promoting sustainable global trade
hinrich foundation

Hinrich Foundation White Paper Series | No. 17-2 | June 2017

The Impact of U.S. Foreign Investment and U.S. Companies on China's Economy

By Michael J. Enright and Enright, Scott & Associates Limited

China's economic reforms have created the world's most dynamic economy. A major part of the China's economic development has involved foreign companies, and in particular companies from the United States. This document summarizes the results of a project on the impact of U.S. companies on China's economy initiated by the Hinrich Foundation, a Hong Kong-based foundation dedicated to furthering understanding of sustainable trade and investment, and undertaken by Enright, Scott & Associates (ESA), an Asia-based consultancy focused on economics, public policy, and business strategy. It follows on from a larger project also initiated by the Hinrich Foundation and undertaken by ESA on the impact of foreign investment and foreign enterprises as a whole on China's economy. The results of the larger project were published in Michael J. Enright, Developing China: The Remarkable Impact of Foreign Direct Investment (Routledge 2017). The positive response to the earlier project has created interest in and demand for more detailed analyses focusing on the impact of investment and companies from a single nation or group of nations on China's economy. This is the first of these more focused reports. A longer version of this report, containing more historical context and statistical information, is available from the Hinrich Foundation's website.

Michael J. Enright, a leading expert on competitiveness, regional economic development, and international business strategy became the Sun Hung Kai Professor of Business at the University of Hong Kong in 1996 after six years as a professor at the Harvard Business School. He is also a director of Enright, Scott & Associates consultancy and a founder of The Competitiveness Institute. Professor Enright has consulted to companies, governments, and multilateral organizations in more than 30 countries on six continents on international business strategy, competitiveness, regional clustering, technology policy, and economic development; has appeared in 40 countries as a featured speaker; and has authored numerous books and monographs on international competitiveness and China's development. Enright, Scott & Associates is an Asia-based economics and strategy consultancy that works extensively with governments, leading corporations, and multilateral organizations on strategy and economic development issues.

The Hinrich Foundation (http://www.hinrichfoundation.com) is a non-profit organization dedicated to promoting sustainable global trade. As part of its international trade research activities, the Hinrich Foundation periodically issues white papers on various international trade, investment, and economic issues.

our focus

Trade scholarships & careers • Export trade assistance • International trade research
www.hinrichfoundation.com

Contents

Executive Summary 3
Introduction 7
The Current Situation 8
Challenges for U.S. Companies in China 8
Positive Developments for International Investors 8
China's Major Initiatives 9
The Need to "Make the Case" for U.S. Investment in China 10
U.S. Foreign Direct Investment into China 12
MOFCOM / NBS 13
U.S. BEA 14
The Rhodium Group 14
Explaining the Differences 15
The Trouble with Focusing on FDI Numbers 16
The Operations of U.S. Foreign Affiliates in China 16
Operations of Majority Owned U.S. Foreign Affiliates in China 17
Operations of All U.S. Foreign Affiliates in China 19
Key Results on the Operations of MOUSFAs and USFAs 22
The Economic Impact of U.S Foreign Affiliates in China 23
Economic Impact Methodology 23
The Economic Impact of Majority-Owned U.S. Foreign Affiliates 25
The Economic Impact of All U.S. Foreign Affiliates 28
Economic Impacts by Industry 31
Key Results on the Economic Impact of MOUSFAs and USFAs in China 32
A Brief Case Study 33
Further Impacts of U.S. Companies in China 34
Chinese Consumer / Customer Benefits 34
Sourcing Impacts 34
Other Catalytic and Spillover Impacts 35
Additional Impacts 38
Conclusions 38
Implications 40

Executive Summary

China's economic reforms have created the world's most dynamic economy. A major part of the China's economic development has involved foreign companies, and in particular companies from the United States.

The Need to "Make the Case" for the Benefits U.S. Companies Bring to China

In recent years, there have been positive and negative signs when it comes to China's approach to foreign companies. American businesses report that protectionist policies, unclear regulations, policies that favor domestic companies, stalled reforms, and what some termed selective enforcement of laws against U.S. and other foreign companies (or at least the reporting of incidents) have made many U.S. companies feel unwelcome in China. At the same time, China has become gradually more open, pronouncements by senior Chinese leaders indicate that they wish continued cooperation with foreign firms, and the Draft Foreign Investment Law has several features long-desired by foreign companies. China is at a crossroads when it comes to its approach toward foreign companies, and it is unclear whether major Chinese initiatives will be largely inclusive or exclusive when it comes to foreign companies. Thus it is more important than ever before for foreign companies to "make the case" for the benefits that they bring to China.

USFDI into China is Probably Understated

According to China's National Bureau of Statistics (NBS), the cumulative U.S. Foreign Direct Investment (USFDI) into China since the onset of China's reform process through 2015 was US$78 billion. This is similar to the US$75 billion reported by the U.S. Bureau of Economic Analysis (BEA) for the USFDI position in China through the same year. The Rhodium Group, on the other hand, has estimated that the cumulative USFDI into China from 1990 to 2015 could be on the order of US$228 billion. Comparisons of the BEA investment position data with data on the operations of U.S. affiliates in China indicates the official USFDI numbers could be dramatically understated due to the potential for investment flows through third countries.

The Operating Data Show Much Larger Impacts than FDI Flows

While the USFDI numbers are the most quoted figures when it comes to the U.S. company presence in China, they are not nearly the most important. The BEA reports that the sales of Majority-Owned U.S. Foreign Affiliates (MOUSFAs, with >50% U.S. ownership) in China in 2014 were over US$341 billion and the value added was US$66 billion or 27.9 times the NBS reported USFDI for that year. This indicates that the GDP contribution of the MOUSFAs just from their own operations represented a far larger contribution than the annual USFDI flow data would indicate. The MOUSFAs also employed 1.67 million in 2014. All U.S. Foreign Affiliates (USFAs, with >10% U.S. ownership) reported US$470 billion in 2014 sales and employment of just over 2 million (no value added data is reported for the USFAs). The MOUSFAs reported 5.3% of their global non-US sales in China, but only 2.1% of global non-US net income in China in 2014. The USFAs reported 6.3% of their global non-US sales, but only 2.5% of global non-US net income in China, indicating that China is much less profitable on a return on sales basis for U.S. foreign affiliates than the global average.

Economic Impact Analysis Shows a More Complete Picture of the Contribution of U.S. Companies

The operating data also dramatically understates the benefits that U.S. foreign affiliates bring to China. ESA has used the tools of economic impact analysis to estimate the impact that U.S. companies have on China through their investments, their own operations, their ripple effect through supply chains, their impact on downstream distribution, and the consumer spending of the relevant employees. To do so, ESA has adjusted standard economic impact techniques to eliminate the potential for double counting and other potential skewing of results.

Using these tools, we estimated that the MOUSFAs had a value added impact in China of US$310 billion in 2014, and a cumulative value added impact from 1997 to 2014 of US$1.79 trillion. The 2014 value added impact was 131 times the NBS reported USFDI inflow and was equivalent to 3.0% of China's GDP. The cumulative value added impact from 1997 to 2014 was 29.2 times the NBS reported cumulative USFDI. The MOUSFA impact on China's employment was 16.7 million in 2014, or 2.1% of China's total employment. The MOUSFA GDP impact on China averaged 11 times the value of MOUSFA net income in China from 2005 to 2014, indicating that while the U.S. affiliates have benefited from their presence in China, China's economy has benefited far more.

We estimated the value added impact of the USFAs in China was US$435 billion in 2014, with a cumulative impact from 1997 to 2014 of US$2.57 trillion. The 2014 value added impact was 184 times the NBS reported USFDI inflow and was equivalent to 4.2% of China's GDP in that year. The cumulative value added impact from 1997 to 2014 was 42 times the NBS reported cumulative USFDI. The USFA impact on China's employment was 22.8 million in 2014, or 2.9% of China's total employment. The estimated value added (GDP) impact of the USFAs in China averaged 11 times the value of USFA net income in China from 2005 to 2014, indicating that while the U.S. affiliates have benefited from their presence in China, China's economy has benefited far more.

Similar economic impact analysis can also be applied to individual companies. Using publicly available data on P&G's activities in China, ESA estimated that in 2014 P&G had on the order of US$6.4 billion in sales in China and the distribution chain markup was on the order of US$5.5 billion. With these as inputs, ESA estimated that P&G's impact on China's economy in 2014, including P&G's operations, those of suppliers, those of the distribution channel, and all of the relevant employees was on the order of US$11.3 billion in value added and 612,000 employees.

Additional Non-Quantified Benefits May be Equally Important

While the impacts reported above are impressive, particularly when compared to the USFDI flow data usually reported, they still substantially understate the impact of USFAs on China's economy. The reason is that there are many impacts that are not captured by estimates based on the investments and productive and sales of U.S. companies in China. These include the value of the presence of U.S. affiliates to consumers and business customers in China, the value of U.S. company sourcing activities in China, modernizing and creating industries in China, creating supply and distribution channels in China, expanding R&D capabilities in China, improving business practices and standards in China, improving the financial sector in China, bringing modern management training to China, integrating China into regional and global management systems, providing technical assistance in China, enhancing sustainability practices in China, shaping the CSR landscape in China, and providing policy advice and

advocacy for China. These benefits, and their spillovers into local companies and local economies in China, may be as important if not more important that the benefits we have been able to quantify.

Several Conclusions Come Directly from the Work

- Official USFDI numbers are likely to be substantially understated because they do not capture all investments made through third countries or economies.

- Economic impact analysis gives a much more complete picture of the benefits of foreign enterprises than FDI flows. The economic impact of USFAs in China in a given year has been as much as 180 times the investment flow. This is where the discussion about the impact of U.S. companies in China should start, with the economic impact estimates, not with the USFDI figures.

- China benefits far more than U.S. companies from their presence in China, since the GDP impact of U.S. companies, suppliers, distributors, and the relevant employees in China in a given year is on the order of 11 times their net income.

- The economic impact tools can be used in other countries to provide a more complete picture of the benefits of FDI and foreign companies.

Implications for U.S. Companies, the U.S. Government, and U.S. Business Groups

- There is an increasing need to "make the case" for the value of USFDI and USFAs to China and other host countries.

- Specific analysis showing the value generated for China's economy is likely to be far more effective in changing the discussion about foreign investment in China than legalistic phrases and generalities about what is "good for China."

- ESA's economic impact analysis shows that the benefits generated by U.S. affiliates in China can be 180 times the value of the annual USFDI inflow. The discussion about the value of USFDI and USFAs to China should START with the economic impact numbers.

- The additional benefits that USFAs bring to China that have not been quantified in this Report may be as large if not larger than the benefits that have been quantified.

- Similar analysis can be done for individual U.S. firms that wish to "prove their worth" when it comes to demonstrating the benefits they bring to China.

- Similar analysis should be done for other host countries, as China is not the only place where "making the case" for the benefits of USFDI and USFAs will be essential going forward.

Implications for China

- China has benefitted enormously from USFDI and the presence of USFAs. The benefits in terms of value added impact can be 180 times the annual USFDI inflows. The benefits have also been an order of magnitude greater than the net incomes of the U.S. affiliates in China. And this does not include the non-quantified benefits to consumers and business customers, the benefits associated with sourcing in China, and a wide range of additional catalytic and spillover benefits to China's economy.

- FDI and in particular USFDI has proven an extraordinarily cost-effective means of helping to develop China's economy. This is particularly important at a time when China is looking for financially sustainable growth.

- The available information indicates that China is a less profitable market on average than other markets for U.S. Foreign Affiliates.

- No country, not even China or the U.S., can develop all the ideas and innovations necessary to support economic development in the modern world. In addition, all of China's major economic initiatives will be far easier to execute with the participation and cooperation of foreign investors, including those from the U.S., than without.

Implications for Other Countries and U.S. Affiliates Operation in Other Countries

- Enormous benefits can be obtained through USFDI and the presence of U.S. companies in a host country. In addition, these benefits are usually dramatically understated due to incomplete analysis.

- The tools exist that allow for a much more complete assessment of the impact of FDI and the presence of foreign companies. Such analysis can be useful both in policy making and in convincing local constituencies about the value of foreign investment.

- The main implication when it comes to other host countries for investing companies, source country governments, and source country business groups is that the tools exist to provide a more detailed picture of the benefits they bring to these countries as well and that these tools can be used to better "make the case" for the benefits of FDI and foreign companies.

Introduction

China's economic opening and reforms have created the world's most dynamic economy. China has become the world's second largest economy and the world's leading trading nation. In the process, hundreds of millions of people have been raised from poverty and the nation as a whole is rapidly achieving the moderately prosperous status set as a target by China's current President Xi Jinping.

One of the key parts of China's economic emergence has been the contribution of foreign direct investment (FDI) and foreign invested enterprises (FIEs) or foreign affiliates (FAs). In May 2015, the Hinrich Foundation, a Hong Kong-based foundation dedicated to furthering understanding of sustainable trade and investment, initiated a 16 month project to examine the impact of FDI and FIEs / FAs on China's economy. The project was undertaken by Enright, Scott & Associates (ESA), an Asia-based consultancy focused on economics, public policy, and business strategy. The project examined the historical step-by-step development of China's approach toward FDI and FIEs / FAs, the evolution of FDI and the FIE / FA presence in China, an economic impact analysis of FDI and FIEs / FAs in China, city and corporate case studies on the impact of FDI and FIEs / FAs on China's economy, an assessment and extension of traditional academic work on the impact of foreign investment on China's economy, and implications for the future.

The results of the project were published in Michael J. Enright, Developing China: The Remarkable Impact of Foreign Direct Investment (Routledge 2017). One of the most important findings of the original project was that FDI and the activities of FIEs / FAs, their ripple effects through supply chains, and the spending of all the relevant employees has accounted for roughly one-third of China's GDP and over one-quarter of China's employment in recent years. The positive response to the earlier project has created interest in and demand for more detailed analyses focusing on the impact of investment and companies from a single nation or group of nations on China's economy. As a result, the Hinrich Foundation initiated, and ESA has carried out, the present project on the impact of U.S. foreign investment and U.S. companies on China's economy.

In this report, we focus on the impact of FDI from the U.S. (USFDI) and the operations of the foreign affiliates of U.S. companies in China (USFAs). U.S. companies had only a modest position in China before the Second World War and were not present in China for three decades afterwards. However, U.S. companies have been major contributors to China's economy since China's economic opening. While the USFDI flows into China have been significant, it turns out that the operations of the U.S. companies and their economic impact through supply chains, distribution channels, and the consumer spending of employees are far greater than most people imagine. Including these impacts, U.S. companies and their ripple effects through China's economy contribute more than 180 times the value of the usual measure of USFDI inflow, and 11 times the net profit of the U.S. firms, to China's GDP each year. This means that the benefits to China are not only orders of magnitude larger than the usual measure of foreign enterprise activities, but are also far larger than the benefits obtained by the U.S. companies.

U.S. companies also provide additional contributions that have not been quantified to date. These include the benefits to Chinese consumers and customers; the benefits generated by the sourcing activities of U.S. companies; and a wide range of other benefits involving the modernization and development of industries, support of supplier

and distribution networks, technology development, business practices and management training, sustainability practices, and CSR initiatives, and many others.

Understanding and communicating the full benefits of the U.S. company presence will be necessary for U.S. companies, the U.S. Government, and U.S. business groups to "make the case" for the value they bring to China in the face of increasing skepticism. Unfortunately, these entities rarely have the full information at their disposal. As a result, U.S. participants in discussions about access for U.S. companies in China tend to fall back on legalistic statements concerning treaties and obligations, or generalities about what is "good for China" instead of specific analysis of how much China has gained, and has to gain, from openness to U.S. companies.

Our goal in this document is as simple as it is bold. That is to change the nature of the discussion about the value of foreign companies in China, and U.S. companies in particular, based on analysis that shows that the benefits are far greater than most people inside and outside of China imagine.

The Current Situation

By the beginning of 2017, there were tens of thousands of U.S. companies active in China. Many have done extremely well in China over the years. However, many also report difficulties in operating in China.

Challenges for U.S. Companies in China

Although China has opened its economy substantially since 1979, it remains the most closed of the world's large economies. According to the OECD, in 2016, China was the fourth most restrictive for inward foreign investment of the 63 countries assessed, behind only the Philippines, Saudi Arabia, and Myanmar.[1] Despite reductions over the years, China still lists 36 sectors in which foreign investment is prohibited (including education, media, etc.) and 38 in which foreign participation is restricted (including several financial services, automotive, shipbuilding, e-commerce, and medical institutions).[2] American businesses report that protectionist policies, unclear regulations, policies that favor domestic companies, stalled reforms, and what some termed selective enforcement of laws against U.S. and other foreign companies (or at least the reporting of incidents) have made many U.S. companies feel unwelcome in China.[3] Some have gone so far as to reduce investments or reinvestments in China.[4]

Positive Developments for International Investors

Despite the challenges, there have been a number of positive developments for foreign investors in China, including U.S. investors. The 2015 foreign investment catalogue reduced the number of prohibited sectors from 38 to 36, reduced the number of restricted sectors from 79 to 38, reduced the number of industries for which Chinese-controlled joint ventures were required from 44 to 35, and reduced the number of industries requiring joint ventures

[1] OECD, https://data.oecd.org/fdi/fdi-restrictiveness.htm.

[2] For the 2015 Catalogue see http://www.fdi.gov.cn/1800000121_39_4830_0_7.html.

[3] American Chamber of Commerce in Shanghai, "U.S. Market Access in China," Viewpoint, August 2015.

[4] American Chamber of Commerce in South China, White Paper 2017.

with Chinese partners but without Chinese control from 43 to 15.[5] The Draft Foreign Investment Law circulated starting in 2015 proposed close to national treatment for investments in the encouraged and permitted categories and a shift from ex ante approval to ex post reporting for most investments in these two categories.[6] The Free Trade Zones in Shanghai, Tianjin, Fujian, and Guangdong have been experimenting with a "negative list" approach to foreign investment in which any investment not on the list is permitted and subject to a less onerous filing system than previously. In addition, officials such as Premier Li Keqiang (during his address concerning the 2017 Government Work report in March 2017) have indicated that China would open further to foreign investment.[7]

China's Major Initiatives

China has also embarked on several major initiatives, including the One Belt-One Road Initiative (OBOR), the Made in China 2025 Initiative, the Internet Plus Initiative, and the "Go Global" Initiative among others. The question that many people have is whether these initiatives will be inclusive or exclusive when it comes for foreign investors and foreign companies. The OBOR initiative seeks to link 70 countries with ties of infrastructure, investment, trade, and commerce. The U.S. has chosen to stay out of one of the major support structures of the OBOR initiative, the Asian Infrastructure Investment Bank, so even though by its nature OBOR would seem to have to be multinational and multilateral, it is not clear whether U.S. companies will be able to benefit, particularly as the initiative is designed largely to connect China with the rest of Asia, Europe, Africa, and the Middle East.

China has claimed that the Made in China 2025 Initiative, which is designed to substantially upgrade China's manufacturing sector, will be open to foreign participation on an equal basis with Chinese companies.[8] However, many foreign companies believe the initiative is designed to support Chinese companies versus foreign competitors, with a goal of using state support to alter the playing field to the advantage of Chinese companies and to push foreign companies out of targeted industries.[9] It appears that foreign companies are welcome to support Chinese companies to eventually displace foreign competitors in the ten industries targeted by the initiative.

Internet Plus is the strategy for China to accelerate its development through the digitalization and informatization of the economy. This includes, but is not limited to, extending digital and online businesses, linking together devices through the Internet of Things (IoT), and extending private and public services through the Internet.[10] China also will support domestic R&D and Chinese firms in related sectors. In fact, one of the explicit goals is to reduce China's dependency on foreign hardware, software, and innovation, and is linked to policies requiring foreign companies

5 NDRC.

6 Christopher W. Betts, Will H. Cai, Z. Julie Gao, Gregory G.H. Miao, "China's MOFCOM Aims to Fundamentally Change the Legal Landscape on Foreign Investments," Skadden Insights, February 2015.

7 China Ministry of Foreign Affairs, http://www.fmprc.gov.cn/mfa_eng/zxxx_662805/t1446292.shtml.

8 Ma Si, "Foreign and Chinese companies equal under Made in China 2025," China Daily, March 11, 2017.

9 U.S. Chamber of Commerce, Made in China 2025: Global Ambitions Built on Local Protections, March 2017 and European Chamber of Commerce in China, China Manufacturing 2025: Putting Industrial Policy ahead of Market Forces, March 2017.

10 "Premier urges use of Internet Plus to boost growth," State Council of the PRC, June 25, 2015.

to share source codes and house information on Chinese individuals and entities in China. Since China increasing views the Internet as part of national infrastructure, it falls under national security concerns, which could be used to exclude foreigners.[11]

China's "Go Global" Initiative is designed to encourage Chinese companies to internationalize. The goals are to acquire key technologies and sources of expertise vital to China's development, learn from customers and competitors in other countries, and for Chinese companies to learn how to succeed abroad as a way of improving their competitiveness globally and at home. In recent years, "Go Global" has converged with the OBOR Initiative in that over 50% of new projects by Chinese companies abroad have recently been in OBOR countries. "Go Global" seems designed to acquire capabilities and bring them back to China to increase China's relative competitiveness versus other countries.

One of the major questions concerning these and other Chinese initiatives is the extent to which China plans for them to be inclusive, i.e. open to cooperation with foreign partners, or exclusive, i.e. reserved for Chinese entities. This is a major question, as the OBOR Initiative's initially identified projects could exceed US$1 trillion in investment and the whole multi-decade plan could involve US$4 trillion in Chinese investment and US$8 trillion overall;[12] Made in China 2025 is being funded at a level on the order of US$70 billion over a five year period;[13] Internet Plus and related activities are being funded initially with a US$14.6 billion fund with more to follow;[14] and President Xi has announced that China's expected outbound FDI will be in the order of US$750 billion from 2017 to 2021.[15] While mapping a successful path for China's initiatives would appear to be much easier with substantial foreign cooperation and participation, it is yet to be seen exactly the approach that will be taken.

The Need to "Make the Case" for U.S. Investment in China

China appears to be at a crossroads when it comes to foreign investment. Chinese companies are growing in effectiveness. China is becoming increasingly assertive in terms of industrial policy and support for local companies. The push back from government and the public that American and other foreign companies receive in China appears to be increasing. There also appears to be a growing economic nationalism and sense among many Chinese that foreign companies are not necessary for China to prosper, or at least not as necessary as they once were. Some of China's major initiatives appear to be designed to displace rather than to cooperate with foreign companies.

As a result, it is becoming more and more crucial that foreign companies, governments, Chambers of Commerce, and other business groups "make the case" for the value that foreign investment and foreign companies bring to China.

---

[11] Scott Kennedy, "Impressions of the 13th FYP Proposal," in Scott Kennedy (ed), State and Market in Contemporary China: Toward the 13th Five-Year Plan, CSIS, 2016.

[12] China Energy Fund Committee, "Dr. Patrick Ho requests the US to actively participate in 'One Belt One Road," CEFC News, March 2, 2016.

[13] ESA analysis of various press reports.

[14] "China launches US$14.6 billion internet fund, The Asset, January 23, 207.

[15] Kaiser Kuo, "China's Pivot to World Markets," World Economic Forum Annual Meeting, January 19, 2017.

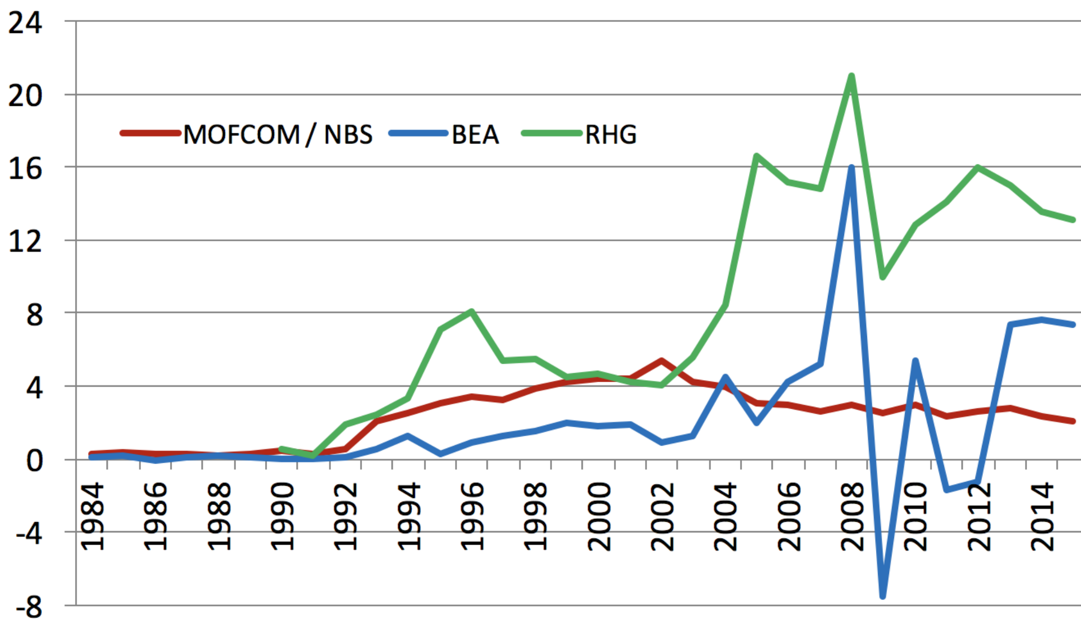
Unfortunately, responses by foreign companies, governments, and business groups are often framed in legalistic terms like "international norms," or "international obligations," or "reciprocity," or in general statements about how greater openness would be "good for China." Unfortunately, these approaches not only don't work, they are often met with incomprehension on the Chinese side. After all, in China "norms" and "obligations" have no real meaning in and of themselves. They are means to an end. And the notion that foreigners, particularly those with a profit motive, should be telling Chinese officials "what is good for China" can be seen as at best misguided and at worst condescending.

If foreign companies, governments, chambers, and other business groups are going to "make the case" for the benefits they bring to China, these benefit must be framed in terms of China's self-interest and must be backed up with specifics rather legalistic terms or generalities. In other words, a harder edge, based in analysis, is necessary in order to "make the case" for the benefits that foreign investment and foreign companies bring to China today and can bring in the future. Only then is it likely that the foreign companies, governments, and business groups will see positive action on the issues they face in China.

U.S. Foreign Direct Investment into China

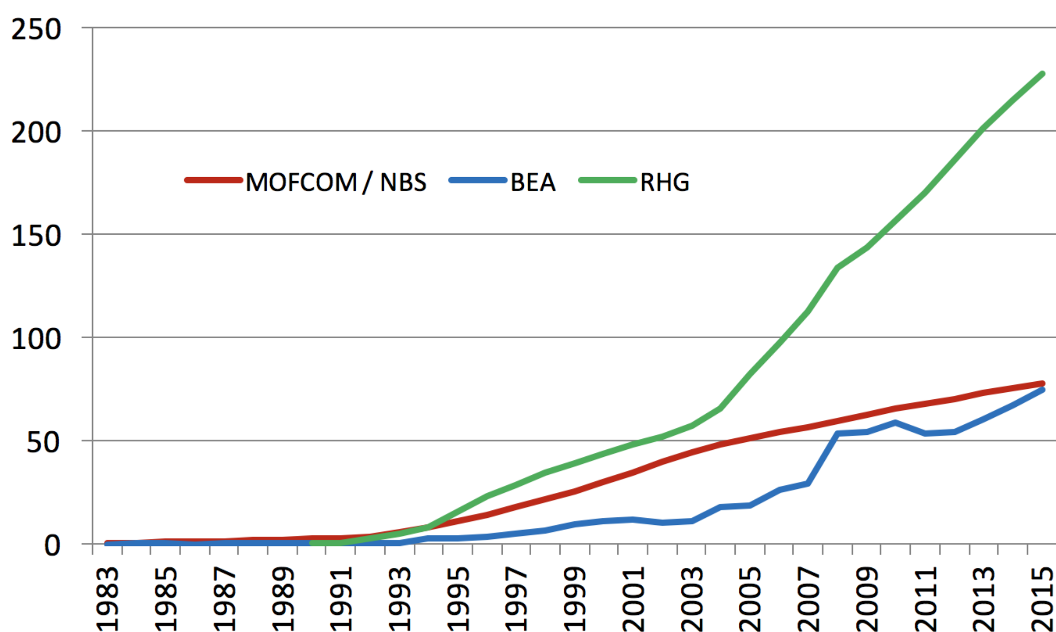
The specific analysis needs to start with efforts to quantify the benefits foreign investment and foreign companies bring to China. This usually starts with data on inward investment flows. The usual statistical sources for information on U.S. foreign direct investment into China (USFDI) are China's Ministry of Commerce (MOFCOM) under the supervision of the National Bureau of Statistics (NBS) and the U.S. Bureau of Economic Analysis (BEA) of the Department of Commerce. The NBS data capture utilized USFDI in aggregate from 1979 to 1983, and annually thereafter. The BEA publishes financial flow information regarding USFDI into China as well as the Direct Investment Position of the China-based affiliates of US companies. In addition, the Rhodium Group (RHG), an economic consultancy, has separately estimated USFDI from 1990 to 2015, based on announced and confirmed USFDI transactions. Exhibits 1 and 2 show a comparison of the statistics from the three sources, each of which is discussed below.

Exhibit 1. Annual USFDI Flows into China, US$ billion



Sources: MOFCOM / NBS, U.S. BEA, and the Rhodium Group.

Exhibit 2. Cumulative USFDI Flows into China, US$ billion



Note: BEA data is for USFDI position, NBS and RHG data are the simple sums of the annual flows.

Sources: MOFCOM / NBS, U.S. BEA, and the Rhodium Group.

MOFCOM / NBS

China's official FDI statistics are compiled by the Ministry of Commerce, under the supervision of the National Bureau of Statistics. FDI is recorded in U.S. dollars in the year of the investment. The cumulative figures are the simple sums of the annual recorded investments including previous years without correction for inflation, exchange rate movements, depreciation, or disinvestments. The sources of investment through free ports are supposed to be identified through the registration countries/regions of the real underlying investors.[16] However, the reported statistics include sizable amounts from such "free ports" as Mauritius, Barbados, the Cayman Islands, the British Virgin Islands, and Samoa,[17] which indicates that the ultimate source countries of the investment are not identified. In addition, Hong Kong was reported to be the source of 63.7% of China's inbound FDI in 2015, and 47.9% of the cumulative FDI into China through that year, and it is highly unlikely that all of this comes from companies where Hong Kong is the ultimate locus of the controlling investor.

[16] MOFCOM, FDI Statistical System 2016, May 2016. In the System, it is required to report the registration locations of both the investors and the real controllers of the foreign party. In that sense, the real controllers' registration place should be available.

[17] Statistics of FDI from Selected Countries/Regions in 2015, Statistics on FDI in China 2016.

According to the statistics from MOFCOM and NBS, the cumulative USFDI in China from 1979 to 2015 was estimated at US$77.7 billion. The NBS data indicates that USFDI accounted for 10% to 20% of total FDI into China in the 1980s and 1990s, but a lower portion in the 2000s and 2010s. In the NBS data, USFDI accounted for 1.5% of total inbound FDI into China in 2015 and for 4.5% of the cumulative FDI into China by the end of 2015. This seems surprisingly small given that in 2015, the U.S. accounted for 28.57% of non-China global GDP according to the World Bank.

U.S. BEA

The U.S. BEA collects data on the foreign investments and foreign affiliates of U.S. corporations through a mandatory survey. The BEA provides the balance of payments data which covers transactions between the U.S parent companies and their affiliates abroad. U.S. direct investment abroad (outward direct investment of USFDI) is defined as any investment into a foreign business that is owned at least 10% by a U.S. investor.[18] The outflow data includes equity outflows, reinvestment of earnings, and debt outflows recorded on an historical cost basis. The flows are recorded on a net basis, divestitures, and reverse flows are subtracted from gross flows.[19] For a specific year, the financial transaction total can be either positive or negative. The Direct Investment Position data measures the total outstanding level (stock) of U.S. direct investment abroad at year end at market prices. The position data therefore takes into account not just investments, but divestments, depreciation, and other adjustments to FDI capital stock. It is thus a better measure of the actual FDI being used at any one point in time than the cumulative flow data.

According to the BEA, the annual outflow exceeded US$7 billion each year from 2013 to 2015 and the by the end of 2015 the cumulative outflow was estimated at US$63,593 million. According to the BEA, China represented just 2.42% of the FDI financial outflows from the U.S. in 2015, a year in which according to the World Bank China represented 19.7% of non-US global GDP. China also accounted for 1.28% of the cumulative FDI financial outflows of U.S. corporations from 1982 to 2015. The BEA put the stock of American FDI in China at US$74.6 billion as of the end of 2015. The difference between the stock data and the cumulative flow data is due to the stock information being taken at year end market prices, including the impacts of depreciation, inflation, and exchange rates, rather than unadjusted historical cost. This 2015 stock level represented just 1.48% of the total USFDI position.

The Rhodium Group

The U.S.-based Rhodium Group (RHG) has undertaken a landmark project on foreign investment flows between the U.S. and China. Its US-China FDI Project is designed to "illuminate the volume, patterns and industry details of foreign direct investment (FDI) flows between United States and China – in both directions."[20] The RHG points out a number of potential shortcomings in traditional FDI measures. One shortcoming is that traditional FDI numbers often trace FDI either from (inbound) or to (outbound) the immediate partner country. Thus investments through

---

[18] BEA, "U.S. Direct Investment Abroad," https://www.bea.gov/about/pdf/international_usdia.pdf.

[19] BEA, "U.S. Direct Investment Abroad," https://www.bea.gov/about/pdf/international_usdia.pdf.

[20] Thilo Hanemann, Daniel H. Rosen, and Cassie Gao, "Two-Way Street: 25 Years of US-China Direct Investment," the Rhodium Group and the National Committee on U.S.-China Relations, November 2016.

an intermediary country will be counted as being to or from the intermediate country rather than to or from the ultimate destination or source. Another is that the financial flow data may include financial flows representing corporate cash management or tax strategies rather than actual investments.

The RHG has developed a transactions-based dataset by identifying every FDI transaction over US$1 million in either direction since 1990. The RHG counts the value of all transactions that can be attributed to a U.S. company, regardless of where the funds originate. The RHG records investments on a gross basis, and does not take out divestitures or subtract reverse intra-company flows. The RHG only counts the share of the foreign investor for joint ventures and includes full transaction values for M&A transactions, including equity injections and the assumption of debt. Acquisitions and small projects are recorded in the year of completion or groundbreaking, while large greenfield project investments are apportioned over the construction phase. The RHG updates its database quarterly to include new investments and to revise existing investments.[21]

Nearly 6,700 American investments in China were included in the RHG database as of the end of 2015. The RHG relies on announced investment amounts, and while it updates its database quarterly, and incorporates changes in plans and tracks the progress of investments, it cannot track exactly how much has actually been invested at any point in time. The RHG estimates that USFDI into China was US$13,120 million in 2015 and that cumulative USFDI into China from 1990 to 2015 was US$227.9 billion.

Explaining the Differences

We note the large differences in the RHG USFDI estimates and the NBS and BEA data. The RHG attributes these differences to the potential for the NBS and BEA data to understate the USFDI into China due to the use of corporate holding structures and investments through intermediate subsidiaries. It is possible to do an indirect check of this hypothesis by looking at the investments of U.S. companies in overseas holding structures and comparing the USFDI position obtained from balance of payments data with data from the operations of U.S. foreign affiliates.

According to the BEA, 51.2% of the USFDI overseas position was in holding companies in 2014, up from just 9.4% in 1982.[22] This increases the likelihood that USFDI cannot be traced to the end country where the investment is deployed. An analysis of BEA data shows that the Netherlands, Luxembourg, Bermuda, and U.K. Caribbean Islands had a combined share of 37.24% of USFDI, but only 6.97% of USFA sales, and 3.34% of MOUSFA value added, indicating that these economies act as funnels for investment to other economies. China, on the other hand, accounted for 1.40% of the USFDI position, 6.34% of USFA sales, and 4.45% of MOUSFA value added, indicating

[21] Thilo Hanemann, Daniel H. Rosen, and Cassie Gao, "Two-Way Street: 25 Years of US-China Direct Investment," the Rhodium Group and the National Committee on U.S.-China Relations, November 2016.

[22] Derrick T. Jennings and James J. Fetzer, "Direct Investment Positions for 2015," U.S. BEA, July 2016.

that China probably receives investment from the U.S. through other economies that is not registered as USFDI.[23] According to the NBS, through 2014, Hong Kong, Singapore, and six other leading Offshore Centers accounted for 65.0% of all cumulative FDI into China. If the NBS and BEA data do not accurately trace USFDI through Hong Kong, Singapore, and the Offshore Centers into China, then they might dramatically understate actual USFDI into China. While the actual amount of USFDI into China is still something of a mystery, it is plausible that the NBS and BEA data understate USFDI into China by a significant amount, perhaps by a factor of 3 to 4.

The Trouble with Focusing on FDI Numbers

There is a basic problem with focusing on FDI numbers when it comes to assessing the benefits foreign companies in general, and U.S. companies in particular, bring to China. That is, the FDI numbers hugely understate the benefits that foreign investment and companies can bring. In 2015, according to the NBS, total FDI into China from all countries equaled 2.5% of gross capital formation in China. In the same year, foreign investment in fixed assets equaled 0.5% of fixed asset investment in China.[24] What is more, these ratios have been declining since the mid-1990s. Focusing on the FDI numbers alone gives the impression that FDI as a whole is no longer particularly relevant to China's economic well-being.

Since FDI from the U.S. (USFDI) into China is only a fraction of total FDI into China, USFDI, by these measures, is even less relevant than the aggregate measures. According to the NBS, in 2015, USFDI accounted for only 1.5% of total FDI into China. Since total FDI only accounted for 2.5% of gross capital formation, USFDI accounted for on the order of 1.5% of 2.5%, or less than 0.04% of gross capital formation in China in that year. Even when the larger numbers suggested by the RHG are used, USFDI is still barely relevant when it comes to overall investment in China. Focusing on the USFDI flow numbers is a losing proposition for making the case for the benefits of USFDI. However, the story changes when we focus on better measures of the impact of USFDI and U.S. companies on China's economy.

The Operations of U.S. Foreign Affiliates in China

When assessing foreign investment and foreign companies the typical approach is to focus on the FDI figures. This makes sense in that FDI numbers are available for a wide range of countries, mostly because they are part of the Balance of Payments statistics compiled for national accounts purposes. However, when it comes to assessing the impact of foreign companies on host countries, looking exclusively, or even mostly, at the FDI statistics is very much like the economist looking for his or her keys under the street lamp rather than where he or she lost the keys.

Far more important than the amount of the FDI flows or cumulative FDI is what is done with the investment, that is the operations of foreign invested enterprises (FIEs). The logic is clear. Investments will only be made on the expectation that the profit after tax on the investment will pay back the investment over a reasonable period of time. Profits, in turn, are substantially lower than the value added associated with an investment (value added

[23] ESA analysis of BEA data.

[24] Calculated by ESA from data provided by China's National Statistical Bureau.

equals the sum of gross profits, compensation to employees, and depreciation). The GDP contribution associated with an investment and its operations is the value added associated with the investment and its operations.

China's NBS does not publish statistics on the operations of FIEs by country and by sector, but the U.S. BEA does for both inbound and outbound investment. The BEA's data on the activities of the foreign affiliates of U.S. companies in China gives a far better picture of the contribution of U.S. companies operating in China to China's economy than the USFDI data.

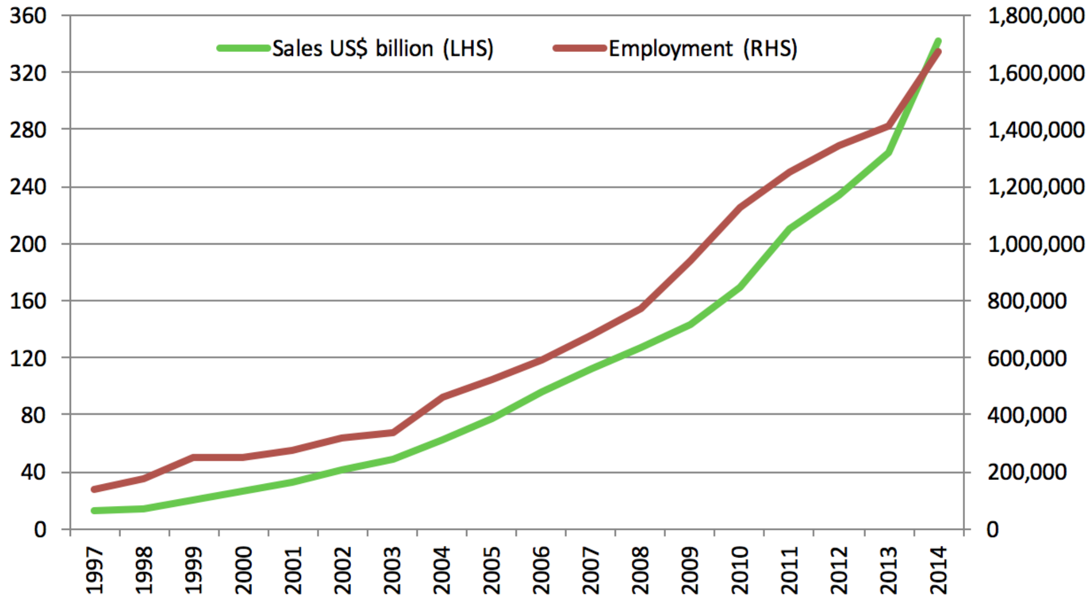
Operations of Majority Owned U.S. Foreign Affiliates in China

The most complete dataset for the operations of U.S. Foreign Affiliates in China is the BEA's dataset for Majority Owned U.S. Foreign Affiliates (MOUSFAs). Majority Owned Foreign Affiliates are those in which a U.S. entity holds more than 50% of the equity in the Affiliate. The BEA survey tracks a wide range of variables for the MOUSFAs.

Exhibits 3, 4, and 5 show that in 2014, the sales of MOUSFAs in China reached US$341,222 million, or 5.3% of global MOUSFA sales. The value added of MOUSFAs in China was US$66,144 million, or 4.4% of global MOUSFA value added. MOUSFA employment in China was 1,671,600, or 12.1% of global MOUSFA employment. MOUSFA R&D spending was US$3,026 million, or 5.8% of global MOUSFA R&D spending. MOUSFA net income was US$24,675 million, or 2.1% of global MOUSFA net income, indicating that China was far less profitable for MOUSFAs than the global average (less than one half on a return on sales basis). The MOUSFA value added in China accounted for 0.63% of China's GDP in 2014, while MOUSFA employment in China accounted for 0.21% of China's total employment. The MOUSFA value added in 2014 was 27.9 times the NBS reported USFDI into China in that year.

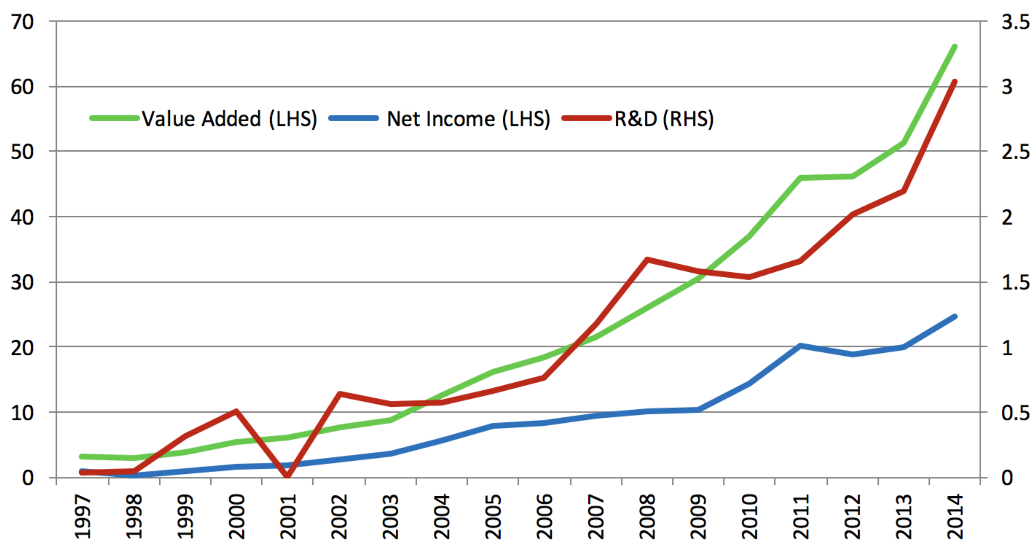
Thus the operations of MOUSFAs provide GDP benefits to the host economy that can be 28 times or more that represented by the USFDI flow in a given year. Once again, the operating numbers suggest that the official NBS and BEA USFDI numbers are understated given the much larger portion of MOUSFA operations than NBS or BEA reported USFDI into China.

Exhibit 3. Majority Owned U.S. Foreign Affiliates China Operations, 1997- 2014



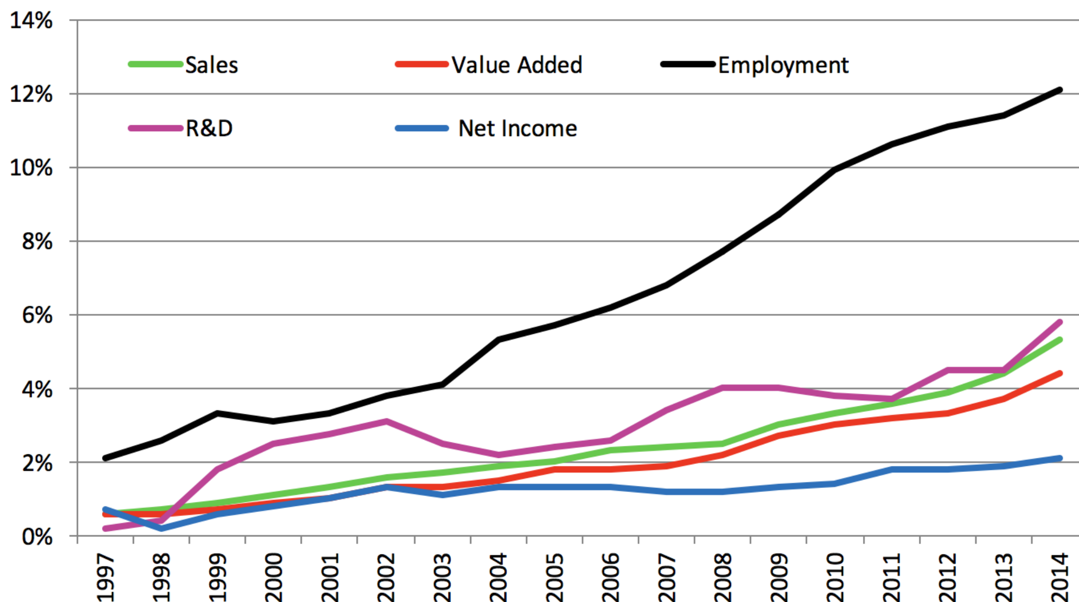
Source: Bureau of Economic Analysis, U.S. Department of Commerce (www.bea.gov).

Exhibit 4. Majority Owned U.S. Foreign Affiliates China Operations, US$ billion, 1997-2014



Source: Bureau of Economic Analysis, U.S. Department of Commerce (www.bea.gov).

Exhibit 5. Majority Owned U.S. Foreign Affiliates, China % of Global Operations



Sources: Bureau of Economic Analysis, U.S. Department of Commerce (www.bea.gov); Enright, Scott & Associates.

Operations of All U.S. Foreign Affiliates in China

The BEA also collects data on All Foreign Affiliates of U.S. companies (USFAs). A Foreign Affiliate is defined as a foreign entity in which a U.S. company holds at least 10% of the equity. Thus it differs from the Majority Owned U.S. Foreign Affiliates by including those in which the U.S. parent holds 10+% to 50% of the equity. While the BEA tracks fewer variables for USFAs than for MOUSFAs, it does track data for sales, employment, compensation of employees, and net income. The sum of the last two variables might be used as an underestimate of value added (since it involves net income rather than gross income and does not include depreciation or tax).

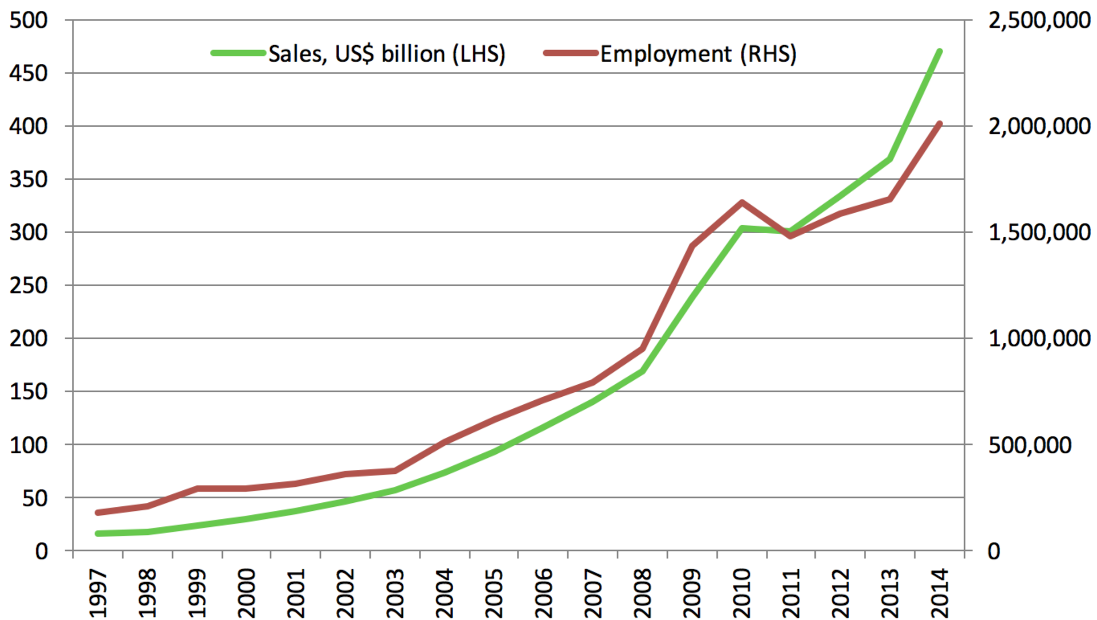
Exhibit 6, 7, and 8 show that in 2014 the sales of USFAs in China were US$470,062 million, or 6.3% of global USFA sales. In the same year, the compensation of employees plus net income associated with USFAs in China was US$64,947 million, or 3.3% of global USFA compensation of employees plus net income. USFA employment in China was 2,010,100, or 12.7% of global USFA employment. USFA net income in China was US$32,208 million, or 2.5% of global USFA net income, indicating that China was a far less profitable market on a return on sales basis than the global average.

The USFA estimated compensation of employees plus net income in China accounted for 0.62% of China's GDP in 2014, while USFA employment in China accounted for 0.26% of China's total employment in the same year. The USFA

estimated compensation of employees plus net income in 2014 was 27.4 times the NBS reported USFDI into China in that year. We note that the USFA compensation of employees plus net income in China is less than the MOUSFA value added in China. This is due to the fact that value added includes gross income and depreciation, while the compensation of employees plus net income does not include taxes and depreciation.

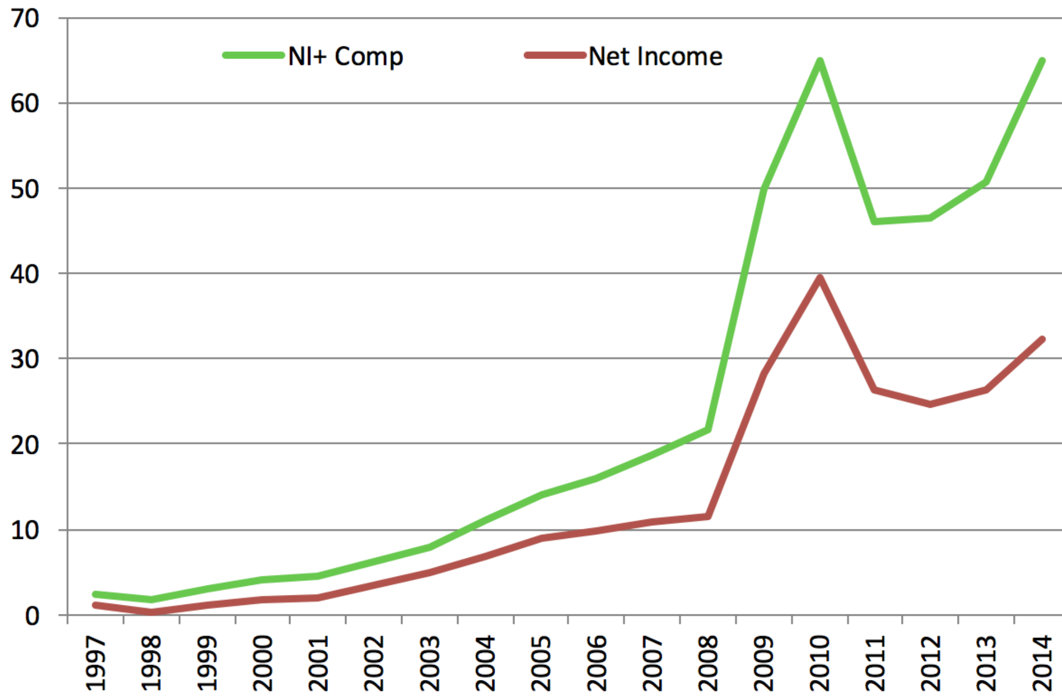
The operations of USFAs provide GDP benefits to the host economy that can be 27 times or more that represented by the USFDI flow in a given year. Once again, the operating numbers suggest that the official NBS and BEA USFDI numbers are understated given the much larger portion of USFA operations than NBS or BEA reported USFDI into China.

Exhibit 6. Operations of All U.S. Foreign Affiliates in China, 1997-2014



Source: Bureau of Economic Analysis, U.S. Department of Commerce (www.bea.gov).

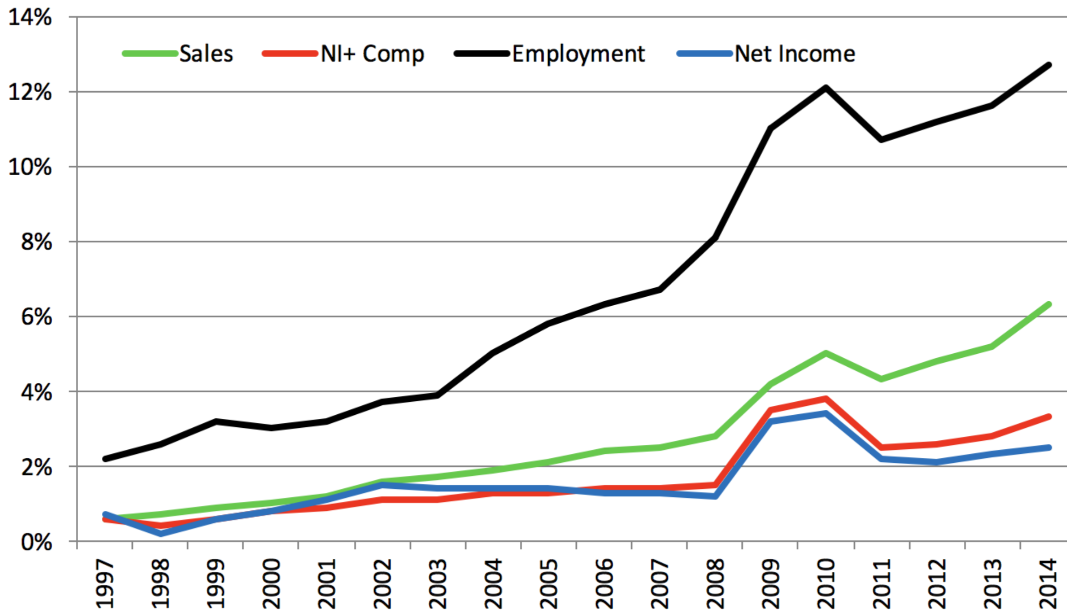
Exhibit 7. Operations of All U.S. Foreign Affiliates in China, 1997-2014



Note: NI + Comp = Net income plus employee compensation.

Source: Bureau of Economic Analysis, U.S. Department of Commerce (www.bea.gov).

Exhibit 8. All U.S. Foreign Affiliates, China % of Global Operations



Sources: Bureau of Economic Analysis, U.S. Department of Commerce (www.bea.gov); Enright, Scott & Associates.

Key Results on the Operations of MOUSFAs and USFAs

One key result on the operations of MOUSFAs and USFAs in China is that the operations of these companies in China dwarf the annual USFDI numbers or even the cumulative USFDI numbers. The value added of MOUSFAs alone in China of US$66,144 million in 2014 in a single year rivals the US$78 billion in cumulative USFDI since 1979 recorded by the NBS. The USFA sales in China of US$341,222 in 2014, one year alone, dwarfs even the US$227.9 billion in cumulative USFDI estimated by the Rhodium Group from 1990 to 2015. This means that the USFDI data alone are a very poor source to consider when assessing the impact of MOUSFAs and USFAs on China's economy.

Another key result is that the operating numbers suggest that the operations of MOUSFAs and USFAs in China represent a far larger portion of the global activities of the MOUSFAs and USFAs than the official USFDI would indicate. This lends support to the conclusion that the USFDI numbers are understated, perhaps by a substantial margin.

Finally, another key result is that both MOUSFAs and USFAs are far less profitable on a return on sales basis than the global average for both groups. Thus while some U.S. companies may be doing very well in China, and some might be booking China sales in other locations, on average China has not been nearly as profitable for U.S. companies operating internationally than other nations.

The Economic Impact of U.S Foreign Affiliates in China [25]

In the previous section, we showed that the operations of foreign invested enterprises (FIEs) or foreign affiliates (FAs) are far more important for host economies than the investment flow amounts. However, the operations of the FIEs or FAs themselves also fail to fully capture their impact on host economies. The reason is that the FIEs / FAs generate ripple effects through the host economies through their supply chains, the consumer spending of the FIE / FA employees and employees through the supply chain, their impact on downstream distribution channels, and other spillovers. Fortunately, we can use the tools of economic impact analysis to estimate many of these impacts.

Economic Impact Methodology

Economic impact analysis estimates the impact of an investment and the subsequent operation of the related businesses. It is often used to estimate or project the impact of a single major investment on a local economy, like a new highway, exhibition center, or tourism attraction. ESA has adapted tools of economic impact analysis that have been in use for decades for use in estimating the impact of the investments and operations of entire firms or groups of firms on a host economy instead of just a single investment.

Economic impact analyses of investments tend to focus on three or four types of impacts. "Direct" impacts are generated by the construction of facilities and the daily operations of the invested enterprises. "Indirect" impacts are generated by the supply chain for the direct activities and the direct industry's suppliers. "Induced" impacts are generated from the spending of the employees of the enterprises involved in the direct and indirect activities. Some analyses add a fourth category, "Catalytic" impacts, which are impacts on downstream industries and other spillovers into the local economy. The idea is that an investment or investor has substantial impacts beyond just those of the investment and investor operations themselves.

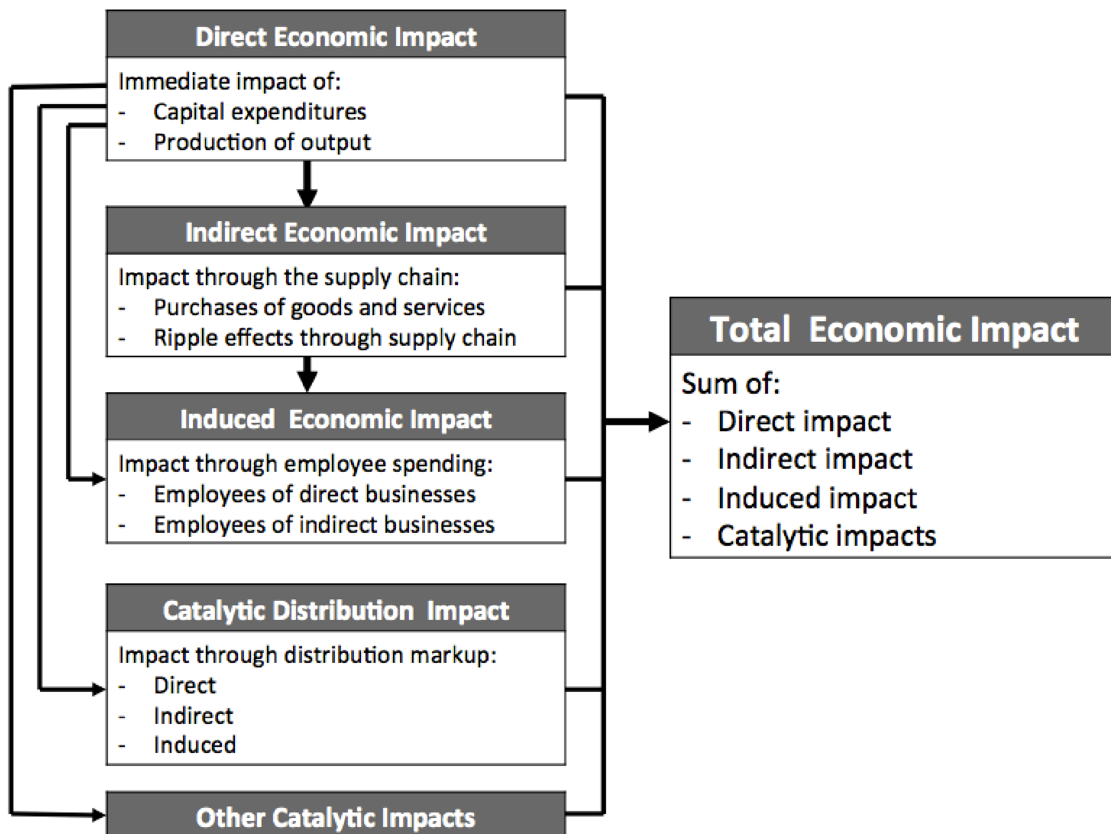
In a standard economic impact analysis, there are three main variables estimated, "Output," which represents the value of the goods or services produced, equivalent to revenue or sales, "Value Added," which represents the sum of worker compensation, taxes on production, fixed asset depreciation, and operating surplus. This is equivalent to the GDP contribution. Finally there is "Employment" which represents the number of jobs generated by the investments.

Economic impact analysis often uses multipliers generated through the manipulation of Input-Output tables (tables that capture the relationships between different industries in an economy) to estimate the impact of an investment, the operation of the related businesses, the business created for the supply chain, and the consumer spending of the employees of the investing company and its suppliers. The multipliers relate the operational figures from the FIEs / FAs to these other values.

[25] The economic impact methodology is similar to that described in Michael J. Enright, Developing China: The Remarkable Impact of Foreign Direct Investment, Routledge, 2017. The main difference here is that we have included estimates of the impact of the sales of U.S. affiliate goods on down stream distribution channels. The initial analysis did not include the impact on downstream distribution channels.

In order to estimate the economic impact of USFDI and U.S. affiliates on China's economy, ESA has used the NBS data for USFDI into China as well as the U.S. BEA data for the operations of U.S. affiliates in China. ESA has used the BEA data in a 17 industry breakdown in order to limit the amount of missing data. ESA has generated estimates based on ratios from other years to fill gaps where data for a given industry or industries was missing for a given year. The resulting estimates were rebalanced to ensure that the individual industry figures equated to the BEA reported totals. ESA used China's Input-Output tables to generate industry-specific multipliers for indirect and induced impacts, being careful in each case to subtract out the U.S. company presence in the upstream industries to eliminate the possibility of double counting. To estimate the catalytic effects on downstream distribution, ESA assumed that one half of the sales of goods produced by U.S. companies in China in selected industries go through the domestic distribution channels. See Exhibit 9.

Exhibit 9. Basic Economic Impact Methodology



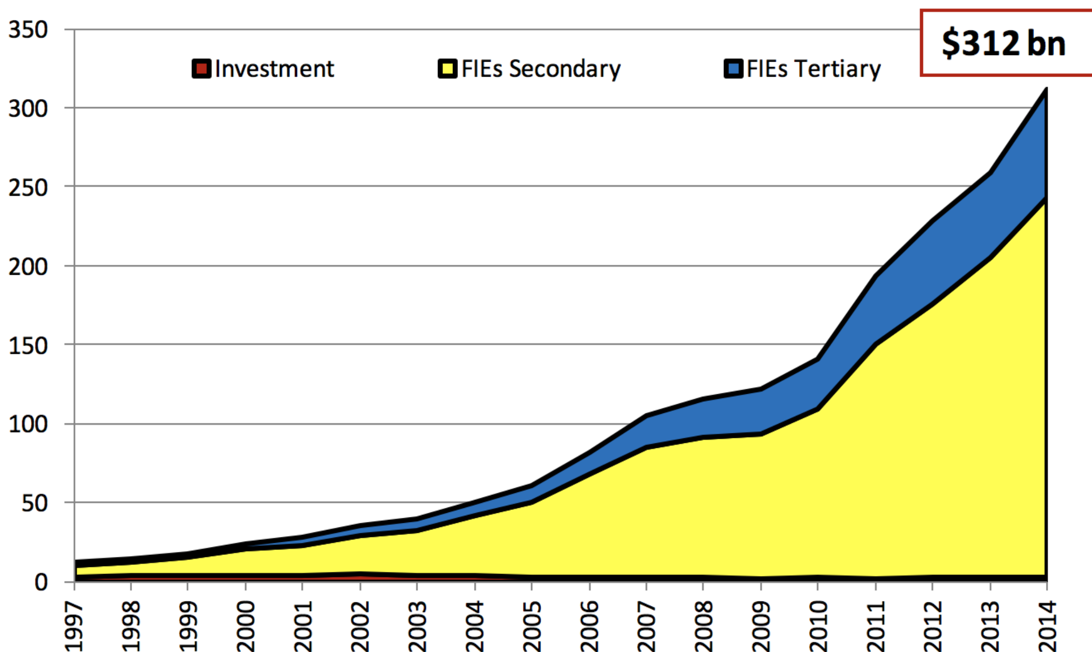
Source: Enright, Scott & Associates.

The Economic Impact of Majority-Owned U.S. Foreign Affiliates

As indicated above, the most complete BEA dataset is that for Majority Owned U.S. Foreign Affiliates in China (MOUSFA). The economic impact of these companies on China's economy is reported in Exhibits 10 through 14 for the initial investments, operations of secondary sector affiliates, and operation of tertiary sector affiliates. The value added impact on China's economy was US$312,078 million in 2014, with a cumulative impact from 1997 to 2014 of US$1,841 billion. The 2014 value added impact was 132 times the NBS reported USFDI inflow and was equivalent to 3.0% of China's GDP in that year. The cumulative value added impact from 1997 to 2014 was 30.1 times the NBS reported cumulative USFDI. The MOUSFA impact on China's employment was 16,816,156 in 2014, or 2.2% of China's total employment.

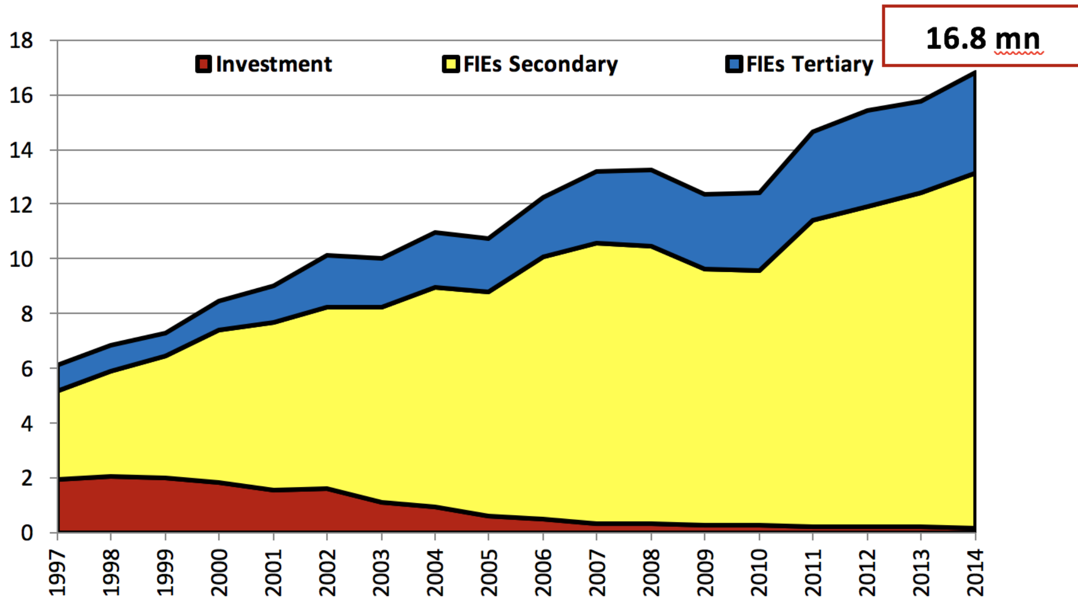
We note that these impacts involve extensive investments and activities by Chinese entities in the supply and distribution chains, but the logic of the economic impact analysis is that these investments of activities would be sharply reduced without the presence of the MOUSFAs. We also note that the estimated value added (GDP) impact of the MOUSFAs in China averaged 11 times the value of MOUSFA net income in China from 2005 to 2014, indicating that while the U.S. affiliates have benefited from their presence in China, that China's economy has benefited far more.

Exhibit 10. Value Added Impact of Majority Owned U.S. Foreign Affiliates on China's Economy, US$ billion, 1997-2014



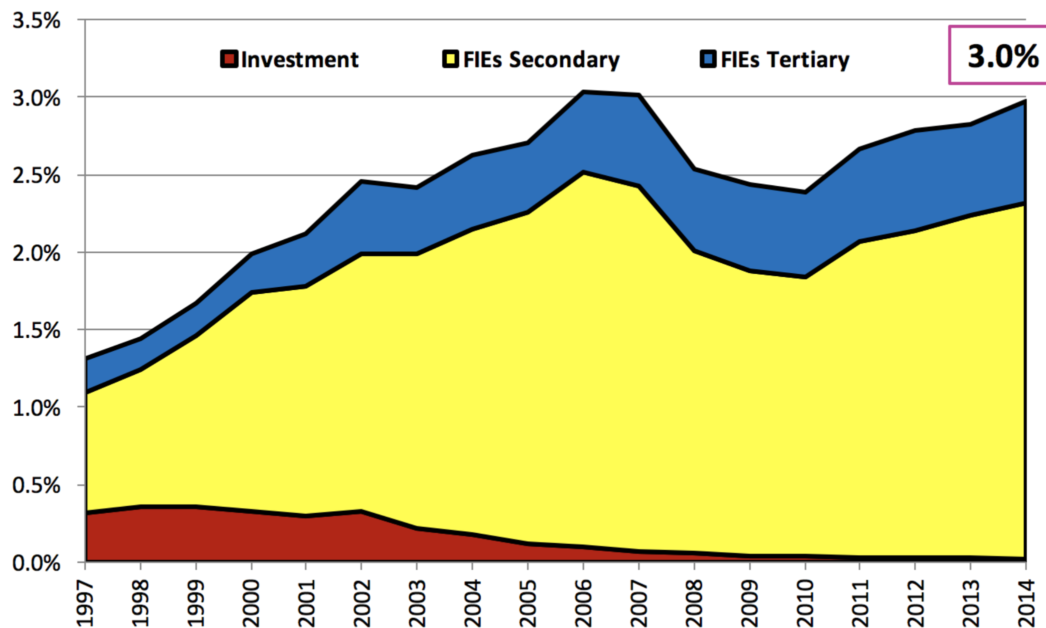
Source: Enright, Scott & Associates.

Exhibit 11. Employment Impact of Majority Owned U.S. Foreign Affiliates on China's Economy, Million, 1997-2014



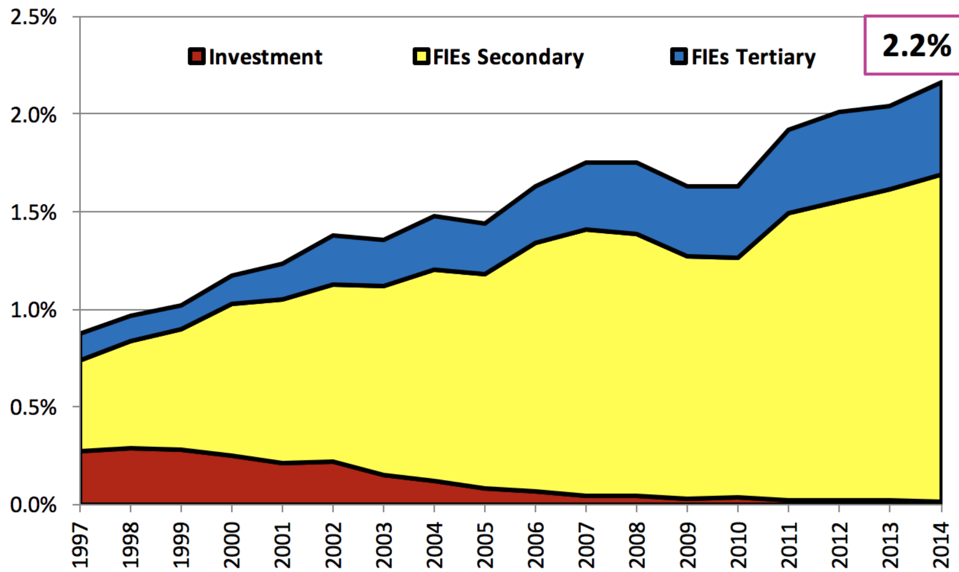
Source: Enright, Scott & Associates.

Exhibit 12. Value Added Impact of Majority Owned U.S. Foreign Affiliates, % of China's GDP, 1997-2014



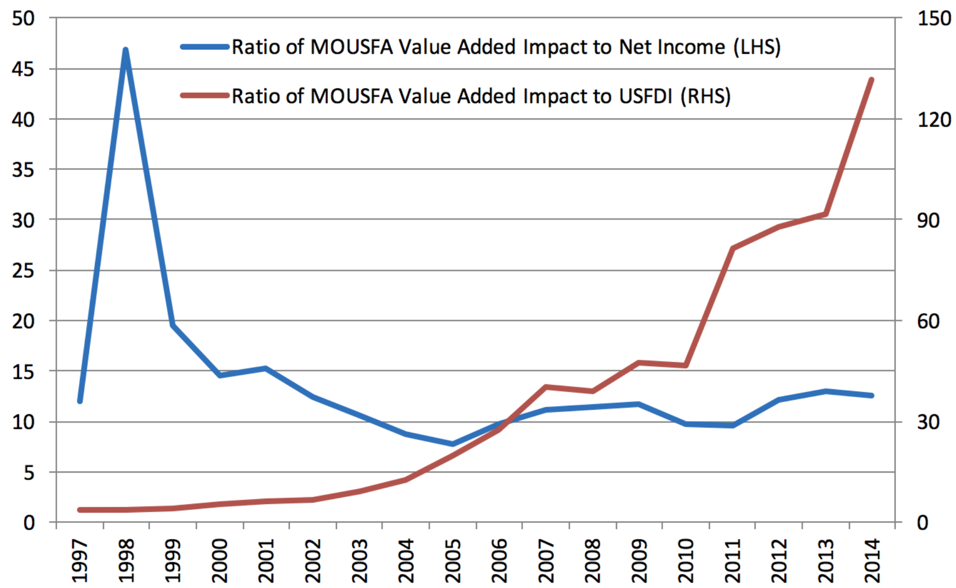
Source: Enright, Scott & Associates.

Exhibit 13. Impact of Majority Owned U.S. Foreign Affiliates, % of China's Employment, 1997-2014



Source: Enright, Scott & Associates.

Exhibit 14. Majority Owned U.S. Foreign Affiliate China Value Added Impact Ratio to Net Income and USFDI, 1997-2014



Note: Net income from the U.S. BEA. USFDI from MOFCOM.

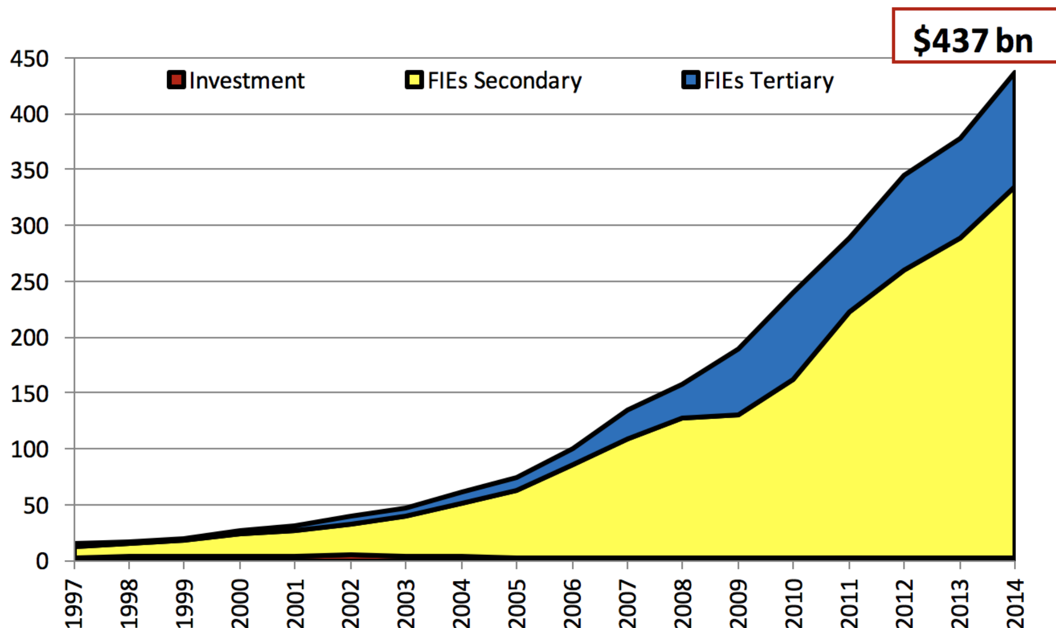
Source: Enright, Scott & Associates.

The Economic Impact of All U.S. Foreign Affiliates

The BEA dataset for all U.S. Foreign Affiliates (USFAs) is not as complete as for the Majority Owned Affiliates on an industry-by-industry level. However, it is possible to estimate enough of the missing data to generate reasonable overall economic impact results. The economic impact of these companies on China's economy is reported in Exhibits 15 through 19. The value added impact on China's economy was US$437,408 million in 2014, with a cumulative impact from 1997 to 2014 of US$2,602 billion. The 2014 value added impact was 185 times the NBS reported USFDI inflow and was equivalent to 4.2% of China's GDP in that year. The cumulative value added impact from 1997 to 2014 was 43 times the NBS reported cumulative USFDI. The USFA impact on China's employment was 22,959,632 in 2014, or 3.0% of China's total employment.

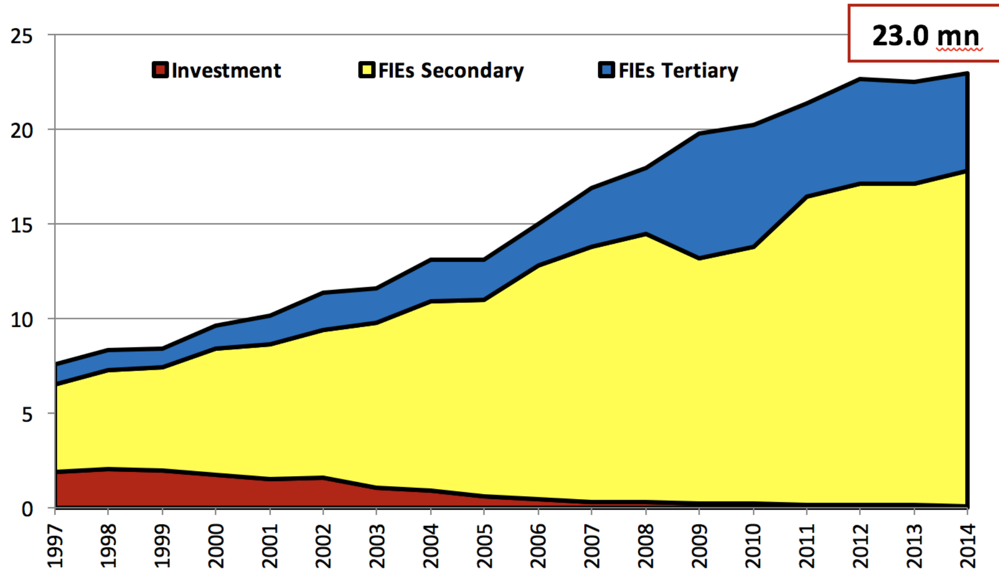
Again we note that these impacts involve extensive investments and activities by Chinese entities in the supply and distribution chains, but the logic of the economic impact analysis is that these investments of activities would be sharply reduced without the presence of the USFAs. We also note that the estimated value added (GDP) impact of the USFAs in China averaged 11 times the value of USFA net income in China from 2005 to 2014, indicating that while the U.S. affiliates have benefited from their presence in China, China's economy has benefited far more.

Exhibit 15. Value Added Impact of All U.S. Foreign Affiliates on China's Economy, US$ billion, 1997-2014



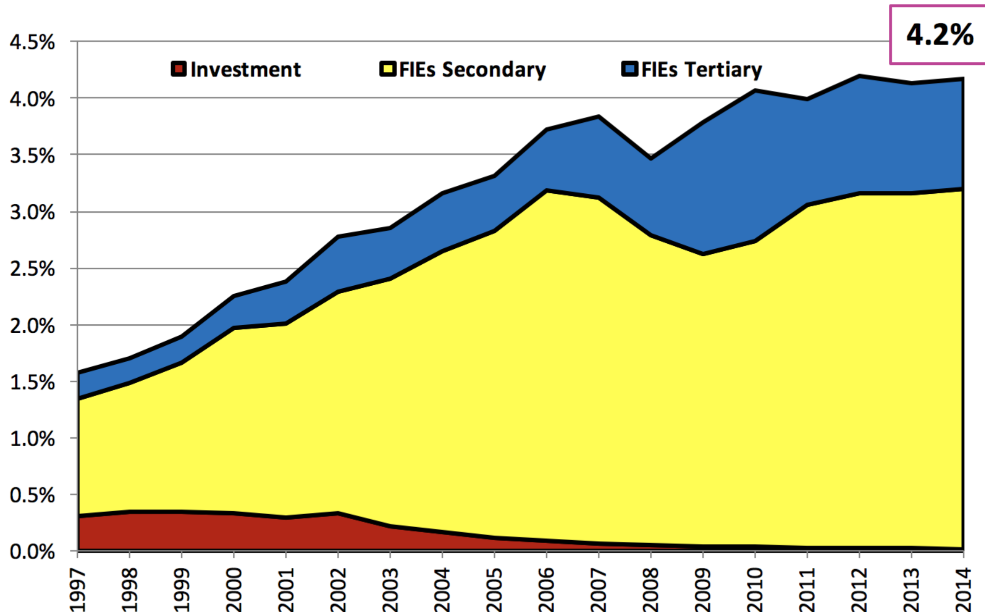
Source: Enright, Scott & Associates.

Exhibit 16. Employment Impact of All U.S. Foreign Affiliates on China's Economy, Milton, 1997-2014



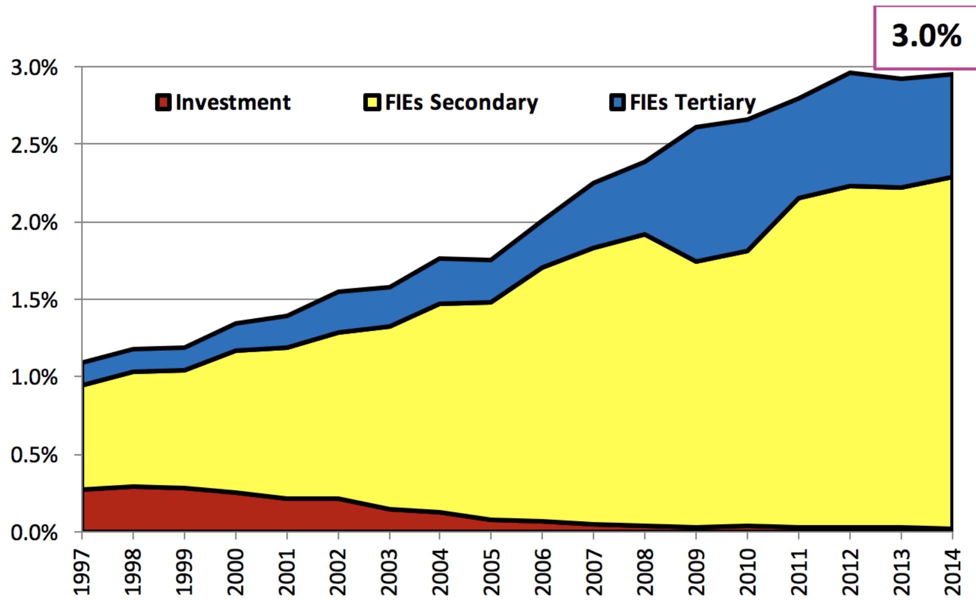
Source: Enright, Scott & Associates.

Exhibit 17. Value Added Impact of All U.S. Foreign Affiliates, % of China's GDP, 1997-2014



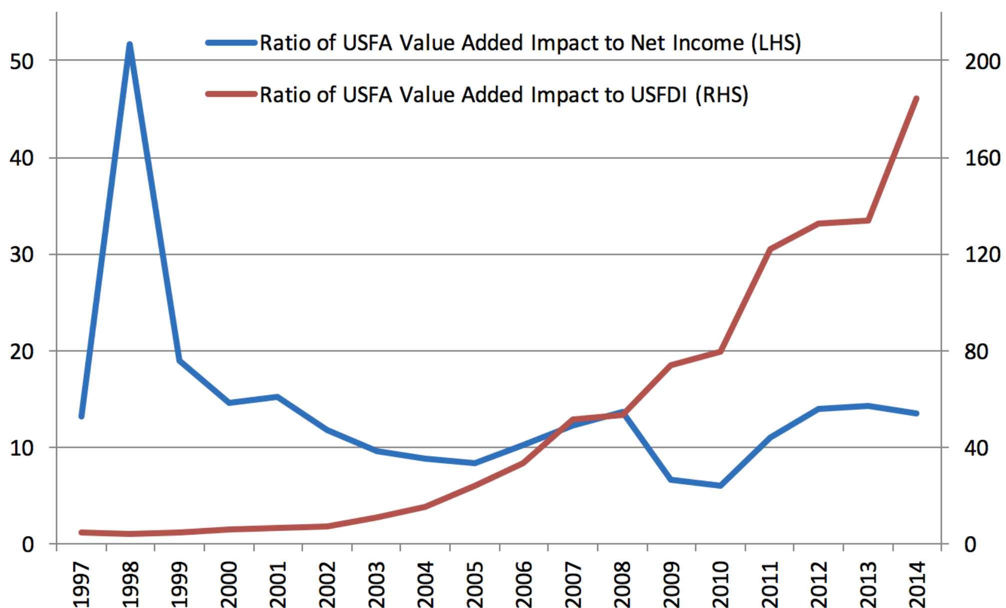
Source: Enright, Scott & Associates.

Exhibit 18. Impact of All U.S. Foreign Affiliates, % of China's Employment, 1997-2014



Source: Enright, Scott & Associates.

Exhibit 19. All U.S. Foreign Affiliates China Value Added Impact Ratio to Net Income and USFDI, 1997-2014



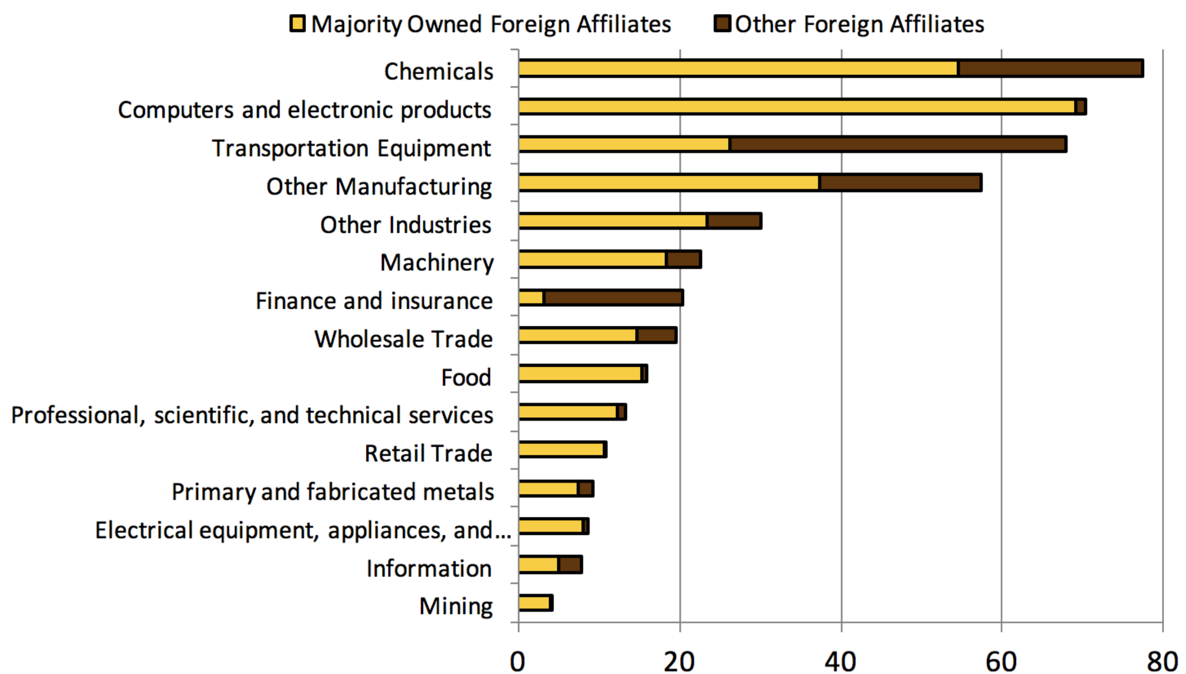
Notes: Net income from the U.S. BEA. USFDI from MOFCOM/ NBS.

Source: Enright, Scott & Associates.

Economic Impacts by Industry

Among industries, the largest GDP impact of the Majority Owned U.S. Foreign Affiliates in China (MOUSFAs) was found in the Chemical (including household chemical products and pharmaceuticals), Computers and Electronic Products, Other Manufacturing, and Transportation Equipment industries (see Exhibit 20). The largest impacts for all U.S. Foreign Affiliates in China (USFAs) were in the same industries, only with Transportation Equipment moving into the third slot. The large difference between the MOUSFA and USFA impacts in the Transportation Equipment and Finance and Insurance industries has to do with the requirements for foreign companies to participate only through joint ventures with 50% or less foreign ownership share in the automotive industry, and similar or lower limits in many financial services. The leading industries in terms of MOUSFA employment were the Computer and Electronic Products, Chemicals, Other Manufacturing, and Other Industries, while the leaders for USFAs were the Chemicals, Computer and Electronic Products, Other Manufacturing, and Transport Equipment Industries (Exhibit 21). Again, the shift in position of the Transportation Equipment industry has to do with the joint ventures required in the auto industry.

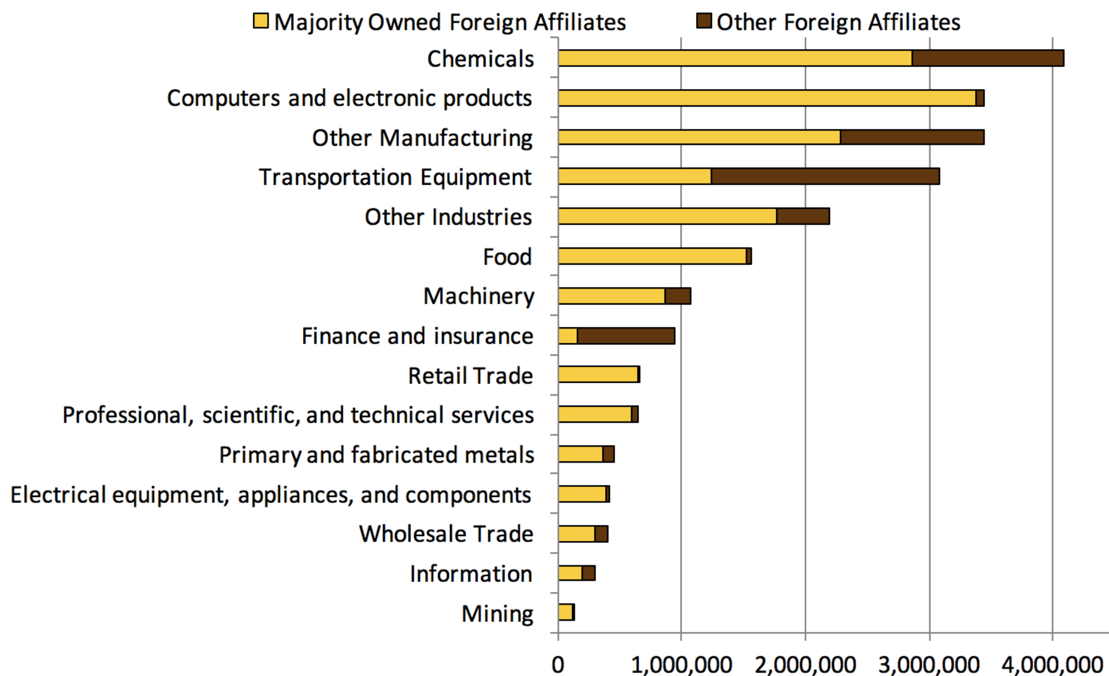
Exhibit 20. U.S. Foreign Affiliate Impact on China's GDP, by Industry, US$ billion, 2014



Notes: Economic impact represents the total direct + indirect + induced impacts for operations + distribution + retail of MOUSFA and USFA (does not include the physical investment).

Source: Enright, Scott & Associates.

Exhibit 21. U.S. Foreign Affiliate Impact on China's Employment, by Industry, 2014



Notes: Economic impact represents the total direct + indirect + induced impacts for operations + distribution + retail of MOUSFA and USFA (does not include the physical investment).

Source: Enright, Scott & Associates.

Key Results on the Economic Impact of MOUSFAs and USFAs in China

The most important result of this section is that applying the standard tools of economic impact analysis to MOUSFAs and USFAs in China shows that their impact goes far beyond what one would expect just looking at the USFDI numbers or even the direct operating numbers for the MOUSFAs and USFAs. In particular, ESA has estimated the total economic impact in terms of value added for MOUSFAs in China for 2014 as US$312,078 million, which corresponded to 3.0% of GDP, 132 times the NBS registered USFDI inflow, and 12.6 times the U.S. BEA reported net income for MOUSFAs in that year. ESA has estimated the total economic impact in terms of value added for USFAs for 2014 as US$437,408 million, or 4.2% of China's GDP, 185 times the NBS registered USFDI inflow, and 13.6 times the U.S. BEA reported net income in that year. While all estimates are imperfect, these are the numbers that should be used to start the conversation about the impact of U.S. foreign affiliates in China, the potential benefits of greater opening for China, and the potential costs of closing off to U.S. companies.

A Brief Case Study [27]

In this section, we use publicly available information to estimate the economic impact of a single company, Procter and Gamble (P&G) on China's economy.[28] In 2014, sales of P&G goods in China by retailers (including distribution and retail mark-ups) were estimated at US$10 billion.[29] P&G's sales to retailers and distributors in Greater China were around US$6.44 billion.[30] If we assume that 85% of these sales were to the Chinese Mainland, the figure would be US$5.47 billion.This would indicate a distributor / retailer mark-up on the order of US$4.53 billion. From press reports, we estimated that P&G invested on the order of US$2.5 billion from 1988 to 2015 in China.[31] From this information, we have made rough estimates of the economic impact of P&G on China's economy.

Assuming that one-third of the US$2.5 billion capital investment went into land and construction, one-third into supporting services, and one-third into machinery and equipment (and further assuming that one-half of the machinery and equipment was imported and therefore had limited China impact), we estimate that the total cumulative impact of P&G's capital investments in China was US$2.15 billion in value added (essentially the GDP contribution) and 247,863 full time equivalents in job-years (1 job for 1 year). We note that these are cumulative not annual effects. Averaging the cumulative employment impact over 30 years, for example, would give an average impact of over 8,262 jobs per year just in terms of the impact of the physical developments associated with capital investment.

Taking the estimates of P&G's Chinese Mainland sales and distributor and retail margins listed above and applying the relevant multipliers, we estimated the impact of the operations and sales of P&G in China were roughly US$11.28 billion in value added and over 612,000 in employment in 2014 alone. We recognize that these are rough estimates, but they do suggest the magnitude of the impact a major foreign company can have on China's economy.[32] We note in particular that the US$11.28 billion in GDP impact for 2014 alone was more than 4 times P&G's total cumulative investment in China from 1988 to 2015.

These estimates show that the typical numbers that foreign companies quote when they discuss their presence in China, investment totals and direct employment, can hugely understate their total impact on China's economy. We note also that the economic impact estimates do not include any quantification of the value of P&G's many other contributions to China in terms of developing products and segments, supporting suppliers and distributors,

[27] A more complete version of this study can be found in Michael J. Enright, Developing China: The Remarkable Impact of Foreign Direct Investment, Routledge, 2017.

[28] These estimates are those of ESA, not P&G. We have not received any information directly from the company to perform this analysis, or any comments on the validity of the assumptions ESA has used.

[29] Alexander Coolidge, "Procter & Gamble's Global Reach Changing," USA Today, September 7, 2014.

[30] Calculated from US$80,510 million in global sales and 8% of global sales in Greater China from the P&G 2015 Annual Report.

[31] Jennifer Reingold, "Can P&G Make Money in Places Where People Earn $2 a Day?," CNN Money, January 6, 2011.

[32] While some companies may do a similar analysis for internal purposes, our experience is that this is rare. We are familiar with only one similar study in the public domain and that was completed in 2000 and has not been updated.

bringing green standards to China, fostering development of modern marketing and advertising in China, training human resources, setting up global R&D in China, and being a leader in CSR in China. This suggests that the impact of major U.S. companies on China can be much larger than is generally understood. For many U.S. and other foreign companies their ability to "make their case" for the benefits they bring China could be greatly enhanced by incorporating such analysis.

Further Impacts of U.S. Companies in China [33]

While the impacts reported above are impressive, particularly when compared to the USFDI flow data usually reported, they still substantially understate the impact of USFAs on China's economy. The reason is that there are many impacts that are not captured by estimates based on the investments and product sales of U.S. companies in China. These include the benefits to consumers and customers, from sourcing in China, as well as from a wide range of business, technological, and other spillovers that have come from the U.S. presence in China.

Chinese Consumer / Customer Benefits

Among the main beneficiaries of USFDI and the presence of USFAs in China are Chinese consumers and business customers of the USFAs. The value that Chinese consumers and business customers place on the presence of USFAs can be seen in the sales volumes of MOUSFAs and USFAs, which reached US$341 billion and US$470 billion respectively in 2014. For Chinese consumers, USFAs have introduced new products, provided greater variety, and introduced entire new product categories. They have also pioneered new retail formats and distribution channels that have benefited Chinese consumers. As China moves to a more consumption-oriented economy, the benefits that USFAs bring to Chinese consumers should increase substantially. USFAs have also brought large benefits to Chinese businesses. USFAs have provided engineering and architectural support, access to international capital markets, advice and contacts to internationalizing Chinese companies, world-class airframes and avionics to expanding Chinese airlines, and equipment and inputs that have advanced China's agricultural, manufacturing, and service sectors.

Sourcing Impacts

China has become the country of choice for sourcing manufactured goods. In 2015, China accounted for around 25% of global manufacturing output and value added.[34] It also accounted for 14.2% of global merchandise exports.[35] China is the largest source of U.S. imports, accounting for US$462,813 million in imports in 2016. A substantial share of these imports is sourced by U.S. companies, many of which source much, most, or in some cases, nearly all of the goods they sell from China, not just for the U.S. market, but for global markets. There is no ready source of data on how much of China's manufacturing and trade is sourced by U.S. companies. These do not appear

[33] Again, this draws from a similar section in Michael J. Enright, Developing China: The Remarkable Impact of Foreign Direct Investment, Routledge, 2017, though this section focuses just on the impact of U.S. companies.

[34] Mark Magnier, "How China is changing its Manufacturing Strategy," The Wall Street Journal, June 16, 2016 and Mark Levinson, U.S. Manufacturing in International Perspective, Congressional Research Service, January 18, 2017.

[35] WTO, World Trade Statistical Review 2016.

in the BEA data for sales of U.S. companies in China for the obvious reason that they are not sold in China. However, they have the same sort of direct, indirect, and induced impacts as goods produced by USFAs in China.

Other Catalytic and Spillover Impacts

U.S. firms and investment have made a wide range of additional contributions to China and its development over and above those quantified in the previous section. U.S. companies have had numerous additional catalytic impacts and spillovers into China's economy. A partial list of the benefits along with some examples follows.

Modernizing and Creating Industries in China

U.S. companies such as GM, Ford, Coca-Cola, McDonalds, KFC, Starbucks, Cargill, Kodak, and Walmart have helped to modernize industries in China, including the auto, beverage, food, agribusiness, photographic, and retailing industries. U.S. companies like Walmart, P&G, Omnicon, Nike, and others have introduced new consumer product categories, modern retail formats, merchandizing, advertising, and sourcing to China, and have provided examples emulated by Chinese companies all over the country. In many of these industries and others, Chinese companies have learned from American counterparts and have developed into strong competitors in their own right.

Creating Supply and Distribution Channels in China

U.S. companies like HP, Apple, Coca-Cola, P&G, Walmart, Costco, GM, Ford, United Technologies, GE, and others have helped develop complete supply and distribution chains in China. In many cases, the U.S. companies provided technical, financial, and business assistance to develop supply and distribution channels that did not exist in China before the economic opening. Many of the Chinese suppliers are now strong companies in their own right and sell throughout China and internationally. The distribution channels set up with the support of U.S. companies in many cases serve Chinese companies as well, dramatically facilitating the emergence of a strong indigenous economy.

Expanding R&D Capabilities in China

U.S. companies have been instrumental in expanding research and development capabilities in China.[36] According to a PwC study, in 2015, US companies accounted for US$18.2 billion in R&D funding in China. Companies like Boeing, Microsoft, Yahoo, IBM, GE, Ford, GM, Intel, Motorola Solutions, FMC, Genzyme, EMC, Cummins, PepsiCo, P&G, and many others carry out substantial R&D activities in China. These centers employ local scientists and engineers, cooperate with local research institutes and universities, and generate numerous spillovers. The result has been a substantial contribution to scientific and technological capabilities in China. U.S. company R&D has also been a substantial source of high-tech and other start-ups in China.[37]

[36] Barry Jaruzelski, Kevin Schwartz, and Volker Staack, Strategy&, PwC, "Innovation's New World Order," Strategy-business.com, 2015, p.12.

[37] Hongbin Cai, Yasuyuki Todo, and Li-An Zhou, "Do Multinationals' R&D Activities Stimulate Indigenous Entrepreneurship? Evidence from China's 'Silicon Valley'," National Bureau of Economic Research, Working Paper 13618, November 2007.

Improving Business Practices and Standards in China

U.S. companies have been instrumental in improving business practices and standards in the China. The Big Six, and subsequently Big Four accounting firms, several with American roots, helped create China's accounting standards, provided auditing services for most of the early Chinese international IPOs, and trained entire generations of local accountants. American management consulting firms facilitated the entry and expansion of foreign firms in China, allowed for the transfer of international best practice to Chinese firms, and provided training for many founders of Chinese consulting firms. Even more important than the professional service firms has been the examples of U.S. firm management practices that have been learned by former employees, as well as Chinese suppliers, customers, and competitors.

Improving the Financial Sector in China

The activities of U.S. firms have resulted in significant improvements in China's financial sector. Foreign competition has been credited with raising the efficiency of Chinese banks, improving the availability of local bank credit, and having a positive impact on domestic risk management.[38] Companies, like Citibank, Goldman Sachs, Bank of America, Morgan Stanley, JP Morgan, and others have provided support on systems, risk-management, customer operations, human resources, and other areas to Chinese partners and counterparts. AIG and other U.S. insurance companies have been instrumental in the development of China's insurance industry. U.S. firms, such as IDG, Goldman Sachs, Walden International, H&Q, Intel Capital, ASIMCO, and others have been credited with introducing modern venture capital to China, as well as training generations of Chinese VCs. In addition, over the years, many private, high-tech Chinese enterprises have eventually listed on NASDAQ.

Bringing Modern Management Training to China

U.S. entities have been instrumental in bringing modern management training and education to China. A U.S. sponsored training program in Dalian began offering one of China's first MBAs in 1984. U.S. companies like Motorola, P&G, GE, IBM, Amway, McDonalds, and HP have all set up corporate universities in China, a practice now copied by hundreds of Chinese firms. Several U.S. companies have provided business-specific training in China. Boeing, for example, has provided training to over 50,000 Chinese professionals on aviation safety, aviation quality practices, business and executive training, and technical support, and opened its "Boeing Academy" in China in 2012 to provide a central platform for its training initiatives in China.[39]

---

[38] Jinqing Zhang and Youhong Wu, "A study for threshold effects of foreign bank entry's influence on the efficiency of domestic commercial bank: Evidence from commercial banks in China," Journal of Financial Research, no. 6, 2010; Zesheng Mao, Jie Wu, and Minlou Liu "An empirical study of foreign banks' effect on Chinese credit supply," Journal of Financial Research, no. 1, 2010; and Jian Lv, 'The influence of foreign banks' entry into China's banking—Based on panel data analysis," International Business, no. 5, 2006.

[39] Boeing Company, "Boeing in China," July 2015 and Roger Cliff, Chad J. R. Ohlandt, and David Yang, Ready for Takeoff: China's Advancing Aero space Industry, The Rand Corporation, 2011.

[40] Michael J. Enright, "Regional Management Centers in the Asia-Pacific," Management International Review, 2005, v. 45, Special Issue 1, 59-82.

Integrating China into Regional and Global Management

Many U.S. companies are integrating China into regional and global management through the location of regional headquarters, business unit headquarters, and other high-level corporate functions in China. These activities create demand for high-end services in China, provide critical training to Chinese employees, and facilitate China's integration with the global economy.[40] Ford, GM, Ashland, IBM, GE, and others have moved regional or global business unit headquarters to China. These moves have brought management and coordination skills in running world-class global operations to China, which can provide spillovers for local companies as well as demand for high-end services.

Providing Technical Assistance in China

U.S. companies and organizations have played a significant role in providing technical assistance and input in China. Official assistance has been credited with contributing to social development, building foundations for civil society, nurturing relationships among governmental and nongovernmental actors in the U.S. and PRC, and providing environmental and public health benefits.[41] American business groups, law firms, and professional services providers have provided technical assistance, education on international norms of commercial law, environmental standards, securities regulation, CSR practices, and support in a wide range of technical areas across the economy. China makes its own decisions when it comes to systems and institutions, but does examine other systems in the process, particularly those from the U.S.

Enhancing Sustainability Practices in China

Environmental sustainability has become a critical goal of China's leadership.[42] U.S. companies like GM, HP, Deloitte, CH2M Hill, GE, P&G, and others have helped bring world-class sustainability practices to China. U.S. firms have played a major role in introducing sustainable design and construction to China, and facilities built for Plantronics, GM, Coca-Cola, ExxonMobil, Stryker, Nike, Johnson & Johnson, PepsiCo, and others have helped China become one of the leaders in LEED certified facilities in the world. Several U.S. companies have their most sustainable facilities in the world in China.

Shaping the CSR Landscape in China

U.S. companies have helped shaped the corporate social responsibility (CSR) landscape in China. Early leaders included Intel China, which put forward the CSR3.0 standards. Coca-Cola, P&G, Pratt & Whitney, Boeing, HP, and others have supported educational programs around China. U.S. companies that have won CSR awards in China have included Amway, Cisco, Coca-Cola, Dell, DuPont, Emerson, GM, HP, IBM, P&G, PepsiCo, PPG, Starbucks, and Walmart. These and others like them have set the standards for CSR programs that are increasingly being adopted by Chinese firms as well.

---

[40] Michael J. Enright, "Regional Management Centers in the Asia-Pacific," Management International Review, 2005, v. 45, Special Issue 1, 59-82.

[41] Thomas Lum, "U.S. Assistance Programs in China," Congressional Research Service, December 2, 2014.

[42] Asia U.S. Chamber of Commerce, Corporate Responsibility and Sustainable Economic Development in China: Implications for Business, March 2012.

Providing Policy Advice and Advocacy for China

Since China's opening, its central and local governments have increasingly turned to leading multinational firms for advice related to economics and business. The process received a jump start from the famous exhortation from Deng Xiaoping in 1983, to "beef up reform and opening-up with more help from foreign brains."[43] Since then, high-level advisory groups of foreign executives have been set up around China. U.S. companies that have played significant roles on international advisory bodies include AIG, Alcoa, Autodesk, Bain & Company, Baker & McKenzie, Colgate-Palmolive, Continental Grain, DuPont, Eastman Kodak, Emerson, FedEx, Ford, GE, HP, IBM, McKinsey, MetLife, Microsoft, Morgan Stanley, Motorola Solutions, PepsiCo, Pfizer, P&G, Starr Companies, Coca-Cola, TPG Capital, United Technologies, and UPS. In addition, U.S. companies active in China have long been leading advocates for China in the U.S. and with the U.S. Government.

Additional Impacts

In an earlier section of this Report, we provided quantitative estimates of the impact of USFDI and USFAs on China's economy. In addition to the impacts we have quantified, there are many further impacts that we cannot quantify at this time. These include the value of the presence of U.S. affiliates to consumers and business customers in China, the value U.S. company sourcing activities in China, modernizing and creating industries in China, creating supply and distribution channels in china, expanding R&D capabilities in China, improving business practices and standards in China, improving the financial sector in China, bringing modern management training to China, integrating China into regional and global management, providing technical assistance in China, enhancing sustainability practices in China, shaping the CSR landscape in China, and providing policy advice and advocacy for China. These benefits, and the spillovers into local companies and local economies in China may be as important if not more important that the benefits we have been able to quantify.

Conclusions

There are several direct conclusions that come from the present analysis.

China is at a Crossroads When it Comes to Foreign Investment

China is sending mixed signals when it comes to foreign investment and foreign companies. While official pronouncements claim that China is still open to foreign companies, actions on the ground that are making operating in China more difficult, and industrial policies that seem designed to displace foreign companies rather than cooperate with foreign companies indicate the opposite. Decisions made over the next several years could set the path for China's relations with foreign companies for decades. This makes "making the case" for the value generated by foreign investment and foreign companies of crucial importance.

[43] Zhang Junmian, "Fortune favour 500 as China courts foreign advisors," China.org.cn, December 21, 2011.

Official USFDI Numbers are Likely to be Substantially Understated

We agree with the Rhodium Group that the official numbers from the NBS and BEA substantially understate the actual USFDI into China. The best evidence for this is the fact that China represents a much higher portion of sales, employment, and value added of U.S. Foreign Affiliates than we would expect given the investment flow and investment position data. The amount of investment that flows from the U.S. to offshore centers like the Netherlands, Luxembourg, Bermuda, and U.K. Caribbean islands is more than enough to support subsequent FDI into China several times the officially reported numbers.

Economic Impact Analysis Gives a Much More Complete Picture than FDI Flows

The most widely reported figure when it comes to the impact of FDI on host economies are the FDI flow figures. However, these pale in comparison with value generated by the operations of the investing entities. According to the NBS, USFDI into China in 2014 was US$2.4 billion. However, the U.S. BEA reports that the value added (GDP contribution) of just Majority Owned U.S. Foreign Affiliates in China (MOUSFAs) in that same year was US$66 billion, or 27.9 times the NBS reported USFDI inflow.

ESA has estimated the total economic impact in terms of value added for MOUSFAs in China for 2014 as US$312,078 million, which corresponded to 3.0% of GDP and 132 times the NBS registered USFDI inflow in that year. ESA has estimated the total economic impact in terms of value added for USFAs for 2014 as US$437,408 million, or 4.2% of China's GDP, and 185 times the NBS registered USFDI inflow in that year.

China Benefits far More than U.S. Companies from their Presence in China

China benefits far more from the presence of U.S. companies in China than the companies do. China accounts for a far lower share of MOUSFA and USFA net income than sales, employment, value added, or R&D expenditures. This implies that China is far less profitable on average for U.S. Foreign Affiliates than the rest of the world.

ESA's estimate of the economic impact in terms of value added (GDP contribution) of MOUSFAs in 2014 was 12.6 times the U.S. BEA reported net income for MOUSFAs in that year. ESA's estimate of the value added impact of USFAs in 2014 was 13.6 times the U.S. BEA reported net income in that year. Thus the value of the benefits associated with the presence of U.S. Foreign Affiliates in China was more than an order of magnitude larger than the net income impact on the U.S. Foreign Affiliates.

The Economic Impact Tools can be Used in Other Countries Too

The tools developed for the China analysis can be used for any other country for which there are Input-Output tables available and for which there is operating data for foreign affiliates broken down by industry. For U.S. Foreign Affiliates, this means that the analysis can be done on the impact of foreign investment on most of the economies of interest around the world.

Implications

There are several implications of this work for U.S. companies, the U.S. Government, and U.S. Business Groups; for Chinese policy makers; and for policy makers in other countries. These are closely tied to the conclusions identified above.

Implications for U.S. Companies, the U.S. Government, and U.S. Business Groups

The first implication of the present work for U.S. companies, the U.S. Government, and U.S. Business Groups is that there is an increasing need to "make the case" for the value of USFDI and USFAs to China and other host countries.

The second is that specific analysis showing the value generated for China's economy is likely to be far more effective in changing the discussion about foreign investment in China than legalistic phrases and generalities about what is "good for China."

The third is that ESA's economic impact analysis shows that the benefits generated by U.S. affiliates in China can be well over a HUNDRED TIMES the value of the annual USFDI inflows, the numbers most often cited when discussing USFDI into China. All estimates are imperfect, but the discussion about the value of USFDI and USFAs to China should START with the economic impact numbers.

The fourth is that the additional benefits that USFAs bring to China that have not been quantified in this Report may be as large if not larger than the benefits that have been quantified.

The fifth is that similar analysis can be done for individual U.S. firms that wish to "prove their worth" when it comes to demonstrating the benefits they bring to China.

The sixth is that similar analysis should be done for other host countries, as China is not the only place where "making the case" for the benefits of USFDI and USFAs will be essential going forward.

Implications for China

The first implication for China is that China has benefitted enormously from USFDI and the presence of U.S. companies. The benefits in terms of value added impact have been more than a hundred times the annual USFDI inflows. The benefits have also been an order of magnitude greater than the net incomes of the U.S. affiliates in China, indicating that China has obtained the vast majority of the benefits. And this does not even include the non-quantified benefits to consumers and business customers, the benefits associated with sourcing in China, and a wide range of additional catalytic and spillover benefits to China's economy.

The second implication is that while Chinese companies are becoming better competitors, and China might not need foreign investment as much as it did in the past, FDI and in particular USFDI has proven an extraordinarily cost-effective means of helping to develop China's economy. This is particularly important at a time when China is looking for financially sustainable growth.

The third implication is that far from profiting disproportionately from China, the available information indicates that China is a less profitable market on average than other markets for U.S. affiliates. This is one reason that some U.S. companies are rethinking their positions in China.

The fourth implication is that no country, not even China or the U.S., can develop all the ideas and innovations necessary to support economic development in the modern world. The more China restricts the activities of foreign firms, the more limits will be placed on its potential prosperity. In addition, all of China's major economic initiatives will be far easier to execute with the participation and cooperation of foreign investors, including those from the U.S., than without.

Implications for Other Countries and U.S. Affiliates Operation in Other Countries
The first implication for host countries other than China is that enormous benefits can be obtained through USFDI and the presence of USFAs in a host country. In addition, these benefits are usually dramatically understated due to incomplete analysis.

The second implication for other host countries is that the tools exist that allow for a much more complete assessment of the impact of FDI and the presence of foreign companies. Such analysis can be useful both in policy making and in convincing local constituencies about the value of foreign investment.

The main implication when it comes to other host countries for investing companies, source country governments, and source country business groups is that the tools exist to provide a more detailed picture of the benefits they bring to these countries as well and that these tools can be used to better "make the case" for the benefits of FDI and foreign companies.

For more information

Michael Enright, Director, Enright, Scott & Associates Limited
michaelenright@enrightscott.com / +852 3101 8650
www.enrightscott.com

Stephen Olson, Research Fellow, Hinrich Foundation
stephen.olson@hinrichfoundation.com / +852 9889 5510
www.hinrichfoundation.com

About the research

This paper follows a larger project initiated by the Hinrich Foundation and undertaken by Enright, Scott & Associates on the impact of foreign investment and foreign enterprises as a whole on China's economy.

The results of the larger project were published in Michael J. Enright, Developing China: The Remarkable Impact of Foreign Direct Investment (Routledge 2017).

Learn more about the book at: hinrichfoundation.com/fdi-in-china

助力中国发展：
外商投资对中国的影响

Developing China
The Remarkable Impact of Foreign Direct Investment
A book by Michael J. Enright

Chinese translation available 1 July 2017

promoting sustainable global trade
hinrich foundation

© 2017 Hinrich Foundation.
All rights reserved.