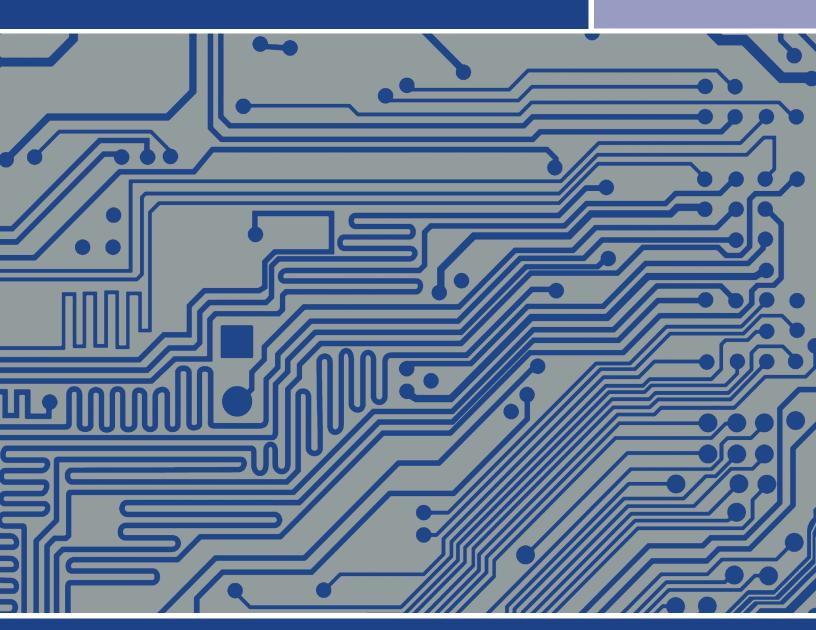
# HIGH TECH: The Next Wave of Chinese Investment in America



BY THILO HANEMANN AND DANIEL H. ROSEN



SPECIAL REPORT: EXECUTIVE SUMMARY

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#### SPECIAL REPORT: EXECUTIVE SUMMARY

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Thilo Hanemann is Research Director at Rhodium Group and leads the firm's cross-border investment work. His research assesses new trends in global capital flows, related policy developments, and the political and commercial dynamics of specific transactions. One of his areas of expertise is the rise of emerging economies as global investors and the implications for host economies and the global economy. His most recent work focuses on the evolution of China's international investment position and the economic and policy implications of this new trend. Mr. Hanemann is a frequent speaker and commentator on China's outward investment and has published numerous articles on the topic. He coauthored Rhodium Group's authoritative reports on Chinese investment in the United States (An American Open Door? Maximizing the Benefits of Chinese Foreign Direct Investment, 2011) and Europe (China Invests in Europe: Patterns, Impacts and Policy Implications, 2012) and is responsible for managing Rhodium Group's China Investment Monitor.

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Rhodium Group combines policy experience, quantitative economic tools, and on-the-ground research to analyze disruptive global trends. Its work supports the investment management, strategic planning, and policy needs of the financial, corporate, government, and not-for-profit sectors. Rhodium Group has offices in New York and California and associates in Washington, Shanghai, and New Delhi. (http://www.rhg.com)

The China Investment Monitor is an interactive online tool developed by Rhodium Group that allows users to track Chinese direct investment transactions in the United States by state and by industry. It is updated on a quarterly basis, along with public notes discussing the most important deals and policy trends. (http://rhg.com/interactive/china-investment-monitor)





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#### **FOREWORD**

**SEVERAL YEARS AGO**, it became evident that the world was on the cusp of a significant shift in patterns of global foreign direct investment (FDI). China, which had been a major recipient of inflows from the developed world, was poised to become a more active investor in mergers, acquisitions, and greenfield projects abroad. Therefore, the Asia Society undertook the first of a series of studies to map this shift and to suggest how these new investment flows, might benefit the United States while also enhancing U.S.—China relations.

The first study, An American Open Door? Maximizing the Benefits of Chinese Foreign Direct Investment (2011), was written by Rhodium Group's Daniel H. Rosen and Thilo Hanemann (as were subsequent joint efforts). It examined Chinese investments in the United States, prospects for their growth, potential benefits and risks, and obstructions to even greater flows in the future. Our conclusion was that flows of Chinese capital into the United States—the most open and vibrant economy in the world—were on the precipice of growing dramatically. We also concluded that in spite of political concerns, the United States had much to gain by encouraging even greater inflows from China.

The second study, *Chinese Direct Investment in California* (2012), was premised on the recognition that because the West Coast of the United States has a long tradition of involvement with China and the Pacific, it has a much greater at stake in how future patterns of Chinese investment move around the world. With that in mind, we focused on the current state of Chinese FDI in California, the risks and benefits of such investment, and recommendations for encouraging even larger flows in the future. The report helped the state of California reconsider how to enhance its relations with China and, ultimately, paved the way for Governor Edmund G. Brown, Jr., to lead a successful delegation to China in March 2013. His trip catalyzed not only new investment projects but also a series of important subnational exchanges and collaborations.

Drilling even more deeply into the U.S.-China relationship, the Asia Society's Northern California Center is pleased to present a third report, *High Tech: The Next Wave of Chinese Investment in America*, which examines Chinese direct investment in America's high-tech sector—an area that is particularly interesting to Chinese investors because of its distinctively innovative spirit, dynamism, and extraordinary success. The challenge of this study was to analyze the current level of Chinese involvement in U.S. high-tech sectors and to make recommendations on how to improve the investment climate and pave the way for mutual gains by both economies.

Although there are some cases in which Chinese investments poses national security challenges, this is not the case in the vast majority of transactions. It is our hope that this survey will help delineate not only areas where caution is advised but also others where more activity will benefit both countries. In this way, America's high-tech sectors—particularly in states such as California, which has always been a pace-setter—can become a model for closer two-way U.S. investment links with China.

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For this study, we would especially like to thank Bruce Pickering of the Asia Society Northern California (ASNC) Center, who initiated this project and supported us throughout. We are indebted to Robert W. Hsu, Robert Bullock, Maria Scarzella-Thorpe, Wendy Soone-Broder, and the rest of the ASNC team for their administrative support and useful feedback on our drafts. We also want to thank the sponsors of the report: Deloitte, Silicon Valley Bank, Wells Fargo, Jack Wadsworth, Blank Rome LLP, and East West Bank.

The participants in three study groups in San Jose (December 10, 2013), San Francisco (December 11, 2013), and Washington, D.C. (December 13, 2013), provided useful reactions and comments on early drafts of the report. We benefited greatly from discussions with a wide range of individuals in the United States and China in the private sector, government organizations, and academia.

We owe a debt of gratitude to a number of fellow economists at the Peterson Institute for International Economics who have worked on the larger topic of foreign direct investment in the past, including Ted Moran and Monty Graham (1944–2007). Finally, special thanks go to our colleagues at Rhodium Group in New York City for their superb research and administrative support.

While all of these people improved our work, imperfections surely remain, which are solely the responsibility of the authors.

Thilo Hanemann, Daniel H. Rosen

New York, March 2014

#### **EXECUTIVE SUMMARY**

WHILE CHINA STARTED INVESTING AROUND THE WORLD in the early 2000s, the first waves of Chinese overseas investment targeted mostly extractive mining activities in developing countries and resource-rich advanced economies such as Australia and Canada. Over the past five years, however, Chinese capital has begun to flow into non-extractive sectors in advanced economies, increasingly targeting technology- and innovation-intensive industries.

Initially, the surge of Chinese outward foreign direct investment (OFDI) in the United States largely responded to opportunities in energy and real estate, but access to technology and innovation is now becoming an important driver. In the first quarter of 2014 alone, Chinese investors announced high-tech deals worth more than \$6 billion, including the takeovers of Motorola Mobility, IBM's x86 server unit, and electric carmaker Fisker.

China's arrival as a technology investor brings benefits to the United States, but it also reinforces concerns, particularly at a time of difficult U.S.—China relations in technology. The United States blames China for technology theft and failed international trade negotiations; China, for its part, still follows discriminatory industrial policies and is contemplating a more nationalistic approach to technology in light of recent electronic surveillance revelations.

In this report, we explore the advent of Chinese investment in U.S. high-tech sectors in order to provide an objective starting point for debate about this nascent trend. We use a unique dataset on Chinese FDI transactions in the United States to describe the patterns of Chinese FDI in U.S. high-tech sectors, elaborate on the firm-level drivers of those investments, and present an initial assessment of the impacts from a U.S. perspective. We then identify the most important impediments to two-way U.S.—China high-tech investment flows and present recommendations for policy makers and businesses on both sides to address these stumbling blocks.

We believe that growing Chinese outbound high-tech investment is an important determinant of the path forward for U.S.—China relations in general. Successful Chinese investments will make Americans recognize the potential benefits of greater economic integration with China through two-way investment flows and remind Chinese leaders that openness and convergence with a market-based innovation approach is in China's own interest. A negative U.S. response to growing Chinese investment will aggravate existing tensions and give encouragement to proponents of a more nationalistic and discriminatory approach to technology, triggering a backlash against foreign firms in China and risking a protectionist downward spiral.

#### **Patterns**

Chinese FDI in the United States has evolved from trade facilitation (in the 1990s) and resource extraction (starting in the mid-2000s) to investment in high-tech manufacturing and advanced services. Using a broad subset of 15 high-tech industries, we show that Chinese interest in these industries was minimal before 2010, with the exception of Lenovo's acquisition of the IBM personal computing unit in 2005. Since 2010, annual deal value has topped \$1 billion every year. In 2012 and 2013, growth stalled, along with a general drop in number of FDI transactions, but 2014 will be a breakthrough year, with deals worth more than \$6 billion pending in the first quarter alone.

Despite this recent surge, cumulative investment from China in U.S. high tech remains modest by any measure. By the end of 2013, cumulative Chinese investment in these 15 industries amounted to \$9.1 billion—about one-fourth of total Chinese FDI in America in this period, or about half of what Facebook offered to pay for the acquisition of messaging start-up WhatsApp in February 2014. Within the high-tech industries, the trend has shifted from mostly electronic equipment, machinery, and auto parts in earlier years to a much broader mix of industries, including new energy, aviation, and biotechnology. Chinese high-tech investments are spread across 37 states, with California and states with particular innovation clusters receiving the most investment. Chinese firms investing in U.S. high-tech sectors are mostly private enterprises that have a global footprint and are located in China's most developed provinces.

#### **Motivations**

China's recent OFDI boom is driven by a mix of policy liberalization and changing commercial realities in the Chinese marketplace, which are forcing firms to expand beyond China's borders. To illustrate the changing motivations for such investments at the firm level, we reviewed all 518 transactions in our sample of high-tech deals. We find that trade facilitation was initially the most important driver of Chinese FDI in technology-intensive industries, mostly in the form of smaller-scale projects such as sales offices. As their goods become more technologically advanced, firms are now investing in more sophisticated and expensive projects aimed at demonstrating capabilities and providing after-sales services. In addition to export facilitation, an increasingly important driver of Chinese high-tech FDI is the acquisition of technology, brands, distribution channels, and other strategic assets to improve long-term competitiveness. A second, newly emerging driver is the desire of Chinese firms to increase the efficiency of their global operations by tapping the talent base and advanced institutions in the United States – assets which cannot be uprooted and removed to China.

#### **Impacts**

The impact of Chinese investment in high-tech industries is the subject of intense debate. The track record of Chinese firms in the United States is too short to fully assess the validity of concerns, but our research allows us to present some important data points and anecdotal evidence.

The first major concern is that China's economic size, combined with nonmarket advantages its firms sometimes possess, could threaten the healthy functioning of competitive markets in the long-term. We find that the impact of Chinese FDI on competition in high-tech industries is still small but largely positive to date. Chinese firms such as Haier, Lenovo, Tencent, and Alibaba are increasing choices and lowering prices for consumers. Greater Chinese FDI also increases the competition for assets, thus allowing U.S. producers to divest unwanted assets at a higher price, as the examples of IBM's x86 server unit and Google's Motorola unit illustrate. Concerns about the distortion of asset prices in the aggregate by new Chinese investment entrants are for the time being unwarranted, given the small market share of these firms. However, the concerns of individual firms about the subsidies and other nonmarket advantages enjoyed by Chinese firms now entering the competition for global technology assets or overseas market share are understandable and legitimate, and need to be addressed.

A second concern is that China's industrial policies and state controls could incentivize its firms to acquire U.S. assets in order to move innovation-intensive activities back to China, hollowing out American capabilities. Analyzing our sample of Chinese investments, we find no signs that industrial policy goals or patriotic doctrines are forcing firms to move innovation operations back to China against commercial logic. To the contrary, Chinese high-tech investors have created or sustained 25,000 jobs in the United States and are becoming significant contributors to research and development investment. The primary value proposition for most Chinese investors is not a quick grab of patents or other removable physical assets but intangible and non-removable assets such as the skills and know-how of staff, management experience, brands, and proximity to local customers.

Third, Chinese FDI does evoke particular concerns about national security impacts because of China's size, its role as geopolitical competitor, and its troubled track record in the proliferation of sensitive technologies to hostile regimes such as North Korea. These concerns are also legitimate and warranted. At the same time, the existing screening system of the Committee on Foreign Investment in the United States (CFIUS) allows the United States to sufficiently mitigate risks or block investments with potential negative impacts on security.

#### **Impediments**

Concerns in the United States about Chinese high-tech OFDI and existing distrust and calls for de-Westernization of technology in China could contribute to a dangerous turn toward technonationalism. We identify three areas where policy makers and private sector players—both in China and the United States—must work to sustain healthy and open two-way U.S.—China investment flows.

First, national security concerns have hampered a number of deals and led to politicization of others in the US. In China, national security concerns have recently triggered a debate about reducing reliance on foreign technology and spurred certain groups to lobby for a more nationalistic approach to innovation. Therefore, the first and foremost challenge to safeguarding productive and mutually

beneficial U.S.-China investment flows is to ensure that national security concerns are managed appropriately and that regimes are not abused for protectionist or other special interests.

A second impediment is debate over the nonmarket elements in China's economy and asymmetries in market access. Concerns about the "unfair advantages" enjoyed by Chinese firms in global competition, a lack of reciprocity in market access, and industrial policy biases have been voiced in connection to almost every Chinese high-tech acquisition in the United States. Such concerns have already led to new rules in some of China's partner economies (for example, Canada and Australia), and there are calls in the United States to expand the scope of CFIUS or to erect new regimes to screen for potential economic threats from Chinese investment. Resolving these concerns is essential to a sustainable U.S.—China investment relationship.

A third threat to open U.S.—China investment flows and the globalization of innovative activities generally is uncertainty about the distributional impacts and benefits from such processes. Therefore, it is critical to take the right steps for both countries to be confident about the economic benefits from an internationalist approach, rather than a nationalist approach, to technology value chains.

#### Recommendations for U.S. policy makers and businesses

- 1. Acknowledge China's arrival as high-tech investor: Many policy makers struggle to imagine that Chinese firms could become major contributors to local innovation. As our data show, they already are. Governors and mayors need to do their homework and craft strategies for attracting investments in their local economies. The U.S. business community will also have to carefully consider the opportunities and challenges of this shift in Chinese investment interests for their operations at home and abroad.
- 2. Ensure that national security screening remains effective: For decades CFIUS has fulfilled its mandate well: screening for narrowly defined national security concerns in inward acquisitions so as to clear the way for general openness to foreign investment flows. The rise of high-tech investments from China reinforces the need for a gatekeeper that establishes confidence that openness to China entails no unmanageable risks. At the same time, rapid growth in Chinarelated deal flow also raises the risk that deals are politicized and that the narrow standard of what constitutes a legitimate national security concern may widen. Such risks should be headed off by clear guidance from the President, greater transparency about technology-related concerns, and better disclosure of procedures and results.
- **3. Reassess other investment-relevant elements of U.S. security policy**: The emergence of investors from emerging markets and the growing complexity of global innovation value chains highlight the need to evaluate other elements of U.S. national security policy. One area is the U.S. export controls regime, which has been a drag on the global competitiveness of U.S.-based firms for a long time and will put U.S. locations at a disadvantage in competition with European or Asian economies for legitimate greenfield investments from China. A second area is market access

restrictions for Chinese technology goods, which may be necessary and legitimate, but they need to be narrow, codified, and transparent to avoid retaliation against U.S. companies.

- **4.** Utilize domestic frameworks to address economic and commercial concerns: Instead of expanding CFIUS reviews to "economic security" questions or erecting a new burdensome at-the-border regime, the U.S. should use its ample domestic regimes—including competition policy or trade secrets laws— to address economic concerns such as unfair competition. The greater physical presence of Chinese firms will also give U.S. companies a greater ability to use the U.S. court system for pursuing their interests in technology-related disputes with Chinese firms, such as copyright and intellectual property rights (IPR) violations.
- 5. Push for a bilateral investment treaty and international regimes to incentivize upward convergence: A bilateral investment treaty between China and the United States will not level the playing field overnight, but it could provide a detailed template for improving China's inward FDI regime and testing China's degree of readiness. At the same time, the United States should continue its leadership on international agreements addressing market access, IPR protection, and transparency, such as the Transatlantic Trade and Investment Partnership, the Trade in Services Agreement, and the well-advanced Trans-Pacific Partnership. If reforms in China fall short of expectations, then such international investment covenants will serve as a safety net for market economies and an incentive for convergence.
- 6. Tackle reforms to ensure long-term U.S. competitiveness in innovation-intensive activities: The United States is attractive to Chinese firms because it is the world leader in many cutting-edge technologies and offers firms the right institutional environment and highly qualified and educated workers. The way to keep these firms in the United States and attract more of them is to sustain these advantages and make America a more attractive place for knowledge-intensive activities than its peer competitors in Europe or Asia. Barriers to foreign investment will do little to improve American competitiveness—in fact they could easily impair it further.

#### Recommendations for Chinese policy makers and businesses

- 1. Acknowledge foreign concerns: American anxieties about the character of China's behavior in the context of global innovation are not surprising, given Beijing's extensive official indigenous innovation programs couched in nationalistic terms, talk of "de-Westernizing" Chinese technology, recent setbacks in an expanded Information Technology Agreement as a result of Chinese footdragging, and a history of aggressive technology theft by Chinese firms both at home and abroad. Historically, China is not unique in any of these blemishes, but if Chinese leaders and firms want to optimize market access abroad today, the onus is on them to change these perceptions.
- 2. Make a down payment on broad market reforms: The aggressive economic reform program laid out by the Third Plenum of the Communist Party in November 2013 is a big step forward, but uncertainty remains about what path the leadership intends to take on innovation and technology. By

making a "down payment" on reform, Beijing can demonstrate what kind of future foreign partners can expect and make it easier to get past current misgivings about high-tech OFDI. Examples of confidence-building moves with regard to innovation include lower barriers to foreign participation in technology and service sectors in China or the abolition of nationality-based discrimination in technology-relevant industrial policies.

- **3.** Take bolder steps on China's inward FDI regime: A prime determinant of foreign appetite for Chinese FDI in technology is the treatment of foreign firms in China. The faster China moves from the current approval system to a modern FDI regime, the more easily U.S. leaders and businesses can advocate for reciprocal openness. Within this new regime, the list of restricted sectors should be narrow and transparent, and informal barriers should be minimized. A revised and radically slimmed down negative list of sectors to be exempted from general openness, both in the context of the new Shanghai Free Trade Zone and the US-China BIT negotiations, is the singular indication of boldness that foreign observers are looking for at this point.
- **4.** Unleash the private sector: China has made great strides in the transition from a government-dominated economy to a market economy, and it is private firms and entrepreneurs that are now driving outbound FDI in technology sectors. However, private innovators need a better legal environment at home, as well as more freedom to make unfettered decisions about outbound investment and global operations. Conversely, China's private sector needs to step up and do a better job educating stakeholders abroad about motives and impacts of investments, and in advocating openness and a level playing field for foreign firms in China.
- 5. Provide greater leadership on investment-related international regime building: As the world's second-largest economy and now one of the top exporters of FDI globally, China needs to take a greater role in designing and expanding multilateral regimes that promote global investment openness. Negotiating bilateral investment agreements with the U.S. and other countries are a first step, but China could ultimately become a powerful force in the revival of a multilateral agreement on investment. China's changing global investment interests, combined with changes in the domestic political economy, should also increase the urgency for China to promote or join related international agreements, for example, the World Trade Organization's government procurement agreement and the Information Technology Agreement.

### Asia Society Reports on Chinese Investment Into the United States

An American Open Door? Maximizing the Benefits of Chinese Foreign Direct Investment (April 2011)

Chinese Direct Investment in California (October 2012)



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