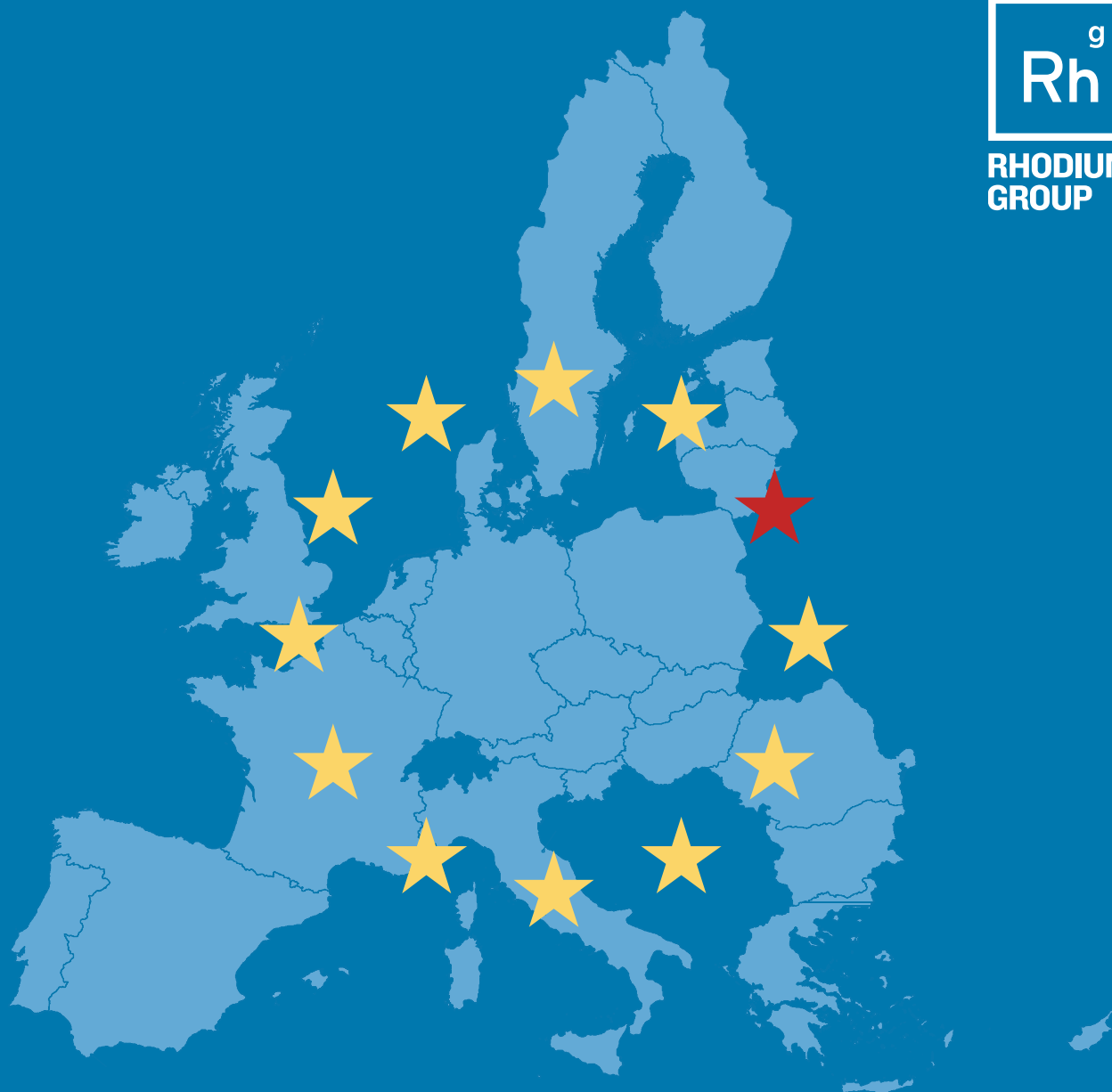




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China Invests in Europe

Patterns, Impacts and Policy Implications

Thilo Hanemann and Daniel H. Rosen

June 2012

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Rhodium Group

June 2012

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Thilo Hanemann, Daniel H. Rosen

(New York, June 2012)

Executive Summary

Europe is experiencing the start of a structural surge in outbound direct investment in advanced economies by Chinese firms. The take-off was only recent: annual inflows tripled from 2006 to 2009, and tripled again by 2011 to \$10 billion (€7.4 billion) for the year. The number of deals with a value of more than \$1 million doubled from less than 50 to almost 100 in 2010 and 2011.

To many business leaders and policymakers, the drivers, motives, patterns and impacts of this buying spree seem impenetrable. Neither Chinese nor European official investment data are sufficient for making sense of this new investment boom. But an alternative approach, based on the collection of data on Chinese greenfield and mergers and acquisitions (M&A) transactions in Europe since 2000, can resolve many of the mysteries surrounding this promising new channel of investment, and point the way to an effective European response to Chinese foreign direct investment (FDI).

DRIVERS AND MOTIVES

Our detailed data support the view that Chinese direct investment in Europe is driven overwhelmingly by **commercial motives**. Chinese policy is playing a role, but mostly in terms of getting government out of the way so firms can make more rational judgments about locating operations. Direct political guidance has played a very minor role in Chinese investment in Europe thus far. China's industrial policies and encouragement (via offered low-interest capital) of going abroad are impacting investment decisions, but they are not the primary reasons why firms from China are appraising opportunities in the European Union (EU). The mix of industries targeted, the high number of private enterprises making investments, and the competitive behavior of companies from the People's Republic after they arrive and set up shop in Europe all point to profit as the greatest motive in China's outward FDI story.

The profit drive of Chinese executives is colored by a broad range of considerations. For many, the acquisition of rich-world brands or a technological edge is the key element for breaking away from a fiercely competitive pack back home. Often times, it has proven cheaper and more rewarding to situate higher value-added activities in advanced regulatory locations like Europe. For other Chinese buyers, the crisis in the West presents the prospect of discounted prices, while an increasingly stronger renminbi is making European (and American) assets look more attractive. For Chinese contract manufacturers of the labor intensive products Europeans consume, defending market share increasingly means expanding market presence. As a direct investor, Chinese exporters are able to relate directly with customers and deliver more of the value that makes up profits today.

PATTERNS

The patterns of direct investment by Chinese firms provide a window into China's evolving motives and capabilities. Our dataset shows a profound post-2008 surge which the official data sources are missing: from less than \$1 billion (€700 million) yearly 2004-2008, annual OFDI flows to Europe tripled to roughly \$3 billion (€2.3 billion) in 2009 and 2010 before tripling again to almost \$10 billion (€7.4 billion) in 2011. The absolute values remain small compared to Europe's total inward FDI stock, but the change in trend line is what matters. The number of annual investments with a value of more than \$1 million grew from less than 10 a decade ago to 50 in 2007 and almost 100 in 2010 and 2011.

Geographically China's OFDI preferences look typical for Europe, with the three biggest economies—France, the United Kingdom and Germany—in the lead. This pattern supports the notion that China is investing like any other commercially motivated investor, not in some odd and idiosyncratic way. By coding the ownership patterns of Chinese deals, we also find that acquisitions are more frequent in the Western European core; the new EU member states of Eastern Europe see almost entirely greenfield investments, with a few exceptions. We see practically no evidence of declining OFDI prospects for states which run afoul of China politically over issues such as Tibet or arms sales, or rewards in the form of FDI for states which hew closer to Beijing's assumed preferences; at the end of the day, it's hard enough to make money as a Chinese firm overseas without having a volatile political agenda foisted upon management.

The **sectoral mix** of Chinese investment in Europe tells us that a shift is under way. Chinese deals are less dominated by natural resources and trade facilitation objectives and more concerned with the full range of industries and assets spread widely across Europe. Of the 30 sectors we track, 18 show over \$200 million in deals; 9 show over \$1 billion. Several sectors show greenfield projects at several hundreds of millions of dollars – unusual for a “developing country”. The bottom line from our detailed analysis is there is breadth and momentum across the board, not cherry picking in a handful of strategic industries.

Another useful perspective is Chinese investment by **ownership** of the investing firm. While Europeans are somewhat less incensed about statism than many of their American cousins, it is nonetheless useful to discover that – as across the Atlantic – about two-thirds of all deals, or 359 of 573, are done by privately held or non-state publicly traded firms. Due to a handful of large-scale acquisitions in capital intensive sectors, this picture reverses when looking at ownership in terms of total deal *value*: 72% of the total \$21 billion originates from state-owned enterprises. Not only is the ownership mix consistent with a benign model of China's OFDI story, but it also makes European interests compatible with the United States in this regard.

Finally, the similarity in patterns between Chinese investment in **Europe and the United States** is more than superficial. In rough value terms (stock and flow), in the breadth of the industrial mix, and in ownership patterns, the US and EU have much

in common. Thus far they have responded to the advent of Chinese investment in parallel but very separate ways, with similar results—contrary to all the talk about America’s higher bar for national security screening. China needs the opportunity to invest in both the US and Europe – not either/or – and should OECD nations decide to coordinate international investment regimes more closely, underlying interests should be fully compatible.

IMPACTS

The arrival of China’s firms elicits both excitement and anxiety, as the new investors are still unknown and the impacts of their investment unclear. A good analysis of the impacts of Chinese investment on Europe is difficult because the lion’s share of deal-flow is so new, and has not yet fully demonstrated its potential – either positive or negative. We present an integrated approach, combining an informed view on the evolution and status quo of the Chinese economy, historical data on foreign investment, and our database on Chinese investment projects in the EU, to discuss the impact of Chinese FDI in Europe from the perspectives of economics, politics and national security.

In the aggregate, Chinese FDI should deliver the same **economic benefits** as other direct investment flows, whether from inside or outside the EU. Foreign direct investment increases the welfare of both producers and consumers. It allows firms to explore new markets and operate more efficiently across borders, reducing production costs, increasing economies of scale and promoting specialization. It is particularly important when serving overseas markets requires an on-the-ground presence (for example, in the provision of services). Foreign direct investment also means better prices for firms looking to divest assets, thanks to a bigger and more competitive pool of bidders. For consumers, it increases the contest for buyers’ attention, leading to more choices, lower prices and innovation. And in local communities, foreign investment brings new jobs, tax revenue, and knowledge spillovers from worker training, technology transfers and R&D activities.

In terms of new capital we project \$1-2 trillion in global Chinese OFDI from 2010-2020. At that rate, if Europe continues to attract the same share of global FDI as in the 2000s – around 25% -- then by 2020 Europe would see \$250-500 billion cumulatively in new Chinese M&A and greenfield investment. Even if Chinese outflows underperform and Europe ceases to attract as big a share, an annual average of \$20-30 billion would be expected for the coming decade. Employment impacts are a common question when it comes to Chinese investment. Unlike trade, direct investment is unlikely to be associated with *negative* effects on employment: greenfield projects by definition create work that was not there before, and acquisitions are hard to move and often entail turning around a firm that might have gone under. We count around 45,000 EU jobs associated with Chinese direct investors today. Projecting job effects from Chinese FDI is a low-return game – too many variables enter the mix. However, it is helpful to consider the amount of jobs created by FDI from other major economies: American firms today cut paychecks to 4.3 *million* EU citizens. Europeans possess advanced economy workforce skills in rich

abundance urgently needed in Chinese production chains (including environmental management and controls, quality assurance, design and innovation, and high technology), which should help to sustain the positive momentum.

We catalogue the *potential* for **negative economic consequences** arising from Chinese investment to the extent possible as well, bearing in mind that such concerns are tomorrow's worry more than today's. As a still minor contributor to total EU direct investment, China is unlikely to be distorting asset prices or market efficiency at present – and in fact may well be improving it. However, there are Chinese economists arguing that China's tendency to gradually converge toward market norms of macroeconomic management, pro-competitive regulatory outcomes and privatization has slowed or even reversed. The massive debate on this subject is beyond the scope of this study. But in an era of global operations by Chinese firms (state-owned or otherwise), it is vital to think through the global economic implications of a future, less market-oriented China. We present four concerns that require attention in Europe in this regard: greater Chinese investment could expose Europe to macroeconomic volatility if there is a significant economic disruption in the years ahead; Chinese firms could have a preference to reorganize operations according to industrial policy directives and move high value activities back home after making acquisitions; features from China's unique economic structure could spill over through FDI and threaten market-based competition in the European marketplace; and a race to the bottom to attract Chinese investment could negatively impact European welfare.

In addition to economic implications, we also consider the **political impacts** of Chinese FDI in Europe. It is natural that Chinese officials might threaten to withhold direct investment if they believed doing so could affect European politics. Based on our analysis, however, Chinese firms are less subject to Beijing's puppetry than many observers believe. As noted above, direct investment (unlike portfolio investment) cannot be easily liquidated or withdrawn to communicate short-term political signals. The selection of investment targets requires arduous work by Chinese firms, and is undertaken for commercial reasons, not at the behest of back-room political strategists. These firms are not investing in Europe out of charity or with a foreign policy goal in mind; they are trying to defend market share in the rich world, acquire technologies and brands to stave off fierce competitors back home, or achieve some other commercial imperative. That said, there is ample reason to anticipate attempts by Beijing to mix money with politics – they already have with Japan over rare earths, and Europe over support for crisis stabilization funds.

Finally, while **national security fears** related to foreign investment are not new, China presents particular concerns. For one, China will likely be the world's largest economy within two decades, lending it huge leverage and power to shape global national security. Second, China is a one-party authoritarian state with values at variance and sometimes at odds with those of OECD countries. State ownership and influence create special concerns about government-driven, non-commercial motives for investing. Third, China is not a European ally but an emerging power with a modernizing military. China and Europe currently have good relations but

there is uncertainty about the future: China has a stated aspiration to displace the existing global power balance in favor of a greater role for itself, including a greater voting share in international organizations, most likely at Europe's expense. Fourth, China has a troubled record on export control rules, and a reputation as a major proliferator of sensitive technologies to rogue regimes including Iran, North Korea, and Pakistan. This raises the potential for discord over the obligations of China's firms in Europe. Finally, China is considered a heightened threat for economic and political espionage by the intelligence communities in Europe and North America, and not without reason.

POLICY RECOMMENDATIONS

The heady growth in Chinese investment in Europe described by this study presents an impressive picture that warrants an optimistic outlook for Chinese investment in Europe. As the United States takes the heat for imposing tighter national security reviews, in relative terms it would appear that Europe is in the fast lane – especially after 2011's stellar \$10 billion inflows. However we conclude that policy attention to a number of matters is crucial at this point in time to sustain Chinese investment in Europe and maximize the benefits from these new capital flows. Several of our recommendations revolve around a central, simple equation: to support its interests, Europe needs a common approach to greeting Chinese direct investments as well as safeguarding against potential economic and political risks. Europe's current model of openness will be seriously tested in the future when inflows from China reach first-tier volumes, not all acquisitions are friendly, and EU austerity is in full swing. If a pan-European investment policy is to remain free from economic nationalism, it must assure healthy competition and clear and effective national security screening.

1. Keep the door open. Europe must not risk losing its hard-earned reputation for openness by imposing additional barriers to capital inflows based on economic security considerations. Several cases have already raised that specter. There may be more loopholes for veiled protection in the European framework than admitted, and the reaction to China is not yet fully tested. Europeans will embrace foreign investment if they know a thorough, EU-wide process to address concerns is in place, guided by the principles of openness and non-discrimination.

2. Address market distortions forthrightly. There are concerns about China's long-term evolution, and the prospect of China's economic model spilling out with Chinese firms' movement abroad. Our advice is *not to burden* the investment screening process with "economic security" demands arising from legitimate worries about China's system. Nor do we think that reciprocity demands are practical or productive. Ideally, China will redress aspects of domestic distortion such as preferential capital costs for state firms, but given the potential risks if this scenario does not materialize, policy should be in place to protect EU interests via internal processes including competition policy review. A rational and systematic game plan for handling the concerns sure to arise over China's system without risking investment protectionism is best for Europe; it also lends itself to the prospect of better coordination internationally to manage the advent of emerging market OFDI.

By standardizing its internal approach, Europe maximizes its role in joint efforts to discuss competitive neutrality, state capitalism and other concepts.

3. Take national security seriously. Europe's current fragmented approach to screening foreign investment for security threats risks a race to the bottom, fails to address pan-European national security risks, and offers room for protectionist abuse in the name of security. A common European concept and legislative framework for investment review is needed to address these problems and hedge against a protectionist fallback in the false name of security. Greater transatlantic and international coordination is needed to reach a consensus on legitimate investment restrictions and global best practices for investment reviews.

4. Set the right priorities for investment promotion. An EU-China bilateral investment treaty will help to address market access problems on the European side, but it will do very little to promote investment flows from China. Tailored investment promotion approaches that help Chinese investors overcome the hurdles of entering mature market economies are important to sustain the inflow of Chinese investment. In the long run, it is critical that Europe finds a way out of its current crisis. Only a competitive EU economy can sustain foreign investment from China and other places - and in turn better cope with any challenges it raises.

These findings and policy recommendations are far from comprehensive, but we hope they will contribute to a better understanding of growing Chinese investment in Europe and help inform the policy debate. While the growth in recent years is impressive, many chapters in the story of Chinese EU investment have yet to be written. Securing the right policy response is crucial, given the potential for future investment flows and China's role as test case for a wider range of emerging market investors.

Introduction: New Investors at the Gate

Foreign direct investment (FDI) has been a pillar of European economic and political integration for the past five decades.¹ With the 1957 Treaty of Rome, six nations founded the European Economic Community (EEC) and established a common market based on the “four freedoms” – the free movement of goods, services, people and capital. By the late 1980s, all capital controls among member states were abolished, and the freedom of capital movement was subsequently extended to countries outside the Community. Abolishing capital controls boosted the flow of FDI both within Europe and with third countries.² By 2010, US\$8 trillion of intra-European FDI stocks were knitting together value chains, empowering firms to serve customers across borders, and providing consumers with a vast array of goods and services. Third country inflows, with North American and Japanese firms leading the pack, have contributed a further \$4 trillion to the story.

Today there is broad agreement that the free flow of capital is essential for a well-functioning European Single Market, and that openness to global investment is beneficial for Europe. The fear that cross-border investment threatens to homogenize Europe lingers and surfaces occasionally; citing this point, governments have perennially flirted with intervention to protect “strategically important” firms and industries against takeovers from other EU member states.³ Investors from *outside* the European fence stoke high anxieties too. In the 1960s, Jean-Jacques Servan-Schreiber warned Europeans that American multinationals were “buying up Europe”, and would dominate European industry if the continent did not improve its microeconomic competitiveness.⁴ In the 1980s, investment by Japanese firms was as disconcerting in Europe as it was in the United States.⁵ By the late 1990s, the focus had shifted to the impact of investment from Russia on Europe’s energy supply and independence.⁶ Most recently, growing sovereign wealth fund investment from Middle Eastern nations has provoked anxious debate.⁷

Flare-ups of anxiety have occurred but they have never fundamentally shaken the consensus that FDI openness is beneficial and necessary for Europe. But a new shift in global capital flows is now under way, putting Europe’s liberalism to the test once again: the rise of emerging market outward investment. For decades, the EU, US and Japan far surpassed the rest of the world in global investment, together making up an astonishing 72% of global outward foreign direct investment (OFDI) stock. Emerging markets, who contributed just 2% to global outflows a decade ago, are now rapidly joining the ranks, seeding 17% of 2010 OFDI flows; the G-3 share of global flows, on the other hand, has dropped to around 60% (Figure 1). This is not a cyclical

¹ For the history of economic integration and capital liberalization, see Bakker (1995) and Abdelal (2007).

² This report uses the term “Europe” in the colloquial sense, referring to Western Europe.

³ For a comprehensive overview, see Table 7 in Chapter 5.

⁴ See Jean Jacques Servan Schreiber’s bestselling *Le Defi Americain* (1967).

⁵ See Probert (1991).

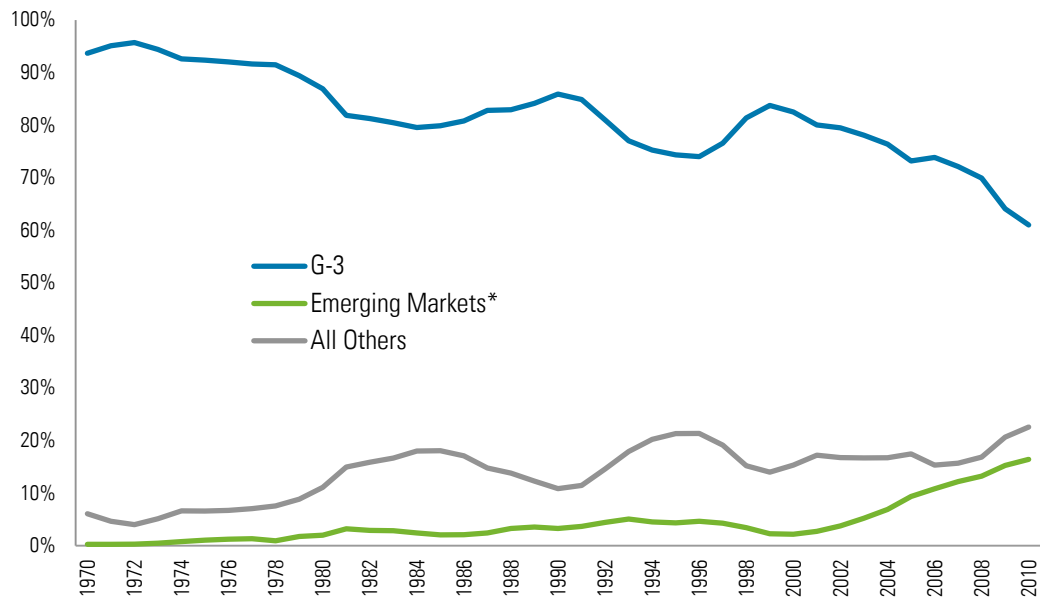
⁶ See Aslund (2008).

⁷ See European Commission (2008).

phenomenon born out of the global financial crisis— the trend precedes the crisis by more than half a decade. It is a structural story driven by the greater might of large emerging nations in the global economy and structural adjustment *within* these economies.

Figure 1: Global OFDI Flows: G3 vs. Emerging Markets, 1970-2010

Percent of global OFDI flows, 3 years moving average



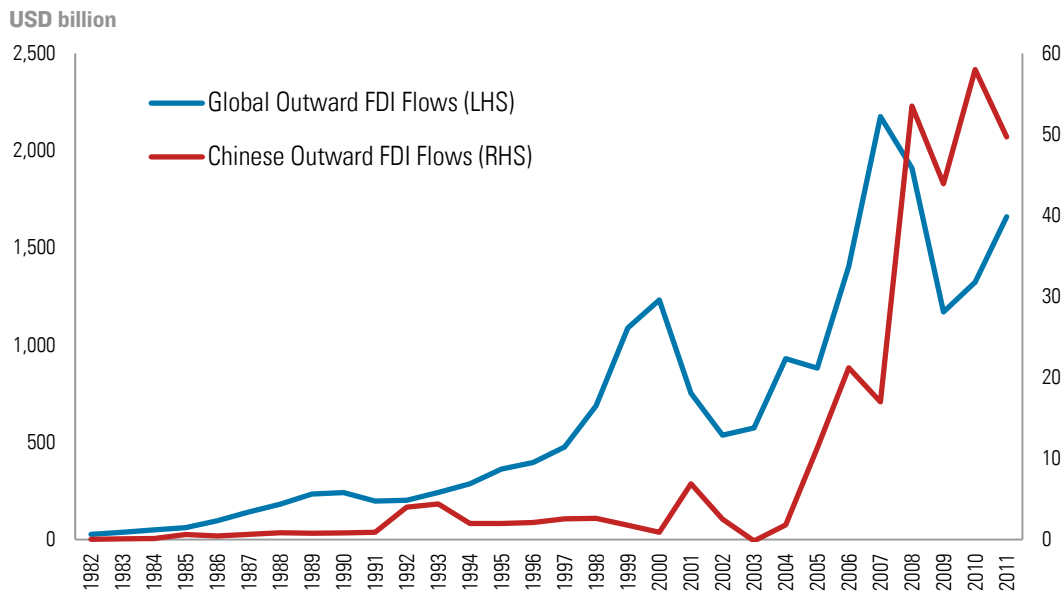
Source: UNCTAD, Rhodium Group. *Countries included in the Dow Jones Emerging Market Index.

Leading the rise of emerging market OFDI and stirring up controversy across Europe, is, of course, China. Driven by trade facilitation and natural resources, outward investment by firms from China has boomed in recent years. China’s outward investment has grown from an annual average of below \$3 billion before 2005 to more than \$60 billion in 2010 and 2011, catapulting it to be one of the world’s ten biggest exporters of direct investment (Figure 2).

Chinese outward investment is now maturing and evolving, seeking not just natural resources but operating platforms, brands and technology in developed economies. As we documented last year, Chinese FDI in the US has grown steeply since 2007, targeting a broad range of sectors and states.⁸ High profile deals demonstrate that Chinese firms are making similar inroads in Europe – see Geely’s \$1.5 billion purchase of Volvo, the \$600 million acquisition of Germany’s Medion by Chinese computer producer Lenovo, or China Investment Corporation’s \$3.3 billion investment in utility giant Gas de France.

⁸ See Rosen and Hanemann (2011).

Figure 2: China's Outward FDI vs. Global FDI Flows, 1982-2011



Source: UNCTAD, PBOC/SAFE, Rhodium Group.

Rising Chinese investment interest presents myriad opportunities for Europe. Surging investment from China makes up for diminished inflows from traditional sources, re-ignites growth by providing fresh capital to troubled firms, increases competition and consumer welfare, and expands European access to one of the biggest and fastest-growing markets in the world. But these bright prospects carry darker concerns as well. First, incomplete statistical data and delayed figures allow only a cloudy, warped idea of the extent and magnitude of Chinese investment. Second, an air of uncertainty and distrust lingers surrounding the economic and political risks of Chinese investment, and whether Europe's current fragmented policy framework provides a sufficient safeguard. The result is speculation, suspicion and knee-jerk reactions in European capitals.

This study analyzes the patterns, drivers, and implications of Chinese investment in Europe, structured around the following six parts:

Part 1 describes the **turning point** of China's FDI profile, from one of the world's largest importers of FDI to an increasingly important source of outward FDI. An assessment of past patterns of outward FDI, current stock, and projected economic size provides the basis for a forward-looking projection of Chinese outward FDI to 2020.

Part 2 explores the **motives** behind China's new forays abroad, based on an analysis of political factors such as capital account liberalization and commercial drivers.

Part 3 turns specifically to the **patterns** of Chinese direct investment in Europe using official data and an alternative set of data compiled for this report. In addition to the

headline figures of Chinese investment, we also analyze the distribution by country and industry and the landscape of investing entities.

Part 4 analyzes the **impacts** of Chinese investment in Europe, including economic benefits and risks and political variables such as national security. A net benefit analysis helps answer the key question: whether or not China is a unique historical case, meriting special economic treatment.

Part 5 examines the **policy environment** in Europe, on both the supranational and national levels, to ordain whether or not Europe is ready for Chinese investment.

Part 6 draws **conclusions** from the previous five parts and offers **recommendations** for policymakers on how to maximize the benefits of Chinese investment while limiting exposure to economic and political risks.

1. Turning Point: China's Rise as Global Direct Investor

Historically, China has been one of the major recipients of foreign direct investment, and—until recently—only a minor contributor to global investment flows. Inward FDI was a critical aspect of China's post-1978 growth miracle, but few Chinese firms had the motivation or ability to go abroad in the first two decades of reform. When the field changed in the mid-2000s, outward FDI flows exploded. By 2010, China was already the world's fifth largest exporter of OFDI. If China follows the typical pattern of an emerging economy, it will ship US\$1-2 trillion in direct investment abroad by 2020.⁹

1.1 THE TIDE IS TURNING FOR CHINA'S FDI FLOWS

Foreign investment was the cornerstone of China's post-1978 economic miracle. Opening up to FDI brought a flood of much-needed foreign capital, along with the technology and managerial know-how to knit the Chinese economy into efficient regional production chains.¹⁰ After joining the World Trade Organization (WTO) in 2001, China became the world's second-largest recipient of foreign direct investment, with annual inward FDI rocketing to more than \$100 billion in the past five years. By 2010, China had amassed an inward FDI stock of more than \$1.5 trillion.¹¹

The takeoff of China's *outward* FDI started much later. Short on capital and fearing the asset stripping and capital flight that had ravaged their communist cousins after the breakup of the Soviet Union, China maintained strict controls on financial outflows even after capital was no longer scarce. During the 1980s, official outward FDI flows were virtually zero. In the 1990s and through 2004, annual OFDI flows averaged a tiny \$2 billion, except for spikes in 1993 and 2002 from early oil company ventures abroad.

The turning point came in the mid-2000s, when Chinese demand sent global commodity import prices soaring and state-owned enterprises ventured abroad to buy stakes in extractive projects to increase supply security and profits. This push for natural resource investments boosted Chinese outward FDI from less than \$2 billion in 2004 to more than \$20 billion in 2006 and more than \$50 billion in 2008. The compound annual growth rate of China's outward FDI in 2004-2008 exceeded 130%. In 2009, outflows somewhat slowed down amid the global financial panic, but reached another record high in 2010 with almost \$60 billion. In 2011, flows reached \$50 billion amid renewed global financial instability (Figure 3). By the end of 2011,

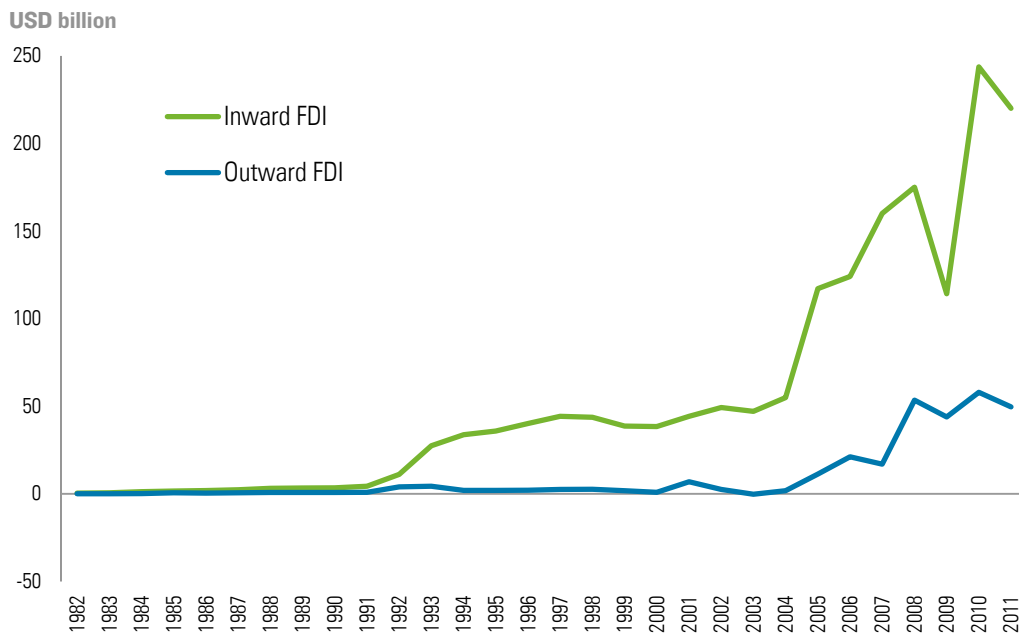
⁹ This report denotes all monetary amounts in United States Dollars (USD), following the standard for global statistics on foreign direct investment.

¹⁰ E.g. Rosen (1999) and Naughton (1995).

¹¹ The FDI figures in this paragraph refer to balance of payments data collected by the People's Bank of China, which were corrected in 2010 to account for reinvested earnings from existing FDI assets.

China's global OFDI stock reached \$364 billion, about one-fifth the \$1.8 trillion stock of inward investment.

Figure 3: China's Inward and Outward FDI Flows, 1982-2011



Source: PBOC/SAFE, Rhodium Group.

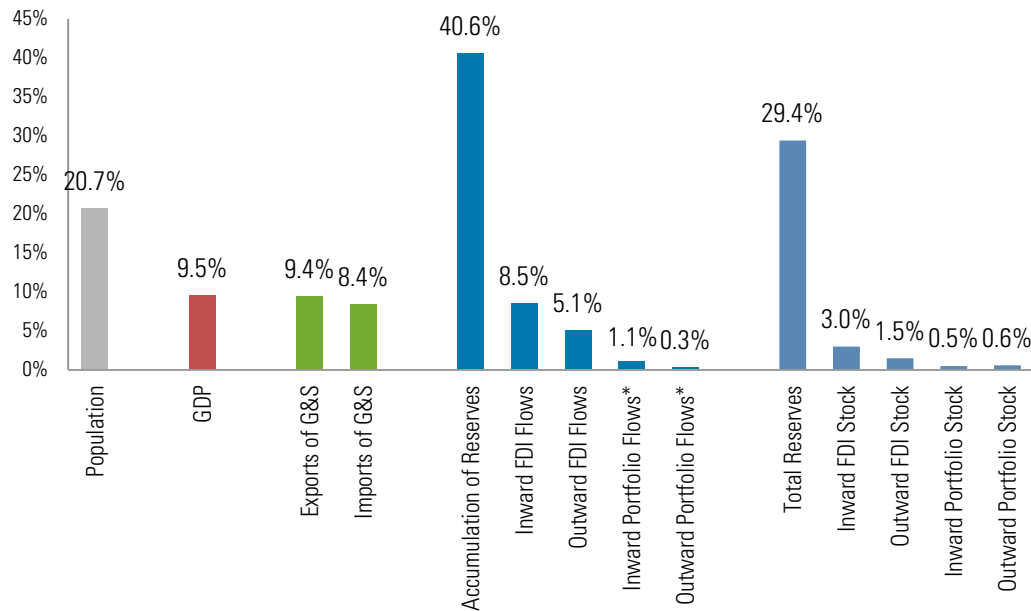
1.2 CHINA'S SIGNIFICANCE AS GLOBAL INVESTOR: LOW BASE, FAST GROWTH

China has become a key player in today's global economy, accounting for 21% of the global population, 9.5% of global gross domestic product (GDP), and 9% of global trade of goods and services. However it has long lagged in cross-border flows and is only now starting to play catch-up from a very low base. China's international assets largely consist of foreign exchange reserves, whereas direct and portfolio investment assets are negligible compared to China's weight in other metrics of the global economy (see Figure 4).

In 2010, China's outward FDI stock amounted to around \$300 billion, a mere 1.5% of the global total. China owns more hard assets than other emerging markets such as India (\$92 billion) or Brazil (\$181 billion), but significantly less than any other large economy. In 2010, China's OFDI stock was on par with Sweden, Singapore, and Taiwan. Japan's stock is three times that of China, while the United States' \$4.8 trillion is 16 times the OFDI assets of China. With an OFDI stock of \$300 billion and \$6 trillion in GDP, China's OFDI-to-GDP ratio is only 5%, far below the global average of 33% and the transitional economy average of 16%. These differences are even more pronounced in per capita terms: in 2010 each Chinese citizen "owned" \$227 in FDI abroad, compared to \$15,600 per American and a \$3,200 average worldwide. In short, China's OFDI stock is tiny compared to its weight in the global economy.

Figure 4: China in the Global Economy, 2010

China's % share of the global total



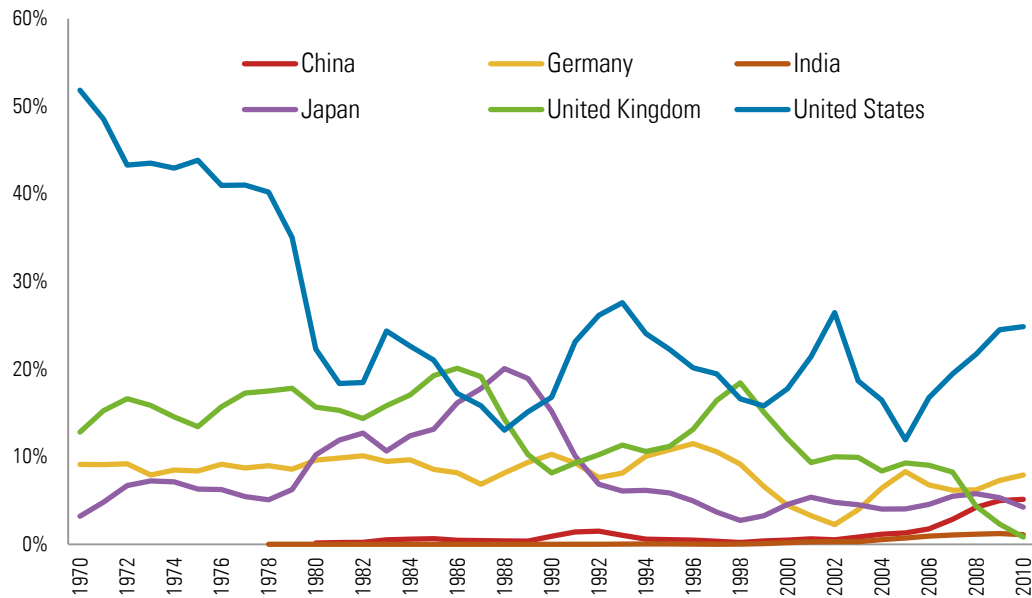
Sources: Economist Intelligence Unit, United Nations Commodity Trade Statistics Database, United Nations Conference on Trade and Development, World Bank, Rhodium Group.

While China is starting from a low base, the tremendous surge in outward FDI and a simultaneous drop in global FDI flows catapulted China into the top 10 of global direct investors. China's share in global OFDI flows increased from less than 1% in 2007 to 3% in 2008 and 5% in 2010. In 2010, China was the world's fifth biggest outward investor after the United States, Germany, France and Hong Kong (see Figure 5). China has also become the leading outward investor among its emerging economy peers. China was the only BRIC country whose OFDI flows did not drop markedly during the global financial crisis. In 2009, China overtook Russia as the top emerging market outward investor, accounting for more than one-third of all OFDI from emerging markets.

China's importance as a source of capital is even greater for certain industries, and for the countries and regions that rely on these industries. Chinese firms now are major players in the global mergers and acquisitions (M&A) landscape in many extractive industries, from oil and gas to iron ore, copper and other metals. For some resource-rich economies, China is the largest source of foreign direct investment; this is particularly true for countries that are often judged to be "too risky" politically, such as Sudan and Angola. But developed economies such as Canada and Australia have also experienced a wave of capital from Chinese investors in their extractive industries in past years.

Figure 5: The World's Top Outward Investors, 1981–2010

Percentage of global OFDI flows



Source: UNCTAD, Rhodium Group.

1.3 OUTLOOK: THE CATCH-UP PROCESS HAS JUST BEGUN

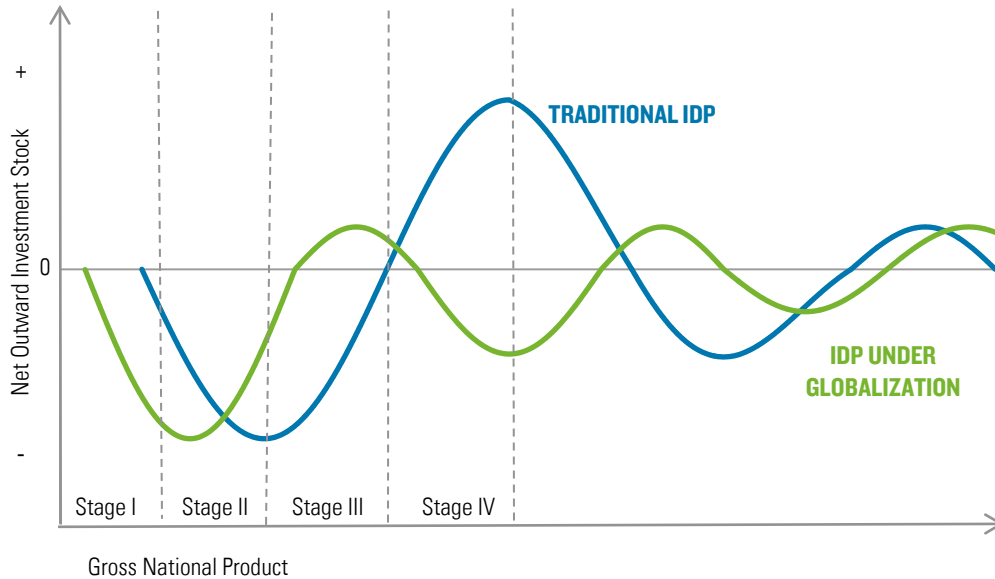
China's FDI patterns are not unique; they have followed typical developing country historical trends rather closely (Figure 6).¹² Pre-reform, there are virtually zero cross-border capital flows: foreign investors are not interested and domestic firms have no foreign exchange to invest abroad (stage I). When economic reforms and domestic growth kick in, inward FDI usually takes off as capital controls are relaxed and foreign investors are eager to channel money into a high-growth economy (stage II). Once a country reaches a certain per capita GDP, domestic firms start to invest abroad and outward FDI takes off, while inward FDI remains strong. As outward FDI surpasses inward flows, a country's net FDI position turns from deeply negative into positive territory (stages III and IV). Once a country reaches a developed economy per-capita GDP, its net FDI position stabilizes and hovers around the equilibrium, depending on economic cycles and a country's economic structure (stage V).

China's story so far closely follows this timeline. Before 1978, China was a closed economy that attracted little cross-border investment—the first stage. As reforms kicked in in the 1980s, FDI started to grow robustly while outward FDI remained negligible. China today is in the second stage: inward flows are still growing steadily, but outward flows have started to take off and are chipping away at the gap. When exactly China will hit the third stage, where outflows surpass inflows and the country

¹² See Dunning (1981) for the foundations of the investment development path (IDP) theory for explaining countries' international direct investment position; see Dunning, Kim, and Park (2008) for a review of the applicability of the IDP theory in explaining the FDI position of today's emerging economies.

becomes a net exporter of FDI, is unclear. China’s Ministry of Commerce expects this crossover to occur around 2015.¹³

Figure 6: Economic Development and FDI Patterns
Stylized Display of the Investment Development Path (IDP)



Source: Dunning et al. (2008).

As China surges toward this point of inflection, the world will see *hundreds of billions* of Chinese investment dollars in the decade ahead—even by conservative estimates. By 2020, China’s GDP will likely have surpassed \$20 trillion (or GDP per capita around \$14,000). The current low OFDI-to-GDP ratio of 5% would yield \$1 trillion in new OFDI through 2020 (\$100 billion per year on average). If China’s ratio rises to the transitional economy average of 15%, outflows would amount to roughly \$3 trillion, or approximately \$300 billion annually. Based on those projections, we place our bet in the middle, at \$1 trillion to \$2 trillion by 2020.

¹³ “Overseas direct investment to grow”, *China Daily*, December 24, 2010, available at: http://www.chinadaily.com.cn/bizchina/2010-12/24/content_11749290.htm

Box I: Foreign Direct Investment: Definition and Data Sources

In national accounting statistics, cross-border investment flows are commonly separated into five distinct categories: direct investment, portfolio investment, derivatives, other investment, and reserves.¹⁴

1. By common definition, **direct investment** refers to cross-border capital flows that entail significant management influence and a long-term investment relationship. The common threshold for a direct investment is 10% of voting shares.
2. **Portfolio investment** is typically a shorter-term investment in liquid (easily bought and sold) securities, which might include holdings of equity shares with less than 10% of voting rights, or corporate debt instruments (neither of which convey control or, in the case of debt, ownership).
3. The **derivatives** category includes financial instruments such as swaps, futures, and options, which are only contractually related to the underlying value of real assets such as firms or commodities.¹⁵
4. The residual category of **other investment** captures all flows that do not fall under the previous categories, such as foreign bank deposits, currency holdings, cross-border loans, or trade credits.
5. **Reserves** held by governments in the form of gold, foreign exchange, or IMF special drawing rights are another category in international financial statistics.

Foreign direct investment (FDI) flows can include three components: equity investment, reinvested earnings, and other capital flows. A direct investment relationship starts with an equity injection into an overseas subsidiary, either for the establishment of a new overseas subsidiary (greenfield investments) or to acquire a controlling stake (greater than 10%) in an existing company (mergers and acquisitions). Once such a direct investment relationship begins, subsequent capital flows between the parent company and foreign subsidiary are counted as direct investment. In addition to potential additional equity injections, this can include profits that are not sent home, but rather are reinvested in the company (reinvested earnings) and other capital flows between the two firms—for example, when the overseas parent lends money to its overseas subsidiary, or vice versa (intra-company debt).¹⁶

¹⁴ See IMF (2010). The IMF definitions also are used by other international organizations such as the OECD and UNCTAD.

¹⁵ The new category of derivatives was introduced in the sixth edition of the IMF's *Balance of Payments and International Investment Position Manual*, released in 2009; most countries' statistics still are based on earlier versions and thus do not yet show derivatives as separate category.

¹⁶ Detailed information on the nature of direct investment and its measurement can be found in the OECD's "Benchmark Definition of Foreign Direct Investment" (OECD 2008a).

A range of different **measures and sources** are available for tracking FDI flows and stocks. Most countries compile balance of payments statistics that include information on annual inflows and outflows for each type of cross-border investment and related income flows. The corresponding numbers for the inward and outward stock of each category, which is the accumulated flows adjusted for exchange rate and valuation changes, are recorded in a country's international investment position statistics. The IMF uses these figures as reported by its member states to compile global financial statistics.

In addition to national accounting statistics based on IMF standard definitions, many countries publish data sets that provide a more disaggregated view of their investment relationship with other economies. These detailed statistics are usually published by central banks or national statistical authorities. Several international organizations, such as the United Nations Conference on Trade and Development (UNCTAD) or the Organization for Economic Co-operation and Development (OECD), also collect data on FDI and other cross-border investment flows.

Unfortunately the accuracy and quality of official statistics on cross-border investment flows suffers as financial transactions become increasingly complicated, with tax optimization strategies, transfer pricing, and the use of shell companies in offshore financial centers. In light of these distortions, alternative methods of data collection—such as the bottom-up collection of transaction data based on completed greenfield projects and acquisitions—often produce results that are more reliable than official statistics. Online-based research opportunities, commercial databases for certain types of cross-border investment flows, and specialized research products provide a fertile ground for alternative data collection strategies.

2. Drivers: The Political Economy of Chinese Outward FDI

The liberalization of China's outward investment regime was an important variable in the explosion of China's OFDI growth, but economic logic best explains the patterns of Chinese outward investment. Academic research on outward direct investment details numerous reasons why firms decide to go abroad. Microeconomic explanations of outward FDI focus on four motives: securing natural resources, exploring new markets, buying strategic assets, and improving the efficiency of operations across borders.¹⁷ All of these motives apply to China's companies in recent years, and they will intensify in the decade ahead. Past investments were focused on trade facilitation and natural resources but macroeconomic adjustment in China and firm-level pressures are increasingly forcing Chinese firms to look abroad for deeper market penetration, service provision opportunities, and assets that can give them a competitive edge at home and abroad. These new motives are leading Chinese investors to the industrialized world with great vigor: developed economies stand to receive a substantial share of the US\$1-\$2 trillion of OFDI China will hold by 2020.

2.1 EARLY STAGE INVESTMENTS: TECHNOLOGY UPGRADES AND TRADE FACILITATION

Many observers assume that China's outward FDI is the product of strategic government campaigns guiding Chinese firms' overseas activities for political motivations. Analysts have strained to identify such a strategic rationale for a decade, and the Chinese government has given them plenty of fodder by portraying itself as facilitator of outward FDI through a "Going Out" campaign promulgated since 2000.¹⁸ However, we take the view that China's outward FDI stems from changes in China's growth model and marketplace rather than a political agenda.

During the first years of reform, direct investment from China remained at a very low level.¹⁹ China's inward-oriented growth model focused on making basic market reforms at home to kick-start domestic growth. Foreign exchange reserves were scarce, and capital flight in the form of illegal transactions by corrupt officials and SOE executives forced China to maintain tight controls on capital outflows. Few firms had the desire or capacity to invest abroad, and outward investment was limited to a handful of select, specialized state-owned firms -- foreign trade corporations (FTCs) and foreign business oriented corporations (FBOCs). These firms invested in Hong Kong and other parts of Asia to promote trade and upgrade technology, or made politically-motivated investments in developing countries

¹⁷ See Dunning and Lundan (2008).

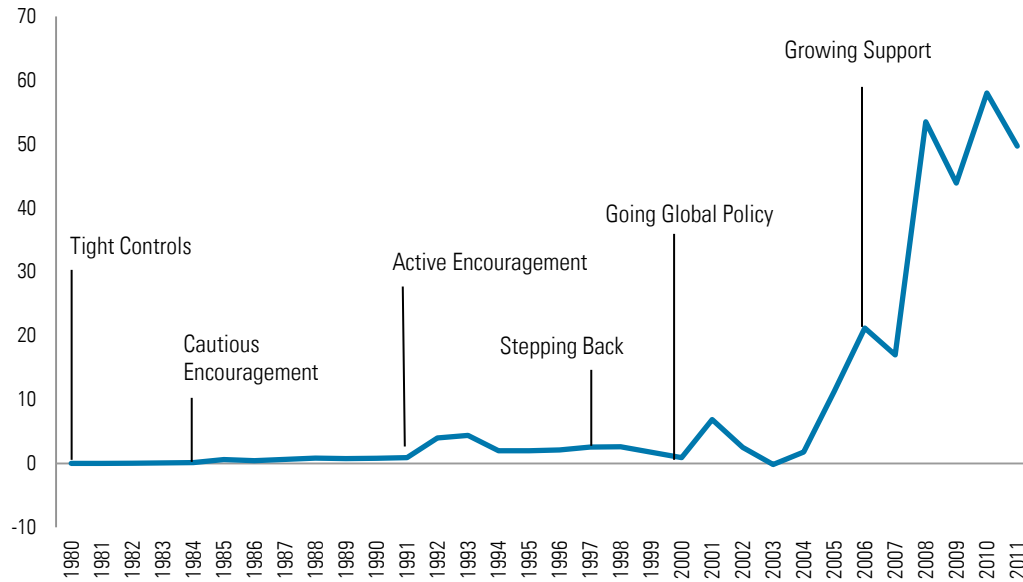
¹⁸ See for example Premier Wen Jiabao's report to the delegates of the 2012 National People's Congress, which says that the government will "guide Chinese enterprises under various forms of ownership in making overseas investments (...) in an orderly manner" (Wen 2012).

¹⁹ For an analysis of the first two decades of Chinese overseas investment, see Cai (1999).

deemed strategically important. The scale of these investments remained small, however; by the mid-1980s, China's outward FDI stock was just \$900 million.

Figure 7: Policy Liberalization and OFDI Flows, 1980-2011

Stylized Display



Source: Authors. For a detailed overview of China's outward FDI framework and its liberalization, see Rosen and Hanemann (2009).

The growth of outward investment accelerated in the second half of the 1980s, when inward FDI started to flow into the country and China became woven into Asian manufacturing networks. Many firms now had a prime incentive to invest overseas: trade facilitation. The China Ocean Shipping Corporation (COSCO) and the China Merchants Group are examples of early overseas investors. Policymakers began to recognize the economic benefits of overseas investment and take a more encouraging stance; easing foreign exchange pressures accelerated the process. However, concerns about capital flight and illicit motivations led policymakers to maintain strict oversight of outward flows. Average annual outflows grew from around \$200 million in the first half of the 1980s to \$700 million in the second half, bringing Chinese OFDI stock to almost \$5 billion by 1990.

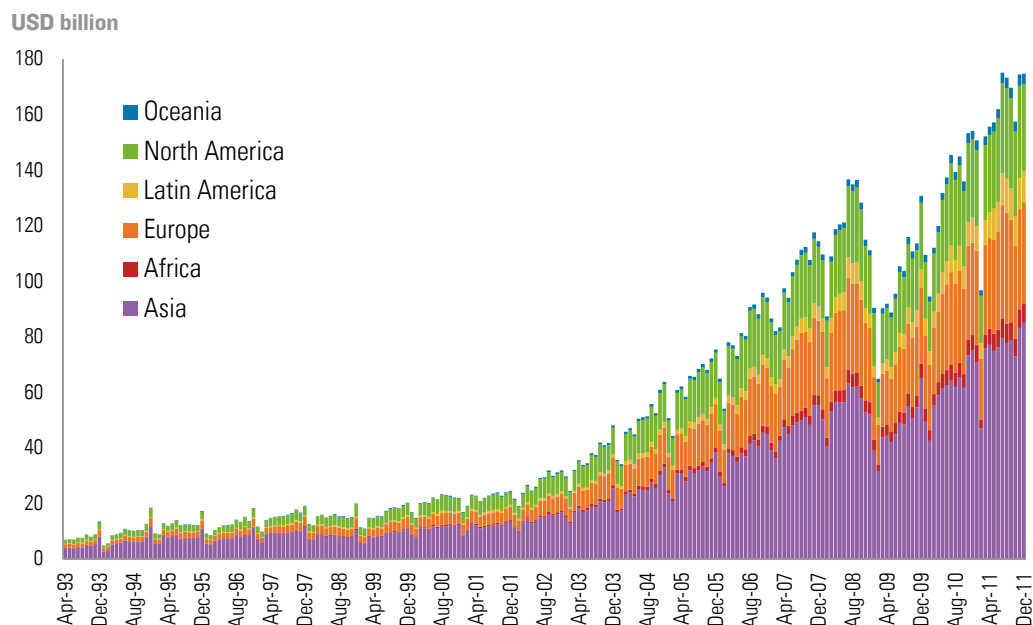
In the 1990s, outward investment grew further in scale and complexity. The post-Tiananmen decision to accelerate economic reforms and global integration led to more active encouragement of OFDI. The goal was to increase the competitiveness of Chinese businesses, with a special focus on 100+ state-owned national champions. As foreign exchange pressures eased further, China shifted from an “earn-to-use” to a “buy-to-use” policy, and OFDI approval procedures were gradually eased and localized. (This process was interrupted briefly during the Asian financial crisis, when China reversed course and tightened capital controls again, choking off the upward trend in outward FDI.) Firms' commercial appetites for overseas investment continued to grow. Facilitation of exports remained a core motive, but access to

technology and know-how to enhance competitiveness became more important. Increasingly, facilitation of imports – most notably raw materials – emerged as an additional motivation. Annual outflows in the 1990s hit an average of \$2 billion, swelling total stock from \$5 billion in 1990 to \$28 billion in 2000.

2.2 THE BIG AWAKENING: BUYING INTO CHINA'S COMMODITY BOOM

On the back of its accession to the World Trade Organization, China's role in global trade rose rapidly in the 2000s. The country's annual exports grew from \$250 billion in 2000 to \$1.9 trillion in 2011, with the global financial crisis causing no more than a minor, temporary dip. More importantly, China's export base broadened significantly, and demand from Africa and Latin America made up for some of the sluggish demand from traditional export markets (Figure 8). By 2011, China's exports to Latin America had grown to \$122 billion, the same as exports to the US in 2004. In the same year, Africa imported \$73 billion of Chinese goods, equivalent to Chinese exports to the US in 2002. This acceleration and diversification of external demand further increased incentives to expand market-seeking and trade-facilitating outward FDI across the globe.

Figure 8: China's Monthly Exports by Region, 1993-2011

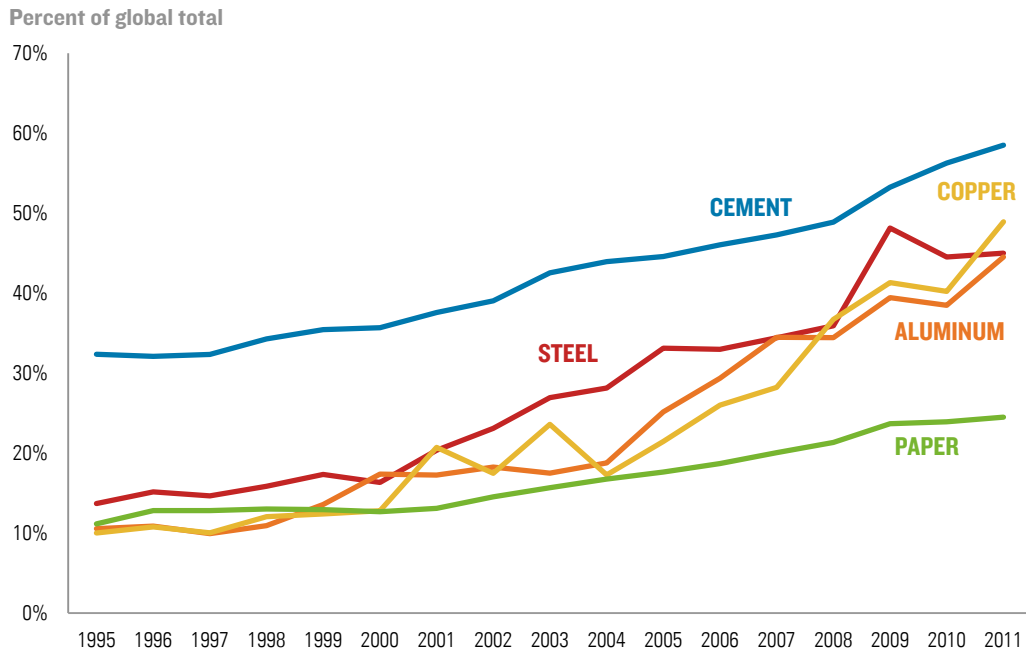


Source: China Customs, Rhodium Group.

The scale of trade-facilitating investments remained comparably low, however. The sea change in outward investment in the mid-2000s occurred when a sharp increase in Chinese demand for raw materials made it necessary for China to give up its resources autarky and look beyond its borders. Structural developments—fast economic growth and the build-out of urban infrastructure—and the rapid

expansion of heavy industry drove the surge in resources demand.²⁰ Within just a few years, China became a net importer of many core commodities such as oil, iron ore, soybeans, copper and coal. Today, China is the world's single most important consumer of many hard and soft commodity groups (Figure 9).

Figure 9: China's Share of Global Consumption of Selected Commodities



Sources: Bloomberg, CEIC, FAO, USGS, Rhodium Group.

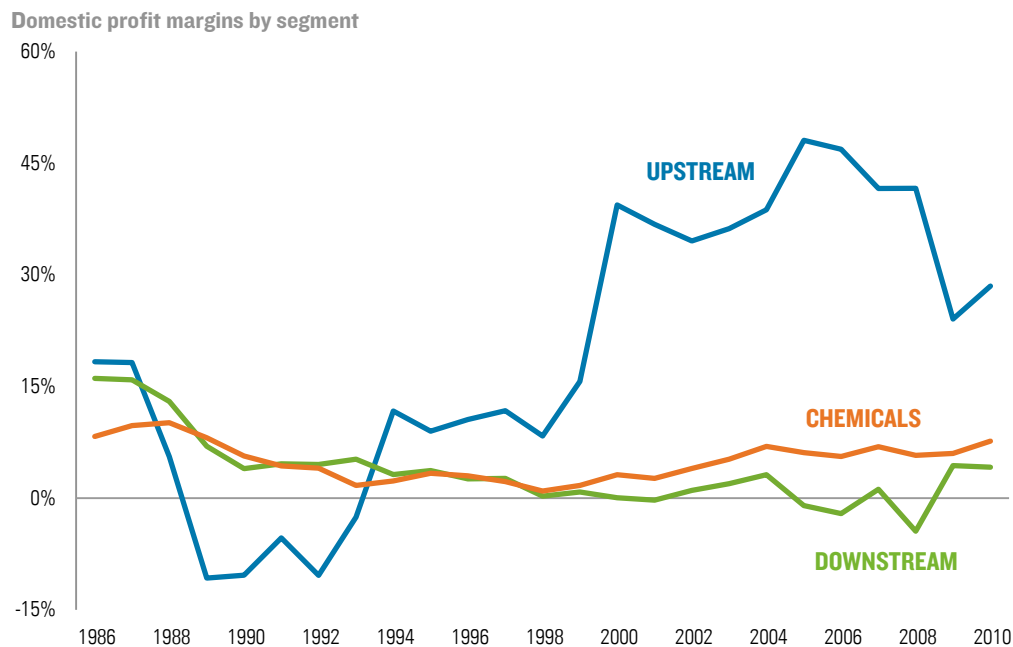
China's big state-owned commodities firms were caught off-guard by this new situation. Decades of resources autarky had left them laggards when it came to overseas reserves and global operations. In the mid-1990s, China's big three oil companies – China National Petroleum Corporation (CNPC), Sinopec and China National Offshore Oil Corporation (CNOOC) -- had virtually zero stakes in overseas resources extraction. Import dependency made them vulnerable to price volatility, market power of foreign suppliers and external shocks. At the same time, corporate restructuring and a partial listing of assets in domestic and Hong Kong stock markets imposed greater pressure on firms to improve profitability and shareholder value. However, profits at home were tanking due to price controls on gasoline impacting the profitability of downstream operations (Figure 10). Overseas investments in upstream oil and gas assets were one way to escape the margin squeeze at home.

The loss of self-sufficiency and lack of experience with global commodities markets resulted in widespread concerns about supply security of energy and other commodities. This led to a major push in the mid-1990s for oil firms to venture

²⁰ In the early 2000s, distortions in China's marketplace incentivized strong investment in energy intensive industries within China's borders, for which China does not have a natural comparative advantage. See Rosen and Houser (2007).

abroad and buy into equity production of energy and other resources. As interests aligned, a symbiotic relationship formed between oil and gas executives and policymakers, unleashing a wave of Chinese oil and gas investments across the globe in the next decade. In 2000, the government formally announced its “Going Global” policy, which significantly eased administrative hurdles for outward investment and paved the way for more active government support. Outside of motivations for natural resources and commodities security, a growing awareness of increasing competitive pressures on Chinese firms after WTO accession helped buoy bureaucratic support for overseas investment. China’s foreign exchange problem also continued to wane as its trade surplus widened and foreign exchange reserves approached the \$200 billion mark in 2000. In subsequent years, approval procedures were further eased and local and central governments began to provide broad and active political and practical assistance for firms with overseas expansion plans.

Figure 10: Domestic Profits Margins of Chinese Oil Companies, 1990-2011



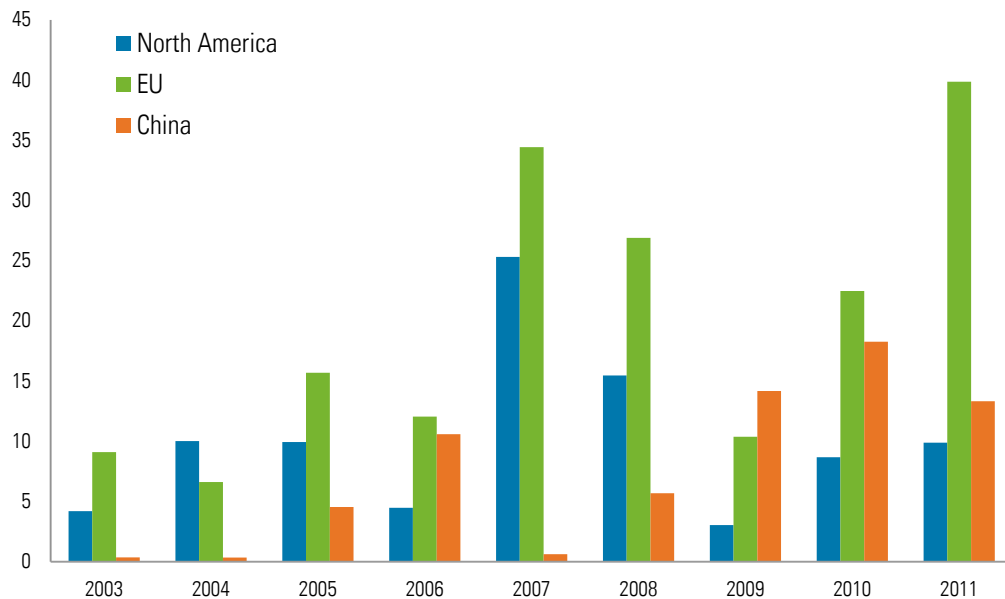
Sources: CEIC, BP, Rhodium Group.

China’s national oil companies were the pioneers in overseas resource investment, but firms in other resource sectors were close behind. They too had turned abroad to counter growing demand and low domestic reserves, investing in foreign upstream assets to diversify supply risks, counter foreign bargaining power, and gain a foothold in highly profitable overseas upstream businesses. Resources firms took greater risks in outward FDI because the expectation for RMB appreciation was not as much of a concern for them; they would import most of the resources to China, offsetting the negative effect of a stronger RMB in terms of asset valuation with cheaper imports. Since the mid-2000s, China’s oil firms have emerged as major players in global oil and gas M&A, competing with traditional buyers from Europe

and North America (Figure 11). Aside from oil and gas, iron ore, bauxite and copper assets were major resource targets of Chinese acquisitions. Investments in the capital-intensive resources sector pushed up the total headline figure of China's OFDI significantly, from an average of \$2 billion in the late 1990s and early 2000s to more than \$20 billion in 2006 and more than \$60 billion in 2010 and 2011.

Figure 11: Global Oil and Gas Acquisitions by Region of Buyer*, 2000-2011

USD billion



Sources: Bloomberg, Rhodium Group. *Selected regions only.

2.3 THE NEXT STAGE OF OUTWARD INVESTMENT: GOING TRULY GLOBAL

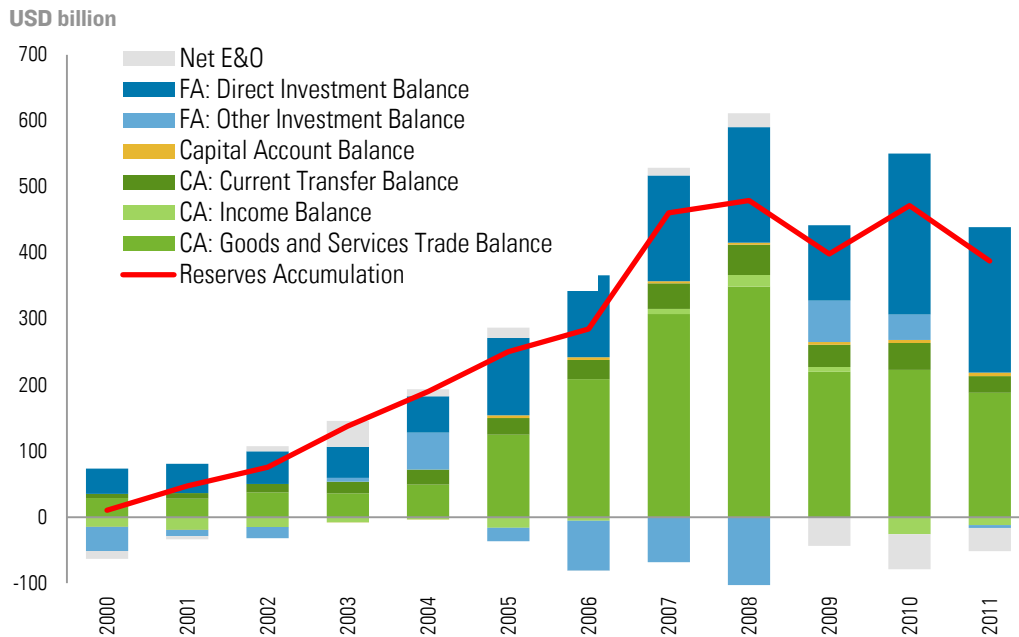
The Chinese model of investment-led growth was hugely successful, producing three decades of double digit growth. However, a new growth model is needed for the next stage of economic development, and China is beginning a structural adjustment process which will shift outward investment and shuffle the country's global investment position.

The foundations of China's old growth model, which relied on excessive fixed investment and exports of overcapacity to overseas markets, are eroding. The prices of key input factors are gradually rising: labor costs are increasing due to demographics and social pressures to give households a greater share of the national income; the cost of land has risen dramatically within a property bubble; exchange rates are being reformed in response to inflation and increasing pressure from trading partners; regulatory compliance costs are rising quickly as the government is forced to address air pollution and other environmental damages; and, perhaps most importantly, capital costs are being pushed up as China is forced to reform its financial system to end financial repression of households, improve the allocation of capital to higher-return investments, and prepare for a gradual opening of the

country's capital account. Rebalanced growth will be focused on domestic consumption, higher value-added manufacturing, and service sector activity.²¹ The competitive pressures arising from this rebalancing process will force Chinese companies in all sectors to fundamentally adjust their business models in the years ahead, including greater internationalization and reorientation of global business strategies.

Changing macroeconomic variables and an even more supportive policy environment will further encourage outward FDI by Chinese firms. The crippling capital scarcity that handcuffed Chinese action in the past is no longer an issue for many firms—or for the nation as a whole. Many Chinese firms now have both the motive and opportunity to go abroad, by virtue of strong cash positions. The economic rebalancing process will also entail a correction of China's undervalued exchange rate, which is already under way. A stronger renminbi makes overseas acquisitions cheaper for Chinese firms, which is another incentive to make the step abroad. If Beijing persists in resisting rebalancing, trade barriers will provide an equally powerful incentive to invest directly in order to circumvent tariffs, as happened with Japan in the United States during the 1990s.

Figure 12: Sources of Foreign Exchange Accumulation, 1982-2011



Sources: PBOC, Rhodium Group.

Policy support for outbound FDI continues to grow; local and central officials recognize that competitive transnational corporations are vital in China's new economic growth model. Finally, foreign exchange pressures have reversed from too little to too much. China now sits on foreign exchange reserves of more than \$3

²¹ See Lardy (2012) and He and Kujis (2007).

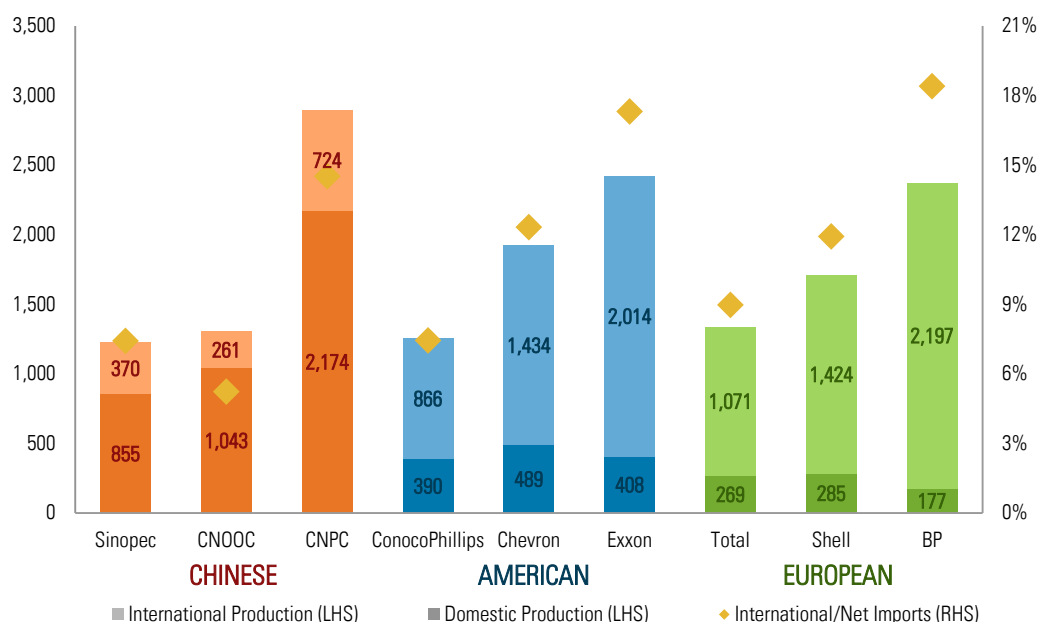
trillion, and the pile is growing every month. Figure 12 shows that the trade surplus is still the biggest driver of foreign exchange accumulation, but the financial account has emerged as an important factor in recent years. Greater outward FDI to balance the direct investment account is one way to slow down the accumulation of new reserves.

These changes in the macroeconomic and policy environment will increase the internationalization pressures on firms across all sectors of the Chinese economy.

The extractive sector will be impacted by an erosion of investment-led growth, but natural resources acquisitions will remain a major driver of Chinese outbound FDI in the years ahead. Rebalancing will likely have a moderating impact on the growth of capital investment, particularly in infrastructure and housing, driving down the resource intensity of Chinese growth. It will also strip some capital from the big state-owned enterprises (SOEs), increasing the cost of capital for financing overseas natural resources acquisitions. At the same time, the structural drivers for Chinese resource demand are still in effect. China is only halfway through its urbanization efforts, and its reliance on imports will only grow in the future. And despite massive investment in recent years, the share of Chinese firms in global production of most materials is still minor; for instance, Figure 13 shows that Chinese oil companies are still lagging far behind their counterparts in the US and Europe.

Figure 13: Liquids Production by Chinese Oil Companies vs. US and EU Majors

Thousands of barrels per day, international production as % share of total national net imports



Sources: Company reports, IEA, Rhodium Group.

The catch-up process is far from over, and there is a substantial appetite for further acquisitions. Furthermore, there is plenty of room for upside growth in other

commodity classes. And in other areas (such as in many soft commodities, agricultural land and non-conventional oil and gas), the catch-up process has not even begun yet. Assets other than reserves are gaining appeal, too, like new exploration technology, human talent and know-how in cutting edge areas such as shale gas development. Interest will further expand if rebalancing leads to more competition in the domestic market in these sectors. Political support is still there, though fears about bad investments, political risks and greater capital constraints will discipline SOEs' overseas investment decision-making.

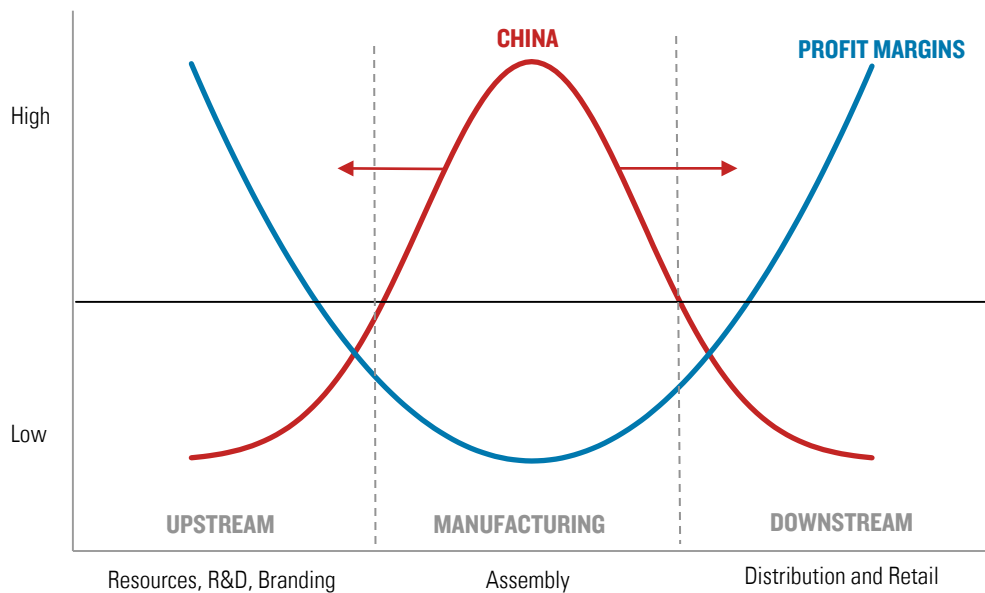
The manufacturing sector will suffer disproportionately from economic rebalancing. Over the past two decades, China has become the workbench of the world—partially due to cheap labor costs, but also because of political distortions in the marketplace causing the mispricing of various factors of production (for example, environmental regulations, land dispossession and labor rights). At the same time, firms could grow sales relatively easily by expanding their domestic consumer base and serving foreign consumers through the export channel. Distribution inside China had long been primitive—potential customers outside of “tier 1” cities were barely considered—so there was vast opportunity to broaden the scale of operations by simply expanding distribution networks. China's 2001 WTO accession protected its exports from arbitrary barriers, allowing its firms to sell abroad without investments other than logistics operations and representative offices. This development strategy has paid off in terms of economic growth, but it has also left Chinese firms in an increasingly vulnerable position as input costs and the competitive environment change. Figure 14 depicts China's position in today's global value chain. China is very strong in the middle segment of the value chain -- the production of goods – which has relatively low profit margins. And it is relatively weak when it comes to parts of the value chain with high profit margins: upstream research and development and branding, as well as downstream in distribution and retail.

The pitfalls of China's global value chain positioning were not a major cause for concern in the past, as increasing productivity, surging demand and greater economies of scale allowed firms to maintain profitability. However, this position is increasingly unsustainable. Shifting costs for labor and other input variables and a stronger RMB exchange rate puts pressure on low value-added light manufacturing activities, forcing Chinese producers to move up the value chain into higher value-added products. Increasing sales under the old model will also get more complicated. Demand from traditional export markets such as the US and Europe is slowing, trade frictions are growing, and selling higher value-added goods such as machinery requires a different approach than selling toys and underwear. At home, consumption is growing fast, but so is competition from both domestic firms and foreign multinationals with strong brands and vast experience, which are shifting their focus from sluggish home markets to the booming and lucrative Chinese market. Over the next decade, firms will need to branch out from midstream manufacturing activities and move up and down the value chain to capture more of the value added in these more profitable segments.

To do so, firms will need to go beyond China’s borders. Offshoring some of the manufacturing activity at the lower end will require investments in Southeast Asia and other locations with low-cost labor. Moving into higher value-added manufacturing and upstream value creation can be achieved through organic growth, but overseas acquisitions that give firms access to competitive assets and human talent are quicker. Capturing more of the value added in the downstream segment (distribution and retail) also requires a greater investment abroad – not only to serve customers in overseas markets directly, but to strengthen competitiveness in the fast-growing domestic market.

Figure 14: China in the Global Value Chain

Stylized Illustration

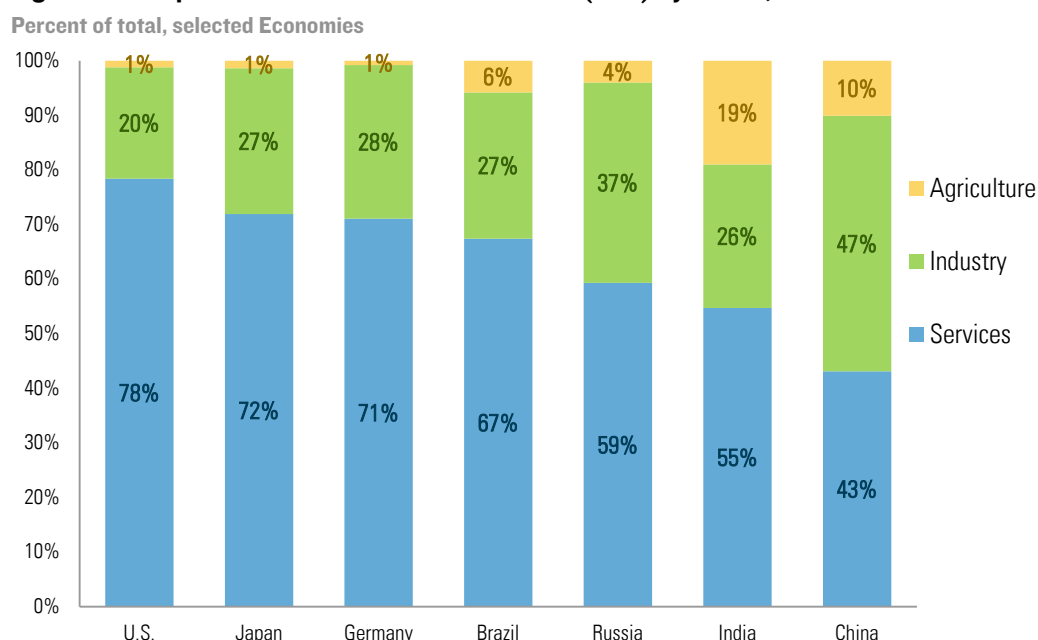


Sources: Rhodium Group.

Rebalancing away from manufacturing will also significantly boost outward FDI in the services sector. Exporting toys and underwear only required hiring a ship in Shanghai or Hong Kong, and maybe establishing rep offices abroad. Exporting higher-quality goods such as machinery or self-branded electronics will require an on-the-ground presence of a much greater scope, significant investments in brands and marketing, sophisticated distribution networks, and the provision of after-sales services. Outward investment in services will also increase in areas other than exports. Service firms in old growth model industries such as construction, utilities, shipping and real estate are expanding overseas as they have increased their competitiveness, accumulated funds, and sought to diversify outside the domestic market. Service firms are also increasingly following their clients from other sectors abroad: the recent wave of natural resources investments, for example, incentivized service firms such as banks, insurance companies and providers of drilling and construction services to make the same move.

A major incentive for service sector firms to go abroad is to strengthen competitiveness in the fight for domestic market share. The old growth model's heavy emphasis on investment and production has left China's service sector underdeveloped both in size and depth (Figure 15). In order to rebalance the structure of the Chinese economy, the service sector will have to grow faster than industry and agriculture in the next decade. High growth prospects will increase competition among Chinese firms for market share, while also attracting foreign firms, whose experience gives them a significant advantage. Outward investment is one way for domestic firms to strengthen competitiveness for the coming services boom, particularly for players in service sectors that are currently closed to private and foreign investment, such as telecommunications or financial services.

Figure 15: Composition of Gross Domestic Product (GDP) by Sector, 2010



Sources: World Bank, Rhodium Group. Data for Japan from 2009.

Structural adjustment will boost another form of outward FDI: foreign direct investment stakes as part of asset management strategies. China accumulated gargantuan foreign exchange reserves under its old growth model, and the central bank must now put them to work. This is the job of the State Administration of Foreign Exchange (SAFE) and the China Investment Corporation (CIC). In light of the sovereign debt crisis in Europe and growing concerns about the value of the US dollar, SAFE and CIC have begun to diversify their investments away from “low risk, low return” government securities and into other instruments, including equities and other portfolio investments. In recent years, CIC has massively expanded allocation of funds into alternative investments and started to take stakes in public and private foreign companies that qualify as direct investment. Other funds such as the National Social Security Fund (NSSF) are expected to take a similar route,

increasing overseas investment significantly once they have built up sufficient capacity to make direct investments.

In addition to sovereign players, investment funds and high net-wealth individuals are increasingly looking to deploy their capital abroad. Quality investment opportunities within China are becoming harder to find, leading to overinvestment in already “bubbly” classes of assets such as property development. Furthermore, overseas investment is a sanctuary from the bumpy road ahead in China, as rebalancing risks causing a downturn in Chinese growth. Outward investment by individuals is tightly controlled, but there are pilot projects in China to allow entrepreneurs and high net-wealth citizens to invest abroad, and individuals manage to find ways to siphon money out of the country and into foreign assets. The most attractive choice is usually property in prime foreign cities, but productive assets are an increasingly popular investment as well – particularly if it leads to immigration benefits, such with the EB-1 visa program in the US.

3. Patterns: Chinese Direct Investment in the EU-27

The patterns of Chinese direct investment provide a window into firms' evolving motives and capabilities. Official data, marred by time lags and inaccuracies, fail to reflect recent trends evident in data collected by alternative measures: a profound post-2008 surge in which OFDI flows tripled from less than US\$1 billion per year from 2004-2008 to roughly \$3 billion in 2009 and 2010, before tripling *again* to almost \$10 billion in 2011. The trend line change is what matters, since the absolute values remain puny by global standards. The number of investments, however, is no longer small: we could identify fewer than 20 FDI operations a decade ago, while today we count at least 573. Geographically, China's OFDI preferences in Europe look typical, with the troika of France, the United Kingdom and Germany in the lead. In terms of sector mix, a telling shift is underway from natural resources and trade facilitation toward a far broader range of industries and assets spread widely across Europe. And the majority of Chinese firms investing in Europe are private, though state-owned firms account for two-thirds of investment *value* as they dominate in capital intensive sectors.

In this chapter we discuss and illustrate these and many of the other patterns emerging from the growth of Chinese direct investment in Europe.

3.1 THE INFLECTION POINT: FAST GROWTH FROM LOW BASE

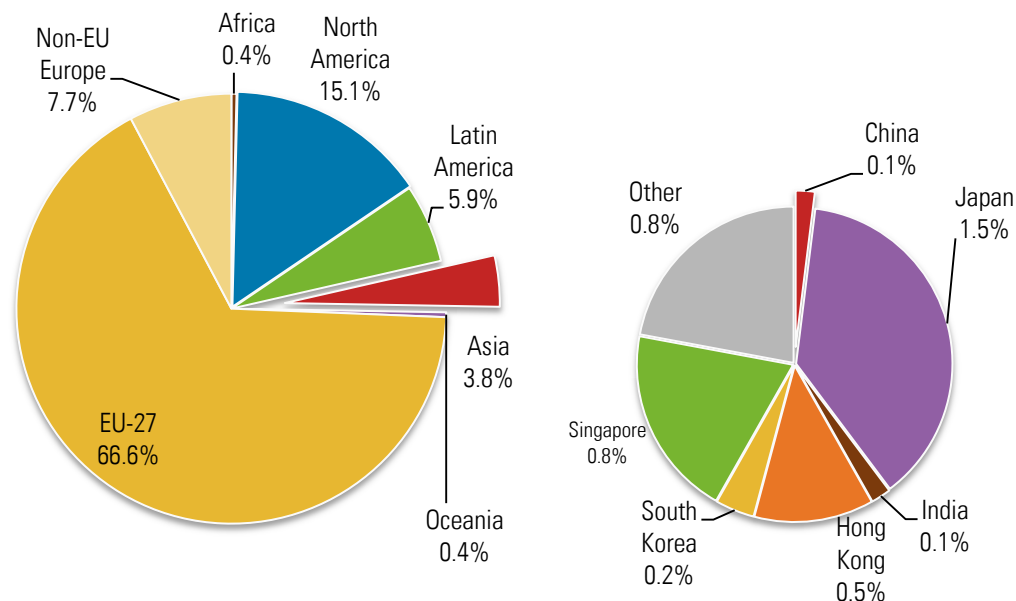
The European Union as a whole has been the world's biggest recipient of foreign direct investment for two decades. By year-end 2010, member states had an accumulated inward FDI stock of \$11.8 trillion -- 36% of the world's total.²² The great majority of these flows originated from other European countries; extra-EU investment accounts for just one-third of Europe's total, with North American firms preponderant (Figure 16).

Direct investment from Asia accounts for 4% of the EU's inward FDI stock, with Japan, Singapore and Hong Kong in the lead. China's FDI stock in Europe remains trivial compared to the aggregate. By official Eurostat statistics (which are problematic, as discussed in detail below), China's European OFDI stock stood at \$8.9 billion in 2010 – well under one-tenth of 1% of the EU's total, and under 0.3% of the stock from outside Europe. Statistics from China's Ministry of Commerce put total Chinese OFDI stock in Europe slightly higher, at \$12.5 billion by year-end 2010, but by either measure, the figure is tiny.

²² The first figure is from Eurostat and includes intra-European FDI. The percentage share is based on UNCTAD's global FDI data, which has slightly different figures for inward FDI stock in the EU.

Figure 16: Composition of the European Union's Inward FDI Stock by Source Region, 2010

Percent of total EU inward FDI Stock of \$11.78 trillion



Source: Eurostat, Rhodium Group.

Official figures provide an important historical perspective, but, for many reasons, are useless in assessing recent flows. First, they are published with significant delay – as of this writing, comprehensive data are available only through 2010, a lag of 1.5 years. Second, statistics on stocks and annual flows vary greatly. For 2010, Eurostat records \$0.98 billion of FDI inflows from China, whereas MOFCOM puts it at \$5.96 billion, six times greater. Third, official FDI data is often inaccurate as global cross-border investment becomes increasingly complicated by, for example, the extensive use of offshore financial centers and tax havens. This explains why countries with favorable tax regimes such as Luxembourg and the Netherlands have such a prominent role in Eurostat's figures, and why 85% of China's global OFDI stock is ostensibly in Hong Kong and Caribbean tax havens. Finally, official statistics repress information for confidentiality reasons, and often lack important metrics such as distribution by industry *and* country, ownership of the ultimate beneficiary owner, or operational characteristics such as assets, revenue or jobs created.²³ Table 1 presents figures on Chinese OFDI stock in the EU from the two available official sources. Besides a nearly two year time lag, the data varies significantly -- sometimes dramatically -- making it almost impossible to draw an accurate picture of recent trends in Chinese foreign investment.

²³ For a detailed review of existing data sets and their advantages and weaknesses, see Appendix.

Table I: Chinese OFDI Stock and Flows in Europe, Official Data, 2010

USD million, percent difference

	FDI Stock (2010)			FDI Flows (2010)		
	Eurostat	MOFCOM	Δ	Eurostat	MOFCOM	Δ
Euro Area (16)	5,833	8,802	-2,968	-261	3,850	-4,112
EU-27	8,927	12,502	-3,575	977	5,963	-4,986
Austria	184	2	182	4	0	4
Belgium	-742	101	-843	147	45	102
Bulgaria	23	19	4	7	16	-10
Cyprus	N/A	N/A	N/A	N/A	N/A	N/A
Czech Republic	72	52	19	3	2	1
Denmark	506	42	463	19	2	17
Estonia	7	8	-1	-3	N/A	N/A
Finland	68	27	40	86	18	68
France	472	244	229	33	26	7
Germany	1,060	1,502	-442	445	412	32
Greece	5	4	1	N/A	N/A	N/A
Hungary	139	466	-326	131	370	-239
Ireland	-1,182	140	-1,322	-1,060	33	-1,093
Italy	423	224	199	-27	13	-40
Latvia	1	1	1	0	N/A	N/A
Lithuania	3	4	-1	0	N/A	N/A
Luxembourg	N/A	5,787	N/A	73	3,207	N/A
Malta	7	3	4	3	-2	5
Netherlands	345	487	-142	252	65	188
Poland	325	140	185	11	17	-6
Portugal	N/A	21	N/A	3		N/A
Romania	69	125	-56	-9	11	-20
Slovakia	49	10	39	23	0	22
Slovenia	0	5	-5	0	N/A	N/A
Spain	N/A	248	N/A	N/A	29	N/A
Sweden	1,468	1,479	-12	N/A	1,367	N/A
United Kingdom	618	1,358	-740	13	330	-317

Sources: PRC Ministry of Commerce, Eurostat. N/A=not available. Currency conversions from Euro into USD are based on the IMF's 2010 EUR/USD exchange rate of 1.3269.

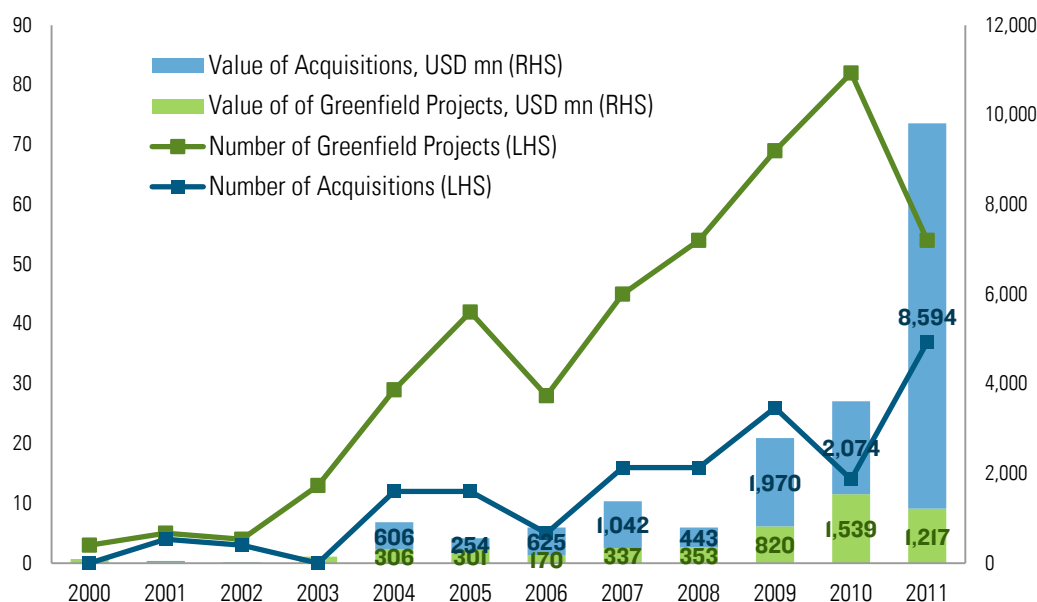
For these reasons, we decided to compile our own dataset. Using a bottom-up approach, we put together a database covering acquisitions and greenfield projects by Chinese-owned firms in the EU-27 with an estimated value of more than \$1 million. The data stemming from this approach are not directly comparable to the traditional balance of payments approach to collecting FDI data, as they neglect reverse flows and miss intra-company loans and other follow-up flows. However the Rhodium method overcomes many of the weaknesses of the traditional approach – most importantly the use of offshore financial centers for acquisitions – and allows a

detailed, real-time assessment of Chinese investment flows and ownership in Europe.²⁴

For the period 2000-2011, we recorded 573 transactions worth \$21 billion (Figure 17). Before 2004, there were fewer than 10 deals per year, with an average annual investment value below \$100 million. From this modest beginning a significant upward trend has developed. The period 2004-2008 saw the annual average number of acquisitions and greenfield investments grow to 50, with investment value averaging around \$800 million per year. For 2009-2010, the number of deals increased to 100, and annual inflows hit \$3 billion. For 2011, we recorded 54 greenfield investments and 37 acquisitions with a total investment volume of almost \$10 billion – a threefold increase over the previous two years.

Figure 17: Chinese Direct Investment in the EU-27, 2000-2011

Number of deals and USD million



Source: Rhodium Group. For a detailed explanation of sources and methodology, please see Appendix.

While these numbers are impressive, they must be put in perspective. A few large-scale transactions -- and alarming reports -- have left some with the impression that China is “buying up” Europe.²⁵ This is far from true. Our figures are higher than official data, but they are still small by any standard. Using official figures (since our Rhodium database does not collate FDI from *other* countries into Europe) and assuming that FDI into Europe remained roughly flat in 2011, China’s \$10 billion would still be a mere 4% of total EU FDI inflows.²⁶ Chinese direct investment is also tiny when compared to China’s financial fire power: the amount that China invested

²⁴ See Appendix for a detailed discussion of our methodology.

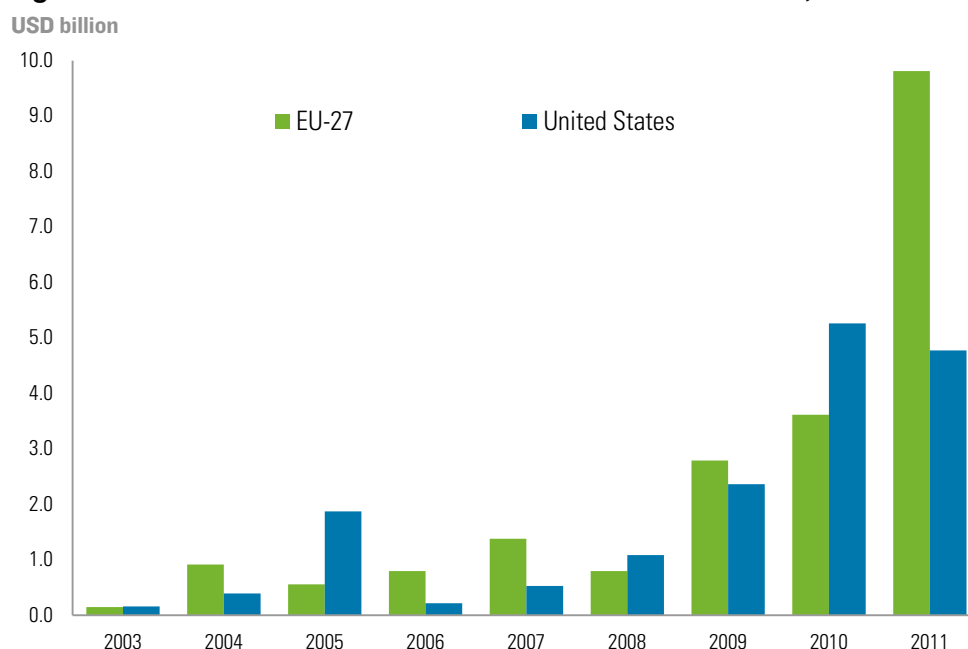
²⁵ See for example Godement and Parello-Plesner (2011).

²⁶ The assumption that OFDI flows remained flat in 2011 is based upon estimates from the OECD.

in European hard assets over the past eleven years equals the average *weekly* increase in Beijing’s foreign exchange reserves during the first months of 2011.

Of course Europe is not alone in seeing a sharp increase in Chinese investment. The European picture mirrors China’s US investment patterns in recent years. Using the same methodology to track investment, we registered \$17 billion in investment in the US for the period of 2003-2011, close to the European figure (Figure 18). In 2011, patterns diverged somewhat as inflows to the United States came in flat at \$5 billion while in Europe they more than tripled, from \$3 billion to \$10 billion. Yet several large-scale transactions in the first half of 2012 indicate that the 2011 weakness was a temporary blip and that 2012 will be another strong year for Chinese investment in the United States – probably a record in fact. Seen together, these figures confirm that Chinese investment in *developed* economies has taken off, and that *both* the US and EU are on track to receive substantial capital flows from this emerging investor.

Figure 18: Chinese Direct Investment in the United States vs. EU-27, 2003-2011



Source: Rhodium Group. For a detailed explanation of sources and methodology, please see Appendix.

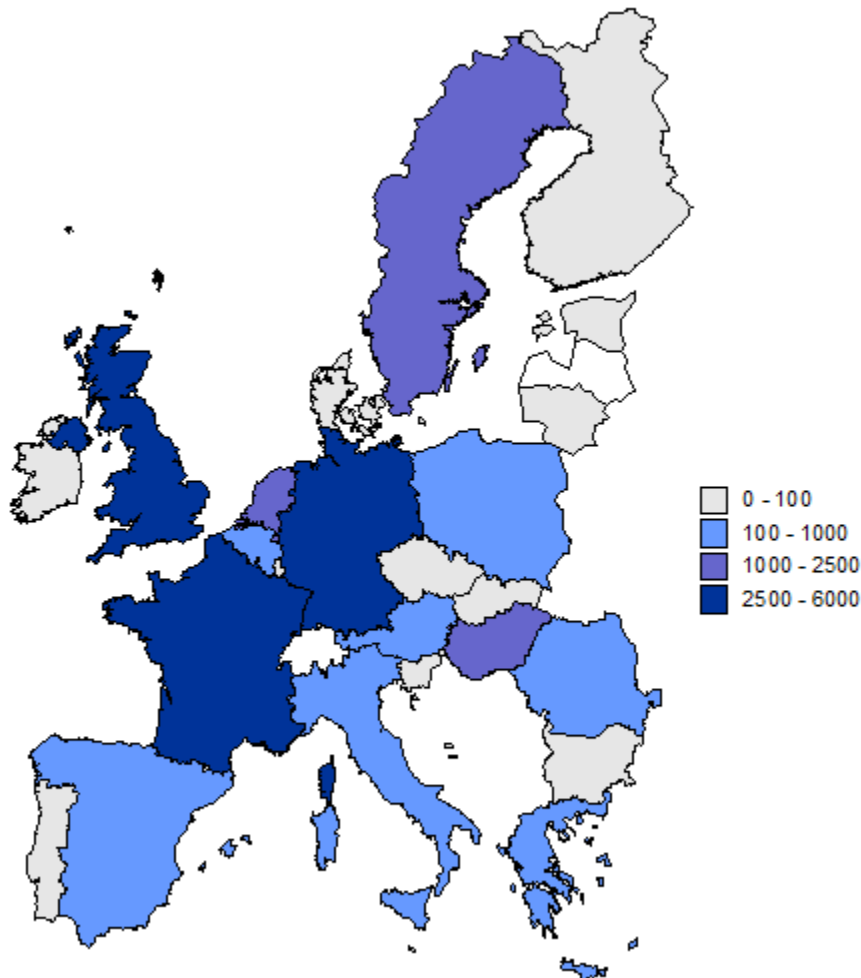
3.2 GEOGRAPHIC DISTRIBUTION: NEW INVESTORS ON OLD PATHS

The geographic distribution of China’s FDI in Europe largely follows the patterns for intra-European FDI stock. Most Chinese investment heads for “old Europe”: the EU-15 attracted more than 85% of total investments between 2000 and 2011. The top three destinations are Europe’s three largest economies: France, the United Kingdom and Germany. France is the number one destination for Chinese money with 70 deals worth \$5.7 billion, though a single sizeable transaction accounts for almost two-thirds of this amount: China Investment Corporation’s \$3.2 billion investment in Gas de France in 2011. Without this transaction, France would be in 4th place. 2nd place

goes to the United Kingdom, which registered 95 deals together worth \$3.7 billion. The UK hosts investments in autos, banking, and real estate as well as stakes in UK-listed firms that only have small-scale operations in Europe-- mostly mining firms with assets in Africa, Latin American and Central Asia. In 3rd is Germany, which attracted more than one-third of all European deals (146) totaling \$2.5 billion. Germany pulled not only the most Chinese investments but also the most diverse mix of investments by sector, ranging from machinery to telecommunications and consumer goods. A detailed analysis of investments in the top 10 recipient countries by sector follows in the next section.

Figure 19: Chinese Direct Investment in the EU-27, 2000-2011

Accumulated deal value from 2000-2011, USD million



Source: Rhodium Group. For a detailed explanation of sources and methodology, please see Appendix.

Table 2 details Chinese investment by country and compares each country's rank as a recipient of foreign direct investment from China with their rank as a recipient of global direct investment. It confirms the impression that Chinese money largely

follows in the paths of other foreign investors, with most countries deviating no more than five ranks.

Table 2: China's FDI in the EU-27 by Country, 2000-2011

USD million, number of deals

	Country	Investment Value (USD million)	Rank Compared to FDI from the Rest of the World*	Number of Greenfield Projects	Number of Acquisitions	Total Number of Deals
1	France	5,722	+2	46	24	70
2	United Kingdom	3,684	-1	69	26	95
3	Germany	2,543	-1	113	33	146
4	Sweden	2,251	+4	14	6	20
5	Hungary	2,065	+14	14	4	18
6	Netherlands	1,164	0	32	15	47
7	Belgium	847	-3	12	3	15
8	Greece	714	+14	5	0	5
9	Italy	554	-2	31	16	47
10	Austria	391	+1	6	5	11
11	Romania	299	+4	13	1	14
12	Poland	190	-3	15	1	16
13	Spain	187	-8	22	1	23
14	Czech Rep.	76	0	10	1	11
15	Finland	48	+1	1	4	5
16	Portugal	47	+1	5	0	5
17	Bulgaria	47	+1	6	1	7
18	Luxembourg	46	-5	1	1	2
19	Ireland	44	-9	6	1	7
20	Denmark	30	-7	6	1	7
21	Latvia	3.8	+5	1	0	1
22	Cyprus	3	-1	0	1	1
23	Estonia	0	-	0	0	0
	Lithuania	0	-	0	0	0
	Malta	0	-	0	0	0
	Slovakia	0	-	0	0	0
	Slovenia	0	-	0	0	0
		20,957		428	145	573

Source: Rhodium Group, UNCTAD. For a detailed explanation of sources and methodology, please see Appendix. *Difference to country's position in the ranking of total inward FDI flows in the EU-27 by value, 2000-2010, compiled with data from UNCTAD.

Outliers on the upside are Hungary and Greece. Both countries attracted one large-scale investment that pushed them up the rankings. Hungary received a \$1.9 billion investment in the chemical sector from the sale of Borsodchem to Yantai Wanhua Polyurethanes. Greece awarded China's COSCO a long-term lease in the port of Piraeus, which was tied to an investment of more than \$700 million for the modernization of the port's container terminal. Sweden fares well in the European ranks, thanks to the \$1.5 billion acquisition of Volvo Cars by Geely and related follow-up investments. Another high performer is Romania, attracting several greenfield

manufacturing investments, among them a plant by Shantuo Agricultural Machinery Equipment to produce tractors.

Countries punching below their weight are Spain, Luxembourg, Denmark and Ireland, each of which received substantially less investment from China than their position in the total inward FDI table would predict. Spain and Ireland have been major recipients of foreign investment over the past decade, but their economies stumbled just as Chinese investment started booming. Other smaller European countries with major fiscal and structural problems have also not gotten much attention from Chinese investors thus far, with the aforementioned exception of Greece. Looking forward, the privatization of state assets in fiscally troubled countries provides an attractive opportunity for Chinese buyers. Assets with a long-term stable return on investment such as infrastructure are the focus of Chinese long-term investors, as the sale of two billion-dollar stakes in Portuguese utilities firms to Chinese companies in early 2012 shows.

Box 2: Chinese Investment in the EFTA States

Western European economies outside of the European Union – the four states of the European Free Trade Association (EFTA) -- also attracted significant Chinese investment in recent years. Norway and Switzerland together pulled in US\$13 billion between 2000 and 2011, more than half of the EU's total for that same period; three large multi-billion dollar acquisitions in the energy and metal sectors accounted for 90% of the total investment value. Iceland and Liechtenstein have seen few investments in the same period.

Norway attracted five acquisitions for a total value of more than \$5 billion. Two deals account for the bulk of this investment. One was the \$2.2 billion acquisition of Elkem AS, an energy-efficient producer of high-grade silicon for solar technology and computers, by China Bluestar Group (a subsidiary of Sinochem) in 2011. The other was the 2008 acquisition of Awilco Offshore ASA, which provides oil and gas drilling services and operates oil tankers, by COSL Norwegian AS (a subsidiary of CNOOC), who gained access to modern offshore drilling platforms and a tanker fleet in the deal. In a smaller acquisition, Sinochem purchased oil and gas stakes of Atlantis from Norway's Petroleum Geo-Services (PGS) for \$55 million. Chinese greenfield investments in Norway total less than \$100 million and mostly went into the telecommunications sector: Huawei entered Norway in 2005 and today operates two offices with over 150 employees. ZTE, the other Chinese telecommunications giant, has also expanded into Norway.

In Switzerland, we recorded three acquisitions between 2003 and 2011, including one mega deal. In 2008, Sinopec subsidiary Mirror Lake Oil & Gas purchased Addax Petroleum, a Geneva-based oil and gas company, for \$7.2 billion. The transaction, one of the biggest Chinese overseas acquisitions to date, drastically raised Sinopec's

global profile by adding oil assets in Africa and Middle East. The other two acquisitions were targeting Swiss high-end consumer product industries—textile and watch manufacturing. Greenfield investments into Switzerland total around \$100 million and mostly focused on higher value added services. Naturally, financial services were a large draw: Bank of China opened offices to serve private and institutional investors. Green technology was another appealing sector, with investments from Chinese firms including Trina Solar and Suntech Technology.

While we were not able to identify any substantial investments in **Liechtenstein**, it may be used by Chinese investors as a springboard for investments in other countries. **Iceland** attracted a \$200 million investment by a Chinese real estate tycoon to develop a tourism project in 2011, but the deal was delayed by the government on national security grounds as the proposal included the acquisition of a large patch of land.

3.3 INDUSTRIES TARGETED BY CHINESE INVESTORS

Chinese investors have the same diverse motives for coming to Europe as other foreign investors do: to sell products in the world's largest single market, expand their global production chains, and tap into a rich base of technology, brands and human talent.

Table 3 gives an overview of China's OFDI in the EU by sector. It shows that Chinese investments are spread across a wide range of sectors in both manufacturing and services. Nine of the 30 sectors we track registered \$1 billion of investment or more. The top four industries by value have all seen at least one large-scale acquisition – utilities (CIC-Gas de France), chemicals (Wanhua-Borsodchem), automotive (Geely-Volvo) and coal, oil and gas (Sinochem-Emerald).

In number terms, communication equipment and services, industrial machinery and renewable energy attracted the largest Chinese investment values. However these sectors not the most capital intensive, hence average deal size is smaller. Automotive components, financial services and software and IT services have also received a significant number of investments across Europe.

Table 3: China's FDI in the EU-27 by Industry, 2000-2011

USD million and number of deals

Sector	Value (USD mn)			Number of Projects		
	Greenfield	M&A	TOTAL	Greenfield	M&A	TOTAL
1 Chemicals, Plastics & Rubber	126	3,505	3,631	13	9	22
2 Utility and Sanitary Services	0	3,259	3,259	0	1	1
3 Automotive OEM & Components	655	1,961	2,615	23	12	35
4 Coal, Oil & Gas	18	1,603	1,621	4	7	11
5 Communications Equip. & Services	1,180	177	1,357	95	5	100
6 Transportation Services	784	546	1,329	9	7	16
7 Metals Mining & Processing	25	1,200	1,225	13	14	27
8 Consumer Electronics	187	983	1,170	33	9	42
9 Industrial Machinery & Equipment	495	499	993	34	23	57
10 Food, Tobacco & Beverages	110	570	679	10	9	19
11 Financial Services & Insurance	495	31	526	26	2	28
12 Real Estate	146	340	486	4	1	5
13 Pharmaceuticals	21	280	300	4	3	7
14 Electronic Equip. & Components	133	152	285	22	5	27
15 Software & IT Services	256	13	269	21	5	26
16 Aerospace, Space & Defense	79	174	253	7	4	11
17 Textiles & Apparel	137	96	233	8	4	12
18 Alternative/Renewable Energy	145	84	229	45	7	52
19 Healthcare & Medical Devices	30	63	93	9	2	11
20 Paper, Printing & Packaging	74	0	74	2	1	3
21 Leisure & Entertainment*	48	0	48	3	0	3
22 Other Transport Equipment	31	15	46	4	1	5
23 Business Services	43	1	44	13	2	15
24 Minerals Mining & Processing	1	42	43	1	2	3
25 Semiconductors	18	17	35	4.0	3	7
26 Biotechnology	24	10	34	6	2	8
27 Consumer Products & Services	28	0	28	9	1	10
28 Furniture & Wood Products	0	27	27	0	3	3
29 Engines & Turbines	14	4	18	2	1	3
30 Construction Services	6	0	6	4	0	4
Total	5,306	15,650	20,957	428	145	573

Source: Rhodium Group. For a detailed explanation of methodology and industry categories, please see Appendix.

The distribution of Chinese investment in Europe underscores the changing drivers of Chinese outward FDI as described in chapter 2.

China's global OFDI boom has focused on extractive industries, but natural resources naturally do not play a huge role in the European story. Investments in fossil fuels and metals assets total \$2.6 billion, some 15% of the 2000-2011 total, but only because many global mining firms are headquartered and listed in London even if they hold most of their assets elsewhere. The biggest transactions were the \$877 million takeover of Emerald Energy by Sinochem Resources in 2009, the \$406 million acquisition of Caledon Resources by Guangdong Rising in 2011, and the \$256 million investment by China Railway Materials in African Minerals in 2010. Chinese firms

have also struck deals in the resources sector in non-EU member states, for example Sinopec's \$7.2 billion purchase of Switzerland-based Addax Petroleum in 2008, and CNOOC's \$2.5 billion purchase of Awilco Offshore ASA. Only a few deals were recorded in agriculture and farmland. Premium vineyards in France have attracted interest from Chinese buyers—Longhai International's purchase of the Chateau Latour-Laguens in Bordeaux in 2008, for example. In 2011, Tianjin State Farms Agribusiness Group invested \$14 million in a farming project in Bulgaria. Over the past five years investment by Chinese manufacturing firms has increased markedly. A clear investment focus of these firms is access to European technology and innovation, which allows them to move up the value chain. The acquisition of highly specialized European firms allows them to gain core technology assets and the know-how for utilizing this technology and the expertise for operating in global markets. Often, this is not primarily about competing in overseas markets, but strengthening competitiveness against foreign multinationals and domestic competitors in the fast-growing home market back in China. Prime examples are acquisitions of small and medium-sized firms in industrial machinery (Beijing No.1 Machine Tool-Coburg Waldrich), auto parts (BAIC- Weigl), general aviation (AVIC-FACC), renewable energy (Goldwind-Vensys) and chemicals and plastics (Chongqing Light Industry-Saargummi).

In addition to acquiring technology assets, Chinese manufacturers have also started to tap into Europe's human talent and research infrastructure by establishing research and development (R&D) centers on the continent. Many firms have ramped up R&D operations after acquiring European firms. Geely, for example, significantly expanded engineering staff in Sweden after the acquisition of Volvo, and AVIC subsidiary FACC announced plans to invest tens of millions of dollars in new R&D facilities in Austria. Greenfield investment in R&D operations without previous acquisitions has also grown in recent years, in cases such as telecommunications equipment supplier Huawei, which runs multiple R&D centers across Europe, and auto maker Changan, which has opened R&D offices in the UK and Italy.

Greenfield investments in manufacturing are still rare, but more frequent in recent years. Some firms have invested in manufacturing to reduce the sting of European import tariffs. After the Union changed the classification of flat panel display monitors from computers to displays in 2004, excluding them from the Information Technology Agreement (ITA) and making them subject to a 14% tariff, several Chinese producers including Hisense and Changhong Electronics built facilities in Eastern Europe. Eastern European member states are also attracting Chinese greenfield FDI from firms that need a local presence to serve markets but require relatively cheap labor cost structures (because their products occupy the lower end of the market – see Great Wall's joint venture in Hungary for the final assembly of cars for the European market). A few firms have also built greenfield manufacturing operations in Western Europe, such as construction machinery maker Sany's \$77 million facility in Cologne, and Greatview Aseptic Packaging's new production plant in Halle, Germany.

In the service sector, we see a clear evolution away from trade-facilitating investments towards a broad range of different activities. Chinese presence in Europe started with early service sector investments in small-scale representative offices and sales operations. A large share of the 428 greenfield investments in our database are operations related to marketing and sales, and there are probably hundreds if not thousands of small-scale trading firms that we do not count because the total investment volume is lower than our \$1 million threshold.²⁷ These market-seeking investments range across Europe and all industries, as firms need to build up an extensive network of operations within Europe's single market due to barriers such as language. Not surprisingly, big markets such as Germany attract the greatest number of such investments.

In recent years Chinese firms have also started to invest in local trade-facilitating infrastructure and logistics operations. For example, China's largest shipping firm, COSCO, has invested heavily in European ports, including Naples, Piraeus and Antwerp. Smaller investments include the purchase of the airport of Parchim in Germany by LinkGlobal Logistics. A second trend is that export-facilitating investments are gradually shifting from trade offices to more sophisticated operations. Firms trying to move closer to the European customer are increasingly investing in modern sales infrastructure, including branding and the provision of after-sales services. For firms selling technologically-advanced goods to European customers under their own brand names, like Huawei, setting up shop in Europe is indispensable. We increasingly see Chinese service providers follow their domestic clients abroad to provide support with overseas operations. Chinese banks, now present in all major European markets, are an example.

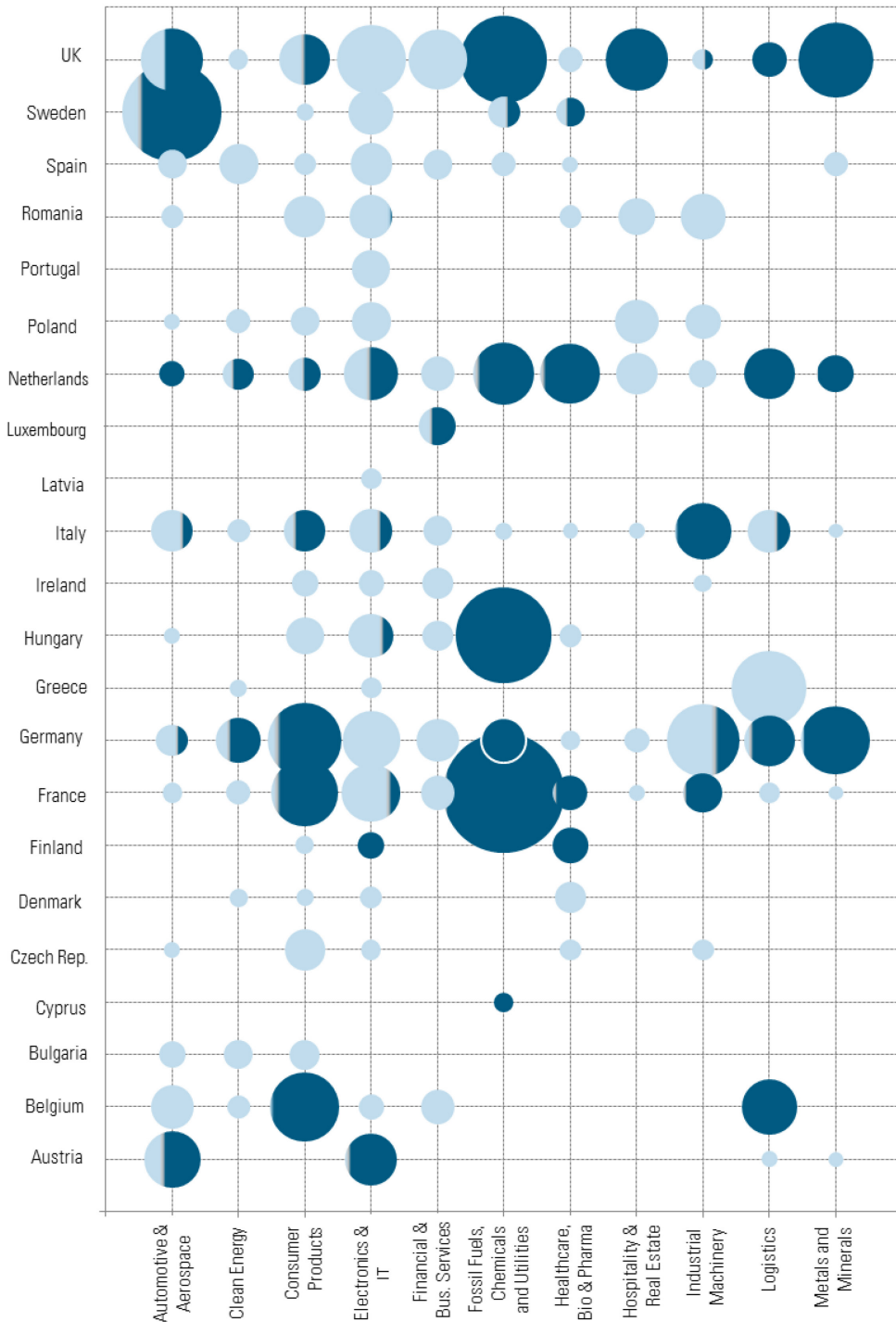
As in the manufacturing sector, investments in the service sector have a strong focus on technology and know-how. Firms have started to take minority positions in European services companies to learn more about managing modern services firms in sectors that are expected to grow quickly in China in coming years, like financial and business services. Chinese services companies are also increasingly interested in the European market itself, rather than seeing it as a conduit for increasing competitiveness in the home market. The few service sector firms that flourished in China's capital-intensive growth model have started investing in Europe to compete there; telecommunications services providers China Unicom and construction and infrastructure services firm COVEC are examples. COVEC's rocky experience in Poland illustrates the enormous challenges such firms still face. Traditional service sectors (utilities, infrastructure) are also attractive targets for financial investors seeking FDI stakes for long-term returns, as in the cases of China Investment Corporation's investments in Gas de France and Thames Water.²⁸

²⁷ The city of Hamburg claims to host more than 400 Chinese enterprises alone: see Matz (2012). For a good analysis of the European activities of smaller scale Chinese businesses, see Zhang et al. (2011).

²⁸ CIC's stake in Thames Water does not qualify as direct investment as it remains below the 10% threshold.

Figure 20: China's FDI in the EU-27 by Industry, 2000-2011

Bubble size represents investment value*; share of greenfield projects in light blue, acquisitions in dark blue



Source: Rhodium Group. For a detailed explanation of sources and methodology, please see Appendix.*Bubble sizes represent the proportions of the accumulated value of investments in each industry in the period of 2000-2011.

Figure 20 presents Chinese investment by country and industry, with the size of the bubble representing the total investment value and the color indicating the share of greenfield and acquisitions. The geographic and sectoral breadth of these 573 deals demonstrates that Chinese interests are broad, not limited to a handful of niches. This array of the data also shows that Chinese investors are increasingly entering the European market through greenfield investments, supposedly a hallmark of more advanced economies, not less developed ones. And finally, M&A is largely confined to the old EU core, while the new Eastern European member states mostly attract greenfield investments as Chinese firms set up from scratch.

3.4 INVESTORS AND OWNERSHIP STRUCTURES

Many people assume, mistakenly, that all Chinese firms are tied to the government. The reality is that ownership in China is diverse, and this is reflected in foreign investment patterns. In Europe, investors run the gambit from the state sovereign wealth fund (China Investment Corporation, or CIC), to state-owned enterprises (e.g., Three Gorges), firms with hybrid ownership structures (e.g., Lenovo), and wholly private firms and wealthy Chinese individuals.

State-owned enterprises (SOEs) are less important in China's investment portfolio in Europe than in the global picture. SOEs have dominated China's global OFDI activities in the past, accounting for some 70% of the 2010 stock, according to official figures.²⁹ This is not surprising, given their advantage in getting approved to venture overseas and dominance in extractive industries and other capital intensive sectors.

In Europe, the overwhelming majority of deals are done by private players – which we define as having 80% or greater nongovernment ownership. Table 4 shows that 359 of 573 deals (63%) from 2000-2011 were done by privately owned companies. They dominate the greenfield space and the more dynamic sectors such as services. Private sector acquisitions mostly target small and medium-sized enterprises, like German machinery makers. The average deal size is of course much smaller than for state-owned enterprises.

²⁹ According to the Ministry of Commerce's most recent Bulletin on Outward Foreign Direct Investment, state-owned enterprises accounted for around 70% of total Chinese OFDI stock. The authors' interviews with economists and researchers at China's State-Owned Assets Supervision and Administration Commission suggest that the share of state-owned enterprises in total OFDI stock could be even higher.

Table 4: China's FDI in the EU-27 by Ownership of Investing Company, 2000-2011

USD million and number of deals

	Number of Deals					
	Greenfield	% share	M&A	% share	All Deals	% share
Government Controlled	148	35%	66	46%	214	37%
<i>State-Owned Enterprises</i>	148	35%	64	44%	212	37%
<i>Sovereign Wealth Fund</i>	0	0%	2	1%	2	0%
Private and Public*	280	65%	79	54%	359	63%
	428		145		573	

	Total Investment (USD mn)					
	Greenfield	% share	M&A	% share	All Deals	% share
Government Controlled	2,738	52%	12,413	79%	15,151	72%
<i>State-Owned Enterprises</i>	2,738	52%	8,814	56%	11,552	55%
<i>Sovereign Wealth Fund</i>	0	0%	3,599	23%	3,599	17%
Private and Public*	2,569	48%	3,238	21%	5,807	28%
	5,307		15,650		20,958	

Source: Rhodium Group. *May include minority stakes by government-owned investors below 20% of voting shares.

The top five private Chinese investors in Europe are: Geely, Huawei, Lenovo, Sany and Wolong Group (Table 5). Several reforms might further increase the role of private sector investors in the future. First, the reform of China's outward investment regulatory framework has simplified procedures for smaller scale investments. Second, reforms in China's financial sector might make it easier for smaller and medium-sized private firms to raise capital for overseas investment. Third, individuals were to date banned from taking direct investment stakes overseas, but a pilot program to allow entrepreneurs and individuals from the city of Wenzhou to engage in OFDI was launched in 2012. Finally, private equity funds are becoming more prominent in outbound FDI, which will open another channel for private flows.

Table 5: Top 5 Private Investors*, EU-27, 2000-2011

By total investment value

1	Zhejiang Geely Group	The high-profile acquisition of carmaker Volvo and subsequent investments in the company have made Geely one of the biggest private investors in the European Union.
2	Huawei Technologies	Although lacking a single big-ticket investment comparable to Geely's acquisition of Volvo, Huawei has engaged in a tremendous amount of investment in sales, R&D, support, and small-scale manufacturing operations in the EU, accounting for perhaps the most greenfield projects of any private Chinese firm across Europe.
3	Lenovo Group	Lenovo's acquisition of the German company Medion in 2011 was one of the largest single investments made by a private Chinese firm in the EU from 2000 to 2011. Lenovo also operates a handful of retail and support operations in the EU.

4	Sany Group	Sany is currently constructing a massive manufacturing, R&D and support facility in Bedburg, Germany, which has proved to be one of the largest greenfield investments made in the EU by a private Chinese firm. In 2012 Sany also acquired German concrete pump maker Putzmeister.
5	Wolong Holding Group	The Zhejiang-based manufacturer of electric motors acquired Austrian ATB Drive Technology in 2011 in one of the most valuable M&A transactions by a non-government controlled Chinese company in the EU in the period of 2000-2011.

Source: Authors' compilation. *May include minority stakes by government-owned investors below 20% of voting shares.

State-owned firms account for only one-third of deals, but they are more important in terms of total deal *value*. 72% of the total \$21 billion originates from state-owned enterprises. This high share mostly can be attributed to a handful of large-scale acquisitions in capital intensive sectors. Seven deals account for the overwhelming share of the total SOE deal value: CIC's purchase of GDF Suez's exploration business (\$3.2 billion), Yantai Wanhua Polyurethanes's purchase of BorsodChem Zrt (\$1.7 billion), PetroChina's purchase of INEOS Group's European assets (\$1.0 billion), Sinochem's acquisition of Emerald Energy (\$878 million) and ChemChina's acquisition of Rhodia Silicones (\$504 million) and Drakkar Holdings (\$507 million). These firms also top the ranking of biggest government-controlled investors, together with China Ocean Shipping Group (Table 6).

Table 6: Top 5 State-Controlled Investors, EU-27, 2000-2011

By total investment value

1	China Investment Corporation (CIC)	Investment activities in the EU include a large stake in French GDF Suez' Exploration Business, and England's Songbird Estates, the developer of London's Canary Wharf district.
2	Yantai Wanhua Polyurethanes Co	The high-profile acquisition of the Hungarian firm BorsodChem was one of the most valuable Chinese investment transactions in the EU from 2000 to 2011.
3	China National Petroleum Corporation (PetroChina)	PetroChina now operates refining businesses in Scotland and France through an acquisition investment in French-based INEOS Group.
4	China National Chemical Corporation (ChemChina)	China Bluestar has been very active in the EU, executing a handful of M&A deals and greenfield investments primarily engaged in manufacturing of various chemical products including silicone and nutritional food additives.
5	China Ocean Shipping Group Company (COSCO)	The only firm to make this list by merit of its greenfield investments, COSCO has large port operations in Piraeus, Naples, and Antwerp, as well as support operations in Hamburg and other E.U. cities.

Source: Authors' compilation.

Sovereign investment entities have kept a low profile to date when it comes to direct investment stakes, but their activities are ramping up. China's primary sovereign wealth fund, the China Investment Corporation (CIC), is an active investor in Europe, but it has only made two investments in Europe that meet the direct investment threshold: in 2009, CIC injected \$340 million in Songbird Estates PLC, the owner of London's Canary Warf; in 2011, CIC invested \$3.2 billion in Gas de France's gas and oil exploration and production business. CIC also has several big *portfolio* investment stakes in European companies, such as its 9% ownership of UK utility Thames Water. By the end of 2010, CIC had around one-quarter of its diversified equities portfolio allocated to Europe.³⁰ Beijing's second major foreign exchange manager, the State Administration of Foreign Exchange (SAFE), does not release any information on its portfolio. From regulatory filings, it is known that one of its investment arms, SAFE Investment Company, has substantial holdings of European equities. However, we did not register any stake in a European company by a SAFE-related firm that would come close to the FDI threshold.

Several other government-controlled entities have also recently started to channel foreign exchange reserves through private equity structures into direct investment stakes in Europe. Private equity fund Mandarin Capital Partners, for example, has taken stakes in several European companies, partly financed with capital from China Development Bank and China Exim Bank.³¹ A small number of comparable China-Europe funds exist, but most of them have not taken stakes that would qualify as FDI. There are a couple of government entities that might become relevant players in the future. Guoxin Asset Management (GAM), an investment arm under the State-owned Assets Supervision Administration Commission (SASAC), has reportedly secured \$10 billion of funds from the central bank to support Chinese firms going abroad. Local governments have also started to set up funds to co-invest with local companies, for example Sailing Capital International, an investment fund dedicated to supporting Shanghai companies with overseas investment projects. Finally, China's National Social Security Fund (NSSF) could become a direct investor or co-investor in the future, as it is planning to increase the allocation of money into overseas assets.

³⁰ Figures from CIC's 2010 annual report (China Investment Corporation 2010).

³¹ For more information on Mandarin Capital Partners, see <http://www.mandarincp.com/>.

4. Impacts: Benefits and Risks

We see the steep uptick in Chinese FDI flows, and we can begin to trace the patterns and understand the forces driving funds toward Europe. But what are the implications? Can we tally the benefits to press the case for openness, or measure downside risks to justify limits? Everyone -- leaders, politicians, bureaucrats, diplomats, executives, activists and average citizens -- wants a straightforward calculus of benefits and risks. Unfortunately, there are no easy answers. Like other offshoots of globalization, Chinese investment in Europe can be both positive and negative at the same time, depending on who you are. Huawei's success in Scandinavia portends consumer welfare gains for millions of mobile users, but disruptive new competition for European incumbents and their employees, and challenges for traditional national security screeners. China Ocean Shipping Group's engagement in the port of Piraeus may threaten the privileges of unionized Greek labor, but it will provide hundreds of millions of Euros to modernize container terminals and expand freight traffic and related jobs. These cases are not exceptional -- they are typical.

While not unique to Chinese investment, this bipolarity is particularly unnerving in the case of China, for several reasons. It has sprung up quickly, outpacing the sensibilities of academics and pundits. As a result, analysis of the issue was until recently laden with ill-informed suspicions and emotional allegations. Further, the take-off in Chinese interest coincides with severe European instability, as a combination of political, institutional, fiscal and banking crises roil the Union. The concern that Chinese buyers are looking for extractable assets, not a long-term position, therefore cannot be dismissed lightly. Finally, even if China were moving slower and Europe were past the crisis, Europeans would be right to have suspicions about Beijing's self-proclaimed "capitalism with Chinese characteristics".

In this section we examine the impact of Chinese OFDI in Europe on three fronts: economics, politics and national security. Some impacts can be quantified based on direct evidence, such as the FDI-related employment reported in chapter 3, or projected based on historical experience. In many cases, the impacts on market functioning, political discourse and national security can only be discussed qualitatively. Approaching the topic armed with a comprehensive database, rather than just inferences and instincts, will facilitate more effective and informed reactions from policymakers, business leaders and other interested Europeans.

4.1 ECONOMIC IMPACTS

In the aggregate, Chinese FDI to Europe should provide the same benefits as other direct investment flows, whether from inside or outside the EU. Foreign direct investment increases the welfare of both producers and consumers. It allows firms to explore new markets and operate more efficiently across borders, reducing production costs, increasing economies of scale and promoting specialization. It is particularly important when serving overseas markets requires an on-the-ground

presence (for example, in the provision of services). Foreign direct investment also means better prices for firms looking to divest assets, thanks to a bigger and more competitive pool of bidders. For consumers, foreign investment increases the contest for buyers' attention, leading to more choices, lower prices and innovation. And in local communities, foreign investment brings new jobs, tax revenue, and knowledge spillovers from worker training, technology transfers and R&D activities.

Modern Europe is a case study of these economic forces and benefits at work. Intra-European cross-border FDI has been one of the most important drivers of economic growth and integration, creating “European multinationals” with operations stretching from design in Italy, research in Germany and production in Eastern Europe.

Investment from beyond European borders raised specters of ravenous foreign acquirers at several points in past decades, but in the end it also yielded tremendous benefits. In addition to creating new jobs and demand, it has spurred innovation by introducing new technology, products and management methods – such as Japanese supply chain management techniques, and innovative IT solutions from California. Equally important, thousands of European firms ranging from German auto makers to Italian fashion labels to French vineyards and British investment banks today rely on FDI openness abroad to service foreign markets with specialized products and services.

Investment from China brings the same positive macroeconomic and microeconomic impacts as money from elsewhere. Here, we consider the most important benefits of foreign investment from China.

New capital: With Europe entrenched in a compound crisis and austerity and structural reform likely to require reduced headline growth for some years to come, external capital infusions are more important than ever. While OFDI from traditional investors has fallen off severely—global FDI flows almost halved from a peak of \$2.3 trillion in 2007 to \$1.3 trillion in 2010—Chinese OFDI is growing rapidly, amplifying China's importance to capital-hungry Europe.

We project \$1-2 trillion in global OFDI from China over the decade 2010-2020, based on an extrapolation of historical outbound investment growth for other nations, China's current position, and its expected GDP performance. If Europe maintains its average intake of global FDI flows in the 2000s – around 25% -- then to 2020 Europe would look for a cumulative \$250-500 billion in new Chinese M&A and greenfield investment. Even if China underperforms the global average takeoff in OFDI and Europe underperforms its past track record in attracting new global flows, a 2012-2020 annual average of at least \$20-30 billion would be expected.

Employment: By injecting capital into the European economy, either via new greenfield projects or positions in existing ones, Chinese investment will generate employment. Data provided by national statistical agencies and Eurostat offer a fragmented and outdated picture of foreign affiliate operations in Europe and are of

limited use for analyzing recent trends.³² Our database offers alternative estimates. The 428 greenfield projects in our 2000-2011 dataset created an estimated 15,000 new jobs, not counting employment at smaller firms with less than \$1 million investment values.

Mergers and acquisitions create fewer new jobs, as employment can remain the same or shrink in the case of restructuring or integration. However, Chinese acquisitions can preserve jobs in at-risk firms on the brink of shutdown, or lead to job growth once a marginal firm is turned around: Geely's 2010 acquisition of Volvo not only saved 16,000 local jobs, but also sparked an ambitious \$11 billion job-creating investment program in Sweden and the rest of Europe. Chinese firms have also saved jobs by turning around ailing smaller firms; for example, German machinery maker Waldrich Coburg's staff soared from 500 to 800 after it was bought by Beijing No. 1 Machine Tools in 2005. Based on M&A transactions in our 2000-2011 database, we estimate that majority-owned subsidiaries of Chinese firms support at least 30,000 additional jobs across Europe.³³ This brings our total employment figure from majority-owned subsidiaries to more than 45,000. Adding in firms that China finances through non-majority direct investment stakes – like Gas de France or Songbird Estates – would swell this figure by several tens of thousands.

These are much higher figures than what is captured in official data, but still low -- unsurprisingly, given that inflows from China are still only in their infancy -- compared to the total EU labor force of 240 million. Economists have a less than stellar record of accurately projecting the employment impacts of economic shocks, but it is helpful to consider the future job potential based on historical and current comparators. Through the beginning of 2009 US firms alone employed 4.3 million EU citizens with a total paycheck of \$273 billion.³⁴ If our extrapolation for Chinese investment in Europe proves accurate, \$250-500 billion of new investment by 2020 will create or support a significant number of jobs across Europe. Employment levels in Europe, of course, will depend not only on investment flows, but on overall macroeconomic conditions now dependent on structural adjustment.

Consumer welfare: Through gains from trade, Chinese firms deliver European consumer welfare in the form of lower prices, product diversity and selection, and faster innovation cycles. These gains extend beyond traditional goods trade to product segments that require a more active presence in consumer markets, and – especially – to services. Chinese firms have already developed strong global positions in several service industries. In telecommunications infrastructure, for example,

³² The latest Eurostat Foreign Affiliates Statistics (FATS) count 1,728 Chinese and Hong Kong subsidiaries in Europe through 2009, employing 9,100 Europeans with a total payroll of \$1.3 billion. However, these figures are largely useless for analyzing current employment provided by mainland Chinese firms as they mix mainland and Hong Kong entities, have a huge time lag and report for only a third of EU member states. See Appendix.

³³ The most significant employers include Volvo Cars, Borsodchem, Bluestar Silicones, Medion, KSM Castings, CIFA Spa, FACC, Inalfa Roof Systems, and Saargummi.

³⁴ Figures are from the United States Bureau of Economic Analysis (BEA), as comparable data is not available from Eurostat for all EU-27 states.

enhanced competition from Huawei and ZTE has brought fixed investment down from trend, and thus reduced pass-along costs for the consumer.

Shareholder value: Greater investment interest from China increases competition for assets, and thus raises prices for European sellers. While more efficient asset pricing is always desirable, this is especially important as Europe moves through a cycle of asset sales as part of the broad debt restructuring underway. The Portuguese government's sale of a 21% stake in Energias de Portugal SA (EDP) under its austerity program is a case in point. China Three Gorges Corporation outbid other interested firms by offering a 53% premium to the firm's share price, well beyond what other bidders were willing to pay. The auction brought the Portuguese government total revenue of \$3.5 billion, much more than originally expected.

Much has been speculated about whether Chinese investors are willing to “overpay” for direct investment assets, but far less is understood. While China's firms are certainly not as experienced at factoring global pricing variables into their deal making, they often enjoy some positive information asymmetries to offset that. Chinese firms are often much better briefed on market conditions in China, and since Chinese marginal demand growth has become a huge share of total global growth, they are often in a strong position to value productive assets. Another way to put this is that FDI asset valuation fluctuates with the global growth cycle, and China is a heavier and heavier weight in that cycle, putting China's real economy firms and their investment bankers in a strong analytical position. For unlocking European shareholder value, the impact of Chinese OFDI might be more than additive, it might be definitive.

Productivity effects: Given their lower starting level of technology and more modest management skills, it might seem premature to expect Chinese firms to bring to Europe the intellectual property and business know-how that fuels total factor productivity growth.³⁵ However, Japan is a historical example of how quickly emerging market firms can swing from students to leaders. Japanese auto and electronics firms were dismissed as primitive when they arrived in Europe in the 1960s and 70s, but little more than a decade later they were at the forefront of technology, promoting important new management techniques, such as just-in-time logistics. A few Chinese firms have already moved beyond reverse engineering and imitation toward technological leadership in their industries, and they are investing heavily in European R&D capacities.

Keeping China's market open: There are several important indirect impacts associated with growing Chinese FDI in Europe. By keeping its door open to Chinese investment, Europe encourages China to keep its door open to European investment. While China has embraced an exceptionally open stance toward foreign investment since the late 1980s, European firms have been outspoken about recent signs of

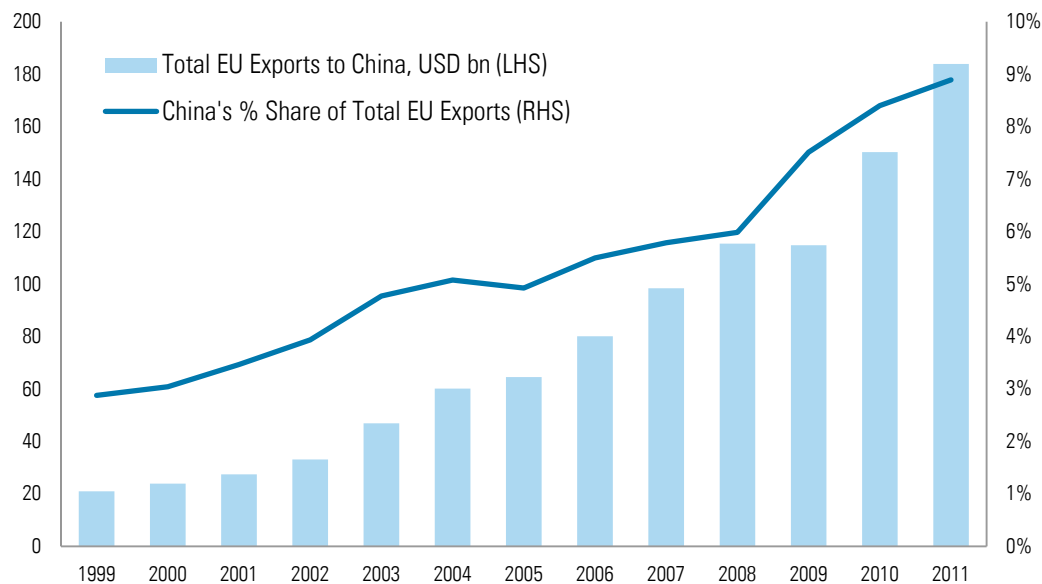
³⁵ Studies of business innovation in China generally conclude that manufacturers take low-tech approaches, reverse-engineer foreign innovation rather than make breakthroughs, and rely on foreign talent and inputs for a high share of advanced capabilities. See, e.g., the OECD's review of China's innovation system (OECD 2008b).

backsliding as China's firms graduate from relying on partnerships with multinationals to possessing more home-grown capabilities.³⁶ These concerns are not hallucinatory: there are indeed factions in China counseling less liberal treatment for foreign firms in the domestic economy. We are optimistic that pro-international arguments will prevail, but their success – and the plethora of economic and security benefits dependent on continuing Chinese convergence with liberal international norms – relies in part on Europe's continuing demonstration of the virtues of openness.

The consequences of sealing Europe off from Chinese investment would be felt beyond the realm of bilateral investment. China is a critical export market for many European firms: as Figure 21 shows, China's share in EU exports tripled from 3% in 2000 to almost 10% in 2011. For many firms, China is now the single most important overseas market, particularly for high value-added products. With private consumption in China projected to grow by \$8-10 trillion over the next decade, China will overtake the US as the world's largest consumer market by around 2025.³⁷ The negative impacts of investment protectionism on European market access in China would be huge.

Figure 21: China's Role in EU-27 Exports, 1999-2011

USD billion and % share of total



Source: Eurostat, Rhodium Group.

Convergence: Finally, Chinese firms investing in Europe by necessity absorb the global business norms and habits characteristic of OECD markets. These practices will spread across China as firms realize that being able to comply with stricter

³⁶ See European Union Chamber of Commerce in China (2011).

³⁷ See World Bank (2012).

regulatory supervisions gives them a strong competitive advantage over their homebound rivals. If Chinese firms holding assets in Europe fail to internalize Western business norms, they will be more vulnerable to litigation in EU courts, something they were immune from when serving EU markets solely through exports.

Along with benefits come risks. The global financial crisis and the European sovereign debt crisis have revived the critique of free-flowing cross-border investment, an argument that focuses on the distributional implications of capital mobility in a world with little labor mobility, due to limitations in education, skills, language, and culture, and general restrictions on international migration. This is an important discussion to have, but it is beyond the scope of this study. We assume that Europe will stick to its commitment to the four freedoms, including the free movement of capital across borders, knowing that FDI brings risks along with its many benefits. Thus our focus is not on the general case for or against cross-border investment but on factors particular to the Chinese case.

Four major China-related points are fueling anxiety in Europe. First, a large inward FDI presence could expose Europe to China's wild macroeconomic swings -- both upside and downside. Second, industrial policy or government ownership might cause Chinese firms to ship newly acquired assets back to China rather than maintaining them in Europe. Third, China's firms could reinforce unfair competitive advantages by operating and investing more freely in Europe than their EU rivals can in China. Fourth, Chinese firms accustomed to lax regulations at home will bring poor labor, environmental and other practices to Europe, and EU governments will be too eager to attract jobs and investments to robustly hold them to account. These concerns spring from the exceptional size and velocity of China's growth, its residual non-market elements, and the revival of interest in state capitalism and nationalism as alternatives to Western consumer-centric models. Non-democratic politics are not unique to China, but in combination with state ownership of globally active businesses this factors into the analysis of economic impacts as well. We examine each of these economic issues in light of these characteristics.

Exposure to macroeconomic volatility: Direct investment flows can add to both inbound and outbound capital flow volatility. FDI can also have a negative impact on the economic structure of recipient countries if it leads to overinvestment in a particular sector and causes related asset price inflation. These concerns are mostly related to natural resources investments due to the proportionately large investment values of projects in that sector, and can cause distortions in host economies sometimes called "Dutch Disease" or "Resource Curse".³⁸ The recent surge in resources demand in China and rising Chinese investment in global mining assets poses such risks for certain developing countries and resource-rich developed economies such as Australia and Brazil. However, such concerns are less worrisome in Europe today. The EU is economically diverse and has no frontier natural resource reserves liable to attract a tsunami of overnight capital. The total scope of Chinese

³⁸ See Sachs (1995).

investment is far too small to have such distortive impacts. Chinese OFDI in Europe from 2000-2011 is still smaller than what Switzerland invests in the EU in a single year.³⁹ So it is clearly misguided to worry on this score – for now.

In the longer term higher levels of Chinese investment could expose Europe to significant vulnerability should China experience a serious disruption. China is at the beginning of a difficult economic rebalancing process. If China experiences a hard landing, its foreign invested firms could pull money back from overseas to fill gaps at home, and an outflow of Chinese “hot money” could destabilize Europe. While such concerns about exposure to vulnerability are universal, they are probably more acute in the case of China due to the outsized growth of Chinese OFDI flows and the possible severity of an internal Chinese correction. On the other hand, unlike short-term portfolio investment flows direct investment from China (or elsewhere) is largely illiquid and immobile. Of course, as James Kynge colorfully illustrated in the opening pages of his 2006 *China Shakes the World*, actually it is possible to disassemble and cart off to China an entire factory; but such undertakings are hardly responses to short-term conditions. Direct investment is generally “sticky” and long-term, and there is no reason to believe that Chinese FDI is different.

Headquarters effects: A common fear related to the inflow of foreign direct investment is that buyers could reorganize assets after an acquisition, to the benefit of the acquirer’s home country and the disadvantage of the target economy.⁴⁰ Newer research show that such concerns are overstated, as liberalization of cross-border investment and lower transportation costs offer multinationals increasing freedom to organize their operations according to comparative advantages of different locations.

However Chinese firms might behave differently due to the unique characteristics of China’s political economy. Government and commercial entities have intervened for decades to exploit foreign technology for the benefit of Chinese firms and induce foreign players to locate production inside of China. Beijing openly advertises its intent to bolster national champions through industrial policy, and exerts significant control through SOE ownership and formal and informal influence over the financial system. These characteristics feed concerns that Chinese firms are more likely than investors from elsewhere to acquire European assets, move technology and valuable assets back home, and shut down European operations. Such worries were on display in the strong reaction of EU Industry Commissioner Antonio Tajani to Tianjin Xinmao’s takeover offer for Dutch cable maker Draka in 2010.

The record of Chinese investments in European high-tech businesses thus far provides little evidence of such behavior. While Chinese firms have moved assets from Europe to China these transactions were in sunset industries without a future in Europe – for instance, the well-known case of the Kaiserstuhl coking coal plant in Germany’s Ruhr Valley, sold to a Chinese buyer in 2003 and then disassembled and

³⁹ Refers to data on Swiss FDI in the EU-27 in 2010 by Eurostat.

⁴⁰ See Cantwell (2000).

rebuilt in Shandong province.⁴¹ Examples of Chinese firms acquiring assets in developed economies to vacuum out technology and shut down local operations are rare. Technology in most cases depends on intangible skilled staff and know-how which do not travel well. China's weakness in innovation is a major factor pushing Chinese firms to Europe and the United States in the first place, so Chinese acquirers are generally set on retaining an experienced local workforce. In most recent cases Chinese acquirers actually increased local staff—for instance, a few months after taking over Volvo, Geely hired 1,200 people in Sweden and Belgium.⁴² Chinese telecommunications equipment maker Huawei invested heavily in local R&D operations, and now employs more than 5,000 people in Europe. The key shortcoming for many emerging Chinese multinationals is human talent, and if Europe and its workforce remain competitive in high-skilled activities, there is no reason to expect Chinese or other foreign firms to let these assets slip through their fingers.

Market-based competition: There are concerns that China's state capitalism will undermine the market-based valuation of assets globally. That is obviously a profound and far-reaching notion, and it must receive further consideration in the years ahead. Chinese firms operate under different cost and incentive structures than European or American firms. The structure of China's state-controlled financial system and industrial policy differ vastly from Europe's, resulting in very different costs of capital, risk taking incentives and consequences for behaviors that might be harmful to shareholder interests or other stakeholders.⁴³ The advantageous features of China's political economy could put European firms at a disadvantage in competitive bidding for global assets, and that adverse position might redound negatively to constituents in their home economies – labor, shareholders, tax-collectors and consumers.

China's government-controlled financial system does not allocate capital based on market forces alone, but political relationships and industrial policy imperatives as well. With lower capital constraints, such as low-cost home loans for overseas expansions, China's firms could outcompete competitors with higher costs of capital, threatening European industries. This was the central argument in congressional objections to CNOOC's proposed acquisition of US oil firm Unocal; it has surfaced in other debates as well.⁴⁴

These departures from competitive bidding for setting the price of and access to capital are reinforced by other characteristics. Foreign firms are more limited by Chinese inward investment regimes than China's firms are in Europe or the US,

⁴¹ The disassembly of the Kaiserstuhl coking plant is captured in the formidable documentary "Losers and Winners" (2006) by Ulrike Franke and Michael Loeken.

⁴² See "Geely's Volvo says to hire 1,200 new staff", Reuters, March 29, 2011, available at: <http://www.reuters.com/article/2011/03/29/volvocars-idUSWEA137720110329>

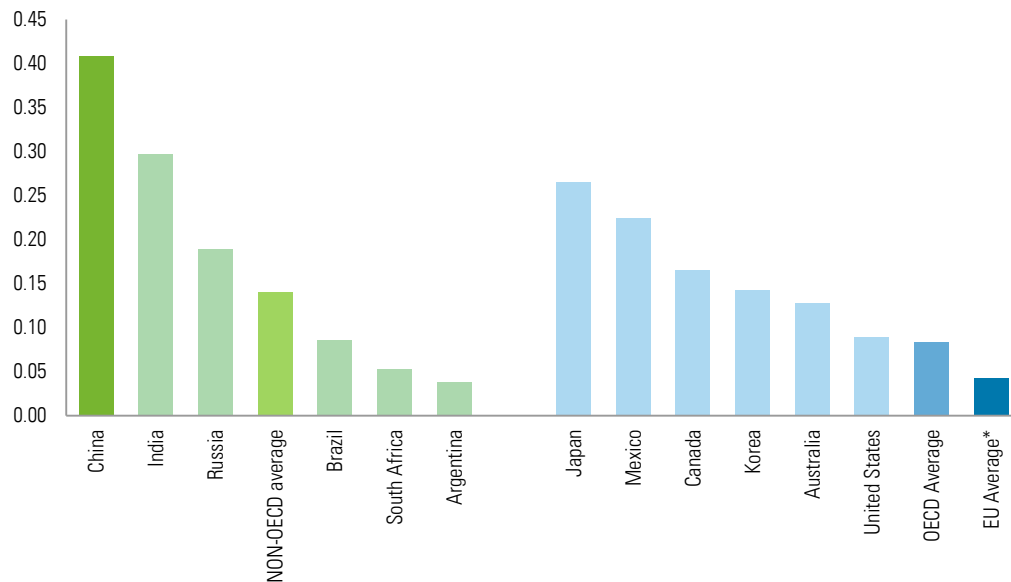
⁴³ See for example Owen (2012). Of course, some nations still have explicit national industrial policies – see France, though limited by EU institutions, most importantly the DG Competition and its state aid unit.

⁴⁴ For example the investment of Chinese steelmaker Anshan in a slab steel factory in Mississippi in 2010. For an in-depth academic discussion of capital subsidies in cross-border mergers and acquisitions, see Hufbauer, Moll, and Rubini (2008).

despite the fact that there is more FDI in China than Chinese OFDI abroad. That differential is a function of the development stage, not foreign closure to China. Figure 22 illustrates this with quantitative measures of investment restrictions compiled by the OECD. Now that China's firms are capable of competing abroad, head to head with the world's best, the unequal non-market elements not yet liberalized in China will surely lure attention. In addition to formal restrictions, of course, informal barriers and discrimination against foreign firms remain a real concern.⁴⁵ Ultimately, we predict that Europe's greatest misgiving about these residual differences will not be that \$5,000 and \$50,000 per capita economies have different resource allocation mechanisms, but that China's post-1978 move toward contestable market mechanisms is now being pulled backward by Chinese neo-mercantilists.⁴⁶

Figure 22: Formal FDI Restrictiveness, 2012

Index, 1=Closed; 0=Open



Source: OECD, Rhodium Group. *Calculated based on available OECD data for 24 of 27 EU member countries.

The distortions in China's domestic marketplace could not only threaten fair competition among firms, but also the global market-based pricing system. Most countries are *price takers*: even if they distort their home markets, they are too small to affect world prices. However, there are concerns that China is large and influential enough to be a *price maker*, whose state interventions will distort world prices and markets. For the time being, China's FDI outflows are not nearly large enough to distort global asset prices in the aggregate, but this will change in the years ahead.

⁴⁵ See European Union Chamber of Commerce in China (2011) or European Commission (2012).

⁴⁶ See e.g. quotes of Sun Liping, in: "China's reforms stalled by powerful vested interests", The Telegraph, January 12, 2012, available at: <http://www.telegraph.co.uk/news/worldnews/asia/china/9009915/Chinas-reforms-stalled-by-powerful-vested-interests.html>

And in specific niche areas, China's presence is already dominant in terms of price setting.

Government involvement, primitive corporate governance, and the lack of an independent legal system can subvert a healthy market structure in ways other than oligopsony power as well. While Chinese firms *generally* operate in a market system at home and abroad, and make overseas investments based on commercial motivations, Chinese leaders have de facto control over both state-owned (through ownership and nomination of executives) and private (through financial system domination, capital controls, and regulatory control) firms when they want to exert it. This is already impacting thinking about global merger control. In seminal review of chemical company China Bluestar's acquisition of Norwegian Elkem, EU competition policy authorities decided to treat all firms managed by China State-owned Assets Supervision and Administration Commission (SASAC) operating in the same industry as a single corporate entity for purposes of assessing market share, since they report to the same controlling shareholder and are disciplined by no pro-competitive agency to prevent collusion or other abuse of market power.⁴⁷ We think these debates over market structure impact are appropriate and will need to go further.

Downward convergence: While state coordination can be an advantage to some Chinese players with lower input costs, it breeds regulatory weakness and inefficient handling of the healthy functions of a market economy. This is a common worry among policy makers in Europe and Western business professionals acquainted with the incongruities of Chinese business ethics, which depend less on law than on the interpretation of law by one's powerful friends. Signature Chinese business undertakings in Europe seem to underscore these concerns: labor rights violations, copyright infringement and tax evasion in the experiment with Chinese textile entrepreneurs in the Italian city of Prato⁴⁸; disputes and contract violations leading to Chinese construction company COVEC's pull-out from a major project in Poland in 2011⁴⁹; and Huawei's troubles with Swedish labor regulators for alleged violations in 2011.⁵⁰

These cases illustrate the missteps that Chinese firms can make when they come to Europe for the first time, but they are far from evidence of systematic attempts to undermine existing labor laws and other regulations. Europe has strong rules safeguarding labor rights and other social standards, and Chinese firms must comply just like everyone else when they invest in Europe. Prato is an example of lax enforcement of law on the local level, not Chinese criminality.

⁴⁷ See European Commission (2011).

⁴⁸ See "Chinese Remake the 'Made in Italy' Fashion Label", the New York Times, September 12, 2010, available at: http://www.nytimes.com/2010/09/13/world/europe/13prato.html?_r=1&pagewanted=all

⁴⁹ See "Poland cuts Chinese firm from road key to Euro 2012," June 13, 2011, available at: <http://www.reuters.com/article/2011/06/13/poland-euro2012-china-idUSLDE75C1D520110613>.

⁵⁰ See "Bullying' claim prompts probe of Chinese IT firm", The Local, June 9, 2011, available at: <http://www.thelocal.se/34262/20110609/>

4.2 POLITICAL IMPACTS

Rising Chinese OFDI in Europe brings political impacts as well. Political science liberals argue that conflict is less likely between countries with high mutual FDI.⁵¹ Cross-border ownership of assets can stabilize relationships, as engagement deepens beyond mere facilitation of goods and services trade. Firms can stop trading with one another in short order, and portfolio investments can be withdrawn, but direct factory and warehouse investments cannot be removed overnight. Firms with direct investments are pressed into closer alignment, and FDI promotes understanding on the individual level through multiethnic workforces and collaboration between different cultures. Countries with a significant FDI stock abroad also tend to have a greater interest in political stability in recipient countries. The European Union itself is a prime example of such a peace dividend from greater FDI flows and economic integration.

Taking this *liberal* view, increasing Chinese investment offers plenty of political opportunities for Europe. Seeing Europe as a destination for direct investment rather than a market for exports will require Beijing to take a more holistic and nuanced perspective on bilateral relations with the EU and its members. It can also have positive feedback loops for the Chinese political system. For instance, having assets worth hundreds of billions of dollars in foreign jurisdictions for the first time should affect firms' appreciation of the merits of law-based limits on political power. Greater levels of Chinese investment also have the potential to further align foreign policy interest and make Beijing a more responsible stakeholder in the global arena. It becomes clear that overseas investment interests increasingly undermine Beijing's long-held foreign policy dogma of not interfering in other states' internal affairs and keeping a low profile on the international level. Greater presence of Chinese firms abroad will also make Beijing more vulnerable to economic sanctions and other political pressures – just imagine Beijing's dilemma in the current Iran crisis if its banks had significant operations in Europe and the United States. This new situation will give Europe and the US more opportunities to work with China on a bilateral and multilateral level.

From a *realpolitik* school perspective on the other hand, the story is virtually the opposite. The influx of investment from far-flung overseas commercial interests is a strategic move to project political and military power from home shores. In addition, FDI inflows, or the threat of withholding them, might be used by the source country in an attempt to influence the target country's domestic politics or foreign policy. OECD economies have used influence over FDI to pursue foreign policy objectives, with fairly limited success.⁵² China too has a record of trying to use financial firepower for foreign policy goals. In 2007, China reportedly bought \$300 million of Costa Rica's sovereign debt to persuade the country to shift diplomatic recognition

⁵¹ See Mansfield and Pollins (2003) for an overview of liberal and realist arguments on economic interdependence and conflict.

⁵² See, for instance, Hufbauer et al (2007).

from Taiwan to the PRC.⁵³ China has employed economic leverage to compel European political behavior on Taiwan, relations with the Dalai Lama and Uyghur political activists; economic policy preferences such as market economy status; and security policy issues such as the post-Tiananmen Square arms embargo. In exchange for Beijing's contribution to an international fund to stave off financial distress, Chinese pundits suggested that Europe should lift its arms embargo, and in 2011 Premier Wen Jiabao explicitly offered China's financial support in return for recognition of China's market economy status.⁵⁴

It is natural that Chinese officials would directly or indirectly threaten to withhold direct investment if they believed doing so could affect European politics. Based on our analysis, however, Chinese firms are less subject to Beijing's puppetry than many observers believe. As noted above, direct investment (unlike portfolio investment) cannot be easily liquidated or withdrawn to communicate short-term political signals. The selection of investment targets requires arduous work by Chinese firms, and is undertaken for commercial reasons, not at the behest of back-room political strategists. These firms aren't investing in Europe out of charity or with a foreign policy goal in mind; they are trying to defend market share in the rich world, acquire technologies and brands to stave off fierce competitors back home, or achieve some other commercial imperative. State-owned enterprises only obey the state up to a point – the point at which they are asked to do something that is not costless. And, at this point, the magnitude of Chinese direct investment, while rising quickly, is still way too small to give Beijing any leverage over European politics. However, the promise of new Chinese investment is already captivating the imagination of European politicians, and some are already whispering about moderating their behavior toward China to better their prospects.

Both the liberal and realpolitik schools are useful in understanding China's rise today, as they were at the time of America's rise, German unification, and Japanese militarism. Which impulse prevails – the emphasis on preserving assets, or on minimizing vulnerabilities – is not preordained. This overarching insight can be applied specifically to Chinese FDI in Europe as well: it can be good, or bad, depending on what we choose to make of it.

4.3 NATIONAL SECURITY

Foreign ownership of assets presents a narrow set of concrete national security threats, which must be considered separately from domestic and foreign policy concerns. There are four major concerns: control over strategic assets (e.g., ports, pipelines); control over the production of critical defense inputs (such as military semiconductors); the transfer of sensitive technology or know-how to a foreign

⁵³ See "Cash Helped China Win Costa Rica's Recognition", the *New York Times*, September 12, 2008, available at: <http://www.nytimes.com/2008/09/13/world/asia/13costa.html>

⁵⁴ See Bradsher, Keith (2011): "China Ties Aiding Europe to Its Own Trade Goals", the *New York Times*, September 14, 2011, available at: <http://www.nytimes.com/2011/09/15/business/global/china-ties-aiding-europe-to-its-own-trade-goals.html?adxnnl=1&pagewanted=all&adxnnlx=1338493596-DNdqHWSmF+CszNJBZ48DXw>

power with hostile intent; and espionage, sabotage, or other disruptive action.⁵⁵ International investment agreements and bilateral investment treaties respect exceptions to the free movement of capital for security grounds.⁵⁶ In EU treaties, national security and defense is explicitly named as one of the few legitimate and legal exceptions to the free movement of capital from both other EU states and third countries. These concerns are real and legitimate, and merit European attention.

While national security fears related to foreign investment are not new, China presents particular concerns, for at least five reasons.⁵⁷ First, China will likely be the world's largest economy within two decades, lending it huge leverage and power to shape global national security. Second, China is a one-party authoritarian state with values and commercial norms at variance and sometimes at odds with those of OECD countries. The related state ownership and influence creates special concerns about government-driven, non-commercial motives for investing. Third, unlike other FDI majors such as Japan or the United States, China is not an ally of Europe, but an emerging power with a rapidly modernizing military. China and Europe have good relations but there is uncertainty about Beijing's direction in the future. China has a stated aspiration to displace the existing global power balance in favor of a greater strategic role for itself as well as greater voting share in international organizations, most likely at the expense of European votes. Fourth, China has a troubled record on export control rules, and a reputation as a major proliferator of sensitive technologies to rogue regimes such as Iran, North Korea, and Pakistan.⁵⁸ This raises the potential for discord over the obligations of China's firms in Europe. Finally, China is considered a heightened threat for economic and political espionage by the intelligence communities in Europe and North America, and not without reason. The unclassified and classified records of Chinese espionage in the West are extensive.⁵⁹

There is no indication that Chinese investment is damaging European national security today, but the purpose of security screening is to minimize the probability of problems before they happen. The need for a regime is clear, but since security and defense policy remain national domains, the current European situation is a fragmented patchwork rather than streamlined and coherent. The European Treaties allow, but do not require, national governments to maintain differential frameworks for screening FDI for security; some countries do and others do not. Even the *definition* of national security is treated differently by individual member states, not to mention institutional setups, processes and timelines.⁶⁰ There is little pan-European, let alone trans-Atlantic, coordination. It is questionable if this approach is the right one to address the potential security impacts described above, thus we discuss policy options in the following chapter.

⁵⁵ See Graham and Marchick (2006) for an extensive discussion of national security risks from FDI and Moran (2009) for an analytical framework for assessing national security risks from foreign investment.

⁵⁶ See, for example, Yannaca-Small (2007).

⁵⁷ This paragraph draws heavily from Graham and Marchick (2006), chapter 4.

⁵⁸ See Kan (2011).

⁵⁹ See Metzl (2011), and Graham and Marchick (2006).

⁶⁰ See OECD (2008).

4.4 NET ASSESSMENT: IS CHINA DIFFERENT?

Europe cannot simultaneously react to Chinese direct investment positively in economic terms and negatively in political or national security terms. To some extent, that is what the United States is unwisely doing, leaving Chinese investors confused and uncomfortable with the true intentions of their potential host. Our net assessment strikes some as surprising, but is quite straightforward. We do not think embracing Chinese firms as direct investors requires choosing profit over security: we think that an open stance is favorable on economic, political and security grounds as well.

China is unquestionably different from traditional direct investors in Europe. But the economic benefits are the same, or, in an era of European adjustment and BRICS-led global growth, greater, while the risks are almost entirely manageable through domestic rules and institutions which Europe controls. The challenges of Chinese-style firms, industrial policy and state capitalism do indeed have the potential to distort markets in unhealthy ways *if China does not continue to marketize and reform*. But it is even more disconcerting if Europe is affected by it through trade and competition in third markets, without the benefit of regulatory reach and investment from Chinese firms.

Few things are as likely to help bring about a pan-European perspective as the impact of Chinese OFDI, and that may be true across the Atlantic as well. The net effect of “letting” Chinese investment into Europe cannot be measured just from the status quo either: if Europe decides to eschew these inflows, then instead of standing as a model of reform for China, the continent’s firms will likely be adversely affected by mercantilist reciprocation from China as well.

On politics and security, the argument is similar. If there are marginal risks associated with the presence of Chinese firms in Europe, in terms of political will to maintain a European position, or national security resolve to deny a dual-use technology, they are partly offset by the political and security leverage that Europe enjoys by hosting potentially hundreds of billions of dollars in Chinese assets, within reach of European courts and politicians, and under the careful watch of security community assessors.

With few exceptions, Europe has opened its borders to foreign capital because the potential benefits exceed the risks, and risks can be addressed through specific policies. Whether that assessment applies in the era of China’s OFDI takeoff depends on if those specific policies can be rationalized and standardized across Europe.

5. Policies and Politics: Priorities in the Era of Chinese Investment

We have assessed China's global direct investment boom, and the details of how that buying spree is showing up across the EU. We have examined the drivers and motives behind the investment surge. And we have projected new flows to 2020, and outlined the stakes and risks for Europe. Our final task is to consider the policy landscape.

In our impact assessment we concluded that the net effect of growing Chinese OFDI for Europe was positive, provided that a small set of policy concerns can be managed effectively, namely that:

- Europe's commitment to deepening internal and cross-border capital flows can be maintained, and investment protectionism can be restrained;
- Damage to European interests stemming from any non-market distortions of China's state-capitalism – such as distortion of asset prices, unfair competition through abuse of market power, or damage to consumer welfare -- can be remedied at the European level;
- Effective, clearly-defined national security screening can be established, preventing either member state resignation or protectionism veiled under the guise of security, assuring Chinese trust in EU motives, and promoting compatibility between European and other OECD regimes;
- Healthy and effective investment promotion is maintained, while unhealthy member state competition based on under-enforcement of labor, environmental or other social standards is prevented.

While this list of criteria is modest, implementation will prove challenging. And finally, in addition to these specific policy recommendations, at many points in this study we have pointed to an overarching policy priority: European crisis management and recovery. Whether Chinese investors land at Elefthérios Venizélos, Charles de Gaulle and Warsaw Chopin looking to invest in long-term growth or make short-term vulture acquisitions depends on whether Europe gets its act together, reforms its Union, repairs balance sheets, endures austerity, writes-down entitlements and restores competitiveness. Which Chinese investors turn up will be a result of how well Europe does this housekeeping, not the cause or solution.

5.1 KEEPING THE DOOR OPEN

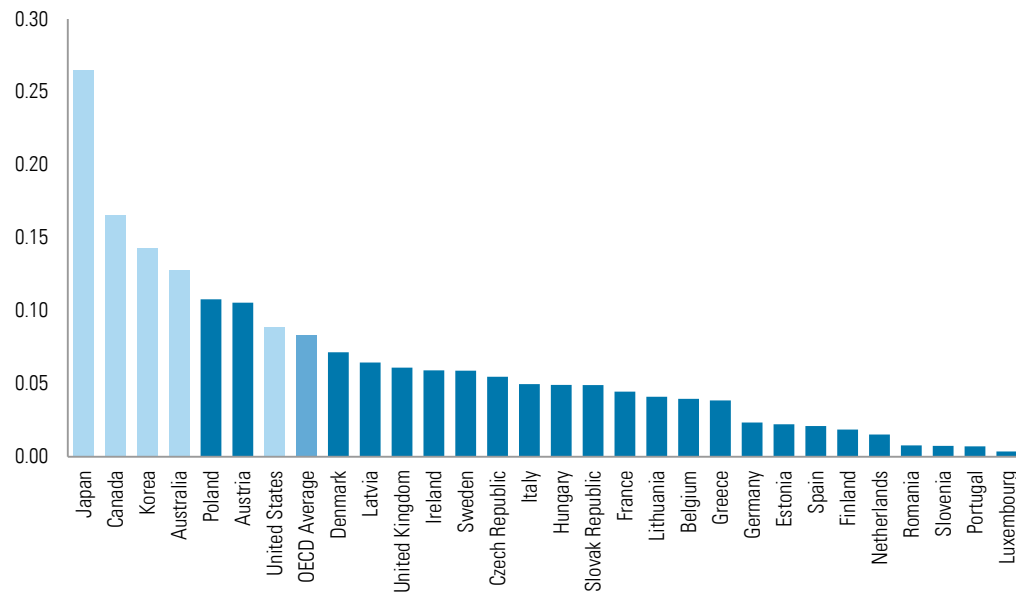
The slogan of China's post-1978 reforms was *gaige kaifang!* – reform and opening up. Financial integration and opening to foreign capital were hallmarks of the European project as well, and periodic outbursts of economic nationalism have been consistently batted back. The rise of Chinese investment is simply the latest in a long

line of ostensible reasons to deviate from principles of openness – but as discussed above, China is different than previous sources of protectionist pressure in significant ways, and recent reactions to Chinese bidders is casting a long shadow. Protectionist rhetoric is dangerous and could damage the hard-won reputation for openness the European investment climate enjoys, particularly during a time of economic crisis. The United States still labors under the burdensome legacy of the Unocal transaction seven years after CNOOC was rebuffed after outbidding Chevron, despite an otherwise stellar record of liberality. Europe should be mindful of how easy it would be to fall into the same hole.

Integration has made Europe’s members cross-border investment fans. The 1957 Treaty of Rome called for members to “progressively abolish between themselves all restrictions on the movement of capital belonging to persons resident in Member States”.⁶¹ Intra-European capital flows were gradually liberalized in the years to follow, as EEC directives unconditionally liberalized direct investment (1960), long-term lending (1985) and other channels. Some members didn’t wait for EEC action and instead abolished restrictions unilaterally (Germany in 1961, United Kingdom in 1979). Full liberalization was achieved with EEC directive 88/361 requiring member states to eliminate all national barriers to capital movement by July 1990.

Figure 23: Formal FDI Restrictiveness, OECD Economies, 2012

OECD FDI Restrictiveness Index, 1=Closed; 0=Open



Source: OECD.

The Maastricht Treaty of 1993 expanded Europe’s achievements on internal freedom of capital movements to third countries. Article 63 of the Treaty on the Functioning of the European Union (TFEU) stipulates that “...all restrictions on the movement of capital between Member States and between Member States and third countries shall be

⁶¹ See “Restrictions on property ownership” in European Commission (2011).

prohibited." The legal framework allows only a few, narrowly defined limits on such flows, namely grandfathered provisions, tax differentiation, restrictions of property ownership under national law, public security and balance of payments remedies. This process has left EU member states with the most liberal economies when it comes to formal restrictions on foreign investment (Figure 23).

Moreover, institutions generally backed these ideas. Member states were not beyond attempting to discriminate against foreign investors, but under its mandate to protect the single market the Commission monitored restrictions to capital movements diligently.⁶² Cases involving economic nationalism against foreign takeovers of local companies (Table 7 lists notable instances) were typically met with an ultimatum for compliance and a filing with the European Court of Justice (ECJ).

Though nascent, and still trivial in stock and flow, Chinese investment in Europe is testing this tradition. Rhetoric in reaction to Chinese bids has grown tense, with some of the strongest calls for restriction coming from within the EU bureaucracy. In a prime example, Chinese cable maker Xinmao's 2010 takeover bid for Dutch fiber-cable producer Draka prompted Industry Commissioner Antonio Tajani to call for an EU-wide foreign investment review to protect European know-how and technology from Chinese investors.⁶³ Together with his colleague Michel Barnier, he later followed up with a letter to EU Commission President Barroso emphasizing the need for a pan-European investment review regime. His justification typified European concerns about China and impulses to use investment controls to restrain competition: "[W]e have to make sure it's not a front for something else, in terms of taking our know-how abroad..."⁶⁴ The European Parliament echoed such concerns in calling for a European body "entrusted with the *ex ante* evaluation of foreign strategic investment".⁶⁵

These reactions show that concerns about the nature of Chinese investment causes European policymakers to consider an expansion of the current scope of investment reviews (on the national or potentially a European level) to include threats to "economic security". While Europe's posture thus far has been liberal and limits to foreign investments could only be justified on national security grounds, the rise of China puts this consensus to a new test.

⁶² See European Commission (2011).

⁶³ See Interview with Industry Commissioner Tajani, *Handelsblatt*, December 27, 2010, available at: <http://www.handelsblatt.com/politik/international/eu-kommissar-tajani-der-schutz-unseres-wissens-ist-unverzichtbar-seite-all/3748796-all.html>

⁶⁴ See Miller, John W. (2011): "Bid Dropped as EU Raises China's Wall", the *Wall Street Journal*, January 7, 2011, available at: <http://online.wsj.com/article/SB10001424052748704415104576065313773996124.html>

⁶⁵ See European Parliament (2012).

Table 7: Selected Cases of Economic Nationalism toward Foreign Acquisitions in Europe

Year	Investor / Target	Summary
1999	Banco Santander Central Hispano (BSCH) (Spain) / Champalimaud Group (Portugal)	When BSCH attempted to acquire a stake in Champalimaud Group, Portugal blocked the deal under the pretense of protecting national interests. The European Commission found that this action violated EU rules on freedom of establishment and the free movement of capital. The transaction was completed in 2000.
2000	Holderbank; Secil (Belgium; Switzerland) / Cimpor (Portugal)	Portugal blocked the 2000 acquisition of Cimpor in the name of protecting the public interest. The European Commission found that the Portuguese government had no basis for such an action, and litigation continued through 2003.
2005	PepsiCo (United States) / Danone (France)	PepsiCo's interest in Danone incited considerable backlash from French politicians. France later published a list of "strategic" and "sensitive" industries subject to screening which the European Commission deemed discriminatory.
2006	Abertis (Spain) / Autostrade (Italy)	The merger of Autostrade and Abertis was abandoned after Italy blocked the deal. The European Commission found that Italy violated EU regulations by not sufficiently demonstrating how this defended the public interest.
2006	Mittal (Netherlands) / Arcelor (France, Luxembourg, Spain)	Mittal's bid to acquire Arcelor met with considerable resistance from Arcelor's directors and the governments of Spain, France, and Luxembourg. Arcelor finally assented to the merger after a series of failed attempts to be acquired by other steel companies to fend off the takeover.
2006	Gazprom (Russia) / Centrica (UK)	Gazprom's interest in acquiring a stake in Centrica in 2006 incited outspoken criticism from UK officials seeking to protect UK energy security. Although Prime Minister Tony Blair indicated his displeasure with this "economic patriotism," an acquisition bid never materialized.
2007	E-On; Gas Natural; (Germany; Spain) / Endesa (Spain)	Following a hostile takeover bid by Gas Natural, Spain blocked E-On's acquisition of Endesa by imposing burdensome regulatory conditions. Endesa was ultimately sold to Acciona and Enel instead. The European Commission found that Spain's actions violated multiple EU Treaty rules.
2007	Sacyr (Spain) / Eiffage (France)	Sacyr's 2007 hostile takeover bid of French Eiffage met with bitter French resistance. Although the European Commission approved the deal, Sacyr instead opted to sell its stake in Eiffage in 2008 following a lengthy legal battle.
2007	OMV (Austria) / MOL (Hungary)	OMV's interest in acquiring MOL led to the creation of "Lex MOL", a Hungarian law meant to protect strategic firms from hostile takeovers. It was amended in 2008 to comply with E.U. rules, but the deal fizzled due to competition concerns.

Source: Authors' compilation. Selected M&A cases only. A full list of cases in which the EU Commission took action against member states for violation of the freedom of capital movements can be found at:

http://ec.europa.eu/internal_market/capital/news/index_en.htm

Two characteristics are disconcerting: first, although interpreted conservatively thus far, EU provisions admit exceptional treatment for third party FDI for a range of non-national security reasons related to broader public policy, such as guarding against serious difficulties for the operation of the economic and monetary union (Art. 66 TFEU). There exists far greater potential for interference in inward foreign investment on economic or competitiveness grounds in Europe than in the US, where the scope for screening is severely delimited to national security, *narrowly*

defined. Second, there is no common definition of national security threats across Europe, and the interpretation is left to member states. Our concern is that the liberal tendency in EU policy is not fully enshrined in EU law, and that in the face of a rash of hostile takeover bids from a non-democratic, emerging China, member states could easily assert the right to employ public policy or public security grounds to oppose bids. Only then would we see whether Europe or the US has a regime more hard-wired for openness. Already in 2011-2012, Europe has shown a startling willingness to switch demeanor on trade, with challenges to Huawei and ZTE afoot in telecoms; an investment *volte face* cannot be dismissed lightly.

In the long term, Europeans will be most embracing of foreign investment if they know a thorough, Union-wide process to address concerns is in place, guided by the principles of openness and non-discrimination. Calls for a European investment review for threats to “economic security” go far beyond that scope, and would open the door for protectionism given the lack of clear metrics and frameworks for assessing such risks. Concerns about economic efficiency and welfare are, as discussed next, better addressed by other regimes and legal instruments. A necessary complement to such efforts is a new pan-European approach to national security reviews, which is discussed thereafter.

5.2 ADDRESSING REAL ECONOMIC CONCERNS

Our advice to unburden the investment screening process from “economic security” demands is only useful if any real and deleterious impacts from a surge in Chinese investment can be addressed through other means. In rough terms we see three categories of economic impacts from Chinese FDI that need to be addressed. First, pressure from market competition will arise from more entrants in the European marketplace, from which some will win (consumers, the newly employed), and some will lose (less competitive firms and their employees). Welfare and redistributive policies -- not investment policy -- can help with the adjustment to the extent needed and desired. Second, problems may arise from poor operating behavior on the ground, such as tax avoidance, labor rights abuse or environmental non-compliance. These concerns can be handled as they would be for any other foreign investor, or for any European firm, with the full force of European or local law. Third and more challenging is damage to European interests stemming from China’s state capitalism, such as distortion of asset prices, unfair competition through abuse of market power, or damage to consumer welfare. This is where the focus of attention should be.

Europe’s consensus in favor of open investment presumes a level playing field and fair competition. Direct investment from US multinationals was seen as ferociously competitive but demonstrably fair in terms of capital costs, the role of subsidies, and other factors. Japan’s global competitiveness benefited from an unlevel playing field in many respects, but its scale never grew large enough to seriously threaten global efficiencies and its political leadership was amenable to self-restraint. China’s current uneven system presents a unique problem, especially considering that it will soon be large enough to distort markets globally, and that adequate political change is not assured.

Firms can distort asset prices if they have access to low-cost or free capital with which to make acquisitions, thereby outbidding and outgrowing rivals. A resulting concentration of market power can then lead to monopoly rents, coercive foreign policy behavior, predatory pricing to further depress competition, or severe supply disruptions if, after amassing such a position, advantageous supports are withdrawn. All of these concerns are in the minds of EU and other OECD policymakers grappling with the implications of Chinese FDI. The Commission has already considered treating all Chinese SOEs under the aegis of the SASAC as related entities for calculations of market concentration, since they ostensibly serve a single controlling interest -- the Communist Party of China. The OECD, taking up an Australian framework for analysis, is developing a corporate government system focused on whether governments practice “competitive neutrality” between the regulation and treatment of state and non-state owners (or related) firms.⁶⁶

The aspects of Chinese support for its SOEs are widely examined, though still much debated. In many areas there is no global consensus: for example, on the distortions caused by SOEs and capital subsidies.⁶⁷ A financial environment that ensures affordable capital and – moreover – little risk of default or bankruptcy is, in our opinion, the most critical. However it will be a long time before these debates are settled, and by then European interests may be impaired. The best course lies in an expansive utilization of competition policy at the European level, and coordination of analytical approaches measuring the welfare implications of investment across OECD economies and, indeed, with Beijing as well.

Even after a fulsome application of competition policy regimes to prevent harmful impacts in Europe from the non-market conditions enjoyed by Chinese firms – optimally in concert with like-minded market economies such as the United States – concerns will remain. Even if China eschews any nationalistic industrial policy objectives, it will be a decade or more before financial conditions at home are leveled, leaving some Chinese firms with very different incentives from European firms. Despite this reality, there are two reasons to stay calm. First, in our extensive analysis of nearly 1,000 Chinese outbound deals to the United States and Europe, we see vanishingly few which seem senseless from the perspective of commercial logic. Chinese firms, including centrally-controlled SOEs, may take advantage of state support with enthusiasm, but they do not appear to lumber abroad no matter how strategically encouraged if they cannot make money from it. So, in theory, Chinese firms could pervert the sanctity of our Western markets, but there is little—if any—evidence of that happening now. Second, while China will very likely soon be large enough to distort asset prices in target markets, the volumes of investment today and for at least 3-5 years are not nearly large enough to play a distorting role in general. Our analysis of deal flow in Europe, as with our previous US research, makes that clear. Rather than contemplate special screening procedures for Chinese capital, Europe is right to look for specific subsectors where China is liable to become a price setter in the near-term (such as occurred in rare earths on the export side), and to

⁶⁶ See Capobianco and Christiansen (2011).

⁶⁷ On the tricky task of agreeing on what capital subsidies are, see Hufbauer, Moll, and Rubini (2008).

take time to join hands with others – including in China – to better examine the implications of non-market priced OFDI of major volumes in a five year timeframe.

Finally, Europe should try to work towards better market access in China (for example, through a bilateral investment treaty with pre-establishment rights), but it must not be obsessed with reciprocity, a buzz word that arises frequently in conversations about the challenges of global Chinese investment. We do not think that formal mutuality in market access need be a Western demand, for several reasons. First, imposing formal investment reciprocity would not only be illegal under EU treaties, but also technically extremely difficult to implement. Second, China is already more open than almost any developing nation ever was – indeed, more than many advanced Asian economies. Third, Europe benefits from expanded capital formation regardless of what China does, as discussed in the previous chapter. Fourth, the advent of Chinese operations in advanced economies will both show their stakeholders the virtues of transparent, market-driven norms, and show the world that Chinese firms are not magical, and face the same challenges as other enterprises. Finally, we believe that if advanced nodes of China such as Shanghai fail to achieve a more advanced level of inward FDI openness, China will fall into a middle-income trap. Openness to FDI is something China must maintain for its own welfare, not offer as a concession. In a recent report on China’s future policy priorities prepared jointly by the World Bank and the Development Research Center of China’s State Council, Beijing’s economists underscored the need for reciprocal approaches to maximizing China’s global interests: “Achieving stronger protection for Chinese investors would require granting reciprocal concessions to foreign investors in China, implying a dismantling of most restrictions on FDI inflows and continued improvements in the autonomy of state enterprises. These policies are in the long-term interest of China’s development.”⁶⁸

5.3 RE-THINKING THE EUROPEAN APPROACH TO NATIONAL SECURITY SCREENING

While Europe has a centralized competition policy regime, it is lacking the second important element of a comprehensive safety check: a coherent EU approach to national security screening. The current approach is to delegate positive screening to national governments, which risks a race to the bottom in the sense of under-screening to avoid offense, fails to address pan-European national security risks and – conversely – could permit room for protectionist abuse in the name of security. A common European legislative framework, most likely involving a greater degree of international coordination as well, would help to address these problems.

Under European Community law, screening foreign investments for national security is not required, though it is *permitted* in order for members to address public security and “take any necessary measures for the protection of the essential interests of their security.”⁶⁹ The existing exceptions to free movement of capital, which apply

⁶⁸ See World Bank (2012).

⁶⁹ See European Commission (2011).

to investors from both member states and external parties (but to different degrees), are not to be used for protectionism. However, the Treaty does not define national security clearly, leaving the door open to broad interpretations. Investment security regimes at the member level vary widely across Europe (Table 8). France specifies 11 sectors for review and reserves the right to exclude whole particular industries that include both defense-related and entirely non-strategic elements from foreign investment, for example aerospace; the Netherlands has no review at all, other than for the banking sector. Each member can and does define its own understanding of “essential security interests”.

There are three cases to be made that Europe’s existing approach is not adequate to manage the growing impact of Chinese investment. First, member states could wind up in a “race to the bottom” to attract Chinese money, abandoning any attempt to screen for security in the rush to accommodate Chinese sensibilities. Many European countries are in dire need of foreign investment and governments cannot afford to turn away foreign investors lightly. If left to the discretion of national governments, standards and diligence could be softened to gain an advantage in the competition for Chinese capital.⁷⁰ We do not in fact see evidence in our data that Chinese investors are favoring countries with weaker security reviews or playing European governments against each other, but Chinese officials do very frequently insinuate that the US will lose out to Europe because the latter is laxer. It is entirely possible that such tactics are recapitulated within the EU.

⁷⁰ See Godement and Parello-Plesner (2011).

Table 8: Security-Related Investment Control Measures, Selected EU States, 2011

Austria	Non-EEA investors acquiring at least a 25% stake in firms in certain sectors must obtain Ministry of Economy approval. These sectors include defense, power, telecommunications, transportation, and other industries.
Cyprus	A mandatory security review process was abandoned, but restrictions still apply in mass media, property and construction sectors.
Denmark	The Ministry of Justice must approve foreign investments that result in ownership of more than 40% of firms producing defense materials or voting rights exceeding 20%.
Finland	Finland restricts foreign acquisition of influence in companies that produce defense materials or provide goods and services vital to national defense.
France	The Minister of Economy and Finance reviews acquisitions in certain sectors when investors will surpass certain ownership thresholds. These sectors include aerospace construction, nuclear energy, communications interception and detection, cryptology, arms, munitions and war materials, gambling and casinos, and other industries.
Germany	The Federal Ministry of Economic Affairs and Technology may review and block acquisitions by non-EU/non-EFTA investors that result in 25% or greater ownership. This review process is not confined to certain sectors.
Lithuania	Lithuania prohibits foreign investment in state security and defense sectors. The State Defense Council may make exceptions for investors from EU and NATO countries.
Poland	Foreign enterprises require government approval to acquire real estate in border areas and to invest in an enterprise managing an airport. Enterprises with foreign participation may not establish airports.
Portugal	Foreign firms may not engage in maritime cabotage between Portugal and the Azores and between the Azores.
Slovenia	Foreign firms may not produce or trade in armaments.
Spain	Foreign investors seeking to participate in Spanish companies related to defense must first seek government authorization.
Sweden	A government permit is required for foreign-controlled enterprises to produce war munitions.
United Kingdom	The Secretary of State may intervene in merger deals that could adversely affect national security or certain public interest considerations. There exist additional regulations on investment in Aerospace, Energy, and Maritime sectors.

Source: Authors' compilation based on the OECD's work on investment openness (www.oecd.org/daf/investment/instruments) and national government sources.

Second, security is hardly a purely “national” issue, given Europe’s single market and increasing attempts to streamline and coordinate a common foreign policy. Perhaps the most consequential debates over direct investment today concern critical national infrastructure – a term variously defined but which usually includes the energy grid, communication networks, financial systems, transportation networks, water and gas utilities, healthcare infrastructure, and other systems. Our world is increasingly interconnected: energy and other critical resources flow across borders, as do cyber-network disruptions. Fragmented approval processes for Chinese vendors seeking participation in national critical infrastructure risk balkanizing OECD markets. Chinese telecommunications network vendors have been brushed back from the US and Australia, permitted in Scandinavia and accepted with

conditions in Britain. Such a fragmented approach within Europe and the whole OECD will likely fail to deliver meaningful comfort in terms of national security. Importantly, our preference is absolutely not to impose blunt blanket exclusions on Chinese firms from any particular industry – including telecommunications. Upgrading national security screening should prevent such ham-fistedness, not facilitate it.

Third, what has appeared thus far to be a liberal regime in fact has the potential to be protectionist. European regimes are graded highly for the transparency and predictability of their national security screening practices, whereas many today think the Committee on Foreign Investment in the United States (CFIUS) process is arbitrary and restrictive. Actually, the criteria for national security screening in the US are clearer and more narrowly defined than in Europe, and if European attitudes toward Chinese acquisitions sour, there is probably *more* potential for abuse in a regime run by 27 sub-systems than there would be from a unified one like the US. For all but the largest EU members, the cost and infrastructure needed for effective screening is individually prohibitive. As our dataset demonstrates, the inflection in Chinese investment in Europe is really no more than 3 years old, and has coincided with a period of European distress. Incumbent firms are increasingly expressing strong discontent over Chinese business practices and the lack of sufficient “competitive neutrality” on the part of China’s government. Like all allergic reactions, this one might take time to incubate, but once it does it could be more restrictive than currently realized given the relative ambiguity of the national security definition and the fragmented nature of review in Europe.

A uniform screening framework could address these risks and put Europe in a better position on investment policy debates internationally. Such a pan-European mechanism would best be limited to narrow national security screening, and *not* include “economic security” notions. Political hurdles are inevitable in such an approach, including member state reluctance to transfer individual responsibility for these issues, as set out by the Treaty. And, crucially, the European Union bureaucracy does not presently have the in-house capacity to conduct independent national security assessments. Such reviews rely on reliable input from intelligence and military sources, which are still national domains.

A second best solution would therefore be to establish a common European legislative framework for security screening, providing a blueprint for national reviews. In a 2008 Bruegel policy brief, Lars-Hendrik Röller and Nicolas Véron came up with such a proposal in the midst of the debate on sovereign investment in Europe.⁷¹ They argue that a single market directive could establish a common framework with clear definitions of key terms, rules for the review process and the negotiation of mitigation agreements. Provided each EU member has access to adequate mechanisms to assure intelligence and analysis capabilities, this approach could help prevent “regime shopping” for EU hosts least able to screen. Still, other problems, such as sharing of assessment across the Union and the potential race to

⁷¹ See Röller and Veron (2008).

the bottom, would remain. But given the political and technical difficulties of a full-fledged European review mechanism at the start, we think this is a sensible first step.

The evolution of European security should be done in consultation and perhaps coordination with others, internationally. There is a huge discrepancy of national security concepts and the implementation of reviews between the US, Europe and other developed economies. The OECD is working on best practices for investment review, but beyond that there is surprisingly little coordination among OECD governments on this front. As emerging economies move from outright investment controls toward more sophisticated regimes of their own -- including national security and competition reviews -- the problem of regime balkanization is becoming global. China enacted its own national security review regime in 2011, and its specifications are unclear and largely untested. Without a proactive effort to converge international norms on these issues, serious discord over what ought to be a good news story seems almost certain.

5.4 ATTRACTING CHINESE INVESTMENT

In addition to preventing potentially negative impacts from Chinese investment, European policymakers must also be concerned with attracting Chinese investment. In the past, the European Commission's job was to keep the door open, but investment promotion and protection was left to national governments. The Lisbon Treaty changed that situation by making FDI policy part of the EU's common commercial policy, transferring the rights of concluding international investment agreements (IIAs) to the European Commission. While a bilateral investment treaty between the EU and China replacing the 26 individual BITs is a desirable outcome, such a treaty will have very little impact on investment flows from China. More important are tailored investment promotion approaches that help Chinese investors overcome their key impediments and structural reforms that restore faith in the long-term competitiveness of Europe.

Despite economic integration and liberalization of capital controls, investment promotion and protection were (until recently) the responsibility of national governments, resulting in a patchwork of IIAs among member states and third countries. By 2010, EU countries had concluded more than 1,100 bilateral investment treaties (BITs) with third countries. In addition to such legal instruments, governments try to attract foreign investment using investment promotion agencies (IPAs) or special tax incentives for foreign investors on the national, state, regional and even municipal level. The intensity and approaches to investment promotion vary strongly across Europe.

The evolution of European investment policy has gained new momentum with the Treaty of Lisbon, which entered into force in December 2009. The Lisbon Treaty transferred the exclusive competence for investment policy to the European Commission, making FDI the “new frontier for the common commercial policy”.⁷²

⁷² European Commission (2010).

Since then, the EU Commission has made clear that a unified EU investment policy has two main goals: first, to replace the current patchwork of national BITs in order to streamline the quality and content of these treaties; second, to increase the leverage of Europe to reach better conditions for its companies when it comes to market access abroad.⁷³ A bilateral investment treaty with China replacing the 26 existing individual BITs is among the top priorities of the EU Commission, and an impact assessment is under way.⁷⁴ While a China-EU BIT would help address market access problems and harmonize other significant legal aspects such as international arbitration, it would not achieve much when it comes to promoting Chinese investment. Given the EU's openness and strong legal system, such agreements play a very minor role in Chinese firms' investment decisions.⁷⁵ Our database of Chinese investments in Europe does not show any signs that the existence or strength of BITs is a factor shaping location decisions of Chinese firms in Europe.⁷⁶

More important in our view is that member states and local governments adjust the investment promotion efforts to the needs of Chinese companies. The most important impediment to greater Chinese investment in Europe is not regulatory or legal barriers in Europe, but the inexperience of Chinese firms operating in a sophisticated market economy. Until recently, trade was the only form of Chinese global engagement, so the Chinese have little experience operating overseas. There is a large regulatory gap between the home market in China and mature OECD economies. Running operations in Europe requires Chinese managers to bridge cultural divides, acquire the necessary market knowledge, comply with sophisticated regulatory standards, manage local staff, negotiate with organized labor and other stakeholders not present in China, meet higher quality and safety standards, adhere to different tax and accounting rules, and develop suitable communications and public relations strategies. Chinese firms will have to learn to cope with these new challenges, but special approaches to investment promotion on the local and national level pay off. It is noticeable that the top recipients of Chinese investment in Europe all have strong investment promotion regimes with a local presence in China. Regions and cities with particular programs, such as the city of Hamburg, have been successful attracting capital from China.

Yet the best and most promising way to attract sustainable long-term investment from China is to bring Europe's economic competitiveness back on track. Foreign investors have come to Europe for decades because of its competitive economy and commercial prospects. The inflection of Chinese investment comes at a time of deep structural crisis in Europe. The crisis and related privatization offers opportunities for Chinese investors to get a foot in the door, as recent investments in Greece and

⁷³ European Commission (2010).

⁷⁴ See European Commission (2011c).

⁷⁵ Based on numerous interviews with executives of private and state-owned Chinese firms in the period of 2009-2011.

⁷⁶ The fact that Ireland, the only country that does not have a BIT with China, is a negative outlier in attracting Chinese investment is not enough to support this argument. We attribute the lack of Chinese investment interest in Ireland to other factors, most importantly the dismal economic situation that Ireland has been in since the take-off of Chinese investment in 2009.

Portugal illustrate. At the same time, our data shows that most countries with weak economic fundamentals do not fare well in attracting Chinese investment outside of these large-ticket investments. Countries that have held up well despite the crisis, such as Germany and Sweden, are succeeding in attracting long-term investments across a broad spectrum of industries. Only a European Union with a healthy economy, political stability, and clear vision for the future will be able to attract foreign investors that contribute to its long-term prosperity.

6. Conclusions and Policy Recommendations

Considering how small China's global outward investment stock is today, it is amazing how many upside dreams and downside fears it elicits. But of course it is not the current stock, but looming future growth that matters. China's global outward investment boom has *just* reached Europe; several large-scale transactions across the continent signal that the rush has in fact started.

As with any new development, many questions come along with Chinese FDI -- and official data does not give us many answers. The more we look at the official numbers, the more we are aware of how little they respond to what policymakers, business professionals and interested citizens want to know. Most of us have known China only as a far-away exporter of goods: what is motivating them to invest in our backyards? Is this just a reactive fire sale caused by the crisis, or a deliberate establishment of beachheads from which to take control of markets? Or maybe these flows represent not strengths but weaknesses, and portend an era of capital flight?

In many European quarters, it is assumed that answering these and myriad other questions is impossible. The behavior of China's legions of firms and dealmakers is simply too inscrutable and ponderous for us to understand; and even if we could, *Europe* is too atomized and incapable of providing aggregate accuracy for us to be definitive about. But we believe that -- to some extent -- this study proves such defeatism wrong. By fitting all publicly available information on Chinese FDI in Europe together in a matrix, and undertaking a careful analysis of the results in consultation with many deeply involved Europeans, Chinese and others, clear conclusions about the patterns, motives, impacts and policy significance of the advent of Europe-bound Chinese direct investment can be offered.

Our key findings follow. We do not at all consider this set of observations comprehensive; our database is nascent and we are sure that there is a tremendous amount of utility not yet wrung from it.

1. The Chinese investment boom has arrived. Flows from China started to take off in 2009, with investment for greenfield projects and acquisitions rising from an annual average of below \$1 billion prior to the mid-2000s to \$3 billion in 2009 and 2010, and a record of \$10 billion in 2011. Even leaving aside smaller deals, the number of investments -- 573 -- is surprising.

2. China's new interest is driven by commercial motives. This new investment boom is overwhelmingly driven by *commercial* realities, in equal parts by the pressure cooker of competition *inside* China and the prospect of attractive deals in Europe.

3. Chinese investment is rising across the OECD. Other advanced economies are experiencing a similar uptick in Chinese investment interest. The United States saw a

similar upward trend in Chinese FDI, from less than \$500 million before 2008 to more than \$5 billion in 2010 and 2011. The US and EU are on parallel, not competing, tracks.

4. There is enormous welfare potential from Chinese investment. We estimate that through 2020 Chinese firms will put to work \$1-2 trillion in FDI, and if it plays its cards right, the EU-27 could get more than \$250 billion, or \$20-30 billion annually. This investment yields the same benefits as FDI from other countries: fresh capital, jobs, taxes and innovation spillovers. Chinese firms already employ more than 45,000 Europeans and these figures are expected to rise further, given the complementarity between China's needs and Europe's workforce.

5. Chinese FDI is different to some extent. Chinese firms operate in a different political and economic environment than firms from other countries, and bring additional political and economic risks that merit attention: a distortion of global asset prices, unfair competition through abuse of market power, or damage to consumer welfare.

Given the stakes and the different risk profile, a European policy response is crucial. Policymakers need to grapple with these questions now to be prepared to deliver answers once they are needed. Our analysis yields four key policy recommendations:

1. Keep the door open. Europe must not risk losing its hard-earned reputation for openness by imposing additional barriers to capital inflows based on economic security considerations. Several cases have already raised that specter. There may be more loopholes for veiled protection in the European framework than admitted, and the reaction to China is not yet fully tested. Europeans will embrace foreign investment if they know a thorough, EU-wide process to address concerns is in place, guided by the principles of openness and non-discrimination.

2. Address market distortions forthrightly. There are concerns about China's long-term evolution, and the prospect of China's economic model spilling out with Chinese firms' movement abroad. Our advice is *not to burden* the investment screening process with "economic security" demands arising from legitimate worries about China's system. Nor do we think that reciprocity demands are practical or productive. Ideally, China will redress aspects of domestic distortion such as preferential capital costs for state firms, but given the potential risks if this scenario does not materialize, policy should be in place to protect EU interests via internal processes including competition policy review. A rationalized and systematized game plan for handling the concerns sure to arise over China's system without risking investment protectionism is best for Europe; it also lends itself to the prospect of better coordination internationally to manage the advent of emerging market OFDI. By standardizing its internal approach, Europe maximizes its role in joint efforts to discuss competitive neutrality, state capitalism and other concepts.

3. Take national security seriously. Europe's current fragmented approach to screening foreign investment for security threats risks a race to the bottom, fails to

address pan-European national security risks, and offers room for protectionist abuse in the name of security. A common European concept and legislative framework for investment review is needed to address these problems and hedge against a protectionist fallback in the false name of security. Greater transatlantic and international coordination is needed to reach a consensus on legitimate investment restrictions and global best practices for investment reviews.

4. Set the right priorities for investment promotion. An EU-China bilateral investment treaty will help to address market access problems on the European side, but it will do very little to promote investment flows from China. Tailored investment promotion approaches that help Chinese investors overcome the hurdles they have in entering mature market economies are important to sustain the inflow of Chinese investment. In the long run, it is critical that Europe finds a way out of its current crisis. Only a competitive EU economy can sustain foreign investment from China and other places - and in turn better cope with any challenges it raises.

These findings and policy recommendations are far from comprehensive, but we hope they will contribute to a better understanding of growing Chinese investment in Europe and help inform the policy debate. While the growth in recent years is impressive, many chapters in the story of Chinese EU investment have yet to be written. Securing the right policy response is crucial, given the potential for future investment flows and China's role as test case for a wider range of emerging market investors.

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Appendix: Data on Chinese Investment in Europe

Direct investment flows from China to the European Union can be analyzed using three sets of data: (1) official data from European statistical authorities, (2) official data from the Chinese government, and (3) Rhodium Group's data set on Chinese greenfield projects and M&A transactions in Europe. The three data sets are not directly comparable with one another, as they differ in compilation methods, underlying definitions, quality, and timelines. But each is helpful for describing different aspects of Chinese investment in Europe.

Chinese authorities publish two datasets that include information on outward FDI flows and stocks: first, the balance of payments (BOP) and international investment position (IIP) statistics compiled by the People's Bank of China (PBoC, China's central bank) and its foreign exchange regulator, the State Administration of Foreign Exchange (SAFE); second, the annual statistical bulletin on outward FDI published by the Chinese Ministry of Commerce (MOFCOM).⁷⁷ The balance of payments and international investment position statistics record annual outward FDI flows and stocks based on the principles outlined in the fifth edition of the IMF's Balance of Payments and International Investment Position Manual. However, Chinese statistics only provide aggregate numbers for outward FDI to the world, and do not contain any detailed breakdowns by country or industry. Such details can be found in the Ministry of Commerce's annual OFDI report, which has been published since 2004. The reports provide OFDI flows and stocks in current cost terms, including breakdowns by industry and geographic distribution.

Although the collection and dissemination of data on OFDI have improved markedly in recent years, there are still significant concerns about the accuracy and reliability of data from the Chinese side. Not surprisingly, Chinese authorities have little experience in compiling statistics on outward investment flows. Furthermore, the Ministry of Commerce collects data based on information submitted by firms in the mandatory approval process instead of surveys (which is the international standard). Firms often submit incomplete information or find ways to completely avoid bureaucratic screening, which distorts the statistics.⁷⁸ Because of this and other problems with data collection, the Ministry of Commerce's statistics on outward FDI are of questionable quality, with regard to aggregate data and key metrics such as distribution by industry or country. China's MOFCOM reports a Chinese OFDI stock of \$12.5 billion in the European Union by year-end 2010, accounting for 4% of China's global OFDI stock (Table A-1).

⁷⁷ China's balance of payments and international investment position statistics can be found at <http://www.safe.gov.cn>; the Ministry of Commerce's OFDI reports can be found at <http://hzs.mofcom.gov.cn>.

⁷⁸ For a detailed discussion of some of the shortcomings and problems, see Rosen and Hanemann (2009).

Table A-1: Chinese OFDI Stock and Flows in Europe, Official Sources, 2010

USD million, percent difference

	FDI Stock (2010)			FDI Flows (2010)		
	Eurostat	MOFCOM	Δ	Eurostat	MOFCOM	Δ
Euro Area (16)	5,833	8,802	-2,968	-261	3,850	-4,112
EU-27	8,927	12,502	-3,575	977	5,963	-4,986
Austria	184	2	182	4	0	4
Belgium	-742	101	-843	147	45	102
Bulgaria	23	19	4	7	16	-10
Cyprus	N/A	N/A	N/A	N/A	N/A	N/A
Czech Republic	72	52	19	3	2	1
Denmark	506	42	463	19	2	17
Estonia	7	8	-1	-3	N/A	N/A
Finland	68	27	40	86	18	68
France	472	244	229	33	26	7
Germany	1,060	1,502	-442	445	412	32
Greece	5	4	1	N/A	N/A	N/A
Hungary	139	466	-326	131	370	-239
Ireland	-1,182	140	-1,322	-1,060	33	-1,093
Italy	423	224	199	-27	13	-40
Latvia	1	1	1	0	N/A	N/A
Lithuania	3	4	-1	0	N/A	N/A
Luxembourg	N/A	5,787	N/A	73	3,207	N/A
Malta	7	3	4	3	-2	5
Netherlands	345	487	-142	252	65	188
Poland	325	140	185	11	17	-6
Portugal	N/A	21	N/A	3		N/A
Romania	69	125	-56	-9	11	-20
Slovakia	49	10	39	23	0	22
Slovenia	0	5	-5	0	N/A	N/A
Spain	N/A	248	N/A	N/A	29	N/A
Sweden	1,468	1,479	-12	N/A	1,367	N/A
United Kingdom	618	1,358	-740	13	330	-317

Sources: PRC Ministry of Commerce, Eurostat. N/A=not available. Currency conversions from Euro into USD are based on the IMF's 2010 EUR/USD exchange rate of 1.3269.

In Europe, national statistical agencies and central banks are responsible for collecting and disseminating data on FDI. EU institutions such as Eurostat or the European Central Bank then aggregate and disseminate EU-wide figures. Eurostat publishes two key data sets that include relevant information for the analysis of direct investment: figures for inward FDI flows and stocks compiled in accordance with Balance of Payment statistical principles, and data on the operations of multinational enterprises, the Foreign Affiliate Statistics (FATS, Table A-2).⁷⁹

⁷⁹ See European Commission (2011d).

Table A-2: Chinese and Hong Kong-Owned Affiliates in the EU, 2008/2009*

USD million, percent difference

	Number of Enterprises	Turnover (\$mn)	Value Added (\$mn)	Personel Cost (\$mn)	Number of Employees	R&D Expenditure (\$mn)
Austria	8	423	153	102	1,645	38
Belgium						
Bulgaria	51	15	1	0	160	
Cyprus	0	0	0	0		0
Czech Republic	43					
Denmark	5					
Estonia	0		0	0	0	0
Finland	6	155	10	6	45	
France	59	4,347	1,193	577		
Germany	110	3,715	849	298		
Greece						
Hungary	277	204	16	17	1,172	
Ireland						
Italy	38	548	72	43	647	
Latvia						
Lithuania						
Luxembourg	1					
Malta	5	6				0
Netherlands	17	423	114	98	2,376	
Poland						
Portugal	3					
Romania	995	379	34	14	2,389	0
Slovakia						
Slovenia	17	5	2	1	113	0
Spain	11	542	74	46		
Sweden	33	517	58	56	546	
United Kingdom	49		119	84		
	1,728	11,279	2,695	1,342	9,093	38

Source: Eurostat, Foreign Affiliates Statistics (FATS). *Latest available year; includes companies from Hong Kong. Original EUR values have been converted into USD using an average 2008/2009 exchange rate of 0.7.

While FDI statistics from Europe can be considered more accurate than those from China, there are several shortcomings. For one, Eurostat's figures are published with significant delay – as of this writing, comprehensive FDI data are available only through 2010, a lag of 1.5 years. Second, the data compiled by Eurostat is of very mixed quality. There is a significant difference in the scope and quality of statistical data compilation across European countries. Tables A-1 and A-2 illustrate that smaller countries, Southern European countries, and the new member states in the East still do not provide FDI-related data through Eurostat. Further, accurate compilation of FDI statistics has become more complicated in recent years due to the extensive use of offshore financial centers and tax havens. These practices lead to

over-counting FDI flows to countries with favorable tax regimes, such as Luxembourg and the Netherlands, and undercounting FDI flows from countries whose firms prevalently employ offshore financial centers. In China, capital controls and the lack of legal and financial infrastructure force firms to channel their overseas investment through Hong Kong, the Cayman Islands and other Caribbean tax havens. Finally, European FDI statistics lack important metrics such as distribution by industry *and* country or nationality of the investing company.

Given that the scope, timelines, quality and results vary substantially, and sometimes drastically, official data from both the Chinese and the European sides are not sufficient for an in-depth, real-time analysis of Chinese investment patterns. Therefore, we decided to compile our own dataset on Chinese direct investment in Europe based on a bottom-up collection of investment projects and deals.⁸⁰ Our dataset captures expenses by Chinese-owned firms for investment projects that qualify as direct investment, i.e. a greenfield project or the acquisition of a stake in an existing company that exceeds 10% of voting rights. Such an alternative approach is not comparable to the traditional balance of payments method, but it avoids some of the problems of official data – namely issues with time lags and pass-through locations – and allows a real-time assessment of investment trends.

Online-based research strategies provide a fertile ground for such alternative data collection attempts. A range of commercial databases are available for information on mergers and acquisitions, for example Bloomberg, ThomsonONE, Dealogic, Mergermarket, ISI Emerging Markets or CapitalIQ. Raw data on greenfield projects can be sourced from subscription-based services such as the Financial Times' fDi Markets database or the European Investment Monitor by Ernst and Young. Specialized company databases such as Bloomberg, Orbis, Hoover, Nexis or Zoominfo offer additional information on companies' operations in different countries and their financials. Our strategy to derive raw data on FDI projects is mostly based on M&A data from Bloomberg and a news monitoring system for greenfield deals, which is based on specific search algorithms for news services such as Nexis, Factiva and Google. Media reports, official documents such as SEC filings or annual reports, business registries, information from investment promotion agencies, and industry-specific lists of investment projects from business associations and industry research firms complement our data collection strategy.

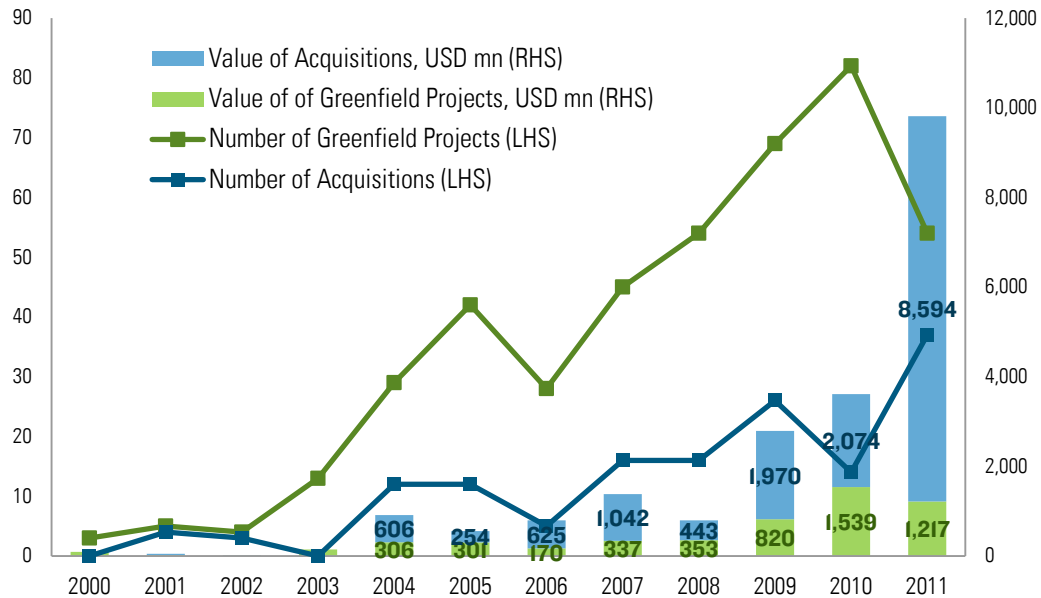
After collecting raw data on deals, we refined the sample by excluding deals that were announced but never commenced and those that do not meet the generally accepted threshold for qualifying as direct investment—10%. We also defined an estimated investment value of \$1 million as a minimum threshold for deals in our database. There are hundreds if not thousands of small-scale operations with an investment value below \$1 million, which are impossible to capture and diligently analyze. Qualifying M&A deals were added to the list at the date of their completion. Greenfield projects were added at the date of their announcement, as most are

⁸⁰ The authors are grateful to Jacob Funk Kirkegaard at the Peterson Institute for International Economics for numerous valuable discussions regarding global FDI data and our alternative compilation methodology.

impossible to track down to the date of opening. Finally, we assigned values to each deal, based on the officially announced investment value or the most convincing analyst estimate. If no estimate was available and possible, acquisitions were included in the database with a zero value. For smaller-scale greenfield operations with missing investment figures, we estimated them based on a formula derived from similar projects in a similar location with known value. Using this approach, we recorded 573 transactions worth \$21 billion for the period 2000-2011 (Figure A-1).

Figure A-1: Chinese Direct Investment in the EU-27, 2000-2011

Number of deals and USD million



Source: Rhodium Group. For a detailed explanation of sources and methodology, please see Appendix.

Each investment was also coded with the country in which the investment was made, which allows us to draw an accurate picture of Chinese investment in Europe independent from tax-optimizing flows and other distortions. Table A-3 summarizes the distribution of Chinese investment in Europe by country.

Table A-3: China's FDI in the EU-27 by Country, 2000-2011

	Country	Investment Value (USD million)	Rank Compared to FDI from the Rest of the World*	Number of Greenfield Projects	Number of Acquisitions	Total Number of Deals
1	France	5,722	+2	46	24	70
2	United Kingdom	3,684	-1	69	26	95
3	Germany	2,543	-1	113	33	146
4	Sweden	2,251	+4	14	6	20
5	Hungary	2,065	+14	14	4	18
6	Netherlands	1,164	0	32	15	47
7	Belgium	847	-3	12	3	15
8	Greece	714	+14	5	0	5
9	Italy	554	-2	31	16	47
10	Austria	391	+1	6	5	11
11	Romania	299	+4	13	1	14
12	Poland	190	-3	15	1	16
13	Spain	187	-8	22	1	23
14	Czech Rep.	76	0	10	1	11
15	Finland	48	+1	1	4	5
16	Portugal	47	+1	5	0	5
17	Bulgaria	47	+1	6	1	7
18	Luxembourg	46	-5	1	1	2
19	Ireland	44	-9	6	1	7
20	Denmark	30	-7	6	1	7
21	Latvia	3.8	+5	1	0	1
22	Cyprus	3	-1	0	1	1
23	Estonia	0	-	0	0	0
	Lithuania	0	-	0	0	0
	Malta	0	-	0	0	0
	Slovakia	0	-	0	0	0
	Slovenia	0	-	0	0	0
		20,957		428	145	573

Source: Rhodium Group, UNCTAD. *Difference to country's position in the ranking of total inward FDI flows in the EU-27, 2000-2010, compiled with data from UNCTAD.

In addition to providing an alternative view of aggregate investment flows, our dataset allows us to analyze Chinese investment using important metrics not available in the official data. All deals were assigned employment figures based on company information, analyst estimates or our own estimates based on similar projects or operations. We also coded each investment by ownership of the investing company. For government ownership, we applied a conservative threshold of 20% or more of total outstanding shares for listed companies. Table A-4 gives an overview of Chinese investment in Europe in 2000-2011 by the ownership structure of the ultimate beneficiary owner.

Table A-4: China's FDI in the EU-27 by Ownership of Investing Company, 2000-2011

USD million and number of deals

	Number of Deals					
	Greenfield	% share	M&A	% share	All Deals	% share
Government Controlled	148	35%	66	46%	214	37%
<i>State-Owned Enterprises</i>	148	35%	64	44%	212	37%
<i>Sovereign Wealth Fund</i>	0	0%	2	1%	2	0%
Private and Public*	280	65%	79	54%	359	63%
	428		145		573	

	Total Investment (USD mn)					
	Greenfield	% share	M&A	% share	All Deals	% share
Government Controlled	2,738	52%	12,413	79%	15,151	72%
<i>State-Owned Enterprises</i>	2,738	52%	8,814	56%	11,552	55%
<i>Sovereign Wealth Fund</i>	0	0%	3,599	23%	3,599	17%
Private and Public*	2,569	48%	3,238	21%	5,807	28%
	5,307		15,650		20,958	

Source: Rhodium Group. *May include minority stakes by government-owned investors below 20% of voting shares.

We also defined our own industry categories based on Standard Industrial Classification (SIC) codes and assigned one of these categories to each deal in the sample, based on the main activity of the greenfield facility or target firm. The distribution of Chinese investment by industry is summarized in Table A-5. The categories and the underlying SIC codes are summarized in Table A-6.

What are the strengths and weaknesses of this approach? First, our data set is not compatible with existing international balance of payments norms for compiling direct investment data. Unless specifically announced as a separate investment, we do not capture any follow-up flows, such as reinvested earnings or intra-company transfers. We also do not exclude investments of capital from non-mainland China sources, for example, financing raised from local banks. Hence, our dataset is not directly comparable with data from Eurostat, the State Administration of Foreign Exchange, or the Ministry of Commerce. It cannot be used to analyze balance of payments-related problems and other issues based on the national accounting framework. Second, although we certainly caught a large number of deals, our dataset hardly captured *all* Chinese investments in Europe. Our database should include most deals with an investment value of \$1 million or more, but there are hundreds or even thousands of small-scale transactions every year that are impossible to follow—for example, small trading operations or private investment in real estate and other assets. Finally, some of our figures are based on estimates, and for a small number of deals even estimates were not possible, so there are several transactions with blank values in our dataset.

However, by recording investment flows from a bottom-up perspective, we avoid the problems commonly related to balance of payments data. Official statistics on FDI and other cross-border capital flows are heavily distorted by transfer pricing and

other tax optimization strategies and thus often do not reflect economic realities. By tracking gross investment expenses of firms based on sources outside firms and national statistics offices, we avoid such distortions and present a very useful alternative measure for investment flows. Furthermore, our dataset offers more variables and a greater level of disaggregation, which makes it superior for analyzing certain aspects of Chinese investment in the Europe that are very prominent in the current policy debate. Finally, our approach allows us to come up with an almost real-time assessment of investment flows, bypassing the significant time lag in official data. We hope our dataset will prove an important analytical addition to the debate on Chinese investment in Europe.

Table A-5: China's FDI in the EU-27 by Industry, 2000-2011

USD million and number of deals

Sector	Value (USD mn)			Number of Projects		
	Greenfield	M&A	TOTAL	Greenfield	M&A	TOTAL
1 Chemicals, Plastics and Rubber	126	3,505	3,631	13	9	22
2 Utility and Sanitary Services	0	3,259	3,259	0	1	1
3 Automotive OEM and Components	655	1,961	2,615	23	12	35
4 Coal, Oil & Gas	18	1,603	1,621	4	7	11
5 Communications Equip. & Services	1,180	177	1,357	95	5	100
6 Transportation Services	784	546	1,329	9	7	16
7 Metals Mining and Processing	25	1,200	1,225	13	14	27
8 Consumer Electronics	187	983	1,170	33	9	42
9 Industrial Machinery & Equipment	495	499	993	34	23	57
10 Food, Tobacco and Beverages	110	570	679	10	9	19
11 Financial Services and Insurance	495	31	526	26	2	28
12 Real Estate	146	340	486	4	1	5
13 Pharmaceuticals	21	280	300	4	3	7
14 Electronic Equip. & Components	133	152	285	22	5	27
15 Software & IT services	256	13	269	21	5	26
16 Aerospace, Space and Defense	79	174	253	7	4	11
17 Textiles and Apparel	137	96	233	8	4	12
18 Alternative/Renewable energy	145	84	229	45	7	52
19 Healthcare and Medical Devices	30	63	93	9	2	11
20 Paper, Printing & Packaging	74	0	74	2	1	3
21 Leisure & Entertainment*	48	0	48	3	0	3
22 Other Transport Equipment	31	15	46	4	1	5
23 Business Services	43	1	44	13	2	15
24 Minerals Mining and Processing	1	42	43	1	2	3
25 Semiconductors	18	17	35	4.0	3	7
26 Biotechnology	24	10	34	6	2	8
27 Consumer Products and Services	28	0	28	9	1	10
28 Furniture and Wood Products	0	27	27	0	3	3
29 Engines & Turbines	14	4	18	2	1	3
30 Construction Services	6	0	6	4	0	4
Total	5,306	15,650	20,957	428	145	573

Source: Rhodium Group.

Table A-6: Breakdown of Industry Categories by SIC Codes

Industry	SIC codes
1 Aerospace, Space and Defense	372,376, 3812
2 Alternative/Renewable energy	2819, 2869
3 Automotive OEM and Components	3711, 3713, 3714, 551, 552, 553, 501, 75
4 Biotechnology	2836, 8731
5 Business Services	731, 732, 733, 734, 735, 736, 738, 81, 82, 86, 871, 872, 8732, 8733, 874, 89
6 Chemicals, Plastics and Rubber	281, 2833, 284, 285, 286, 287, 289, 8731, 282, 30
7 Coal, Oil & Gas	12, 13, 29, 517, 554,
8 Communications Equipment and Services	366, 481, 482, 483, 484, 489,
9 Construction Services	17
10 Consumer Electronics	363, 365, 386, 5045, 5064
11 Consumer Products and Services	387, 391, 393, 394, 395, 396, 399, 509, 523, 525, 526, 527, 53, 563, 569, 57, 59, 76
12 Electronic Equipment and Components	357, 362, 364, 3671, 3672, 3677, 3678, 3679, 369, 5063, 5065
13 Engines & Turbines	351
14 Financial Services and Insurance	60, 61, 62, 63, 64, 67
15 Food, Tobacco and Beverages	01, 02, 07, 08, 09, 201, 202, 203, 204, 205, 206, 207, 208, 209, 21, 54, 514, 515, 518
16 Furniture and Wood Products	24, 25, 5031
17 Healthcare and Medical Devices	80, 83, 384, 385
18 Industrial Machinery, Equipment & Tools	352, 353, 354, 355, 356, 358, 359, 361, 382,508 (except 5088)
19 Leisure & Entertainment	58, 70, 78, 79, 84
20 Metals Mining and Processing	10, 33, 34,5051
21 Minerals Mining and Processing	14, 321, 322, 323, 324, 325, 326, 327, 328, 329, 5032, 5033, 5039, 5211
22 Other Transport Equipment	3715, 3716, 373, 374, 375, 379, 555, 556, 557, 558, 559, 5088
23 Paper, Printing & Packaging	26, 27
24 Pharmaceuticals	2834, 2835, 5122, 5047, 8731, 8734,
25 Real Estate	15, 16, 65
26 Semiconductors	3674, 3675, 3676
27 Software & IT services	737
28 Textiles and Apparel	22, 23, 31, 513, 561, 562, 564, 565, 566,
29 Transportation Services	40, 41, 4212, 4213, 4215, 43, 44, 45, 46, 47, 4214, 422, 423
30 Utility and Sanitary Services	49

Source: Rhodium Group.

