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Editorial

Chinese investments in Europe's energy sector: Risks and opportunities?

HIGHLIGHTS

- Private enterprises account for a growing share of Chinese FDI in Europe's energy sector.
- Increasing Chinese investment in southern and central Europe.
- Inflow helps to address underinvestment in European infrastructure.
- Subsidization of Chinese companies challenges the rules of fair competition.
- Risks relate to possible infringements of national security.

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ABSTRACT

This paper analyses recent trends in Chinese investment in the European energy sector. These investments have increased in size, targeted a wider number of countries and entered multiple energy sectors, in particular fossil, renewable energies and energy infrastructure. We highlight the significant opportunities for, as well as the political and economic risks of, Chinese investments in the European energy sector. On the one hand, the benefits can be substantial, as China's new role as a global investor offers substantial economic benefits and political partnership. Further benefits might potentially emerge from backward linkages of Chinese investments to improve access to China's restricted markets. Yet, our findings also point to growing concerns among policymakers and business managers in Europe, ranging from worries about unfair competition and economic risks to concerns about national security. We conclude with policy recommendations for the European Union and its member states.

1. Introduction

Since 2011, Europe has witnessed an astonishing surge in Chinese foreign direct investment (FDI), which hit a high in 2015 as Chinese investments totalled more than EUR 20 billion (Baker, 2016; Hanemann and Huotari, 2016). The wave of Chinese investment extends broadly across European countries and their economic sectors. There are no signs of this trend abating anytime soon. The new phenomenon of large investment flows from China to Europe has fundamentally altered the Sino-European economic relationship. And while Chinese investments are in many cases welcome and beneficial, the increasing number of Chinese acquisitions have also raised legitimate concerns. European decision makers in both business and politics are confronting a new reality to which they will quickly have to adjust. In order for Europe to seize the great opportunities provided by Chinese investments while reacting to the attendant risks, there has to be a thorough analysis of the facts and the multifaceted implications of Chinese FDI in the region. This special issue provides detailed information regarding Chinese FDI in one specific economic sector: Europe's energy sector.

China's significance as an investor in Europe's energy sector has grown very rapidly in recent years. Chinese companies have invested in every part of the energy market, including power grids in various European countries, traditional energy generation infrastructure, renewable energy companies and, most recently, Europe's nuclear power sector. Landmark deals in the renewable energy sector include China National Building Materials Group Corporation's (CNBM) takeover of solar photovoltaic producers Avancis and CTF Solar in 2012 and German Solibro's acquisition by Hanergy in 2014. In the wind industry, Xinjiang Goldwind bought a 70% stake in the German wind-turbine manufacturer Vensys in 2008 (Gippner and Rabe, 2016). In the nuclear sector, state-owned China National Nuclear Corporation (CNNC) and China General Nuclear Power Group (CGN) obtained a considerable number of shares in the French company Areva (Thomas, 2017), and CGN bought a 33.5% stake in the British

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Hinkley Point nuclear power station (Gippner and Torney, 2017; Thomas, 2017; Rabe and Gippner, forthcoming). Further significant acquisitions include the USD 3.3 billion purchase of a 30% equity stake in the exploration and production division of GDF SUEZ, a French multinational energy company, by China Investment Corporation (CIC), a sovereign wealth fund (Kaminski, 2017).

The substantial size of such investments in the European energy sector has triggered debate about whether they are a blessing or a curse for Europe. Responses have been mixed: some policymakers and business managers have raised concerns over the implications of such investments for national security and the creation of an unequal playing field, while others stress mutual economic benefits and the value of a long-term partnership. To counter potential misconceptions in this tense atmosphere and get a more nuanced picture of Chinese investments in the European energy sector, this special issue addresses three main research questions: first, what are the facts and underlying recent trends of Chinese investments in the European energy sector? Second, with respect to Europe, what are the benefits and risks of Chinese investment in the European energy sector? And third, how can Europe maximize the benefits and address these concerns in the future?

The nine papers included in this special issue analyse Chinese investments through a variety of methods that include survey analysis, content analysis, interviews and in-depth case studies of different energy sectors and regions in Europe. Gippner and Torney (2017) offer a conceptual basis to explain particular investment trends across European countries and sectors. Liedtke (2017) studies the drivers and motivations behind Chinese energy investments. Kaminski (2017) studies Chinese sovereign wealth funds' investments in the European energy and natural resources sector. Sector case studies in this special issue look at the industry distribution of these investments and include an analysis of Chinese investments in Europe's nuclear energy (Thomas, 2017) and renewable energy (Curran et al., 2017; Rabe et al., 2017; Vaccarini et al., 2017) sectors. The special issue also looks at the geographical dispersion of these investments by studying Chinese investment in Germany (Vaccarini et al., 2017), central Europe (Turcsányi, 2017) and southern Europe (Pareja-Alcaraz, 2017).

By studying Chinese investments in different parts of the energy sector and in different European countries, the contributions shed light on the benefits and costs of Chinese investment in this sensitive sector. On the one hand, the benefits can be substantial, as China's new role as a global investor offers significant economic benefits and political partnership. Chinese FDI provides a unique opportunity to attract capital to Europe, helping to "re-start investment and economic growth" (Hanemann and Huotari, 2015). Further benefits can potentially emerge from backward linkages of Chinese investments to provide improved access to China's restricted markets. In addition, the track record of Chinese FDI in Europe, for example in terms of retaining local employment, has been positive thus far (Hanemann and Huotari, 2015). Yet, the findings also point to growing concerns among policymakers and business managers in Europe, ranging from worries about unfair competition and economic risks to concerns about national security. This paper concludes with policy recommendations for the European Union and members states.

2. Recent trends in Chinese investments in the European energy sector

Chinese annual investment in the member states of the European Union (EU) has soared from almost nothing in the mid-2000s to a record-high investment of EUR 20 billion in 2015 (Hanemann and Huotari, 2016). The main targets of Chinese investments were the automotive, real estate, food and agriculture and energy sectors, with the energy sector receiving the highest amount of Chinese FDI: 28% over the past five years (Hanemann and Huotari, 2015, 2016; Liedtke, 2017). Within the energy sector, investments have targeted fossil fuel assets and renewable energy projects, as well as electricity infrastructures and utility assets that were being privatized.

The reasons behind rising Chinese investments in the EU's energy sector are varied. Existing studies highlight a range of investment drivers behind Chinese investments in Europe, including technology transfer from European companies, market-seeking and other commercial benefits for investing firms, as well as the acquisition of other intangible assets like branding and marketing knowledge (Buckley et al., 2007; Cheung and Qian, 2008; Hurst, 2011; Kolstad and Wiig, 2012; Curran and Thorpe, 2015). The papers in this special issue find that many of these factors also play an important role in Chinese investment decisions in Europe's energy sector. In particular, motivations behind investments in the renewable energy sector have been shaped by market-seeking and technology-seeking factors (Curran et al., 2017; Pareja-Alcaraz, 2017; Rabe et al., 2017). Curran et al. (2017) argue, for example, that investments in the European renewable energy sector are market-seeking because of saturated markets and overcapacity in the home market. Gippner and Torney (2017) highlight the significance of trade disputes concerning solar panels and the ensuing anti-dumping measures as an investment driver. Facing the EU's anti-dumping measures against solar photovoltaics, Chinese companies can effectively circumvent restrictions through FDI (Gippner and Torney, 2017). Liedtke (2017) adds that there are strong political interests behind China's energy investments in Europe, such as enhancing the supply chain security of fossil fuels, securing more environmentally friendly energy production and developing Chinese state-owned or state-supervised energy companies' global presence.

Finally, the contributions to this special issue analyse important changes in Chinese investment activity over the past decade. First, mostly private-owned enterprises account for a growing share of Chinese FDI in the European energy sector. In the first phase of China's overseas investment, the main actors were Chinese fully state-owned enterprises (SOEs), such as PetroChina, Sinopec and the China National Offshore Oil Corporation (CNOOC), as well as China's sovereign wealth funds (SWFs). State-owned investment accounts remain dominant, accounting for approximately 60–70% of Chinese investments in the European energy sector (Hanemann and Huotari, 2016; Kaminski, 2017).[1] In his analysis of 34 transactions by Chinese SWFs in the European energy and natural resources sector between 2007 and 2014, Kaminski (2017) shows that during this period SWFs invested a total of USD 34 billion in the EU, the largest share of these investments being in the energy and materials sector (49%), followed by investments in the real estate (19%) and financial sectors (13%). The papers in this special issue highlight that privately owned Chinese companies have also started investing in Europe's energy sector (Curran et al., 2017); however, ownership structures and investor networks behind investments of Chinese private companies often remain opaque. At times, state-owned financing vehicles play a major role in such investments behind the scenes.

Second, the papers show that target countries have become more diversified. Traditionally, larger and wealthier European countries such as Germany, France and the UK have been key destinations for Chinese FDI in the energy sector (Hanemann and Huotari, 2015, 2016). However, we also see increasing interest in southern and central Europe. Pareja-Alcaraz (2017) shows that between 2000 and 2014, countries in southern Europe–Portugal, Spain, Italy and Greece – attracted 24% of the overall Chinese

[1] For instance, the total share of SOEs Chinese investments accounted for 62% and 70% in 2014 and 2015, respectively (Hanemann and Huotari, 2016: 5). Interviews with experts suggest similar shares for Chinese FDI in the European energy sector.

investment in the European energy sector. Chinese companies have been especially active in purchasing infrastructure assets put up for sale as a result of privatization programmes in Portugal and Greece. Chinese investors have also targeted renewable energies in southern Europe. In Portugal and Italy, Chinese investors have engaged in solar greenfield development, and in Greece and Spain they have invested in wind energy projects (Pareja-Alcaraz, 2017). Pareja-Alcaraz (2017) argues that the expansion of China's investments in new countries should not be seen as part of an overarching, coherent strategy; instead, they result from shifts in market conditions, such as changes in the regulatory environment and different patterns of privatization. The energy sector in central Europe has attracted much less Chinese investment, but investments also differ within the region. Turcsányi's (2017) study on perceptions towards Chinese outward foreign direct investments (OFDI) in Poland, the Czech Republic and Slovakia shows that although China has voiced interest in different energy investments in the Czech Republic and Slovakia, projects have so far failed to materialize or are still in the pipeline. In Poland, Chinese investments have been more successful with numerous small and mid-sized investments in coal power plants and wind farms.[2]

The papers in this special issue document a significant expansion of Chinese investment's footprint in the European energy sector over the past five years. Investments occurred simultaneously in both fossil fuels and renewable energy technologies, which suggests that energy security concerns are as significant as mastering green technologies in driving investment. They also highlight significant shifts in Chinese investment activity over time, including the growing role of private enterprises and the widening of target countries to southern and, to a lesser extent, central Europe. These trends imply significant benefits for Europe, but at the same time there are good reasons for caution.

3. Economic and political benefits

Europe's economic order is based on the principle of economic openness and the firm belief that an open exchange of trade and investments is ultimately beneficial to all parties. The rules and procedures for trade and investment in Europe, at both the national and the EU levels, reflect this openness and allow minimal scope for state intervention in foreign investments. Even though the energy sector is an area where more stringent restrictions tend to apply, large parts of the European energy sector are, in principle, open to FDI from non-European investors. To date, this has also held true for the massive increase in Chinese investments, which have largely been received with open arms.

The immediate economic benefits of an inflow of Chinese capital are obvious. Attracting Chinese investors can offer Europe a real long-term chance and can help to restart investment and economic growth in an area hit hard by economic woes after the global financial crisis (Hanemann and Huotari, 2015). In many cases, takeovers by Chinese companies have been a blessing for struggling European companies. Chinese investments have saved a number of companies from bankruptcy and thus also saved European jobs. In fact, during the financial crisis, European companies competed for Chinese FDI, especially in the hardest-hit member states (Gippner and Torney, 2017). An example of this is the acquisition of Avancis GmbH, a producer of solar CIGS cells, by the China National Building Materials Group Corporation (CNBM) (Rabe et al., 2017). Looking at the bigger picture, Chinese investments in transport and energy infrastructure have to some extent offset the effects of years of European underinvestment in infrastructure. For instance, Chinese investors financed and invested in major transport and energy infrastructure projects in the Balkans, including constructing a bridge over the Danube in Belgrade, investing in a thermal power plant elsewhere in Serbia and financing motorways in Bosnia and Herzegovina (Levitin et al., 2016).

While economic benefits are often highlighted, political benefits should not be overlooked. Turcsányi (2017) argues that attracting Chinese investment can help countries to diversify the risks of foreign ownership. For instance, Poland sees a strong benefit in having Chinese investments in its energy sector because they help to lower the country's dependence on Germany and Russia (Turcsányi, 2017). Similarly, at the EU level, greater Chinese investment can foster common interests in the energy sector, creating a stronger foundation for EU–China bilateral relationships and a long-term partnership (Gippner and Torney, 2017).

4. Economic and political concerns

However, the surge in Chinese investments has also raised a number of legitimate political and economic concerns among decision makers in politics and business, as well as the broader public, in many European countries.

First, and most profoundly, Chinese outbound investments are a manifestation of China's state-led economic system. A large proportion of Chinese investments in Europe comes from state-owned enterprises. Their motives may not always be guided purely by commercial objectives but are plausibly shaped by China's national interests. That being said, the opaque nature of the state's ties to SOEs, which reforms have made nominally autonomous, makes it very difficult to differentiate SOEs' "normal" investment behaviour from state-driven decisions. It bears noting that Chinese private companies are also intertwined with China's state capitalist system through their dependence on a network of state-controlled financial vehicles. Outbound investments of state-led and state-supported companies export the distortions of China's domestic economic system to the European market and beyond. In this way, Chinese investments can potentially undermine an international level playing field of fair, rules-based competition in trade and investment.

Second, Chinese investment activities abroad represent building blocks of a larger outward industrial policy. Evidence suggests that the state's industrial policy goals, which aim to win control over the most profitable components and nodes of global supply chains, influence China's overseas investments (Wübbeke et al., 2016). In particular, this pertains to Chinese investments in high-technology companies, for example technology leaders in renewable energy generation. Initiatives like "Made in China 2025" explicitly spell out the strategy behind investments aimed at technology acquisition: accelerate China's technological catch-up through "technological leap frogging" enabled by technology acquired abroad (Wübbeke et al., 2016). Technology leaders in Europe are increasingly worried that such a government-guided and state-supported attack on European technology leadership will hurt Europe's long-term competitiveness and harm competition-driven global innovation dynamics.

Third, European decision makers are increasingly concerned that Europe's commitment to investment openness, which it extends to Chinese investments, is not reciprocated by China. On the contrary, the Chinese government continues to strategically limit access for foreign investments in crucial sectors of its economy (OECD FDI

[2] For instance, the state-owned China National Nuclear Corporation (CNNC) attempted to buy majority shares in Slovakia's largest electricity producer, but its bids were unsuccessful, and instead the Czech consortium EPH won the deal. Chinese investors also expressed an interest in building a nuclear power plant in Czech Republic, but by 2016 these plans were on hold. By contrast, investments in Poland were more successful. In Poland, Chinese investors purchased and constructed coal power plants and renewable energy production facilities, especially wind farms. For instance, the China CEE Fund and an Israeli firm invested more than EUR 400 million in two wind projects in Poland.

Regulatory Restrictiveness Index, 2016). This lack of equivalence regarding openness for investment is also evident in the energy sector. China puts high restrictions on energy-related FDIs. There are few signs that the politically mandated lock-out of foreign investment in strategic industries will change in the near future.

Fourth, Chinese investments in Europe, in particular in the energy sector, raise concerns over possible infringements of national security. National and public security considerations, in particular the shift of control over sensitive assets to foreign entities, is the most widely held concern regarding foreign FDI in Europe. Energy infrastructure is a sector with direct security implications and therefore heightened security scrutiny. The advancing digitization of energy systems, in particular, increases their vulnerability to attack from abroad. These concerns are particularly pertinent in the case of Chinese investment, since China is a country outside the European network of security alliances (NATO, OSCE) and has a record of cyber-attacks. Furthermore, the state-led nature of Chinese investments adds an additional layer of unease when it comes to the national security implications of Chinese investments. However, articles in this special issue also show that concerns vary depending on which segment of the energy sector is targeted – there are more worries about Chinese investments in European nuclear energy and much less discomfort with investments in renewable energy (Turcsányi, 2017).

Fifth, given the politically guided nature of at least some of the Chinese investments in Europe, the question of increased political influence arises. The rapid growth in Chinese investment in Europe may confer increased political leverage for European countries, perhaps especially in the investment-hungry southern and central regions. European leaders are particularly concerned about the possibility of divisions emerging within Europe between countries on key matters of EU–China policy – such as security issues – if some countries become dependent on Chinese investment.

On the business side, there are concerns about the mid- to long-term economic soundness of Chinese companies' acquisitions. Investments by state-owned companies have been viewed with particular scepticism, since SOEs are often highly indebted and, under enormous economic pressure at home, fully reliant on state financing in their overseas acquisitions. But in the context of increasingly difficult conditions and mounting pressure within China's economy, financial reliability (even of SOEs) is not a given. The risk of major disruptions within the Chinese economy, for example a financial or debt crisis, implies risks for SOE acquisitions in Europe.

In addition, by installing their representatives on European company boards, state-owned or state-supported companies can exercise influence over European companies' management and strategy and gain access to sensitive information. For example, the 2011 acquisition of a 30% equity stake in the French multinational energy company GDF SUEZ Exploration & Production by the Chinese sovereign wealth fund CIC brought the right to nominate two out of the seven members of the company's international board of directors, thereby allowing CIC access to the company's strategy plans as well as direct influence over the management (Kaminski, 2017). According to Kaminski (2017), such a practice can lead to clear conflicts of interest and possibly be harmful to European business and political interests.[3]

Finally, there are concerns in central Europe about Chinese investors' non-compliance with international regulatory standards (Turcsányi, 2017). Thomas's (2017) study of investments in Europe's nuclear energy sector points to significant issues concerning issues of quality control and regulatory competence. Thomas (2017) recommends a rigorous examination of Chinese imports of nuclear power equipment for compliance with safety regulations, as well as close scrutiny of quality and control issues relating to strategic infrastructure before allowing Chinese companies to enter the European market.

To be clear, there are many Chinese investments that do not raise such concerns. As argued above, a high proportion of Chinese investments in Europe is driven primarily by commercial considerations and does not pose significant political or economic risks. However, some Chinese investments are cause for legitimate concern. The trouble is that, under current conditions, it is very difficult to differentiate between the two. A pervasive lack of transparency surrounding Chinese investments, especially with regard to financing structures and investor networks behind the acquisitions, makes it exceedingly difficult to sort out mutually beneficial investments driven by business decisions from deals that should be treated with a higher degree of caution. As such, gaining a better understanding of the characteristics of Chinese investments in Europe is an indispensable prerequisite for sound and responsible policy decision making.

5. Conclusion and policy recommendations

The contributions to this collection analyse recent trends in Chinese investment in the European energy sector. Chinese investments have increased in size, targeted a wider number of countries and entered multiple energy sectors, in particular fossil, renewable energies and energy infrastructure. The papers highlight significant opportunities for, as well as the political and economic risks of, Chinese investments in the European energy sector. Importantly, the heavy subsidization of Chinese companies, state-owned as well as private, challenges the rules of fair, market-based competition. Yet, the baby should not be thrown out with the bathwater. The stereotyped image of Chinese investment as inherently worrisome is based on a lack of a differentiated understanding and could hinder Europe from capitalizing on the opportunities to foster growth and investments in Europe's energy sector.

These findings come with numerous policy implications for individual European countries, as well as the EU aiming to minimize risks while maximizing opportunities. First, under Europe's open market regulations, investments by Chinese state-owned companies and state-led investments by Chinese private entities in the energy sector have not come under appropriate scrutiny. EU organizations and member states need to increase the sophistication of their assessments of Chinese outbound investments into Europe. Improved and more comprehensive information on Chinese investments would enable European governments to fully seize the opportunities that come with these investments, while responsibly balancing them against the associated risks for national security, as well as negative consequences for fair market competition and long-term distortions of industries' competitiveness. At EU and member state level, policymakers need to consider strengthening and potentially expanding their set of policy options to react to problematic, state-led Chinese investments. In addition, it will be important for Europe to follow China's industrial policies closely in order to detect any policy changes that may affect investment trends in the European energy sector – and to do so at an early stage (Rabe et al., 2017).

Furthermore, especially in the context of ever sharper divisions within the EU, it is important for member states to coordinate their approaches in order to maximize leverage and strengthen the effectiveness of policy responses. Many of the papers in this special issue demonstrate how fuzzy EU policy goals towards China are, and they cover a wide range of issue areas from energy

[3] While the majority of SWFs' investments are currently minority shares of 2–3%, there are already a few notable exceptions where Chinese SWFs have influenced the management of companies.

efficiency to counter-piracy to education without coherently addressing many of the underlying conflicts between them. In strategic sectors such as energy, it is particularly crucial to develop a joint strategy. Following a joint European strategy will increase the chances of addressing the imbalances in market access through a twofold strategy: pragmatically renegotiating conditions for equal investment access on a case by case basis, while at the same time attempting to change the overarching framework by negotiating the bilateral investment treaty.

The papers also make some very practical recommendations. Swift positive effects facilitating cooperation can be achieved by making pragmatic improvements to technical issues. For example, the EU and its member states can improve the exchange of information with and guidance for Chinese investors. For instance, in order to accommodate Chinese investors better, Vaccarini et al. (2017) recommend that European industry-related host country institutions increase efforts to explain to Chinese investors their industry-specific policies and regulations, including anti-dumping policies. Explaining regulatory practices and rules are of particular importance in the relatively new renewable energy sector, where rules and regulations constantly change (Vaccarini et al., 2017).

Finally, the papers in this special issue also show that Europe and China can align their common interests more closely. Despite recent tensions, Sino-European economic relations will continue to be of great importance for both sides. Growing uncertainty about future economic relations with the United States puts Sino-European cooperation even more centre stage. Going forward, the relationship can benefit from a more strategic definition of European economic interests in order to identify the most promising areas for collaboration. In particular, policymakers should focus on areas of clear shared interests, such as balancing energy security, with concerns over environmental degradation and climate change. Gippner and Torney (2017) argue that China has initially focused more on energy security and has subsequently shifted towards environmental stewardship, while the EU took the opposite direction – initially focusing more on the environment and shifting towards energy security. As a result, the shift towards more similar frames and point of views could invite policymakers to pursue further alignment and cooperation in the energy sector between the EU and China.

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