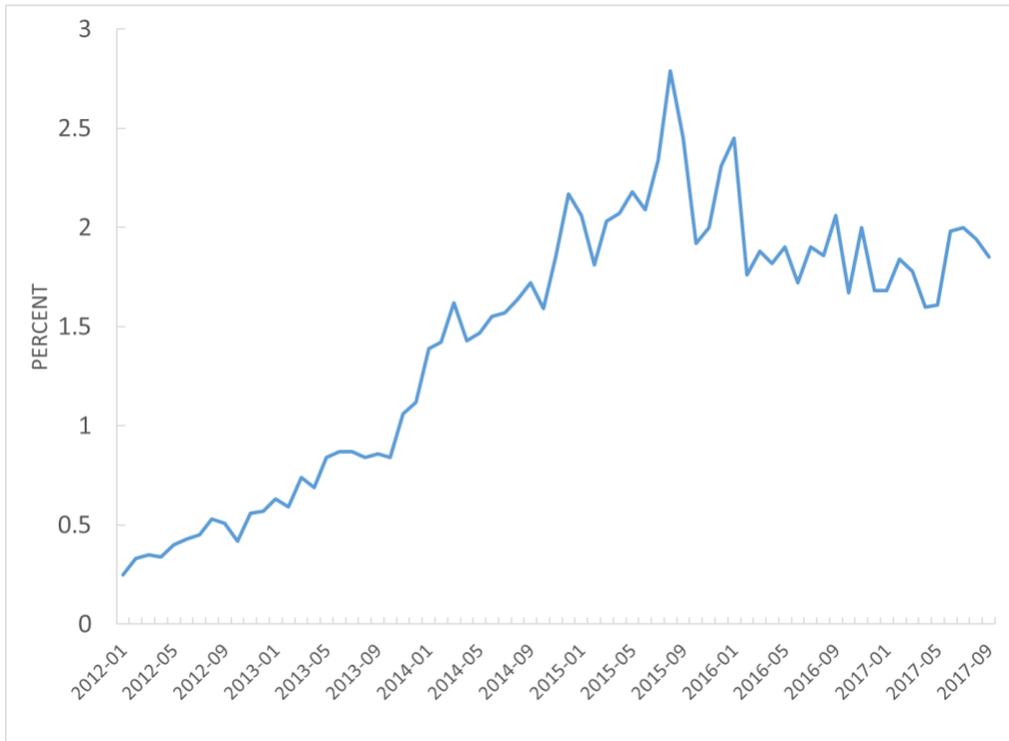
Source: World Development Indicator (WDI), The World Bank.

Figure 4. China's Effective Exchange Rate (Index, 2010=100)



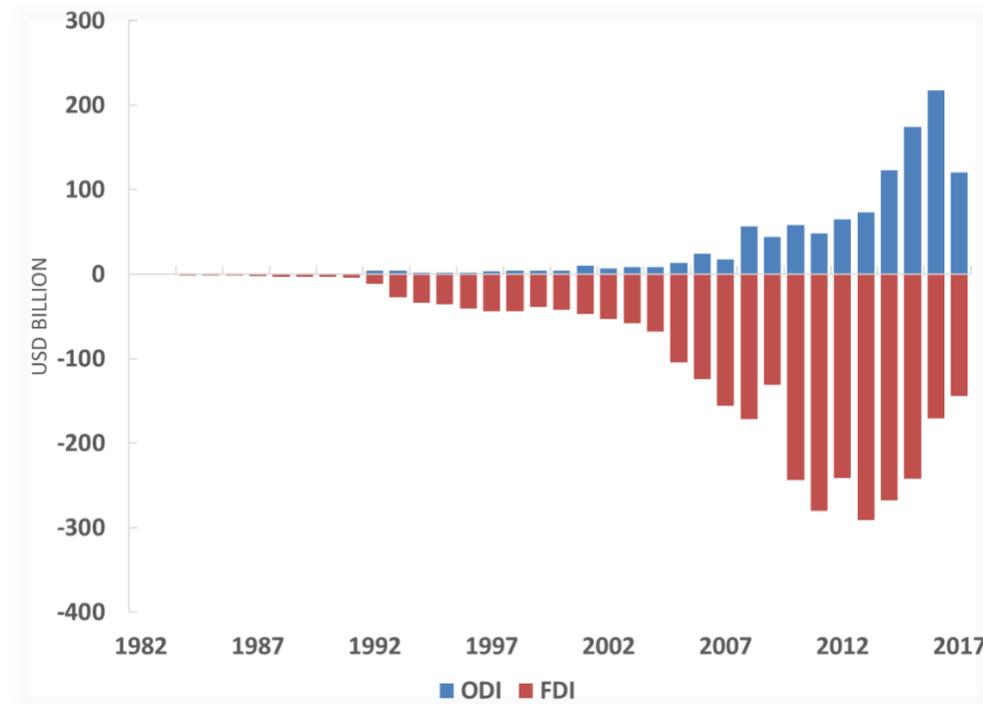
Source: Bank for International Settlements.

Figure 5: RMB's share as a world payment currency



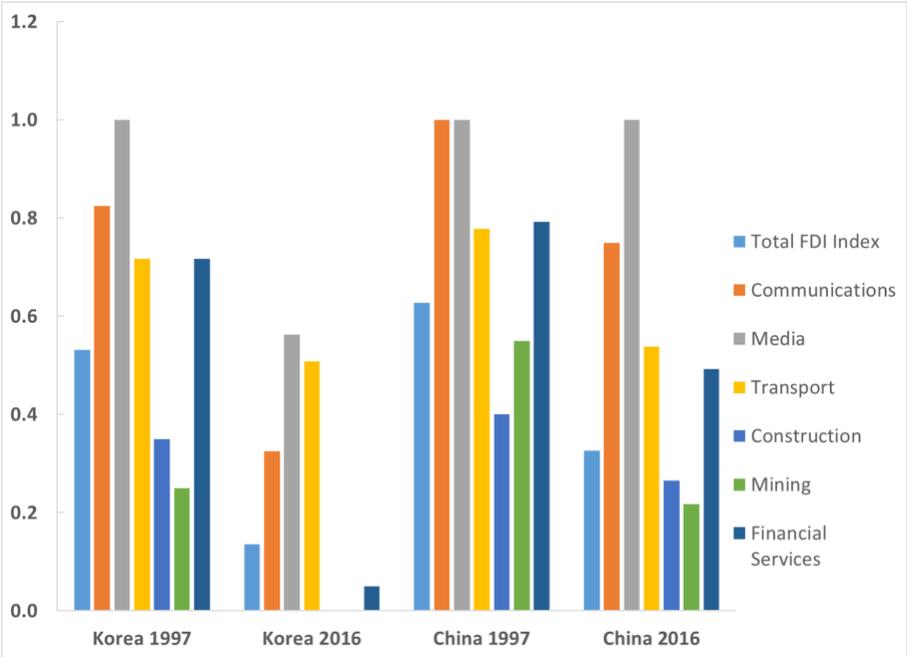
Source: SWIFT RMB Tracker.

Figure 6: China's FDI and ODI



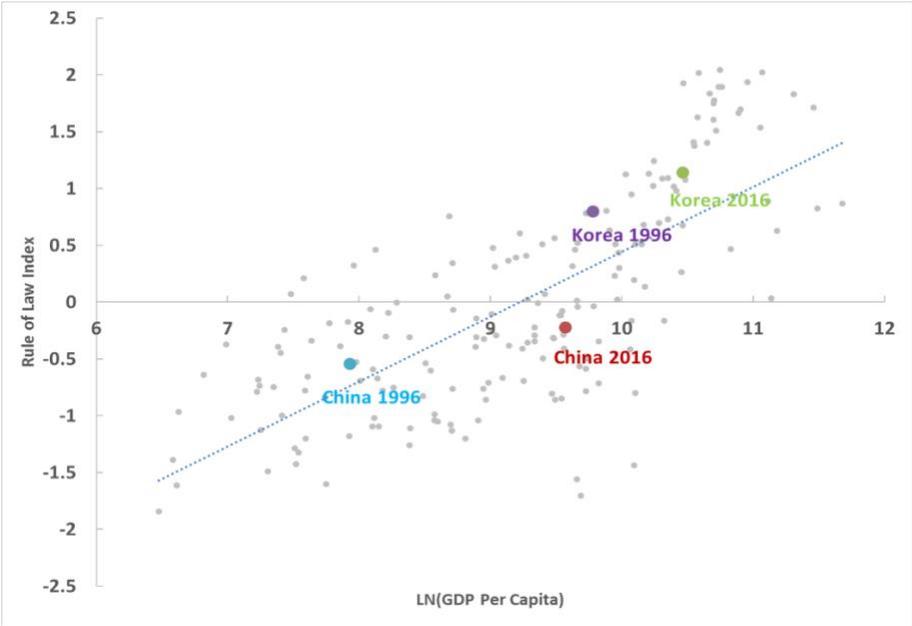
Source: China's National Statistics Bureau.

Figure 7: FDI Restrictiveness, Korea and China, 1997 and 2016 (Index, 1=completely closed)



Source: OECD FDI Restrictiveness Index.

Figure 8: GDP Per Capita and Rule of Law, 2016



Source: WDI and WGI, The World Bank.