

United States-China Two-way Direct Investment: Opportunities and Challenges

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Summary: There is surprisingly little cross investment between the U.S. and China, the two largest economies in the world. Only 1% of the stock of U.S. direct investment abroad is in China, and in recent years the flow of direct investment from the U.S. to China has been negative (disinvestment by U.S. firms). The stock of Chinese direct investment in the U.S. is also lower than would be expected given that the U.S. is the world's largest recipient of FDI. In recent years, however, the flow of direct investment from China to the U.S. has accelerated rapidly and if current trends persist within a short time there will be a larger stock of Chinese investment in the U.S. than of U.S. investment in China. The small amount of U.S. investment in China can be traced to two primary factors: first, poor protection of property rights, including intellectual property rights, which limits the potential benefits that U.S. firms can receive from their technology and brands; and China's restrictions on direct investment in many sectors important to U.S. firms. Among G-20 countries, China is the most restrictive in terms of openness to direct investment. The relatively small amount of Chinese investment in the U.S. can also be traced to two factors: first, much of the initial impetus for Chinese firms to go out was to secure natural resources, while the U.S. is not a resource-rich country relative to its GDP or population; and second, the national security reviews of the Committee on Foreign Investment in the U.S. have soured many Chinese investors on the U.S. market. The two countries have agreed to negotiate a Bilateral Investment Treaty. This could open the doors to large amounts of investment in both directions if it addresses key issues. For U.S. firms, access to more sectors and better protection of IPR are crucial. Chinese firms seek a less politicized environment in which to invest. In its Third Plenum decision the Communist Party leadership indicated its intention to open more sectors to foreign investment and competition. A BIT could help lock in these necessary reforms.

¹ I would like to thank Lina Yu for excellent research assistance.

The U.S. and China have been the two largest recipients of foreign direct investment (FDI) in recent decades. At the end of 2011 the total stock of FDI in the world was around \$19 trillion. Of this, 19% was in the U.S. and 10% was in China.² These two biggest economies in the world are also major providers of direct investment. This is especially true for the U.S., the most technologically advanced economy in the world. As of end-2012, the U.S. had a stock of outward direct investment of \$4.5 trillion. China is a relative new-comer to outward investment, but its stock of outward direct investment has been growing rapidly. As of end-2012 China's Ministry of Commerce reported an outward stock totaling \$532 billion.³

While the U.S. and China are big players both as providers of direct investment and recipients of direct investment, there is less cross-investment between the two than one would expect. The U.S. Department of Commerce reports that China accounts for only 1.2% of U.S. outward FDI. That is, the world as a whole invests 10% of its FDI in China, but the U.S. puts only one-tenth that amount. China's MOC reports that China's direct investments in the U.S. account for only 3.2% of its overseas investments (compared to 19% for the world portfolio). The Chinese figure is certainly an underestimate because a large amount of China's overseas investment is reported as going to Hong Kong and several other locations that are likely to be transit locations, not the ultimate destination of the investment. If we put aside the Chinese investment to those transit locations, the share of China's remaining outward investment going to the U.S. is 12.8%. Compared to the world portfolio this share is still low. So, an important question to research is why the U.S. severely underinvests in China and why China modestly underinvests in the U.S. Understanding the factors behind the current dearth of cross-investment can help us form a judgment as to what a bilateral investment treaty (BIT) between the two would need to include in order to mark a major step forward in the economic relationship.

The paper is organized as follows. Section 1 uses statistical analysis to examine the allocation of the *stock* of global FDI, China's outward investment, and U.S. outward investment. Section 2 examines recent trends in the *flows* of direct investment between China and the U.S. Section 3 introduces some additional issues not covered by the statistical analysis. Section 4 concludes.

² The stocks of FDI end-2011 are from the updated online database originally published as Philip R. Lane and Gian Maria Milesi-Ferretti, 2007, "[The external wealth of nations mark II: Revised and extended estimates of foreign assets and liabilities, 1970–2004](#)", *Journal of International Economics* 73, November, 223-250.

³ Ministry of Commerce of China, *2012 Statistical Bulletin of China's Outward Foreign Direct Investment*.

1. Differences in the allocations of U.S. and Chinese outward investment

This section analyzes cross-country allocations of U.S. and Chinese outward FDI. A useful point of departure is the global allocation of FDI. Table 1 shows the top 20 destinations for FDI based on the stock of FDI at the end of 2011.⁴ The countries are listed in descending order of FDI liabilities. As noted, the U.S. and China are the two top destinations. The list of top 20 destinations is primarily composed of OECD countries. The only exceptions are large developing economies (China, Brazil) or oil-rich economies (Russia, Saudi Arabia). Multinational firms invest abroad in order to get access to natural resources, to get close to markets, and/or to take advantage of their technology and brands. Exports are one avenue to benefit from technology and brands, but often direct investment is needed in order to get the maximum benefit from these intangible assets.⁵

Table 1. Top 20 destinations for global, U.S., and Chinese FDI

Global FDI 2011	US outward investment 2012	Chinese outward investment 2012
United States	Netherlands	United States
China	United Kingdom	Australia
United Kingdom	Canada	United Kingdom
France	Ireland	Kazakhstan
Germany	Japan	Canada
Canada	Australia	Russia
Brazil	Germany	South Africa
Spain	Mexico	France
Netherlands	France	Germany
Australia	Brazil	Indonesia
Russia	China	Myanmar
Mexico	Chile	Korea
Sweden	Norway	Mongolia
Italy	Korea	Sweden
Austria	Spain	Cambodia
Ireland	India	Pakistan
Japan	Italy	Thailand
Hungary	Sweden	Iran
Saudi Arabia	Egypt	Venezuela
Poland	Thailand	Zambia

⁴ A number of economies such as Hong Kong and Luxembourg have been dropped from the analysis because the data for these economies show extremely large inflows of FDI and nearly matching outflows of FDI. In the case of Hong Kong, for example, FDI assets and liabilities were each 5 times GDP at end-2011. Clearly, these economies are transit locations for FDI.

⁵ The general argument for direct investment is that certain transactions are most efficiently carried out within a firm rather than contractually at arm's length. See, for example, David Teece, 1986, "Transactions costs economics and the multinational firm: an assessment," *Journal of Economic Behavior and Organization*, Volume 7, Number 1.

The second column in Table 1 lists the top 20 destinations for U.S. outward investment in descending order of importance. China is on this list, but it is in 11th place, behind Brazil and just ahead of Chile. As noted, the share of U.S. outward investment in China is far below the world portfolio's share. In general, the U.S. list is very similar to the global list. It is composed of OECD members plus large developing countries (Brazil, China, India, Egypt, and Thailand).

The third column in Table 1 shows the top 20 destinations for China's outward investment. The U.S. is first on the list, but the share is moderately behind what the rest of the world puts into the U.S. For example, Australia's economy is about one-sixth the size of the U.S.'s, and its stock of inward investment is similarly one-sixth the amount in the U.S., yet China's investment in the two economies is nearly identical. The top 20 destinations for Chinese investment include eight OECD countries, but the list mostly consists of developing economies.

In the appendix I carry out statistical analysis of the allocation of global FDI, U.S. outward investment, and Chinese outward investment. The analysis covers 148 countries, based on data availability. It turns out that the allocation of FDI can be explained very well by variables that fall into three categories: (1) market size (total GDP measured at PPP and population); (2) natural resources (natural resource rents as a share of GDP); and (3) governance. For governance I use two different measures from the World Bank's governance database:

- Rule of law "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";
- Political Stability and Absence of Violence/Terrorism "measures perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism."

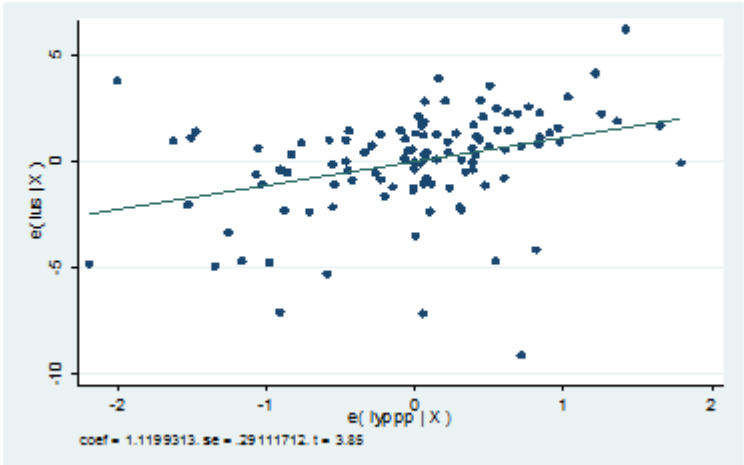
The allocation of FDI overall provides a useful benchmark. FDI is strongly related to GDP with a coefficient that is close to 1 and highly significant (Appendix Table 1). So, twice as large an economy in terms of GDP attracts twice as much FDI. There is no statistically significant relationship between direct investment and natural resource rents for FDI overall. Of the governance variables, rule of law is strongly related to FDI while political stability is only moderately related. One standard deviation better on rule of law corresponds to 39% more FDI. These relationships confirm a number of common ideas about FDI: that it is trying to get close to large markets; and that, other things equal, it prefers an environment with sound property rights and rule of law. On the other hand, there is no strong support for the idea that FDI is primarily aimed at natural resource extraction

Finally, given our special interest in the U.S. and China there are indicator variables for these two countries. The coefficient on the USA is very close to zero. The coefficient on China is moderately large and marginally significant. The R-squared is 0.88, so that most of the cross-country variation in inward stocks of FDI can be explained by this parsimonious set of variables. The fact that the coefficient on USA is very close to zero indicates that the model explains well why the U.S. is the largest recipient of

FDI: it is the largest economy in the world and it has good property rights and rule of law (the U.S. is at the 92nd percentile for the Rule of Law index among the 148 countries in the data-set). That the coefficient on China is moderately large means that China receives more FDI than one would expect. As the second largest economy in the world China has a large market. But China rates poorly on the rule of law measure, about half a standard deviation below the mean and well below the norm for its level of per capita GDP. There are a number of possible explanations for why China receives more FDI than one would expect given its market size and relatively weak property rights. It is possible that foreign investors have felt that their property rights are more secure than those of the domestic private sector; and/or that property rights are likely to improve in the future.

With this as a benchmark, we can now examine the allocations of U.S. and Chinese outward investment. The U.S. allocation turns out to be similar to the global allocation with a few nuances (Appendix Table 2). The main features of the allocation can be illustrated through partial scatter plots that show the relationship between U.S. outward FDI and different variables, after controlling for the other variables in the analysis. For example, Figure 1 shows the allocation of U.S. FDI to 115 recipient countries in relation to each recipient's total GDP.⁶ The coefficient of 1.12 is close to 1, and is highly significant statistically. U.S. FDI is clearly attracted to larger markets.

Figure 1. U.S. FDI attracted to larger markets



⁶ The U.S. suppresses the data for countries in which U.S. investment is small enough that it may be possible to identify the data of individual companies. Thus, the analysis is restricted to 115 countries for which the U.S. reports outward stocks of FDI.

U.S. FDI is also attracted to countries in which natural resources are abundant, a pattern that is different from that of FDI overall. For U.S. outward investment, one standard deviation higher on natural resource rents for the recipient country increases U.S. investment by 70%. As can be seen in Figure 2, the relationship is also highly significant.

Figure 2. U.S. FDI pursues natural resource wealth

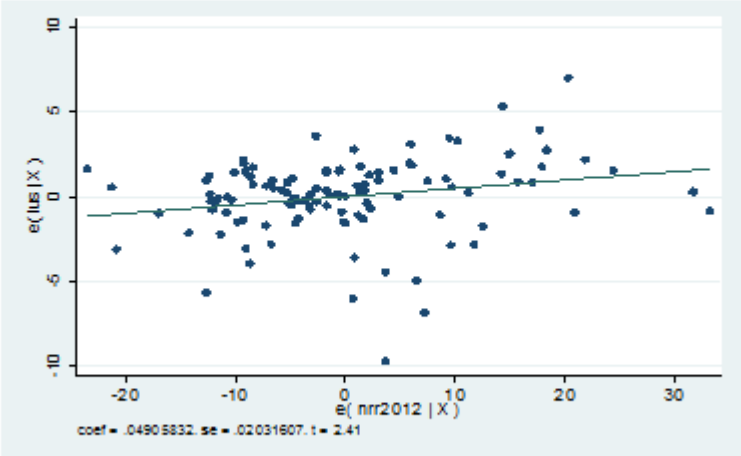
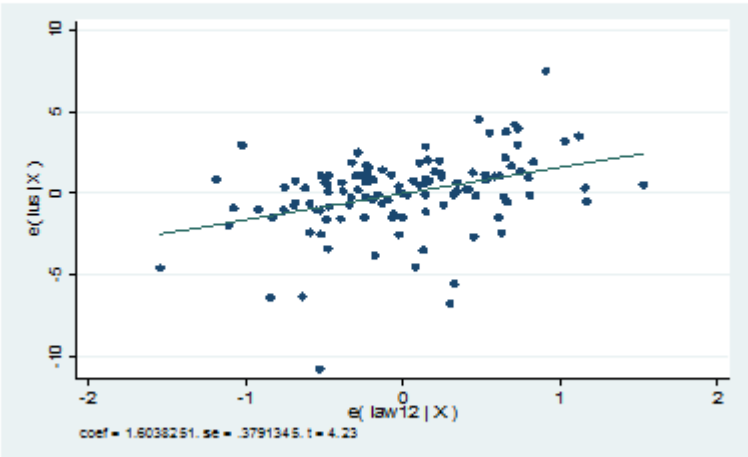


Figure 3. U.S. FDI strongly related to good property rights

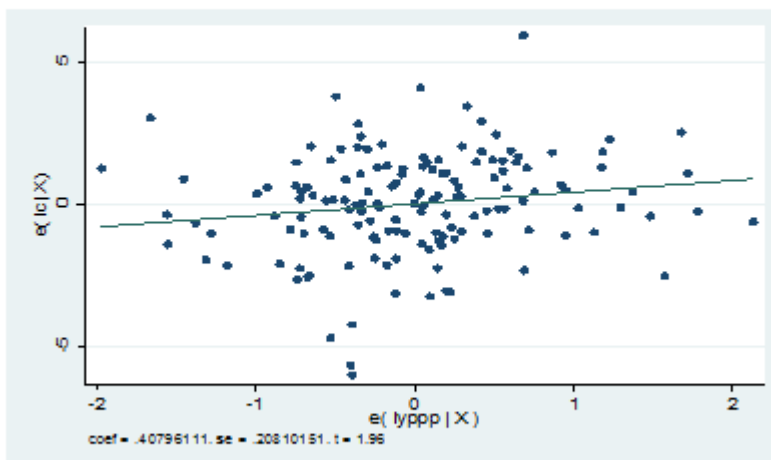


As with global FDI, U.S. FDI is attracted to countries that have good private property rights and rule of law (Figure 3). However, for U.S. FDI the coefficient on rule of law is much larger: a standard deviation better on rule of law attracts 160% more U.S. investment.

In summary, the allocation of U.S. FDI is similar to the overall allocation of FDI but has a number of nuances that help us understand why there is surprisingly little U.S. investment in China. First, the U.S. puts significantly more weight on property rights and rule of law. That makes sense given that U.S. firms tend to be the technology leaders in their fields with strong brands and patents. They have much to lose in an environment of poor property rights. Second, some significant part of U.S. outward investment is aimed at natural resource extraction: China is a relatively resource poor country so that such investment is not likely to be large. Third, China is far away from the U.S., which tends to reduce the appeal of investment. Finally, the rest of the global investment community seems to have an unusually positive attitude about investing in China, whereas the U.S. attitude is more neutral. All of this adds up to a small share for the U.S. in the direct investment that has taken place up until now.

What of China's direct investment into the U.S.? Appendix Table 3 presents an allocation equation for China's outward investment to 147 countries. There are some interesting differences between the China allocation equation and the overall allocation of FDI which can be illustrated through partial scatter plots.

Figure 4. China's outward investment weakly related to market size



First, there is no strong relationship between China's outward investment and market size. The relationship between Chinese outward investment and the recipient's GDP is statistically significant but the coefficient is only 0.41: that is, twice as large a market attracts 41% more investment (Figure 1).

Second, the coefficient on natural resource rents is significantly positive, though not as strong as for the U.S. One standard deviation more in natural resource wealth attracts 51% more Chinese investment. The fact that Chinese investment has a strong relationship with natural resource wealth and little relationship to market size suggests that up until now an important motivation for Chinese overseas investment was natural resource extraction, with little reference to the size of the domestic market.

Figure 5. China's investment strongly related to natural resource wealth

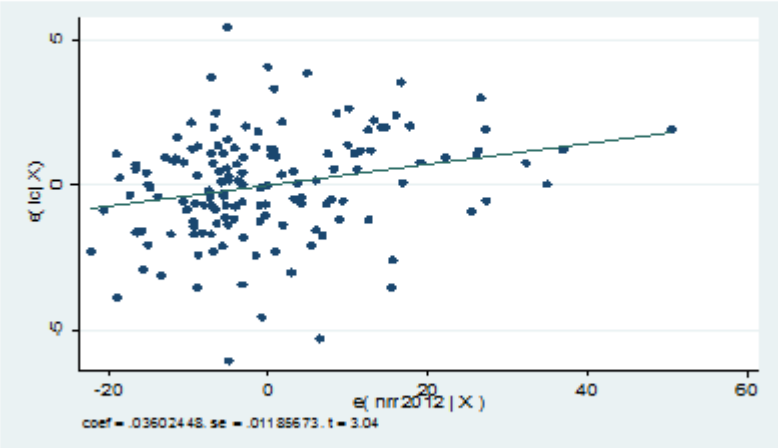
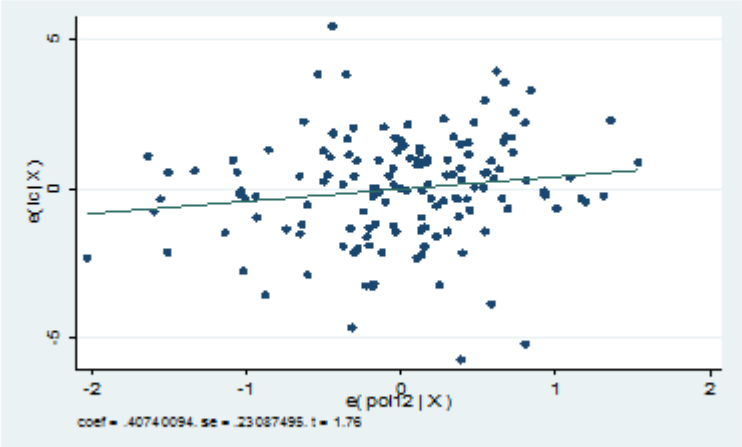


Figure 6. China's investment looks for politically stable countries



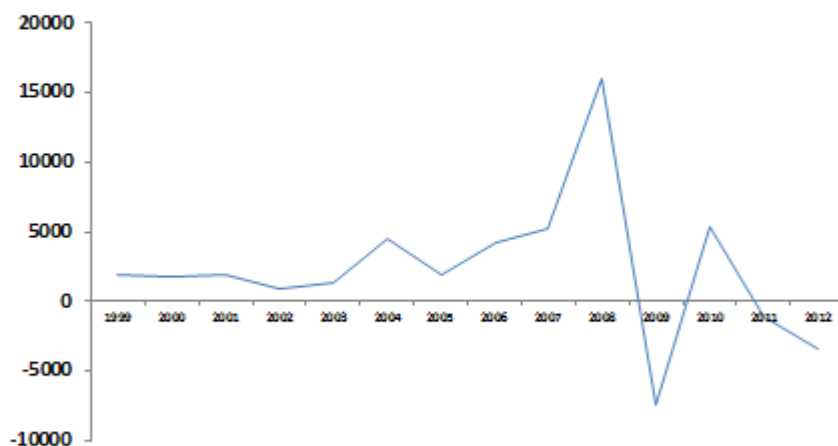
A third interesting difference is that Chinese investment has no positive relationship with the index of property rights and rule of law. There is a slight negative relationship but it is not statistically significant. On the other hand, Chinese investment is positively related to the measure of political stability. A number of developing economies in which China has a large amount of FDI rate much stronger on political stability than on rule of law: Cambodia, Kazakhstan, Mongolia, Myanmar, Venezuela, and Zambia are all examples. To the extent that much of China's overseas investment comes from state enterprises, often as part of larger country-to-country agreements, it would be rational for China to pay attention to the political stability of recipients but not necessarily to property rights and contract enforcement in the domestic economy.

These differences in allocation patterns go far to explain why there is modestly less Chinese investment in the U.S. than one would expect. Unlike FDI overall, China's investment is in the main not aimed at getting close to large markets, nor does it look for environments with good rule of law. Hence the two main reasons why the U.S. is the largest destination for FDI overall are not especially relevant for Chinese investment. Much of China's investment aims at natural resource extraction. The U.S. has certain natural resource strengths but overall it is not a resource-rich country relative to its population or economic size (natural resource rents are only 1.3% of GDP, compared to a global average of 12.1%). China pays more attention to political stability than to rule of law, and among developed economies the U.S. does rate especially highly on political stability. This is probably because the measure also captures the risk of terrorism. Countries such as Australia, Canada, and Norway all rate more highly than the U.S. on political stability, and are all resource-rich countries. The Australian economy is only 6% the size of the U.S. economy but China's stock of FDI in Australia is almost as large as its direct investment in the U.S.

2. *Recent trends in the flow of two-way investment*

In addition to examining the *stock* of foreign investment in each country, as in the previous section, it also useful to look at recent trends in the annual *flows*. Any clear trends in the flows will naturally affect the stocks after a few years.

Figure 7. U.S. FDI to China, annual flow
(million US\$)



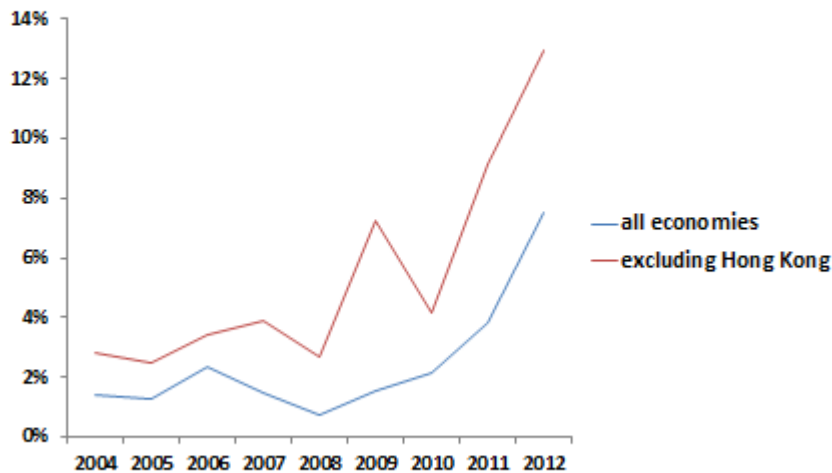
In the case of U.S. direct investment flows to China, the amounts were fairly stable at about \$1.5 billion per year in the period 1999-2003 (Figure 7). That amounted to about 1.1% of U.S. annual direct investment outflows, consistent with the picture in the previous section. While there is a fair amount of volatility in annual flows, it is clear from the figure that the U.S. investment to China jumped in the period 2004-2008, to an annual average of \$6.4 billion, amounting to 2.6% of U.S. outward investment. However, this up-surge has been more than reversed in the years since. U.S. investment flows to China have actually been negative on average in the 2009-2012 period (-\$1.7 billion per year). Negative investment occurs when U.S. multinationals have depreciated assets that are not replaced or sell some of their assets and withdraw.

Is this withdrawal of U.S. investment in the recent period a general phenomenon related to the global financial crisis? No. U.S. outward investment overall has increased in a healthy way. Total U.S. outward investment in the 2009-2012 period was 33% higher than in the 2004-2008 period. Thus, there was more outward U.S. investment overall, but none of it on a net basis was aimed at China. For the whole period 1999-2012, the flow of U.S. direct investment to China was 1% of the overall outward flow of U.S. direct investment – a figure nearly identical with the stock data used in the previous section.

In the case of the flow of China's outward direct investment, the overall figure has been rising extremely rapidly, starting from a low base. From 2004-2008, the share going to the U.S. was quite stable at under 2% (Figure 8). As noted, one issue in the Chinese data is that a large amount of China's outward investment is reported as going to Hong Kong. If this amount is excluded, then the U.S. share of China's outward investment was stable at about 4%. Starting in 2009, however, China's investment in the U.S. started to shoot up. By 2012 it reached 8% of China's total outward investment (13% if the investment to Hong Kong is excluded). It is too soon to say whether this will be a continuing trend, but it is possible

that the weight of the U.S. in China's overseas portfolio is now moving towards the level common for other countries.

Figure 8. Share of China's outward investment going to the U.S.



To summarize, the most recent trends are for U.S. investment in China to decline and actually turn negative, while Chinese investment in the U.S. is growing rapidly and taking a larger and larger share of China's outward investment. If these trends continue, within a few years the stock of Chinese investment in the U.S. will be greater than the stock of U.S. investment in China.⁷ Such a pattern is odd because the U.S. is still the overwhelmingly largest provider of direct investment in the world.

3. Some additional factors affecting two-way investment

The analysis above sheds some light on the investment patterns of the U.S. and China, but it does not take account of each country's policies towards inward investment. Opening up to foreign investment has been an important part of China's reform since 1978, but the government encourages investment in certain sectors and discourages or prohibits it in others. The OECD compiles an FDI restrictiveness index for its member economies as well as for a few large developing countries.⁸ The OECD index has the advantage that it is computed for the whole economy, but also for specific sectors, because countries'

⁷ Rosen and Hanemann (2014) emphasize this point, that the annual *flows* of FDI are now greater for Chinese investment going to the U.S. than for U.S. investment going to China. If these trends persist within a few years the *stock* of Chinese investment in the U.S. will be greater than the stock of U.S. investment in China.

⁸ Blanka Kalinova, Angel Palerm, and Stephen Thomsen, 2010, "OECD's FDI Restrictiveness Index: 2010 Update," www.oecd.org/daf/investment/workingpapers.

policies towards FDI tend to vary by sector. OECD countries in general and the U.S. in particular are very open to FDI (Table 2). On a scale from 0=completely open to 1=completely closed, the FDI index is .10 for the OECD average and .12 for the U.S. There are a few sectors in the U.S. that are more restrictive for FDI: fishing (1.0), transport (.55), mining (.30), and media (.30).

China has the most restrictive policies towards FDI of any of the countries covered by the OECD index. The total FDI index for China is .46. Russia and Indonesia are at .38 and .33, respectively. Brazil (.12), India (.22), and South Africa (.09) are all far more open to FDI than China. As with the U.S. and other countries, China's restrictiveness varies by sector. Manufacturing, retail and wholesale distribution, and hotels and restaurants are relatively open (with measures around .25). More closed sectors include agriculture, mining, media, telecom, and financial services. This restrictiveness would affect overall FDI, but may have a disproportionate effect on the U.S. The Bureau of Economic Analysis reports the stock of U.S. overseas investment by sector. Manufacturing only accounts for 25% of U.S. overseas investment. Financial services, on the other hand, accounts for 36%. Other sectors where the U.S. is strong include mining, media, and telecom. Hence China's restrictions, which are aimed at FDI in general, may have the particular effect of limiting U.S. investment.

Table 2.**FDI Restrictiveness Index (closed = 1, open = 0)**

	OECD	U.S.	China	Brazil	India	Indonesia	Russia	South Africa
Total FDI Index	.10	.12	.46	.12	.22	.33	.38	.09
Ag & Forrestry	.13	.00	.55	.10	.45	.13	.65	.06
Fishing	.32	1.0	1.0	1.0	.00	1.0	.38	.06
Mining	.12	.30	.39	.03	.53	.09	.94	.06
Manufacturing	.03	.00	.25	.03	.03	.08	.20	.06
Electricity	.12	.25	.61	.03	.00	.11	.25	.06
Construction	.06	.00	.27	.03	.00	.31	.18	.06
Distribution	.03	.00	.24	.03	.42	.69	.18	.06
Hotels & restaurants	.03	.00	.25	.03	.00	.25	.35	.06
Transport	.23	.55	.67	.29	.17	.42	.38	.23
Media	.18	.30	1.0	.68	.60	.75	.38	.06
Telecom	.09	.02	.80	.03	.43	.41	.28	.06
Financial Services	.05	.04	.61	.03	.25	.14	.53	.13
Business Services	.07	.00	.14	.03	.50	.56	.31	.39
Real estate	.28	.00	.28	.00	.00	1.0	.73	.01

Another aspect that was not taken into account in the regression analysis in the previous section concerns political and strategic features of the global landscape. The U.S. and China are on each other's lists of top investment destinations, but the amounts of investment are surprisingly low. For each, the other one is the largest economy in the world, so it makes sense to have some presence. But the countries are neither friends nor enemies according to President Obama's neutral formulation. All of the other countries on the U.S. list (Table 1) can be said to be allies of the U.S. in that they are either OECD members or developing countries with which the U.S. has good relations (Brazil, India, Egypt, and

Thailand). The Chinese list is composed of the developed economies with which China has good relations (Australia, U.K., Canada, France, Germany, Korea, and Sweden); bordering countries with which China has good relations (Kazakhstan, Russia, Myanmar, Mongolia, and Pakistan); and other developing countries with which China has close ties (South Africa, Indonesia, Cambodia, Thailand, Iran, Venezuela, and Zambia).

This absence of close strategic ties between China and the U.S. can influence two-way investment in various ways. China is not perceived to have good property rights and rule of law but still it receives 10% of global FDI, commensurate with its weight in the global economy. It is plausible that firms from countries that have good strategic ties with China feel more secure about their property rights, whereas U.S. firms do not have that kind of assurance.

In the other direction, a large amount of potential Chinese investment into the U.S. gets reviewed by the Committee on Foreign Investment in the U.S. (CFIUS), an inter-agency body that reviews mergers and acquisitions for potential national security issues. In 2012, China topped the list of countries whose proposed transactions were reviewed by CFIUS. In that year China accounted for 4% of FDI into the U.S., but fully 20% of CFIUS cases.⁹ On the positive side, CFIUS only reviews a small number of transactions each year (114 in 2012), and most of these move ahead (though often with some mitigation). On the negative side, the fact that a number of high-profile Chinese investments have been blocked by CFIUS affects the overall climate for Chinese investment in the U.S. These cases include CFIUS blocking Sany Group's acquisition of four small wind farms on the grounds that they are located close to U.S. military facilities and CFIUS preventing Huawei's acquisition of 3Leaf, a high-technology firm.

Chinese policy-makers and entrepreneurs perceive CFIUS to be a major obstacle to increased Chinese investment in the U.S. The commentary about CFIUS in the Chinese press and on the internet is quite negative:

CFIUS, a mysterious committee that keeps confidential its investigation process, objection reason and legal explanation, has been considered a roadblock in overseas investment in the U.S. by many Chinese companies, and even denounced as a tool for trade protection.

--*Caixin*, January 2014¹⁰

U.S. has the most severe restriction on foreign investment. The U.S. has CFIUS that investigates foreign investment and we do not have it in China. The U.S. restrains Chinese investment, stating they are state-owned enterprises, but actually, over 70% of Chinese investors in the U.S. are private.

--Zhang Monan, State Information Center of China¹¹

⁹ Committee on Foreign Investment in the U.S., annual report to Congress, December 2013.

¹⁰ <http://magazine.caixin.com/2014-01-17/100630247.html?p0#page2>

¹¹ http://paper.people.com.cn/rmrbhwb/html/2012-08/25/content_1102932.htm

CFIUS is powerful because “national security” can be a block to many things. Why is “national security” a useful tool in the U.S.? Many Americans consider China as a potential competitor. The label of “threat to national security” has no cost and political gains. For example, using “national security” against a Chinese company in a campaign helps to win votes and support.

--Jia Xiudong, China Institute of International Studies¹²

The U.S. has the cold war mentality towards China and applies trade protection against Chinese companies. America prohibits China’s entry to many fields mostly due to political reasons. It abuses “national security” as an excuse. This cold war mentality in the economic arena is a lose-lose situation for both countries... The U.S. ... hinders Chinese investment in high technology.

--Bai Ming, Chinese Academy of International Trade and Economic Cooperation¹³

4. Conclusion

This brief review of the current situation with U.S.-China cross-investment suggests a number of issues for research and discussion. The small amount of investment in each direction suggests that there would be large potential gains from a more open investment regime. Furthermore, this initial review suggests some issues that would have to be addressed by a Bilateral Investment Treaty (BIT) in order for it to have a large effect.

First, there is the issue of natural resources. Much of China’s outward investment up until now has been aimed at acquiring natural resources in which China itself is relatively scarce: oil and gas, minerals, and food. Natural resources is also one important component of U.S. outward investment. Both China and the U.S. are scarce in natural resources, relative to their GDPs and populations. However, each also has substantial absolute quantities of resources and large annual productions of energy, minerals, and food. Hence, there is potential for cross-investment. In recent years there have been high profile acquisitions by Chinese firms of U.S. energy (CNOOC-Nexen) and food producing firms (Shuanghui-Smithfield). These transactions have gone through the CFIUS process and been approved. There has been less reciprocal investment of U.S. firms in Chinese energy, mineral, or food sectors, largely because of restrictions on the Chinese side. There are U.S. firms interested in exploiting their technological advances in areas as diverse as shale gas extraction and pig farming. China would have to significantly reduce its restrictions on foreign investment in agriculture and mining in order for such deals to proceed.

Second are issues of modern services such as finance, telecom, health, education, media, and logistics. These are all sectors in which the U.S. is strong, and they are exactly the sectors in which China has the strongest restrictions on inward investment. The decision that came out of the Third Plenum of the

¹² <http://jingji.cntv.cn/2014/07/27/VIDE1406476259677842.shtml>

¹³ http://paper.people.com.cn/rmrhbwb/html/2013-02/27/content_1204132.htm

Central Committee of the Chinese Communist Party indicated that the leadership plans to open up these sectors:

We will promote the orderly opening up of finance, education, culture, healthcare and other service sectors, lift limits on access for foreign investment in childcare, care for the elderly, architectural design, accounting and auditing, trade and logistics, electronic commerce and other such service sectors, and further liberalize general manufacturing.¹⁴

A key question is, what in practice does “orderly opening up” entail? If the leadership is serious about opening these sectors to foreign investment within a few years, then there is excellent potential to negotiate a meaningful BIT. At the same time, a BIT could help lock in the reforms that China has indicated are important for the next stage of development.

A third issue concerns high technology and intellectual property rights. High technology and intellectual property are the basis for most U.S. FDI around the world. The fact that there is so little U.S. investment in China reflects in part the poor protection of IPR there. In sectors that are relatively open in China, such as manufacturing, it is likely that U.S. firms are holding back on investment because of concerns about IPR protection.

A fourth issue to mention is data. It is widely agreed that there are a lot of problems with the data on U.S. investment in China and Chinese investment in the U.S. One of the important agreements at the Joint Commission on Commerce and Trade (JCCT) meeting of December 2013 was that the two sides would accelerate efforts to improve the quality and comparability of data. Of particular importance is the role of transit investment through Hong Kong and similar locations. Once we have better data on ultimate beneficial owners of the stock of inward FDI in each country, some of the results in this preliminary analysis may change.

Fifth, the initial analysis suggests that Chinese investment is particularly looking for politically stable environments. While the U.S. is clearly politically stable in some dimensions, it has noisy politics that many Chinese investors find off-putting. Any large deal involving Chinese investors is likely to attract much political commentary, even grand-standing. Members of Congress have raised doubts about some of the Chinese investment in the U.S. A BIT could potentially create a more stable political environment for Chinese investment into the U.S. It could reduce or even eliminate the risk that Congress would attempt to intervene in particular deals.

Finally, one of striking differences between Chinese outward investment and FDI globally is the lack of correlation with market size. This non-relationship makes sense if the exclusive motivation for Chinese investment is natural resource extraction. And if the situation does not change, then the potential for Chinese investment into the U.S. is quite limited. But China is a relative new-comer to outward FDI. It is plausible that the initial motivation for Chinese firms to go out was to fill natural resource gaps. As

¹⁴ *Decision of the CCCPC on Some Major Issues Concerning Comprehensively Deepening the Reform*, http://www.china.org.cn/chinese/2014-01/17/content_31226494_3.htm

China's economy matures, the motivations for outward investment may broaden. The rebalancing of China's growth model is likely to make the economy less investment and natural-resource intensive, and more focused on technological innovation on the supply side and consumption on the demand side. It is possible that China's outward investment will evolve to be more like FDI globally, in which case access to the U.S. market will be critical. Cross-investment between China and the U.S. can potentially play an important role assisting China to strengthen its innovation capacity and to develop its consumer market. To reap these benefits, however, China will need to be willing to open up its still largely protected domestic market and make advancements in property rights in general and intellectual property rights in particular.

Appendix: Allocation equations for global, U.S., and Chinese outward direct investment

This appendix carries out statistical analysis of the allocation of global FDI, U.S. outward investment, and Chinese outward investment. The analysis covers 148 countries, based on data availability. It turns out that the allocation of FDI can be explained very well by variables that fall into three categories: (1) market size (total GDP measured at PPP and population); (2) natural resources (natural resource rents as a share of GDP); and (3) governance. For governance I use two different measures from the World Bank's governance database:

- Rule of law “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”;
- Political Stability and Absence of Violence/Terrorism “measures perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism.”

The allocation of FDI overall provides a useful benchmark. FDI is strongly related to GDP with a coefficient that is close to 1 and highly significant (Appendix Table 1). Controlling for GDP, FDI has a weak, negative relationship to population. It is interesting that there is no statistically significant relationship between investment and natural resource rents for FDI overall. Both governance variables, rule of law and political stability, are positively to FDI. The relationship for rule of law is larger in magnitude and more statistically significant. The two governance indicators are positively correlated. If political stability is dropped (specification 2) then the coefficient on rule of law becomes larger and more significant. One standard deviation better on rule of law corresponds to 39% more FDI. The first specification also includes a number of geographic indicator variables. An indicator for Asian countries has a significant negative coefficient; historically most FDI has come from Europe and the U.S. so that the distance to Asia may be an impediment to direct investment. A similar indicator for countries in the Americas has a coefficient very close to zero. Finally, given our special interest in the U.S. and China there are indicator variables for these two countries. The coefficient on the USA is very close to zero. The coefficient on China is moderately large. In specification two the indicator variable for China is marginally significant. It indicates that China gets more than 100% additional FDI than would be expected given its market size and governance indicators. Note that the R-squared is 0.88, so that most of the cross-country variation in inward stocks of FDI can be explained by this parsimonious set of variables. The fact that the coefficient on USA is very close to zero indicates that the model explains well why the U.S. is the largest recipient of FDI: it is the largest economy in the world and it has good property rights and rule of law (the U.S. is at the 92nd percentile for the Rule of Law index among the 152 countries in the data-set). China, on the other hand, rates rather poorly on the rule of law index (-0.49), about half a standard deviation below the mean. China is above average among countries now in terms of per capita GDP. Its ranking on rule of law is unexpectedly low given its GDP, population, and other characteristics. The large coefficient on “China” indicates that it receives significantly more FDI than one would expect given its market size and relatively weak property rights.

In Appendix Table 2 the dependent variable is (the log of) outward U.S. FDI. The first specification is the same as specification 1 in Appendix Table 1. U.S. outward investment is similar to global FDI in that it is attracted to larger markets with a coefficient close to 1. It is positively attracted to natural resource wealth and to good rule of law. Controlling for rule of law, U.S. investment is unrelated to political stability. The second specification drops political stability. The coefficient on natural resource rents implies that one standard deviation higher on natural resource rents for the recipient country increases U.S. investment by 70%. The coefficient on rule of law is also much larger: a standard deviation better on rule of law attracts 160% more U.S. investment. Note that the indicator variable for China has a coefficient very close to zero, indicating no special favor for or prejudice against investment in China.

What of China's direct investment into the U.S.? Appendix Table 3 presents an allocation equation for China's outward investment to 147 countries. The first specification adds political stability back in as an explanatory variable and includes some indicator variables that are relevant for China. There are some interesting differences between the China allocation equation and the overall allocation of FDI. First, there is no strong relationship between China's outward investment and market size. Second, the coefficient on natural resource rents is large and significant. A third interesting difference is that rule of law does not matter, but political stability does. To the extent that much of China's overseas investment comes from state enterprises, often as part of larger country-to-country agreements, it would be rational for China to pay attention to the political stability of recipients but not necessarily to property rights and contract enforcement in the domestic economy.

The indicator variables reveal that China has a strong tendency to invest in its neighbors; not surprisingly is not inclined to invest in countries that do not accord it diplomatic recognition; and, other things equal, invests more in African countries. The coefficient on Africa is large and significant. China invests almost twice as much in Africa as would be expected, even after controlling for recipient countries' natural resource wealth. There is a growing literature on China's special interest in Africa (see Brautigam 2011, Economy and Levi 2014, Sun 2014). The indicator variable for the USA is insignificant.

Appendix Table 1. Allocation of global FDI

Dependent variable: Log of (stock of FDI liabilities, end-2011)

Number of countries	148	148
Independent variables	(1)	(2)
Log (PPP GDP)	1.07 (12.86)	1.07 (14.50)
Log (population)	-0.23 (2.41)	-.28 (3.39)
Natural Resource Rents	-.0002 (0.03)	--
Rule of Law 2012	0.25 (1.83)	0.39 (4.06)
Political Stability 2012	0.20 (1.66)	--
Asia	-.65 (4.17)	-.69 (4.77)
Americas	-.003 (0.02)	--
China	1.09 (1.37)	1.29 (1.65)
USA	-.13 (0.17)	--
R-squared	0.88	0.88

Note: *t*-statistics in parentheses.

Appendix Table 2. Allocation of U.S. outward FDI

Dependent variable: Log of (stock of U.S. FDI assets, end-2012)

Number of countries	115	115
Independent variables	(1)	(2)
Log (PPP GDP)	1.12 (3.82)	1.12 (3.85)
Log (population)	.33 (1.01)	.36 (1.15)
Natural Resource Rents	.050 (2.45)	.049 (2.41)
Rule of Law 2012	1.76 (3.72)	1.60 (4.23)
Political Stability 2012	-.23 (0.56)	--
Asia	-1.07 (2.01)	-1.02 (1.94)
China	-.02 (0.01)	-.24 (0.10)
Americas	2.59 (4.05)	2.57 (4.04)
R-squared	0.67	0.67

Note: *t*-statistics in parentheses.

Appendix Table 3. Allocation of China's outward FDI

Dependent variable: Log of (stock of FDI assets, end-2012)

Number of countries	147	147
Independent variables	(1)	(2)
Log (PPP GDP)	0.46 (1.87)	0.41 (1.96)
Log (population)	0.71 (2.63)	0.75 (3.01)
Natural Resource Rents	.034 (2.54)	.036 (3.04)
Rule of Law 2012	-.14 (0.40)	--
Political Stability 2012	.48 (1.66)	.41 (1.76)
China neighbor	1.36 (2.22)	1.37 (2.24)
Non-recognition	-3.47 (5.69)	-3.43 (5.71)
Africa	0.89 (1.78)	.85 (1.74)
USA	0.81 (0.43)	.78 (0.41)
R-squared	0.63	0.63

Note: *t*-statistics in parentheses.

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