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**China's Outward FDI in Central and  
Eastern Europe**

*Master thesis*

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## **Abstract**

China's emergence as one of the largest FDI source country has attracted global attention. There are many researches on the determinants and characteristics of China's outward FDI, but there are only few researches about China's outward FDI in CEE countries. Based on the dataset, which comprises data of 11 CEE EU member states over the period 2003-2014, this thesis investigates the determinants and patterns of China's outward FDI in CEE-11 countries by using a panel data technique. The regression results reveal that for the whole sample period, culture proximity and existing trade relation have significantly positive impacts and China's FDI in CEE-11 is negatively associated with the institution environment of host country. And the results also demonstrate that determinants of China's FDI in CEE-11 change over time. Besides, political relation is also an important influential factor and policy makers should put more effort to strengthen the bilateral cooperation.

## **Abstrakt**

Vzestup Číny jako jednoho z největších zdrojů přímé zahraniční investice přilákal celosvětovou pozornost. Existuje mnoho výzkumů jak studovat vlivy a charakteristiky Číny z hlediska vnější přímé zahraniční investice, ale existuje jen málo výzkumů o čínské vnější přímé zahraniční investici v zemích střední a východní Evropy (SVE). Na základě datového souboru, který obsahuje údaje o jedenácti členských zemích střední a východní Evropy EU v období 2003-2014, se tato práce zabývá determinanty a zákonitostmi vnější přímé zahraniční investice Číny v 11 SVE EU zemích, pomocí techniky datového panelu. Výsledky ukazují, že regreesion na vzorcích odebíraných v celý intervalu , kultura blízkost a existující obchodní vztah mají výrazně pozitivní dopad na Číny PZI ve SVE-11 a Číny PZI ve SVE-11 je negativně spojeno s institucí prostředí hostitelské země. Výsledky také

ukazují, že determinanty Číny v přímé zahraniční investici ve SVE-11 se mění v průběhu času. Kromě toho politický vztah je také důležitým významným faktorem a tvůrci politik by měly vynaložit větší úsilí na posílení bilaterální spolupráce.

### **Klíčová slova**

Čína, Střední a Východní Evropa, PZI, Umístění, Politické vztahy

### **Keywords**

China, Central and Eastern Europe, FDI, Location, Political relation

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## **Declaration of Authorship**

1. The author hereby declares that he compiled this thesis independently, using only the listed resources and literature.
2. The author hereby declares that all the sources and literature used have been properly cited.
3. The author hereby declares that the thesis has not been used to obtain a different or the same degree.

Prague, 12/5/2016

Wenjie Li

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**Institute of International Studies**  
**Master thesis proposal**

<b>Key Research Questions</b>	What are the determinants of China's outward FDI in CEE-11 countries
<b>Brief Description of Theory</b>	Dunning (1977) proposed the eclectic theory of international production and it provides the basic theoretical framework for analysing the outward FDI. According to the theory, company with ownership advantage, location advantage and internalisation advantage can invest directly in other countries and the main motivations are market-seeking, resource-seeking, efficiency-seeking and strategic assets-seeking. Modern international investment theories suggest that culture proximity and institutional environment also play an important role in FDI activities.
<b>Brief Description of Methodology</b>	Based the panel dataset, which comprises data of 11 CEE EU member states over the period 2003-2014, this thesis uses fixed effects method and random effects method to estimate the coefficients. Analysis of political relation impact on country cases is also included.
<b>Conclusions</b>	The results reveal that the determinants of China's FDI in CEE-11 are different from those of EU-15. In CEE-11, culture proximity and existing trade relation have a significantly positive impact and China's FDI in CEE-11 is negatively associated with the institution environment of host country. And the results also demonstrate that determinants China's FDI in CEE-11 change over time. In recent period, bilateral political relation has important impacts on FDI.



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# 1. Introduction

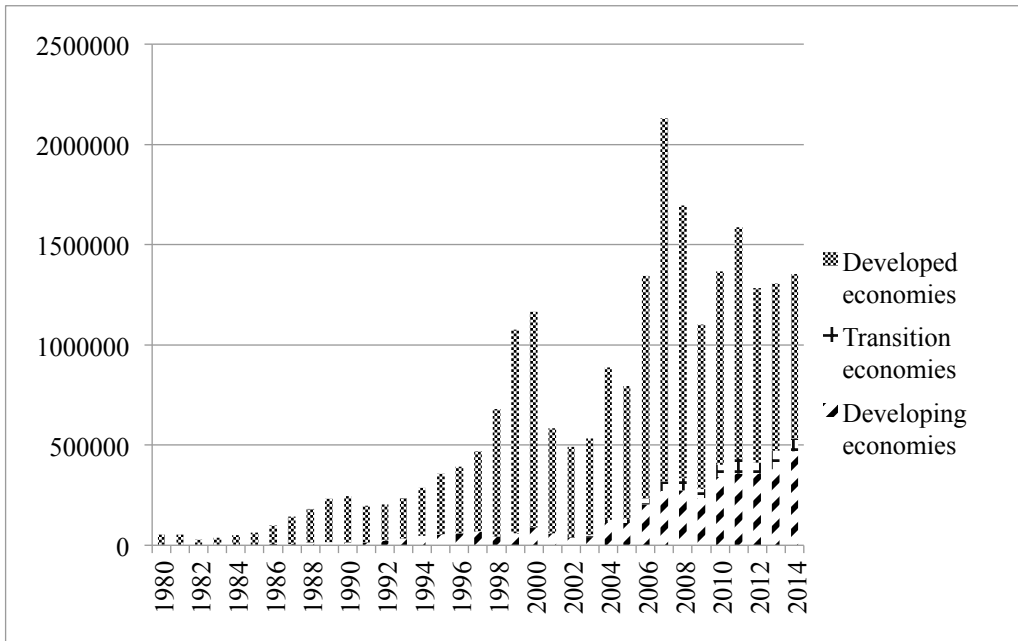
Foreign Direct Investment (FDI) is the cross-border investment made by a company or entity based in one country into a company or entity based in another country with the objective to have a dominant position in the management of the enterprise and obtain a lasting link with that country. According to the definition of FDI, direct investment is a special kind of investment that investor who acquires at least 10% of equity ownership can be qualified as a foreign direct investor (IMF, 1993). FDI creates direct, stable and long-lasting links, encourages the home economy to promote its products more widely into international markets. FDI is also an additional source of funding for investment. Besides, under the appropriate policy environment, it can be an important vehicle to stimulate development. The role of FDI, in driving economic growth and development, has been a contested one since the 1960s. But it is widely accepted that FDI is a key element in international economic integration process.

Total FDI flows attain new records every year and increasing investment flows are taken for granted in many countries. Starting from US\$52 billion in 1980, global FDI outward flows have increased rapidly and reached US\$2130 billion in 2007, which is the highest level on record. While under the influence of 2008 international financial crisis and subsequent recession in the world, global FDI outward flows dropped to US\$1694 billion in 2008 and US\$1101 billion in 2009, which was even lower than the global FDI outward flow in 1999. After 2-year recovery, global FDI outward flow experienced sharp drop again due to the European Sovereign Debt crisis and global economic recession. Currently, influenced mainly by the fragility of the global economy, policy uncertainty for investors and elevated geopolitical risks, global FDI outward flows are recovering slowly and the FDI outward flows from developed economies even keep declining.

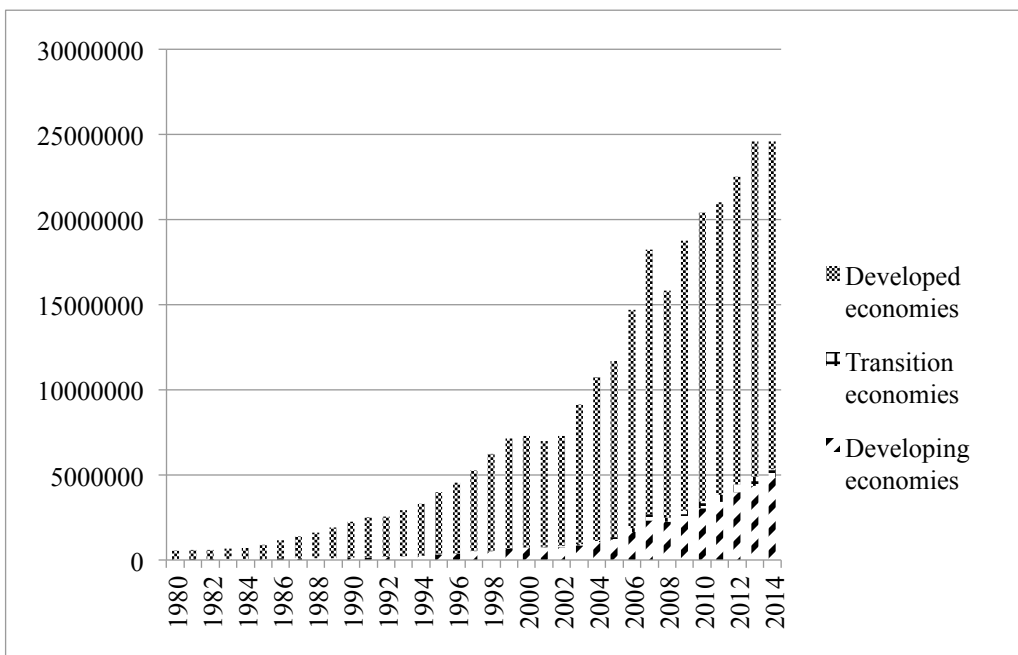
Graph 1 and Graph 2 illustrate the annual amount of global FDI outward flow and stock from 1980 to 2014. It can be observed from Graph 1.1 that although global FDI outflows have fluctuated and FDI outflows from developed economies have declined sharply after the 2007 financial crisis, investments from developing and transition economies are resilient and increasing. It reached US\$531 billion and accounted for about 39 per cent of global FDI outward flows in 2014. It can be noticed from Graph 1

that total FDI outward stock accumulated steadily due to the strong growth of FDI outflows from developing economies and amounted US\$25 trillion in 2014, which approximately equals to one third of global GDP. Compared to 12 per cent in 2007, the importance of developing and transition countries in global market has become much more significant.

Graph 1 Global outward FDI flow, 1980-2014, in million US\$, UNCTAD

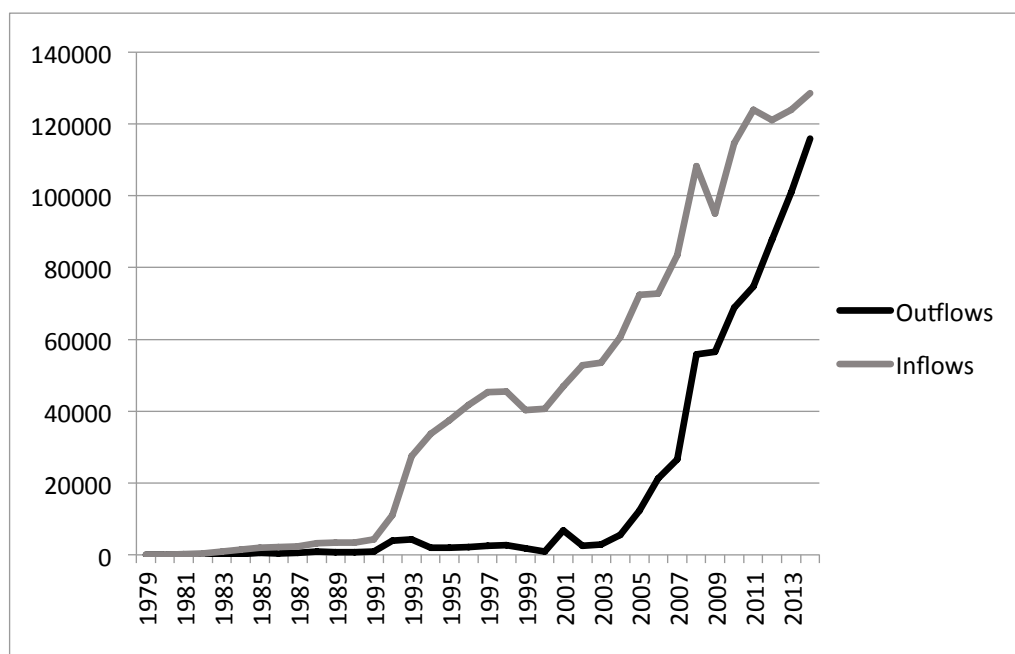


Graph 2 Global outward FDI stock, 1980-2014, in million US\$, UNCTAD



Among all the developing and transition economies, China's emergence into the global market becomes the most eye-catching one and its FDI outward flows reached US\$116 billion and accounted for 25 per cent of total FDI outflows from developing economies in 2014. China's emergence on the world economic stage started after the launching of "Economic Reform and Opening-up" policy in 1978. The development of FDI in China, as shown in Graph 3, follows the investment development path (IDP) proposed by John Dunning in 1981.

Graph 3 China's FDI inflows & outflows, 1979-2014, in million US\$, UNCTAD



The first stage is from 1979 to 1991. After 1978, the "Opening up" policy enabled foreign companies to invest in selected eastern coastal cities and four special economic zones. At that time, China focused on attracting FDI from export-oriented manufacturing industries and foreign investors came to China mainly aimed at the low labour cost. Foreign investors were only allowed to set up joint ventures with state-owned enterprises. Over this period, FDI inward flows grew steadily but remained relatively low and there were almost no FDI outward flows. Because in 1980s, China just recovered from the Culture Revolution, domestic firms were not well developed and did not have specific advantages that could enable them to invest abroad. The second stage is from 1992 to 1999. The famous "Tour to the south" made by the then China's paramount leader Deng Xiaoping in early 1992 marked a new era of Chinese economic development. It encouraged a further economic communication with other

countries and attracted massive FDI inward flows, which reflected in increases in the form of wholly foreign-owned subsidiaries of foreign companies. The increasing FDI inward flows contributed to accelerations in GDP growth and inflation. In this phase, low labour cost, sheer market size, rising living standards combined with relatively favourable and open economic policies attracted lots of foreign investors. FDI inward flows grew rapidly in this period. China became the biggest developing FDI host country in 1993 and FDI inward flows peaked at over US\$45 billion a year in 1997. However, the FDI outflows were still at a low level. After 1997 Asia financial crisis, corresponding to China's shift of its development goal from an emphasis on GDP growth towards a more harmonious balanced development, China made a radical commitment to services liberalization in its accession to WTO. This triggered a shift of FDI to service industries and China entered the third stage of FDI development. Before 2001, wholly foreign-owned enterprises were not permitted to operate in China domestic market unless they either adopted advanced technology and equipment or exported a majority of their products. These restrictions were removed after China joined WTO, which encouraged more foreign enterprises to invest in China to usher the high technology development and stimulate their export volume. The average growth rate of FDI inward flows kept at about 10 per cent in this phase. By 2009, FDI in services sector increased three times from that in 2000, while manufacturing FDI in China increased 81 per cent. In the meantime, FDI outward flows from China also took off since domestic companies were getting stronger and developed their own competitive advantages. More importantly, China initiated "Going Global" policy in 1999 to encourage domestic enterprises to invest overseas. The effects of this policy were modest at the very beginning but became more significant after 2003. China's FDI outward flows grew rapidly at this stage. Domestic labour costs increased due to the improvement of living standards and inflation and Chinese companies urgently need to explore new manufacturing centres and move up the value chain, China's FDI development stepped into fourth stage after 2008 financial crisis. FDI inward flows keeps growing steadily and rapidly. In 2014, FDI inflows received by China reached US\$129 billion a year and China became the largest FDI recipient in the world. Meanwhile, rapidly growing domestic labour costs, improving products quality and brand awareness combined with government's promotion policies makes China the fastest growing FDI home country. In 2010, China's annual outward FDI reached US\$68 billion amid declining levels of global FDI, making China one of the world's top

10 exporters of direct investment in the post-crisis years. In 2014, China's annual FDI outflows reached US\$116 billion and became the third largest FDI home economy. In 2013, China raised the "One Belt One Road" initiative, which is aimed to connect 65 economies along the New Silk Road through infrastructure, trade and investment. It is projected that China's outward FDI will continue to increase at a very fast speed under the one Belt One Road cooperation framework. Amounts of China's FDI inward flows and outward flows are converging and it is foreseeable that China will enter the fifth stage of FDI development in the near future.

As for the geographical distribution of Chinese outward FDI, Asian countries and tax havens have always been the top destinations. As reported by MOFCOM, China's outward FDI in Asia has been above 50% of total China's overseas investment since 1980 and China's outward FDI in tax havens, such as Cayman Islands and British Virgin Islands, has taken up a significant share of total China's overseas investment. In recent years, China's overseas investment presents a trend of diversification in destination selection. The amount of China's outward FDI in EU took off in recent years. China's outward FDI in Europe barely existed until 2004 and averaged less than US\$1 billion per year at that time. While from 2006 to 2009, investment flows tripled to nearly US\$3 billion and tripled again by 2011 to more than US\$10 billion for that year. There are many reasons that EU becomes one of most favoured destinations of Chinese investments. In addition to high technology, huge market and good quality of institutional environment, favourable policy is an important factor that pushing Chinese firms to invest in EU, especially in CEE EU member states.

After launching "Going Global" policy, in 2013, Chinese president Xi Jinping raised the initiative of jointly building the One Belt One Road, which is a development strategy and framework that focuses on connectivity and cooperation among countries primarily in Eurasia. About 1/4 of the 65 countries along the new Silk Road are CEE countries. Therefore, it is foreseeable that CEE countries will host more and more Chinese multinational enterprises' investments in the future. CEE region is not only the east gate of EU but also an important connection point to Russia and Turkey. The advantages of CEE region are not only limited at the location level. 11 CEE countries have already joined EU and the CEE-11 takes up 16 per cent of total EU population and 9 per cent of total GDP. CEE-11 itself is now a prospective market for investors. Comparing to other

EU member states, CEE-11 has cheaper labour force, favourable taxation policy and stronger economic growth. Besides, after 2008 global economic crisis and European sovereign debt crisis, most Western European countries and US, which are the biggest investors in CEE region, suffered heavy loss and they have not recovered yet. CEE-11 has a stronger willingness to have closer economic cooperation with China to keep upward trajectory of their economic development and CEE-11 has already formulated various policies to attract China's outward FDI. Therefore, it is foreseeable that CEE-11 will become an important destination of Chinese investors and China's outward FDI in CEE-11 will increase significantly in the near future. Thus, CEE-11 countries are the main research objects of this thesis.

China's outward FDI is one of the most spectacular cases of today's international economics in terms of rapid growth, geographical diversity and cases of takeovers of established west brands. Although there are a great number of researches about China's outward FDI, most of them focus on Chinese investment in Asia and Africa. As CEE countries, especially 11 CEE EU member states become most potential recipients of China's outward FDI. It is necessary to study the pattern and determinants of Chinese FDI in CEE-11 to provide possible suggestions for both investors and host country government to promote more economic cooperation. Therefore, this thesis focuses on China's outward FDI in 11 CEE EU member states.

The thesis will investigate the determinants of China's FDI in CEE-11 region by econometric regression and analysis of recent trend of China's FDI. By comparing with EU-15, the thesis will reveal the differences between determinants of China's FDI in CEE-11 and in EU-15. The purpose of this thesis is two-fold: to provide a better understanding of China's outward FDI in CEE-11 and to provide possible suggestion for both investors and host countries. This thesis is structured as follows. In the next section, this thesis will first review the traditional and contemporary international investment theories to explain what enables multinational enterprises to invest abroad and why do they choose to invest abroad. And then the thesis will review the existing literature about China's outward FDI to provide the possible motivations of China's outward FDI and the possible determinants of location choice proposed by other scholars. Section 2 will also provide the theoretical framework of this thesis. In section 3 this thesis will use China's outward FDI data in 28 EU countries from 2003 to 2014 to

analyses the pattern and magnitude of China's outward FDI. It will describe the general trend of China's outward FDI in whole EU region and in CEE countries respectively. It will also empirically study the determinants of Chinese FDI in EU and CEE countries and test the significance in section 3. The data will be divided into two groups: EU-15 and CEE-11. The regression results of two groups will be compared to identify the similarities and differences between determinants of China's outward FDI in EU-15 region and those in CEE region. The data of China's outward FDI in CEE-11 will be divided into two time period to investigate whether or not the determinants change over time. In section 4, on the basis of empirical analysis and analysis of the pattern of China's outward FDI, this thesis will propose suggestions for both CEE-11 and China. Finally, this thesis will end with conclusion of analysis and implications for future study

## **2. Related theories and literature review**

FDI is a multi-disciplinary research field. At present, there are two main theoretical perspectives: The first one is international business perspective, which includes traditional international direct investment theories represented by John Dunning's eclectic theory of international production and relevant theories of developing countries' FDI based on the enterprises strategic management. The second perspective is international economic perspective, which includes vertical international foreign direct investment theory under the framework of neoclassical international trade theory, horizontal international foreign direct investment theory under the framework of new trade theory, the knowledge-capital model and so on. This paper's analytical framework is based on the eclectic theory of international production proposed by Dunning.

### **2.1. Traditional international investment theory**

In 1960s, Hymer developed a multinational corporation theory based on the monopolistic advantage. He proposed that international direct investment resulted from market incompleteness. In his opinion, in order to establish the international direct investment system it was necessary to abandon the perfect competition assumption in traditional theory. Hymer (1976) developed his monopolistic advantage theory under the assumption of market incompleteness and employed the monopoly principle in industrial organization theory to analyse the behaviours of multinational corporations. This theory states that, facing the unfamiliar economic and social environment in host



countries, multinational companies must have competitive advantages that are different from local businesses to achieve profit of target acquisition in a bigger market. And the monopolistic advantages of multinational corporations may come from technology, management experience or economies of scale.

In 1976, Buckley and Casson proposed the internalisation theory of multinational enterprises in their book *The future of Multinational Enterprises*. They argued that previous studies on multinational enterprises only considered the production activities while neglecting other important activities such as research and development, staff training and marketing. These activities are interdependent and closely connected with intermediate products. The intermediate products not only include semi-finished goods, but also connected with various knowledge incorporated in the patent and human capital. The imperfect competition in intermediate products market is as important as it in final product market. In order to maximise their profits, enterprise that facing the incomplete intermediate products market strive to make intermediate products transfer within its own system. Enterprises reduce the transaction costs of intermediate products through internalisation.

In 1977, Dunning proposed the eclectic theory of international production in *Trade, Location of Economic Activity and the MNE: A Search for an Eclectic Approach*. Dunning believes that early international direct investment theories are built on the basis of empirical analysis in different periods and in different countries. They have strong explanatory power of multinational enterprises' behaviours over respective domains in certain period, but none has universal significance. Foreign direct investment, foreign trade and issuing licenses to foreign manufacturers are normally different choices the same company may face at one time. There should be a more comprehensive theory to systematically explain multinational enterprises' motives and conditions.

Therefore, Dunning built the eclectic international production theory on the basis of internalisation theory, monopoly theory and location theory. Its core conclusion is that ownership advantages, internalisation advantages and location advantages underlie a firm's decision to become a multinational. Ownership advantages refer to favourable business conditions, assets and ownerships that foreign companies do not have or cannot acquire. Ownership advantages normally derived on the basis of intangible

assets, including patents, technologies, human capital, advantages of the economy of scale and research and development capabilities. When companies are equipped with ownership advantages, it must be more advantageous for the company that owns them to use them itself rather than sell them or rent them to foreign firms. Then they will seek for host countries and invest abroad. Location advantages of different countries are the key factors to determine who will become host countries for the activities of the multinational enterprises. Location advantages refer to the ability of a company or an economy to conduct an activity better than others for factors and endowments related to location. Generally, it depends on the host country's political, economic, social and cultural environment. Internalisation advantages refer to advantages gained by transaction conducted within the confines of a corporation rather than in the open market. The motive of internalisation is to avoid adverse impact brought by external market incompleteness, to reduce transaction costs of intermediate products and to avoid technology spillover.

In 1981, Dunning improved the eclectic theory of international production by considering foreign trade, foreign direct investment and patent licensing altogether to establish a general explanatory framework for enterprises' internationalisation activities. In his view, enterprises' internationalisation activities are determined by their internalisation advantages, ownership advantages and location advantages. Enterprises that only have ownership advantages can only transfer technology or patent. Enterprises that have ownership advantages and internalisation advantages can start import and export business. If a company have ownership advantages, internalisation advantages and location advantages altogether, then it will invest abroad directly.

Although the eclectic theory of international production has been widely accepted, as the multinational companies are developing, eclectic theory has also been challenged especially from the rising of developing economies. After 1980s, South-South investments and South-North investments started growing rapidly. Following a wave of FDI outward flows from Latin America from 1960s to 1980s, Four Asian Tigers (South Korea, Taiwan, Hong Kong and Singapore) as well as Malaysia, Thailand and other export-oriented Asian countries led the second wave of FDI outward flows from developing economies (UNCTAD, 2006). After 1990s, many Asian countries have grown into more competitive economies and began to massively invest in western

countries. FDI outward flows from some Asian economies (such as South Korea, Taiwan and Hong Kong) have exceeded the inward FDI they received (Andreff, 2003). FDI outward flows from emerging economies, represented by BRICS (Brazil, Russia, India, China, South Africa), are also growing rapidly. In 2008, FDI outward flows and inward flows in developed economies went into full-blown recession under global financial crisis. While emerging economies maintained relatively strong growth momentum and the share of FDI outward flows from emerging countries achieved 25% in 2009 (UNCTAD, 2010).

Traditional international investment theories cannot explain FDI activities of multinational enterprises from emerging economies, because normally they do not have ownership advantages. Early international investment theories argue that having specific ownership advantages is the prerequisite of global operation. Only with sufficient ownership advantages can multinational enterprises be able to cope with the additional operation costs resulted from cultural differences and economic and institutional issues when operating in host countries (Dunning, 1981; 1988). However, multinational enterprises from emerging economies normally do not have such advantages that they can use. On the contrary, the purpose of their FDI activities is to obtain that advantage. Investment practices conducted by emerging economies have proved that having advantages of ownership is not a prerequisite for FDI. These companies would engage in FDI to learn or gain access to the necessary strategic assets available in the host country. Makino et al (2002) explain that companies from emerging economies will engage in FDI when they have specific ownership advantages or when they are seeking strategic assets that are scarce in their own country.

Besides, traditional international investment theories cannot explain the location choice of FDI from emerging economies. Traditional international investment theories believe that, compared to multinational enterprises in developed economies, companies from emerging economies are still at a disadvantageous position compared to multinational enterprises from developed economies. Companies from emerging economies can only invest in countries that are at the same level or lower level of development and the majority of their investments are at the bottom of value chain. In 1970s, Latin American developing countries mainly invested in neighbouring countries or countries that are at the same level of development with the home country. While after stepping into 21st

century, destinations of FDI from emerging countries include most developed country and the amount grows rapidly. China's outward FDI mainly went to developed economies from the outset and this trend reversed after 1999.

These new phenomenon appeared in the field of international direct investment has prompted Dunning to constantly revise the eclectic theory in nearly 40 years. In order to explain reverse investments from developing economies to developed economies, he proposed the concept of "strategic assets" in *Multinational Enterprises and the Global Economy* in 1993. On the basis of motives, Dunning classified the international investment into four categories: market-seeking FDI, efficiency-seeking FDI, resource-seeking FDI and strategic assets-seeking FDI. In 1998, Dunning further pointed out that the most significant change of multinational enterprises' FDI activities was the rapid growth of strategic assets-seeking FDI in past ten years in *Location and the Multinational Enterprise: A Neglected Factor?*. These investment activities more focus on extending their advantages by merging and acquiring new assets or establishing cooperation relationship with foreign companies. The best evidence to prove the rapid growth of strategic assets-seeking FDI is the rapid growth of cross-border mergers and acquisitions. Moreover, as institutional factors have also been proved as an important determinant of emerging economies' FDI, Dunning and Lundan (2008) added the institutional factor into the latest OLI paradigm in OLI paradigm of the multinational enterprise in 2008. They believe that institutional approach can bridge both macro and micro level of analysis and provide a new perspective to better understand contemporary multinational corporations.

In conclusion, after 40 years' continuous revision and improvement, Dunning's eclectic paradigm has changed not only in the number of influential factors but also in the range of factors. Its framework has developed from a few variables into a system or paradigm. The eclectic paradigm is not only the most comprehensive explanation of FDI decisions at firm level, but also introduces analysis of macroeconomic factors of host economies. It extensively explained the motives and prerequisites of FDI conducted by multinational enterprises. Although it cannot explain the competitive advantages of multinational enterprises from emerging economies, it is the most widely accepted theoretical model when study the determinants of FDI of multinational enterprises. This thesis suggests that studying the FDI issues in developing economies should based on

the eclectic paradigm and make supplements and amendments to the theoretical framework.

## **2.2. Theories of FDI from developing economies**

FDI from developed economies is the research object in early international investment theories. With the rising of multinational enterprises from developing economies, scholars realised that traditional international investment theories have weak explanatory power for the rapid growth of FDI from developing economies. After 1980, there have been a large number of theoretical studies about FDI from developing economies. There are three main theories: theory of small-scale technology (Wells, 1977), technology localization theory (Lall, 1993) and the theory of technology innovation and industry upgrade (Cantwell et al, 1990).

### **2.2.1. Theory of small-scale technology**

Wells (1977) developed the theory of small-scale technology on the basis of the product life circle theory proposed by Vernon in 1966. He states that technological advantages of multinational enterprises from developing economies are very special. Multinational enterprises from developing economies make adjustments to the mature technology from developed countries based on the characteristics of small market and make it meet the need of small market. Small-scale technology can be used in low-income countries' manufacturing industry that only has limited demand. Besides, raw materials and components provided locally instead of imported technology not only reduces dependence on the developed economies and the cost of technology import, related experience can be introduced to other developing economies that facing similar problems. Therefore, multinational enterprises from developing economies have competitive advantage on these small markets because of low cost, similar culture and approach to the market.

Small-scale technology theory complements theoretical explanations for FDI from developing economies, which cannot be explained by traditional international investment theories. However, this theory neglects the impact of learning effect and technology spillover on enterprise internationalisation. If developing economies keep depending on the imitation of mature technology, it may lead to technology lock-in.

Besides, this theory cannot explain that companies from developing economies invest in developed economies since 1990s.

### **2.2.2. The model of localised technological change**

Lall proposed the model of localised technological change in developing economies on the basis of researches about competitive advantages and investment motives of Indian multinational enterprises. Lall (1983) argues that although developing economies are using small-scale technology that can well adapt to smaller market demand, absorbing technology is not only imitation but also innovation. It can bring competitive advantages to enterprises through improvement and innovation of technology to make it more adaptable to the demand of domestic market and similar foreign markets. Developing economies adapt mature technologies based on their own unique institution and market environment. These localised technologies certainly better adapt to local market and can help companies to maximise their profits.

Same as small-scale technology theory, the model of localised technological change also regard mature technologies from developed economies as the source of technologies used in developing economies. But the mode of localised technological change highlights the innovation process that developing economies absorb and adapt technologies. This process brings new competitive advantages to companies. It also implied that technology development is a dynamic process and this process includes the localisation of original technology and selective supply in target market. This enables developing economies to avoid direct competition with capital-intensive and technology-intensive multinational enterprises from developed economies when they are developing their own technology. It also proves that multinational enterprises from developing economies can participate in international competition on the strength of comparative advantages.

### **2.2.3. Theory of technology innovation and industry upgrade**

Cantwell and Tolentino (1990) brought forward the theory of technology innovation and industry upgrade based on the investment development path theory (Dunning, 1981). They argue that technology innovation and technology capacity are also important determinants of developing economies' FDI. But technology innovation in developed

economise shows differences from that in developed economies. Developing economies invest massively in research and development to develop and master cutting-edge high-tech and to lead the trend of technological development. While technology innovation in developing economies is using unique learning experiences and organizational capacities to further develop existing technologies.

Not only emphasising the technology innovation's pushing effect of developing economies' FDI, Cantwell and Tolentino (1990) further point out that the trend in the industrial and geographical distribution of developing economies' outward FDI can be explained in the context of an underlying accumulation of technological advantages. Tolentino (1987) point out that FDI outward flows from developing economies exist even when they were at a relatively low level of development. Most FDI were resource-seeking at that time. As those companies grow, their purposes and destinations of FDI become diversified. On the industrial distribution, it starts from vertical integrated production activities of the natural resources exploitation and develops to horizontal activities mainly focus on import substitution and export. As for geographical distribution, location choice of FDI from developing countries is often affected by psychological distance. Generally, they prefer to invest in neighbouring countries or countries with same culture and gradually move to other developing economies after accumulating experience. Finally, with the improvement of level of national industrialization and industrial structure upgrading, they will invest in developed economies to get involved in research and development activities and high-tech production.

#### **2.2.4. FDI as a learning channel**

The reverse FDI from developing economies to developed economies cannot be explained by internalisation theory (Dunning and Casson, 1976). These home countries do not have abundant capital, advanced technologies and specific competitive assets. Xian (1998) point out that developing economies usually use FDI as a learning channel and to accelerate technology accumulation. In the short term, the purpose of developing economies investment in developed economies is to obtain the intermediate products and may cause temporary loss. But in the long run, the technology accumulation will enable them to win in the global market.

### **2.3. Literature review on China's outward FDI**

China, as a huge developing economy and a representative of emerging economies, has attracted global attention because of the rapid growth of its outward FDI. Early studies about China's outward FDI mainly focused on policy, choice of destination and industrial distribution. Recent researches pay more attention to the trend of Chinese investments and determinants of the trend, including host country factors (Buckley et al., 2007; Cross et al., 2008), home country factors (Morck et al., 2008; Tolentino, 2008) and firm-level factors (Buckley et al., 2008; Rui and Yip., 2008). Most of these studies are under the framework of traditional international investment theory, but scholars also introduced new perspectives of economic geography, political economy and institution environment to study the phenomenon of increasing FDI from China. Meanwhile, Chinese scholars also try to innovate investment theory to provide better theoretical explanation for investments from Chinese multinational enterprises. In the following sections, there will be the summary of existing literature about China's competitive advantages and motives of China's outward FDI.

In order to know the determinants of Chinese outward FDI, it is necessary to know their motivations. There are two major approaches to analyse the motivations of China's outward FDI. Most of early researches used small sample surveys to summarise the investment motives. Some scholars also used case study on typical Chinese multinational enterprises to summarise their motivations. Recently, more scholars use econometric models, country level data and characteristics of host countries to comprehensively study the motivations of Chinese outward FDI. Table 2.1 presents the summary of survey results of different period.



Table 1 Survey results

	1988-1989 <sup>1</sup>	1993 <sup>2</sup>	2006 <sup>3</sup>	2010 <sup>4</sup>
1	To expand to overseas market	To expand to overseas market	To improve market share	To take advantage of host country incentive
2	To get first-hand information	To Promote export	To learn advanced technology	To escape saturated domestic market
3	To Promote export	To move closer to the target market	To get market information	To learn advanced technology and experience
4	To take advantage of host country incentive	To get first-hand information	To obtain patents from other countries	To follow their business partners
5	To learn advanced technology and experience	To follow China's economic policy	To diversify the operating risks	To obtain natural resource

From Table 1 it can be observed that seeking broader market has always been an important motive of China's outward FDI and resource-seeking motive does not seem to be significant. However, this result does not mean that resource-seeking is not a main motivation of China's outward FDI. This bias may result from the limitation in choosing survey samples. Moreover, these results also reveal that the motivation to obtain strategic assets (advanced technology, managerial experience and patent) is also an important motivation for Chinese investors. With the further development of economic globalization, global competition will be fiercer. More and more enterprises

<sup>1</sup> Liu, H. (2001) *The Empirical Study of China's Outward FDI and International Comparison*. Shanghai: Fudan University Press.

<sup>2</sup> van den Bulcke, D. and Zhang, H. (1994) *International management strategies of Chinese multinational firms*. Antwerp: University of Antwerp.

<sup>3</sup> Zhang, H. (2006) 'The Strategic Choice of China's Outward FDI', *International Trade*, 7, pp. 50–56.

<sup>4</sup> CCPIT and UNCTAD (2010) *Survey on Current Conditions and Intention of Outbound Investment by Chinese Enterprises*. Beijing: CCPIT

from developing economies will invest in developed economies in order to obtain the resources and technologies needed for core strategic business development. Strategic asset-seeking motive of Chinese enterprises in the 21st century will become increasingly significant. In recent period, researches reveal that China's huge foreign exchange reserve also becomes a driving factor of China's outward FDI. The large accumulation of foreign exchange reserves mainly from many years' trade surplus has put increasing pressures on China to achieve equilibrium in its international financial flows by revaluing the currency. China is encouraging capital outward flows, including outward FDI, to mitigate this revaluation pressure (OECD, 2008). By investing in international market, it will provides the Chinese government with a channel to invest its vast foreign exchange reserves and secure national resources to fuel the rapid domestic economic growth (Lu, 2015). Moreover, outward FDI can help China to diversify the risk of huge foreign exchange reserves (Dreger et al, 2015).

In addition to surveys, scholars also use econometric models to study the factors that influencing China's outward FDI flows and stocks. These factors can be concluded into two categories. One is host country factors, including host country market size, economic development level, natural resource endowment, labour cost, technology development level, macroeconomic stability, political risk, culture proximity and geographic distance from home country. Another one is home country factors, including resource demand, export demand and other related factors. Among all these factors, host country market size, natural resource endowment, labour costs and strategic assets are believed to be directly related to FDI (Buckley et al., 2007; Hu et al., 2008). But whether they are significant in attracting China's outward FDI, different researches have different results.

#### a) Market-seeking FDI

The majority of scholars agree that China's outward FDI is seeking for bigger market. Buckley et al (2007) argue that the purpose of market-seeking FDI is to keep the current market and to develop new market. Two important types of Market-seeking FDI are trade substitution FDI and trade support FDI. Trade substitution FDI is used to keep the current market by directly investing in the host country to avoid trade barriers like tariff and quotas. Trade support FDI is to use FDI to establish business organizations and new distribution channels in host countries to help to increase their export to the host country,

Market-seeking FDI also goes to host countries with less quota limitation and favourable anti-dumping treatment (Taylor, 2002; UNCTAD, 2003; Schuller and Turner, 2005). For example, many Chinese firms invest in Thailand and Myanmar to take advantage of the favourable treatment that USA and EU do not have import quotas on products from these countries. Chinese company TCL acquired German television producer Schneider to avoid anti-dumping sanctions. Sanfilippo (2010) investigates China's outward FDI in 41 African countries over the period 1998-2007 and points out that the favourable trade terms provided by other countries to Africa is an important motivation for Chinese firms to invest in Africa.

In addition, import and foreign-owned enterprises has intensified the domestic market competition in China, resulting in excess production in textile, clothing and many other industries. This forced many Chinese firms to exploit new market and absorb excess productions. Many Chinese firms choose to acquire foreign companies with mature sales network and good reputation to quickly expand to the international market (Cheng and Stough, 2007). While Buckley and Cross (2008) argue that market-seeking motivation of China's outward FDI only have explanatory power in host countries that are at similar development stage with China. Because Chinese firms can use their home country specific advantages and the cost of adaptation is relatively low.

#### b) Resource-seeking FDI

Scholars have different opinions about Chinese firms' resource-seeking motivations. Some empirical results support that China's outward FDI has significant resource-seeking motivation. There are massive China's outward FDI flows to countries with abundant natural resources and scholars argue that the main purpose of Chinese investments in those countries is to have access to natural resources (Cross et al., 2007; Cheng and Ma, 2008; Morck et al., 2008; Chueng and Qian, 2009). Frynas and Paolo (2007) indicate that resource-seeking motivation is the main motivation of Chinese investments in Africa. Besides, it is widely accepted that emerging economies' investments in developed countries is to obtain strategic assets (Deng, 2003; Cheng and Stough, 2007). While Buckley and Cross (2008) point out that although obtaining strategic assets in developed countries has become an important motivation of China's outward FDI, their investments in some developed countries are still seeking for natural resource, especially in natural resource abundant developed economies such as

Australia and Canada. China's outward FDI in EU is also under the motivation to access to natural resources. Although European countries normally do not use their natural resource to attract inward FDI, many mining and energy companies headquartered in EU have a large amount of assets outside Europe. By acquiring these companies, Chinese investors can also have the access to abundant natural resources.

Moreover, Kolstad and Wiig (2009) find the significant relationship between Chinese resource-seeking FDI and host country's institution. They demonstrate that the effect of natural resources on Chinese outward FDI depends on the institutions of the host country. The worse institutions in the host country, the more is Chinese investment attracted by natural resources. The more abundant the natural resources in host country, the smaller the effect of the host country institutional environment on Chinese direct investment. A lot of case studies about FDI made by Chinese state-owned enterprises also prove that resource-seeking motivation plays an important role to push outward FDI. While according to Buckley et al (2007), resource-seeking motivation is not significant in China's outward FDI. Li and Zheng (2012) argue that the resource-seeking characteristic is significant in Chinese FDI in America and Asian developing economies, while not significant in Africa.

#### c) Efficiency-seeking FDI

Dunning (2001) points out that efficiency-seeking FDI is investments made by mature multinational enterprises, which have achieved economies of scale, to reduce their manufacturing costs. Some scholars hold the opinion that Chinese multinational enterprises do not have this motivation because they have sufficient low-cost labour, land and other resources in China (Deng, 2004; Buckley et al., 2007). But China's labour costs have increased significantly in the past few years, some foreign firms have begun to search for new manufacturing base other than staying in China. For example, Nike has moved their production line to Vietnam, which has lower labour costs (Gao, 2009). Therefore, cheap labour force can be an important motivation for Chinese firms to invest in developing economies. Through investments in developing economies, Chinese firms can use their own mature production skills and abundant local labour force for low-technology labour-intensive industries in host countries to achieve more profits. Cheung and Qian (2009) point out that cheap labour force is an important factor that attracting Chinese investments to developing economies. As China is further

integrating to global market, efficiency-seeking will become more and more important motivation for China's outward FDI (Buckley, Clegg et al., 2008).

#### d) Strategic assets-seeking FDI

Strategic assets-seeking FDI is a key method that developing economies used to catch up with developed economies. Child and Rodrigues (2005) point out that traditional international investment theories cannot explain China's investment behaviours because those theories are established on the basis of studies about multinational enterprises from developed economies. Through case studies, they state that an important motivation of China's FDI is to seek advanced technology, obtain brand assets and improve their competitiveness in global market. Luo and Tung (2007) point out that multinational enterprises from emerging economies acquire strategic assets through merger and acquisitions. But Buckley et al (2007) argue that there is no significant evidence shows that Chinese outward FDI are driven by strategic assets-seeking motivation.

## **2.4. Theoretical framework**

This thesis is based on the modified eclectic theory of international production. Although the eclectic theory of international production cannot explain emerging economies' FDI activities, it has brought in the analysis of macroeconomic environment and it is the most comprehensive explanation for determinants of multinational enterprises' FDI activities. Since it is the multinational enterprise that makes international direct investment no matter in developed economies or in developing economies, the OLI approach still can be used to analyse the motivations and determinants of international investments.

As mentioned by many previous studies, ownership advantages and host country location advantages are not sufficient to explain the FDI activities of emerging economies. Morck et al. (2007) point out that all researches on Chinese multinational enterprises strategies should consider institutional, political and social factors because Chinese economy is undergoing a major transition. This paper learns from vast existing literature, keeps the basic framework of OLI approach and brings in macroeconomic, political and institutional factors to study the determinants of Chinese FDI in Europe.

This paper tries to find the determinants of Chinese FDI in choosing host countries and propose some possible determinants from the analysis of motivations. But solely analyse the host country factors is not sufficient. Indeed, the economic and political interactions between home and host country also affect firms' investment decisions and their performance in host countries. In particular, China, which has a unique ideology and political system, the impact of political relationship cannot be ignored. Therefore, this paper also looks at the impact of political and economic interactions on FDI decisions.

### **3. Pattern of China's FDI in EU and in CEE-11**

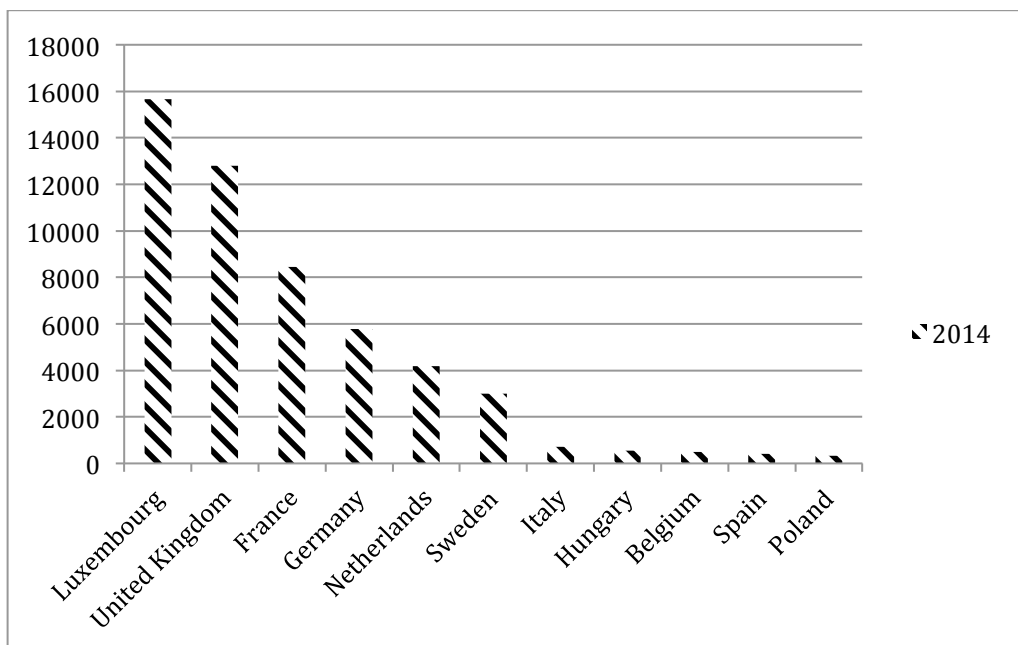
#### **3.1. China's outward FDI in EU**

China has a long history of economic cooperation with EU. After launching the "Opening-up" policy, Chinese multinational enterprises began to invest in EU countries but the amount of Chinese investment stocks remained at a very low level compared to Chinese investment in other regions. In recent years, as China is undergoing industrial transformation and upgrading, the fundamental motivation of China's outward FDI also transformed from acquiring nature resources and other basic production elements to acquiring advanced technology and other intangible assets. Under the new motivation, the destinations of Chinese FDI become diversified. Chinese enterprises' footprints expand from Asia, Africa and other resource-abundant countries to Europe and other developed economies. Meanwhile, the slow post-crisis recovery in developed economies gives China a good opportunity to cut in developed markets. Chinese investments to developed economies grow significantly faster than to developing economies. EU member states, especially developed EU member states, are catching Chinese investors' eyes due to their advanced technologies, mature marketing network and high reputation. Therefore, Chinese investments in EU grow exponentially. From 2010 to 2014, Chinese investments in EU grew at a annual compound growth rate of 47.1% and it has increased more than 100% in 2014, which shows huge potential (MOFCOM, 2015).

The geographic distribution of China's FDI in Europe largely follows the patterns of intra-European FDI stock and Graph 4 presents the main destinations of China's outward FDI in EU. Most Chinese investment heads for EU-15 and EU-15 attracted

more than 85% of total investments from 2000 to 2011. In 2014, Luxembourg has the largest Chinese FDI stock among 28 EU countries but normally Luxembourg is not the final destination of those investments. Luxembourg's favourable tax regime, business-friendly environment and political stability attract a large amount of Chinese investment to use it as a start point to entre EU. When excluding Luxembourg, the top three destinations are the three largest economies in EU: France, United Kingdom and Germany. When excluding Luxembourg, United Kingdom is now the largest recipient of Chinese FDI with a total of US\$12.8 billion until 2014. UK hosts investments mainly in autos, banking and real estate as well as stakes in mining firms that only have small-scale operations in UK and large assets in Africa, Latin American and Central Asia. The second place goes to France, which has US\$8.4 billion Chinese FDI stock at the end of 2014 and a large part of this amount is from sizeable transaction in utility sector. The third place is Germany, which attracted more than one-third of all European deals and China's outward FDI stock in Germany was US\$ 5.8 billion in 2014. Germany has not only the most deals but also the most diverse mix of investments by sector, ranging from machinery to telecommunications and consumer goods.

Graph 4 China's outward FDI stock in main destinations in EU, 2014, in million US\$, MOFCOM



Chinese investors have the same motivations of investing in EU as other foreign investors: to expand to the world's largest single market, to upgrade their global production chains and to take the advantages of technology, brands and human capital.

Table 2 gives an overview of distribution of China's outward FDI in EU by sector. It shows that Chinese investments are spread across a wider range of sectors in 2014 than 5 years ago. The changes in distribution of Chinese investment in EU highlight the changing driving factors of Chinese outward FDI.

Table 2 Sector distribution of China's FDI in EU, stock in million US\$, MOFCOM

Industry	2009		2014	
	Stock	Share(%)	Stock	Share(%)
Leasing and Business service	2668	42.5	14903	27.5
Finance	1061	16.9	12757	23.5
Manufacturing	998	15.9	8774	16.2
Mining	226	3.6	5102	9.4
Wholesale and retail trade	477	7.6	4972	9.2
Real estate	88	1.4	2384	4.4
Transport, Storage and Post	270	4.3	1247	2.3
Scientific research and technical service	107	1.7	1108	2.0
Construction	N.A.	N.A.	1015	1.9
Utility	N.A.	N.A.	752	1.4
Hospitality and catering service	N.A.	N.A.	365	0.7
Agriculture, forestry, fishing and husbandry	195	3.1	404	0.7
Education	N.A.	N.A.	97	0.2
Others	188	3.0	333	0.6
Total	6278	100	54210	100

The top 5 industries that attracted most Chinese investment are leasing and business service, finance, manufacturing, mining and wholesale and retail trade. In 2014, leasing and business service received nearly US\$15 billion investment, accounting for 27.5% of China's total outward FDI stock in EU. These investments mainly concentrate in



Luxembourg, the United Kingdom, Netherlands, Ireland and Poland. Compared to 2009, investment became less concentrated in this sector. 23.5% of China's total outward FDI stock in EU went into finance sector in 2014 and the stock were mainly concentrated in the United Kingdom, Luxembourg, Germany, France, Denmark and Hungary. The investment in top 2 sectors have always been accounting for more than 50% of the total FDI stock over this period. Chinese companies start to take majority positions in European services companies to learn more about managing modern services firms, because these two sectors are expected to grow rapidly in China in the near future.

Investment in manufacturing grows steadily and accounted for 16.2% of China's total FDI in EU in 2014. Unlike investments in leasing and finance sectors mainly concentrated in developed economies, developing economies in CEE region like Hungary and Poland also attracted a large amount of Chinese investment. Recently, the purpose of Chinese investment in European manufacturing companies is to get access to technology and innovation, which can enable them to move up along the value chain. The acquisition of highly specialised European manufacturing firms allows them to obtain core technology assets, the know-how of utilizing the technology and the expertise to operate in global markets. This is not primarily about competing in global markets, but strengthening themselves to compete against foreign multinational enterprises and domestic competitors in the fast-growing home market in China. Best examples are acquisitions of small and medium-sized firms in industrial machinery, auto parts, general aviation and chemicals and plastics.

China's global outward FDI boom in extractive industries in recent years, but natural resources do not play an important role to affect China's FDI in EU. Investments in mining industry only accounted for 9.4% of total China's FDI stock in EU in 2014 and many of them are investments in multinational mining companies that are headquartered and listed in EU but hold most of their assets elsewhere. The biggest transaction was the US\$877 million takeover of British energy company Emerald Energy by SinoChem Resources in 2009<sup>5</sup>.

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<sup>5</sup> It was an all-cash acquisition and SinoChem paid 750 pence for each share of Emerald Energy Plc., valuing Emerald Energy at approximately US\$877 million.

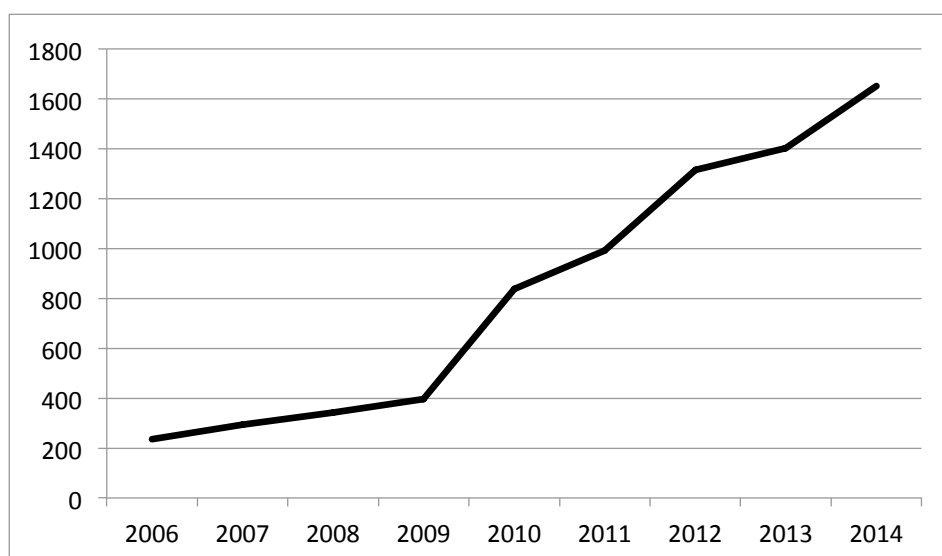
In recent years, Chinese firms have also start to make investment to facilitate future exports and investments. There have been many investments in infrastructure and logistics operations. COSCO, China’s largest shipping company, has invested heavily in European ports, such as Naples and Piraeus. Moreover, export-facilitating investments are shifting from trade offices to more sophisticated operations. Companies also invest in sales infrastructure to get closer to their European customers. For example, Huawei, which sells technologically advanced goods to European customers under their own brand name, is setting up their direct-owned shop to directly provide customer service in Europe.

In addition to those major sectors, the investment in utility, real estate, construction, scientific research and technical service and education increased significantly over past 5 years. This demonstrates that Chinese investors have a wide variety of investment options and they have interests in a wider range of sectors now.

### 3.2. China’s outward FDI in CEE-11

China’s FDI in CEE countries grows steadily and rapidly after the 2008 global financial crisis. China’s FDI stock in CEE-11 reached US\$1.6 billion in 2014. But China’s FDI stock in CEE region is still at relatively low level when compared to the whole EU market, just as China’s FDI stock in the entire EU market is a small item in the global Chinese investment picture. Graph 5 illustrates total Chinese FDI stock in CEE-11 over the period 2003-2014.

Graph 5 China’s outward FDI in CEE-11, 2003-2014, in million US\$, MOFCOM

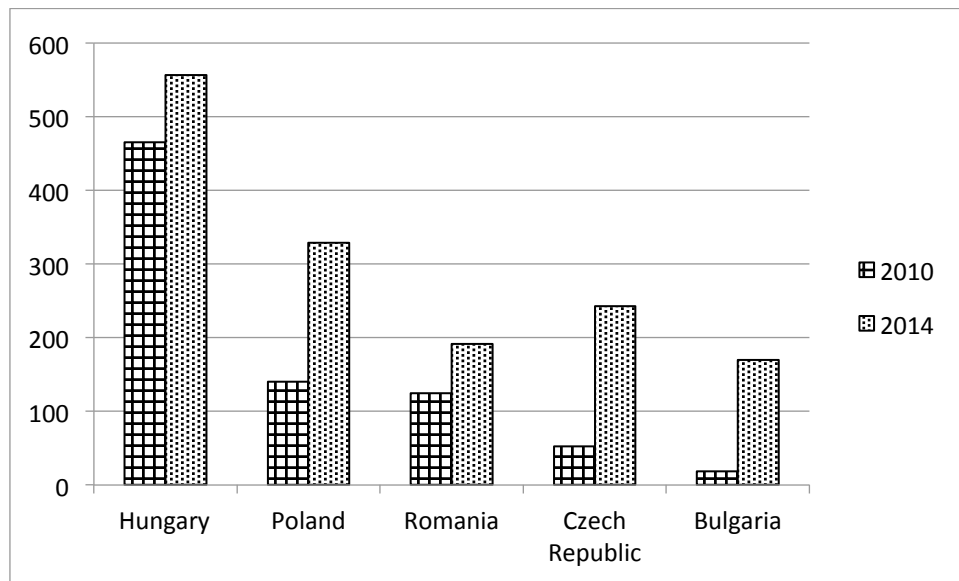


China's FDI stock in 11 CEE EU member countries also distributes unevenly. China's FDI stock in Core 5 Countries (Czech Republic, Hungary, Poland, Romania and Slovak Republic) accounted for more than 90% of China's total FDI stock in CEE-11 from 2003 to 2010, but this figure has been dropped under 90% after 2010, which shows the diversification of China's FDI destinations. Graph 6 presents the top 5 destinations of China's outward FDI in CEE-11. Hungary is far ahead of other countries. Hungary has the largest agglomeration of Chinese-owned enterprises and it is the only CEE country that has more than US\$5 billion of China's FDI stock in 2014. China's outward FDI in Hungary is very diverse that covers from finance, business service and logistic to aviation, telecommunication and chemical industry. In 2011, Chinese company Wanhua Industrial Group acquired 96% of the shares of Hungarian isocyanate producer BorsodChem by €1.236 billion and promised to invest €150 million in the facility in the future<sup>6</sup>. This acquisition becomes the largest Chinese investment project in CEE-11. Poland is the second largest recipient of China's outward FDI in CEE-11. Chinese investors did not consider Poland as a favourable investment destination and China's FDI stock in Poland remained at a very low level for a long time. After 2007, the strong growth momentum of Polish economy attracted Chinese investors' attention and China's FDI in Poland began to increase rapidly. At the end of 2007, China's FDI stock in Poland only amounted about US\$99 million. China's FDI stock in Poland doubled in four years and reached US\$201 million at the end of 2011. China's FDI in Poland grows rapidly and amounted US\$329 million at the end of 2014. China's FDI in Poland mainly focus on manufacturing, telecommunication, real estate, mining and infrastructure. Apart from Hungary and Poland, Czech Republic, Romania and Bulgaria are also important host countries of China's FDI in CEE-11. China's FDI in Czech Republic and Bulgaria increased significantly in recent years and Czech Republic has surpassed Romania becoming the third largest recipient of China's FDI in CEE-11 at the end of 2012. According to the investment guidance issued by MOFCOM, at the current stage of China's FDI development, Visegrad group countries (Czech Republic, Hungary, Poland and Slovak), Romania and Bulgaria are the key destinations of China's FDI in CEE-11. Chinese companies are encouraged to invest in these key destinations first and then expand their business to other CEE countries after accumulating enough experience and business resources.

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<sup>6</sup> Wanhua Industrial Group acquired full control over BorsodChem by exercising a call option, the first installment was €30 million and the rest €1.2 billion was paid after the restructure.

Graph 6 China's FDI stock in CEE region, 2010 & 2014, in million US\$, UNCTAD



Basically, Chinese investment caters to the actual needs of CEE countries. Compared to China's outward FDI in 1990s, the sector distribution of Chinese investment in CEE region now reflects China's strategic plan. From manufacturing and telecommunication to agriculture and forestry, from mining to renewable energy, from transport and infrastructure to supportive facilities and distribution channels, from business centre to industrial park, China's FDI in CEE-11 is more focused on diversification of investment the development of the entire value chain. Combined with location advantage, solid industry foundation and high-quality labour force, China is using its investment in CEE to build CEE-11 to be the springboard to penetrate to Western European market.

Considering the demand of CEE countries and China's comparative advantages, including technology advantage and human capital advantage, China's FDI in CEE-11 currently concentrates in manufacturing, telecommunication, infrastructure and new energy resources. In manufacturing industry, China mainly invested in the production lines of appliances, automobiles and machinery. With manufacturing base in CEE countries, Chinese companies can radiate their influence to the whole EU market. Huawei, Lenovo, ZTE, TCL and several telecommunication and technology companies have invested heavily in CEE region. Telecommunications companies ZTE and Huawei have investment projects in almost every CEE country. They are not only setting up factories and sales shops, but also establish research and development centres there. With wide scope of businesses, these companies have a relatively large influence.

Chinese state-owned enterprises' investments mainly focus on infrastructure and logistic. Although China Overseas Engineering Group (COVEC) failed on the investment of Polish A2 expressway, China's investment in infrastructure construction in CEE still has a sound momentum of development and began to cover more CEE countries. In 2015, Chinese government signed an agreement with Hungary about the construction and financing of the Hungarian section of the high-speed railway linking Budapest and Belgrade. China's state-owned enterprise China Railway Group (CRG) was chosen to execute the US\$1.57 billion contract to build the 160km high-speed railway and CRG will also be responsible for the general management of the project<sup>7</sup>.

China also made some achievements in the investment in new energy resources in CEE countries. Chinese companies accelerated capital and technology investments in hydropower station, nuclear power plants and heat power station. In 2013, China General Nuclear Power Engineering Company (CGN) signed two nuclear cooperation agreement with Romanian State Nuclear Power Corporation (SNN) and confirmed CGN had the intent to construct two nuclear unit for SNN and Industrial and Commercial Bank of China approved €6.5 billion loan to support the project in 2014. CGN and SNN also set up a joint venture for the project and CGN hold the major share. China and Czech Republic has established the nuclear partnership since 2014 and Chinese companies also show their intent to invest more in renewable energy industry in Poland.

Obviously, investment in CEE gives Chinese multinational enterprises untrammelled access to the EU market. To integrate the outcome of the above competitive industries, China also began to construct industrial parks in CEE to encourage and attract more investors from China and expand the impact of China's FDI in CEE. Chinese multinational enterprises regard CEE as the centre for production upgrading and sales distribution to realise the localization and even "Europeanization" of the production, sales and branding of Chinese products. They use CEE as a launch pad not only to enter the market of EU, but also to Russia and Turkey. The most remarkable examples of China's FDI use CEE countries as a channel to transfer Chinese technology to the region are the Chinese telecommunication company Huawei's investments in Hungary

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<sup>7</sup> CRG and its international subsidiary jointly set up a consortium with Hungarian Railway and CRG hold 85% of the share.

and Romania. Using CEE as a pivot is one of the main characteristics of Chinese investment in CEE, not only for the moment but also for the foreseeable future.

### **3.3. Chapter conclusion**

China's economic and political presence in EU is increasing rapidly. China's outward FDI in EU is aimed at the huge integrated market, mature business network and advanced technology. The technology exploration is one of the most important motivations driving Chinese companies to expand their research and development activities into European developed economies. Chinese companies take the initiative to invest in Western European countries to learn from partners. Overseas Chinese research and development units emphasise their role as knowledge-seekers. Chinese companies also use merger and acquisition to obtain intangible assets, including brand, distribution channel and know-how to improve their competitiveness in global market.

CEE-11 is an important "test zone" for China to achieve industrial upgrading and to expand to the entire EU market. Despite doing business in CEE-11 is more difficult than in Africa and Asia due to the lack of experience, CEE-11 is still a key region for Chinese investment. China's outward FDI in CEE-11 is very diverse and covers almost every industry. The purpose of China's outward FDI in CEE-11 is two-fold: to earn more profit and to expand into Western EU market, Turkey and Russia from CEE-11. Chinese investment in CEE-11 not only has more diverse sector distribution, but also has more diverse investors. According to the statistics of MOFCOM, the proportion of China's FDI made by small and medium-sized enterprises and family firms, which usually in low-technology sectors, is higher in CEE-11 than in the whole EU region.

## **4. Determinants of China's outward FDI in CEE-11: an econometric approach**

In order to reveal the determinants of China's outward FDI, many researches use econometric model to estimate the significance of possible influential factors and to determine how these factors affect China's outward FDI by using data of several countries in a certain period. This section will propose possible determinants of China's outward FDI in CEE-11 on the basis of theories and literature and use China's outward FDI data in 11 CEE EU member countries from 2003 to 2014 and the econometric

model to estimate their influential ability. Results will be compared with the estimation results of possible determinants of China's outward FDI in whole EU region and EU-15. The 12-year time period is also divided into two subperiods to investigate whether or not the determinants of China's outward FDI in CEE-11 change over time.

#### **4.1. Hypotheses**

This part will propose the possible determinants of China's outward FDI derived from theories and literature and hypothesise on their ability to influence the distribution of China's outward FDI.

##### **a) Market-seeking FDI**

Theoretically, host country's market size plays a crucial role in attracting FDI (Dunning, 1980; Porter, 1990; Vernon, 1966). According to Dunning's eclectic theory, having location advantage is essential for multinational enterprises to invest abroad. Location advantages refer to the specific advantages that a specific location can provide to help the multinational enterprise gain more profits than other locations. The size and the characteristics of the host market are the most important factors. It was reported by UNCTAD that the opportunities and benefits of utilising the advantages of economy of scale and resources by FDI increase as the market size increases. Numerous researches state that market size and inward FDI are positively related. Recent researches also state that the fast growing China's outward FDI is driving by the market-seeking motivations due to the saturated domestic market (OECD, 2000; Voss, 2011) and they posit that China's outward FDI will be increasingly directed to large markets. Furthermore, existing theories suggest that market-oriented horizontal FDI is positively correlated with the growth of demand and some researches also demonstrate that there are more opportunities to generate profit in the fast growing market than in the slowly growing market. Therefore, three hypotheses can be derived:

Hypothesis 1a: China's outward FDI is positively associated with absolute market size

Hypothesis 1b: China's outward FDI is positively associated with relative market size

Hypothesis 1c: China's outward FDI is positively associated with market growth

## b) Resource-seeking FDI

Many researches argue that Chinese government plays an important role in stimulating China's outward FDI to natural resources-abundant countries. It is derived from the requirement of ensuring sustainable supply of domestic scarce natural resources as Chinese economy grows (Ye, 1992; Zhan, 1995; Buckley et al, 2008). The key resources that China need include metals, minerals, petroleum, timber and agriculture products (Wu, 1999; Cai, 1999). China needs to secure relatively cheap and stable access to these resources to compete in the volatile world market. Acquisition of stakes in Australian mineral companies and Canadian petroleum companies are examples of China's resource-seeking FDI. Internalisation theory also states that it is important have the control right in the exploitation of scarce natural resources. Therefore,

Hypothesis 2: China's outward FDI is positively associated with host country's natural resource endowment.

## c) Strategic assets-seeking FDI

Strategic assets are defined as resources and capabilities that can strengthen a firm's competitive advantage (Amit and Schoemaker, 1993). Strategic assets can equip multinational enterprises with ownership advantages, which is a crucial element for a company to compete in the global market. Many scholars argue that FDI is the most effective method to gain access to strategic assets (Chung and Alcacer, 2002; Wesson, 2004). China's outward FDI has been directed to host countries with advanced technology and abundant knowledge of international markets since 1980s. As reported by UNCTAD, about half of China's FDI via merger and acquisition have the primary motivation to acquire strategic assets. In recent years, Chinese state-owned enterprises have set a goal to access intangible strategic assets and proprietary technology (Deng, 2003; Buckley et al, 2007). Some scholars also expect that in the near future China's outward FDI will be more directed to developed economies with abundant intellectual and human capitals. Generally, scholars use the patent registration in host country to proxy the abundance of strategic assets. Therefore:

Hypothesis 3: China's outward FDI is positively associated with abundance of strategic assets in host country



#### d) Efficiency-seeking FDI

Efficiency-seeking FDI is the investment made by multinational enterprises to the host country where they can improve their production efficiency by utilizing cheaper production inputs. Dunning's eclectic theory states that low production cost is included in the location advantage. Relatively low production cost can help multinational enterprises to earn more profit. It is normally believed that efficiency is not the primary factor that pushes Chinese multinational enterprises to invest abroad. While after 2008 global financial crisis, production costs, especially high-skilled labour cost, have been increased significantly in China. Guangdong province, where most Chinese manufacturing factories locate, has increased the minimum wage by 21% in 2010 and increased again by 18% in 2011. From 2013, Guangdong even kept increasing the minimum wage by 20% in three consecutive years. Under the increasing production cost pressure, many Chinese companies began to transfer their production lines to inland provinces and also to other countries to control the production costs. Therefore,

Hypothesis 4: China's outward FDI is negatively associated with production cost.

#### e) Culture proximity

Recent researches state that multinational enterprises from emerging economies usually need to rely on some informal approaches to external resources and to reduce business risk. Social network within a same ethnic group is the most common approach they use. In Dunning's study, that kind of social network in host country is recognised as relationship assets. Chinese people regard social network as a pivotal factor in doing business. Social network can not only facilitate business, but also act as a supervision mechanism. For Chinese multinational enterprises, they can utilise the Chinese social network in host countries to reduce business risk and transaction costs and to increase business opportunities as well (Braeutigam, 2003; Erdener and Shapiro, 2005). Chinese residents in host countries can also help them to establish their own social network with local business partners. CEE countries have totally different culture and languages from China, Chinese multinational enterprises also need Chinese residents in host country to act as translators at the early stage of business. Several researches have proved that in Asia, China's outward FDI tends to flow to host countries with more Chinese residents and they argue that this phenomenon may also exist in other regions. Thus:

Hypothesis 5: China's outward FDI is positively associated with the total number of Chinese residents in the host country.

f) Institutional environment

Institution is important for economic development. Host country's institution can affect foreign company's willingness to invest in this country. Good institution can constraint behaviours of economic agent and reduce transaction cost. Numerous empirical researches have proved that host country's poor institutional environment and political risk deter FDI (Wheeler and Mody, 1992; Lipsey, 1999; Cheung and Qian, 2008). A variety of components are linked to the quality of institution, mainly including efficiency of bureaucracy, level of corruption and legal system's strength and impartiality. Recent researches begin to focus more on the relationship between host country's institutional environment and FDI flows than on the economic determinants. Low quality of institution can cause substantial loss to both foreign investor and host country. But China's outward FDI does not always flow to host countries with good institution. Buckley et al (2007) find that more Chinese investment flow to host countries with poor institutional environment by analysing approved China's outward FDI data in 49 host countries from 1984 to 2001. A number of large recipients of China's outward FDI do not have a decent institutional record, such as Sudan, which is always ranked as one of the least democratic and most corrupt countries (Kolstad and Wiig, 2009). Natural resource is an important factor related to China's choice of host country with different institution environments. Researches state that China's FDI in mining industry mainly takes place in host countries with poor institutional environment (Szunomár and Biedermann, 2014). Kolstad and Wiig (2009) found that the worse institution environment in the host country, the more China's FDI is attracted by natural resources. There also are a number of empirical studies argue that there is not significant relationship between China's outward FDI and host country's institutional environment (Cheung and Qian, 2008; Du, 2012). Thus,

Hypothesis 6: China's outward FDI is significantly attracted by host country with poor institutional environment.

g) Inflation rate

Stable macroeconomic environment in host country can attract foreign investors to establish a long-term economic cooperation relationship. Volatile and unpredictable macroeconomic environment in host country will increase the difficulties of products price-setting and long-term strategies devising for foreign companies. Volatile macroeconomic environment also results in exchange-rate instability and it will further lead to the uncertainty of real earnings of foreign investors. In conclusion, unstable macroeconomic environment discourages FDI inflows. Generally, inflation rate can be an indicator for macroeconomic stability. High inflation rate may cause domestic currency devaluation and further lead to negative impact on international trade and foreign investment. Inflation rate also has a significant impact on host country's economic growth that will affect the attractiveness to foreign investors (Khan & Senhadji, 2001). Moderate inflation usually accompanies with economic growth and host countries with moderate inflation may be more attractive for Chinese investors (Buckley et al, 2008; Kamal et al, 2014). But normally China's outward FDI is deterred by the high inflation in host countries (Yao and Wang, 2014; Wang, 2014; Buckley and Ghauri, 2015). Thus,

Hypothesis 7: China's outward FDI is negatively associated with host country's inflation rate.

#### h)Export

Export is the existing economic activities between host country and home country and it can proxy the intensity of the economic relation between two countries. FDI can provide local support functions for domestic exporters in host countries, such as trade development agencies and industrial parks, to support domestic exporters. FDI can also help Chinese product enter the foreign market without obstacles such as tariff and quota. Wu and Sia (2002) state that in 1980s and in early 1990s, Chinese outward FDI has a positive impact on China's export and can help domestic exporters to increase hard currency earnings. In recent period, trade still has a significant and positive impact on China's outward FDI (Kamal et al, 2014; Buckley et al, 2007). Falk and Hake (2008) employs 30 years' FDI and trade data of EU countries and conclude that a large amount of export will lead to FDI activities. Therefore,

Hypothesis 8: China's outward FDI is positively associated with China's export to the host country.

i) Market openness

Market openness measures to what extent a foreign companies can compete in a national market without encountering discriminatory and excessive restrictive conditions (OECD, 2010). Market openness also reflects the country's attitude toward economic liberalisation and overall market stability. Host country with high market openness usually has various policies to attract foreign investment and preferential treatment is widely provided in the host country to support the investment projects. Many studies state that the more open a country is to foreign investment, the more attractive the country is to foreign investors (Sauvant, 2008; Cheng and Ma, 2007; Szunomár et al, 2014). Therefore, the openness to FDI is also included in the model in this thesis.

Hypothesis 9: China's outward FDI is positively associated with host country's openness to FDI

## 4.2. Model, data source and methodology

Consistent with theories and hypotheses formulated above the basic estimate equation of China's outward FDI in CEE-11 is

$$LFDI_{i,t} = \alpha + \beta_1 \cdot LGDP_{i,t} + \beta_2 \cdot ORE_{i,t} + \beta_3 \cdot LPAT_{i,t} + \beta_4 \cdot LWAGE_{i,t} + \beta_5 \cdot LCNPP_{i,t} + \beta_6 \cdot LAW_{i,t} + \beta_7 \cdot INF_{i,t} + \beta_8 \cdot LEXP_{i,t} + \beta_9 \cdot OPEN_{i,t} + \varepsilon_{i,t}$$

In the empirical regression, 9 explanatory variables are used to test the hypothesis proposed above. Variables, except for ratios and index, are expressed in natural logarithmic forms.

*LFDI* is the dependent variable. China's annual outward FDI stock data in US dollars is used in this thesis. Annual outward FDI flow data is not used, because China only published data of approved FDI projects every year and even there is no new project approved in that year there are still actual FDI flows for previous approved projects. Therefore, China's annual outward FDI stock data is more stable and reliable. The data

is collected from *Statistical Bulletin of China's Outward Foreign Direct Investment*, which is jointly issued by MOFCOM, SAFE and NBS. The data can also be accessed via UNCTAD bilateral FDI database. Data is available from 2003 to 2014 and the data collection follows the IMF FDI data statistical standard.

For market-seeking motive are captured by *LGDP* to test Hypothesis 1a. GDP is the most frequently used indicator as a proxy for market size as it presents a good approximation of the total volume of an economy (Wheeler et al, 1992; Frankel & Wei, 1996). *LGDP* is the natural logarithm of host country's GDP in US dollars and it represents host country's market size. GDP per capita and GDP growth rate are not used in the regression, because variance inflation factor (VIF) test results show that these two variables may result in multicollinearity problems. Data is collected from World Development Indicators in World Bank database.

Natural resource endowment of host country is captured by variable *ORE* to test Hypothesis 2, which is the ratio of ore and metal exports to total merchandise export in host country. The ratio of ore and metal exports not only reveals host country's natural resources abundance, but also reveals host country's willingness to give access of their natural resource to foreign investors. Data for this variable is retrieved from World Developments Indicators in World Bank database.

*LPAT* captures the strategic assets-seeking motivation and it is used to test Hypothesis 3. The number of patent registration in host country is used in this thesis to represent the technology development level of host country. Nowadays, intellectual property becomes a key strategic asset in industries like telecommunication, information technology and manufacturing. Intellectual property can enable a company to exploit new market and protect the rights of innovative companies. Patent is the exclusive right granted for an invention. Therefore, patent can represent the host country's innovation ability and technology development. Data for this variable is collected from World Development Indicators in World Bank database.

*LWAGE* represents the efficiency-seeking motivation and it tests Hypothesis 4. Labour cost is the most important part of production costs and it varies from country to country. Therefore, this thesis uses average monthly wage in host country at current US dollars

to represent production cost in the regression. Data can be accessed in the database of United Nations Economic Commission for Europe (UNECE).

The number of ethnic Chinese residents in host country is used to proxy the culture proximity between host country and China. It is captured by the variable *LCNPP* and it tests Hypothesis 5. There is no single dataset can provide a comprehensive dataset of the statistic of overseas Chinese population. Thus, data of this variable is collected from several sources, including population censuses of host countries, previous research papers and publications of Chinese embassies in host countries.

Institutional environment can be affected by various factors. For Hypothesis 6, rule of law index provided by World Governance Indicators of World Bank is chosen to evaluate the institution environment in host country and the correspondent variable is *LAW*. Rule of law index is a comprehensive indicator. It not only describes to what extent that agents have confidence in and abide by the rules of society, but also includes the quality of contract enforcement, property rights, efficiency and effectiveness of the police and the courts as well as the frequency of crime and violence. Therefore, rule of law index can be a good measurement of host country institution environment.

*INF* is the variable representing the inflation rate in host country and it is used to test Hypothesis 7. Inflation is used as a proxy for macroeconomic environment in host country and the data is collected from World Development Indicators from World Bank database in annual percentage. *LEXP* is the variable representing China's export to host country and it is used to test Hypothesis 8. Data is collected from United Nations Commodity Trade Statistics Database (UN Comtrade) in US dollars. *OPEN* is the Host country's market openness to FDI and it is used to test Hypothesis 9. The measurement is the ratio of total inward FDI stock to GDP of host country. Data is also collected from World Development Indicators in World Bank database.

The summary of variables and data sources is provided in the appendix.

Panel data is used for the econometric estimation. It comprises data of 28 EU member countries and covers the period from 2003 to 2014. Linear estimation methods are used for the empirical analysis, including fixed effects method and random effects method. Fixed effects method explores the specific effect by estimating different intercepts for

each entity. Random effects method is based on Generalized Least Squares (GLS) estimator and it takes into account time series as well as the cross-sectional dimensions of the data. Random effects method treats the intercepts as random variables across the pooled member entities. The Hausman test tests the null hypothesis that there is no significant difference between coefficients estimated by fixed effects method and by random effects method. Therefore, Hausman test is used to determine which estimation results should be adopted.

In order to demonstrate the differences between the determinants of China's outward FDI in the whole EU picture and in 11 CEE EU member countries (CEE-11) and between the determinants of China's outward FDI in 15 original EU member countries (EU-15) and in CEE-11, two sub-samples, CEE-11 (132 observations) and EU-15 (180 observations), are employed for the comparison. Therefore, first regression will depict the estimation results for explanatory variables by taking up the full sample of 28 EU member countries. Second regression will present the estimation results for EU-15 and third regression will present the estimation results for CEE-11.

### 4.3. Results and explanations

Table 3 is the presentation of correlation results of all 10 variables used in the regression. The correlation matrix shows that the dataset is appropriate for the estimation.

Table 3 Variable Correlation Matrix

	LFDI	LGDP	ORE	LPAT	LWAG	LCNP	LAW	INF	LEXP	OPEN
LFDI	1.000									
LGDP	0.601	1.000								
ORE	(0.050)	(0.215)	1.000							
LPAT	0.507	0.917	(0.266)	1.000						
LWAG	0.417	0.522	(0.210)	0.328	1.000					
LCNP	0.569	0.903	(0.190)	0.778	0.535	1.000				
LAW	0.255	0.326	(0.333)	0.231	0.819	0.324	1.000			
INF	(0.203)	(0.224)	0.154	(0.130)	(0.441)	(0.218)	(0.361)	1.000		
LEXP	0.731	0.871	(0.211)	0.757	0.553	0.802	0.353	(0.233)	1.000	
OPEN	0.031	(0.207)	(0.035)	(0.240)	0.100	(0.101)	0.148	0.058	(0.032)	1.000

Table 4 presents both fixed effects and random effects regression results for three regressions over the period 2003-2014. The results of Hausman test shows that for all three regressions, the results of fixed effects estimation should be adopted. Therefore, only fixed effects estimation results are discussed in the following part. The results state that over the period 2003-2014, the number of ethnic Chinese residents in host country and China's export to the host country have a significantly positive impact on China's FDI in CEE-11 region and China's FDI is negatively associated with the institution environment of host country. While the determinants of China's FDI in EU-15 and whole EU region demonstrate some differences from the results of CEE-11. Detailed results and possible explanations are provided in the following part.



Table 4 Regression results, Standard errors in parentheses, \*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

	EU-28		EU-15		CEE-11	
	FE	RE	FE	RE	FE	RE
LGDP	0.009 (1.199)	-1.571*** (0.505)	-2.978 (2.620)	-3.113*** (0.941)	1.268 (1.308)	0.170 (0.559)
ORE	0.141* (0.079)	0.149** (0.065)	0.130* (0.206)	0.254** (0.184)	-0.018 (0.125)	0.025 (0.064)
LPAT	0.147 (0.231)	0.308 (0.223)	0.662* (0.396)	0.557 (0.358)	-0.196 (0.433)	-0.494 (0.306)
LWAGE	-0.600 (1.247)	-1.294** (0.561)	-0.693** (2.855)	-0.658*** (1.169)	-1.561 (1.392)	-0.385 (0.511)
LCNPP	5.072*** (0.482)	0.702*** (0.239)	4.791*** (0.682)	2.634*** (0.528)	2.579*** (0.699)	0.244 (0.215)
LAW	1.380* (0.786)	-0.910 (0.592)	2.126* (1.242)	0.791 (0.942)	-3.005*** (1.143)	-1.137 (0.722)
INF	-0.084** (0.039)	-0.120*** (0.042)	-0.159* (0.090)	-0.259*** (0.090)	-0.047 (0.040)	-0.052 (0.038)
LEXP	0.599** (0.237)	1.687*** (0.202)	0.418 (0.440)	0.850** (0.418)	1.516*** (0.272)	1.792*** (0.246)
OPEN	0.002 (0.005)	0.002 (0.005)	0.006 (0.007)	0.008 (0.007)	-0.023 (0.015)	-0.025* (0.015)
Constant	-46.161** (21.740)	3.383 (8.469)	-25.850** (47.780)	4.667 (18.230)	-52.340** (23.480)	-21.483** (8.980)
Observations	336	336	180	180	132	132
No. of country	28	28	15	15	11	11
R <sup>2</sup>	0.6070	0.4800	0.6980	0.6632	0.6560	0.6108
Prob>chi2	89.56(0.000)***		37.93(0.000)***		19.1(0.0243)**	

For market-seeking motivations, the results show no significance in whole EU region, in EU-15 and in CEE-11. Thus, the Hypothesis 1a that China's outwards FDI is positively associated with host country's absolute market size is not supported. This result is not consistent with the statements in many previous researches that the market-seeking motivation measured by host country's market size is an important factor for China's outward FDI. There might be two possible explanations. Primarily, EU is an integrated market and the market size of one single member state has no significant impact on investors' location choice. Because investors investing in EU normally focus on the whole EU market rather than a single country. Second explanation might be the results of 2008 global financial crisis and the European debt crisis started from the end

of 2009. These two crises have a great impact on European consumers' purchasing power but these two crises enabled Chinese companies to acquire massive assets in EU at a lower price.

For resource-seeking motivations, the abundance of natural resource is significantly and positively associated with China's outward FDI in whole EU region and in EU-15 at 90% confidence level, but does not have significant impact in CEE-11. Therefore, Hypothesis 2 is rejected in CEE-11. Chinese state-owned enterprises are proactively seeking for access to natural resources to secure the country has stable and relatively cheap natural resources supplies in the long run. In recent years, China has acquired several Western European mining companies. Although Europe is not attracting investment relying on the abundance of natural resource, those companies usually have large resource assets abroad that can meet China's demand. In CEE-11 sub region, the resource-seeking motivation presents no significance. China's outward FDI in CEE-11 mainly focus on the infrastructure, manufacturing and telecommunications industries at current stage. As the focus of China's outward FDI is shifting from energy and natural resources to advanced technology and consumption sectors, the resource-seeking motivation will become less and less important.

For strategic assets-seeking motivation, the results present no significance in the whole EU region and CEE-11 region. Therefore, Hypothesis 3 is not supported in the case of CEE-11. But the results demonstrate that China's outward FDI is significantly and positively associated to the host country's abundance of strategic assets in EU-15 subregion at 90% confidence level. The result of regressions of EU-15 is consistent with several recent researches. As the focus of China's outward FDI is shifting from energy and natural resources to advanced technology and consumption sectors, China needs to acquire strategic assets to enhance its competitiveness in the global market. EU-15 is one of the most developed regions in the world and these 15 countries have mature distribution network, well-known brands, advanced technologies and abundant human capital. EU-15 becomes an ideal destination for Chinese investors to acquire strategic assets and transfer those advantages back to home market. While CEE-11 has obvious weaknesses in technology, especially in telecommunications, and infrastructure experiences, CEE-11 need to acquire more strategic assets from Chinese investors than Chinese investors acquired in CEE-11. Besides, China's FDI in CEE-11 at current stage

mainly aims to facilitate more future investment. Therefore, strategic assets do not significantly affect China's FDI in CEE-11 over the entire estimation period.

For efficiency-seeking motivation, the results demonstrate no significance in the whole EU region and CEE-11 region. Therefore □ Hypothesis 4 is not supported in CEE-11. But the regression results state that China's outward FDI is significantly and negatively associated to the host labour cost in EU-15 subregion at 95% confidence level. The possible explanation is that Chinese multinational enterprises have different labour source in different region of EU. In CEE-11, a large number of Chinese investments are concentrated in the construction and some other labour-intensive industries. Therefore, Chinese multinational enterprises prefer to hire more workers from China. The purpose of having their own workforce from China is three-fold: to control the labour costs, to ensure smooth communication between management and frontline workers and to ease the pressure of domestic labour market. In EU-15 region, most investments are concentrated in business services, telecommunications and some high technology industries. Chinese multinational enterprises hire more local employees because local employees master the advanced technology and know-how of the business. Therefore, local labour cost in host country is important for Chinese investors to control the total labour cost in EU-15 countries.

For culture proximity factor, the results are significant at 99% confidence level in all three regressions, which means Hypothesis 5 is accepted. The results are consistent with argument of previous researches that Chinese multinational enterprises tend to invest in host countries with more ethnic Chinese residents (Cheng and Ma, 2007; Buckley et al, 2008; Kolstad and Wiig, 2009). Europe is distant from China and European countries use totally different language systems from Chinese. It is difficult for Chinese investors to adapt into the culture environment and the way of doing business in Europe by themselves (Clegg and Voss, 2012). Ethnic Chinese residents in host country can be considered as an important relation asset for Chinese investors. They can provide necessary information about host country, help new Chinese investors to establish their business network and, furthermore, reduce transaction costs. Ethnic Chinese community in host country constitutes a special ownership advantage for both private investors and state-owned firms (Buckley et al, 2007). This significant result also provides

explanation for the large amount of Chinese investment in Hungary, because Hungary hosts the largest Chinese community in CEE-11.

Institutional environment of host country plays a significant role for all three regions, but the impact varies. In EU-15 region, good quality of institution has a positive impact on attracting China's FDI. This result is consistent with statements of many theoretical studies that good institution can reduce transaction costs, reduce business risk and improve productivity and therefore attracts more FDI (Globerman and Shapiro, 2002; Blonigen, 2005; Asiedu, 2006). However, in CEE-11 region, quality of institution is negatively related to China's FDI. Therefore, Hypothesis 6 is accepted in CEE-11. The result is similar to the previous research of Buckley et al (2007). Chinese investors do not always follow the normal pattern that FDI normally flows to host countries with good institution. Large amount of Chinese investments in CEE-11 countries are predominantly made by state-owned enterprises. Generally, the primary aim of FDI carried out by state-owned enterprises is to achieve political objectives instead of achieving profit maximization. Those political objectives mainly include promoting domestic development (Deng, 2004), supporting the foreign policy and stimulating the economic development of host countries (Yeung and Liu, 2008). Cheng and Ma (2008) also argue that even private Chinese investments may to some extent reflect political objectives in order to receive incentives. Therefore, Chinese investors invest heavily in CEE-11 under the promotion of government policy while regardless the quality of institution environment in CEE-11. Besides, China has a different regime from major FDI source countries and it is frequently criticised of government corruption and weak legal and regulation system. Some studies suggest that similarities of institutions between home and host country can be a factor to increase the bilateral FDI flow. According to Habib and Zurawicki (2002), big differences in the corruption level between home and host country have a negative impact in bilateral FDI. This may be one explanation for negative correlation between China's FDI and quality of institution in CEE-11 region. Moreover, a number of researches suggest that Chinese companies have special competitive advantages in host countries with weak institution. Compared to investors from developed economies, Chinese companies have unique experience of doing business in opaque business environment and the weak regulation in host country may makes questionable corruption activities less risky. Burgoon and Raess (2014) investigates the relationship between China's outward FDI in 27 EU member countries

and host country's labour regulations and their results suggest that Chinese investors present a stronger tendency than other investors to invest in host countries with less stringent employment protections and working standards. Jacoby (2014) argue that Chinese investors may actually prefer business environment with a certain level of corruption and Nyíri (2011) state that Chinese firms have invested in locales with extreme levels of corruption in both Asia and Africa.

The inflation rate in host country is negatively related to China's outward FDI in all regression results. The results are significant in full EU sample and EU-15 sample. The results demonstrate that host country with lower inflation rate attracts more China's FDI. Inflation erodes consumers' purchasing power and reduce the real earning of investors. A stable macroeconomic environment can provide more certainty for future investments and therefore the host country can attract more investments. But the result is not significant in CEE region, which does not support Hypothesis 7 in CEE-11. It means that macroeconomic stability is unlikely to influence China's investment in CEE region. The phenomenon may also result from China's proactive promotion for investment in CEE-11.

*LEXP* is China's annual exports to the host country. It represents the existing economic relation between home and host country. The fixed effects estimation results show that China's export to host country augment China's FDI in that country. The result shows significance at 95% confidence level in whole EU sample and the regression result of CEE-11 sample shows significance at 99% confidence level. Therefore, Hypothesis 8 is accepted in CEE-11 region. The results are consistent with previous studies of Bevan and Estrin (2004), Buckley et al (2007) and Kamal et al (2014). One explanation for the results is that Chinese government provides supports, including foreign exchange assistance and financial incentives, to domestic exporters to foster trade-related FDI (Wong and Chan, 2003). Exporters are willing to directly invest in CEE countries to avoid trade barriers such as trade tariff and trade quota and use CEE countries as a springboard to enter West Europe market. Besides, the larger amount of Chinese export to host country can represent a closer economic relation between China and the host country. Investments are normally led to countries with a closer relation with home country, because the knowledge about the destination that acquired in previous business transactions can help reduce the upfront costs. But the impact of China's export is not

significant in EU-15 region. The possible explanation is that the primary purpose of China's FDI in EU-15 region is not to facilitate trade. China's FDI in EU-15 focused on business, finance and high technology industries and the primary purpose of China's FDI in EU-15 at current stage is to obtain strategic assets (Deloitte, 2015).

The results for market openness are not significant for all regressions. Therefore, hypothesis 9 is rejected. Market openness was an important factor to attract foreign investments in 1980s and 1990s (Buckley et al, 2007), but globalization forced every country to open its market. In 2009, the signing and ratification of the Treaty of Lisbon moved EU member states closer to offer a more integrated approach to FDI (Clegg and Voss, 2007) and most member states have bilateral investment treaty with China. Therefore, there is no significant difference in market openness among EU member countries. Each country's market openness is not an important factor now.

#### **4.4. Comparison between determinants of China's FDI in EU-15 and in CEE-11**

It can be noticed from the regression results presented above that there are some differences between determinants of China's FDI in EU-15 and in CEE-11 countries. Among all the differences, there are two most important differences.

First, strategic assets abundance is a significant determinants of China's FDI in EU-15 but not in CEE-11 countries. EU-15 is a highly developed region and it has a large number of research and development centres for the most advanced technology in the world. EU-15 also applied advanced technologies to productions successfully. In 2003, the average value of high-technology exports of EU-15 countries was five times more than that of CEE-11. Although CEE-11 countries are catching up and invest more in research and development, the average value of high-technology exports of EU-15 countries was still 2.5 times more than that of CEE 11 at the end of 2014. There still exists a big gap in capacity of research and development between CEE-11 and EU-15. According to a research conducted by University of Antwerp in 2013, in EU, more than 80% of Chinese-owned knowledge intensive service companies and high-technology manufacturing companies are located in EU-15 region and more than 60% of Chinese-owned low-technology manufacturing companies are located in CEE region. Technology development does not only attract more foreign investment to high value-

added industries, but also affect the job creation effect of FDI. In CEE-11, China has investments project mainly in infrastructure, telecommunication and manufacturing industries. Although these industries need a large number of workers, but Chinese companies prefer to expatriate their own employees from China and recruit Chinese workers rather than hire more local workers, especially in telecommunication and infrastructure companies. Since China is now at the leading position in telecommunication industry, they can recruit more high-skilled employees in China than in CEE countries. Besides, wages of low-skilled labour in infrastructure industry in CEE countries are higher than expatriate Chinese workers. This leads to the fact that Chinese companies in CEE countries are using more expatriate from China than local workers. Moreover, with the same culture background, it is also much easier for management to communicate with Chinese workers to avoid labour conflict. In EU-15, Chinese investments are concentrated in business service, finance and research and development. Chinese companies tend to hire more local employees because local employees have a better understanding of the host country market and they have more advanced technology that Chinese employees do not master. This also reflects in the regression results of variable LWAGE that labour cost is a significant factor to influence Chinese companies' location choice in EU-15, because they hire more local employees and local labour cost can affect the total production costs. While labour cost is not a significant determinant in CEE-11. Actually CEE-11 countries have comparative technology advantages in mining, environment protection, ship manufacturing and aircraft manufacturing. CEE countries should attract more China's FDI to these key industries and create a win-win business relationship.

Second, good institution environment in EU-15 significantly attracts Chinese FDI while in CEE-11 it significantly deters Chinese FDI. EU-15 is a mature and highly regulated market and it has a long history of market economy. CEE-11 countries are transition countries that transited from central-planning economy to market economy in late 1980s and in early 1990s. CEE-11 countries only have about 20 years' experience in market economy and they are still undergoing a series of structural transformations that intend to develop better market-based institutions. Although these countries have made great efforts to liberalised market and establish a better legal and regulatory system, according to the rule of law index of World Governance Indicator issued by World Bank, the average score of EU-15 is three times higher than that of CEE-11 over the

whole sample period. According to the definition of rule of law index, the higher the rule of law index score is, the better institution environment the host country has. Therefore, there is an obvious gap in quality of institution between CEE-11 and EU-15. Although for the 12-year sample period, poor institution in CEE-11 is a factor to attract Chinese FDI, it is not a good way to keep long-term economic cooperation relationship. Besides, Chinese companies already have some failed investments in CEE-11. The best-known case is the failure of Chinese Overseas Engineering Group (COVEC) in completing the construction of A2 motorway in Poland. GDDKiA (Polish General Director for National Roads and Motorways) has long been criticised for corruption and inefficiency. Poland's construction contract is different from standard contracts used in the rest of Europe and GDDKiA does not clarify details of construction project in many cases (Lowe and Leszkowicz, 2013). When companies inquire into the obscure details, they only give two choices to companies: take the risk or quit the bid. Moreover, when contractors encounter unforeseen problems and need to adjust construction costs, GDDKiA always reject any change. Due to the demand to upgrade the infrastructure, in 2008, Polish ruling party People's party invited Chinese companies to bid for construct the A2 motorway. Although COVEC knew the information about the poor institution environment in infrastructure sector in Poland, COVEC still bid for the project after considering the promised government support and the need to take A2 motorway as a start point to enter the CEE infrastructure market. However, Polish government did not take the low project costs proposed by COVEC as a potential trouble. In 2009, the rapid rising of material price combined with unforeseen environmental problem forced COVEC to raise its offer, but Polish government did not act as COVEC thought to negotiate with them and provide possible help. Polish government directly terminated the contract and claimed damages for the incomplete of contract. Because Polish government deleted some terms of the standard contract that are benefit for constructor, COVEC was unable to settle the dispute in court and paid €180 million compensation. COVEC's failure in Poland not only resulted in huge financial loss, but also created a negative image of Chinese companies in Europe. The failure also implied that investing in host country with bad institution is no longer a good choice for Chinese investors.



#### **4.5. Determinants of China's FDI in CEE-11 change over time**

In order to investigate whether or not the determinants of China's FDI have changed during the 12-year period, the whole sample period is divided into two subperiods: 2003-2008 and 2009-2014. Fixed effects method and random effects method are still used for the regression. According to the results of Hausman test, the random effects regression results are adopted for period 2003-2008 and fixed effects regression results are adopted for period 2009-2014. The results are presented in Table 5. The results state that in 2003-2008 period, China's FDI in CEE-11 region is significantly and positively associated with the number of ethnic Chinese residents in host country and China's export to the host country while significantly and negatively associated with the quality of institutional environment of host country; in 2009-2014 period, China's FDI in CEE-11 region is significantly and positively attracted by host country's the strategic assets (LPAT), culture proximity (LCNPP) and existing trade relation (LEXP) while significantly deterred by host country's GDP and labour cost. From the results, it can be noticed that Chinese FDI has changed in characteristics during the study period.

Table 5 Regression results, Standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

	2003-2008		2009-2014	
	FE	RE	FE	RE
LGDP	-0.415 (1.790)	-0.048 (0.756)	-4.497* (2.342)	0.084 (0.662)
ORE	-0.230 (0.138)	-0.117 (0.080)	0.190 (0.160)	0.090 (0.069)
LPAT	-0.639 (1.011)	-0.241 (0.439)	0.690* (0.349)	0.166 (0.308)
LWAGE	-1.796 (1.931)	-0.777 (0.582)	-1.536*** (2.605)	0.312 (0.680)
LCNPP	4.066*** (1.345)	0.162*** (0.250)	1.336*** (0.827)	0.683*** (0.234)
LAW	1.334 (2.655)	-1.536* (0.912)	-2.039 (1.332)	-0.128 (0.863)
INF	0.011 (0.058)	-0.011 (0.045)	-0.078 (0.059)	-0.064 (0.055)
LEXP	1.533*** (0.377)	1.766*** (0.332)	0.806* (0.415)	0.765* (0.398)
OPEN	0.031 (0.019)	0.028 (0.018)	-0.010 (0.024)	0.002 (0.028)
Constant	-19.570 (32.170)	-11.560 (11.240)	46.990 (44.160)	-9.835 (11.540)
Observations	66	66	66	66
No. country	11	11	11	11
R-squared	0.6630	0.5785	0.4850	0.2966
Prob>chi2	13.76 (0.1309)		24.91(0.0031)**	

In 2009-2014 period, host country GDP has a significant and negative impact on Chinese FDI in CEE-11. The reason is that after 2008 global financial crisis, most countries have experienced the economy recession and the GDP decrease. Consumer's purchasing power also decreased. But the lower the host country GDP, the bigger the chance Chinese companies can invest in the host country. The economy recession also gives a chance to Chinese investors to acquire assets at a lower price.

Strategic abundance (LPAT) and labour cost become significant factors that determine Chinese FDI in host country. Strategic assets abundance has significant and positive impact on Chinese investment in CEE-11 in 2009-2014 period. This result indicates that CEE countries began to use their technology and innovation advantages to attract

Chinese investors. Host country's unique technology and innovation ability is hard to be replaced by other advantages and it meets Chinese companies' need to learn new technology and know-how through FDI. High labour cost of host country has a negative impact on attracting Chinese FDI and the impact becomes significant in recent period. There are two main reasons for the change. First, after 2008 global financial crisis, labour cost in China's domestic labour market has been increasing constantly and cheap labour force is not a significant advantage of China in recent years. Chinese companies are seeking cheap labour force in other countries and tend to hire more local employees to save the compensation that should be paid for expatriates. Second, since there are more and more Chinese investment projects in CEE, many countries set restrictions about the composition of employees in order to take the advantage to create more jobs for their citizens and further revive its domestic economy. For example, Poland has set a restriction that the number of Chinese employees in Chinese-owned companies in Poland cannot exceed 1/6 of total number of employees. Therefore, labour cost becomes a significant production cost for Chinese investors and they tend to invest in host country with lower labour cost, especially in low-technology labour-intensive industries like infrastructure.

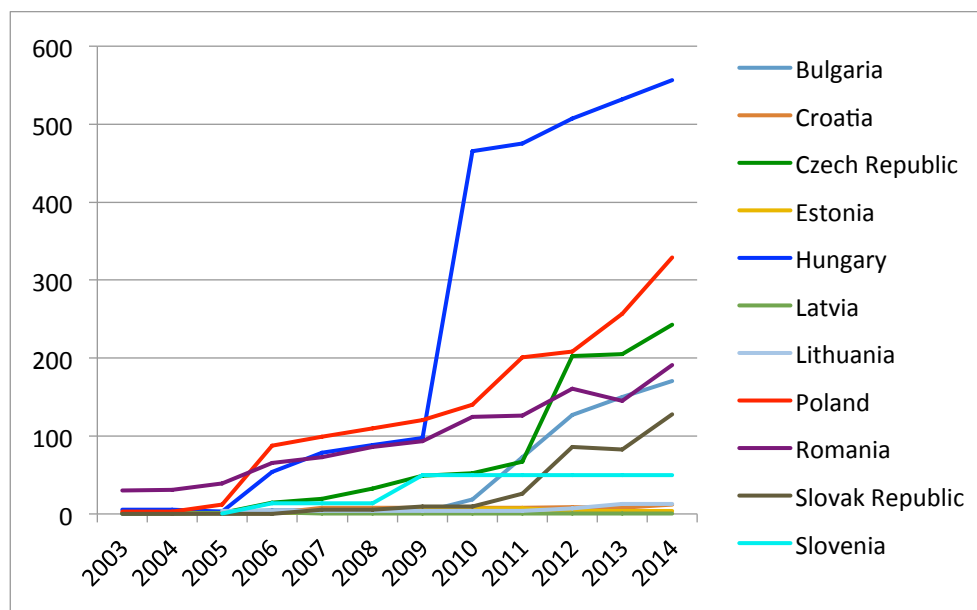
Considering the institution environment of host country, in 2003-2008 period, poor institution significantly attracts Chinese investors but it is not a significant factor in 2009-2014 period. Chinese investors have experienced significant losses due to host country's bad quality of institution such as COVEC's failure in Poland. After the failure, Chinese investors realised the good quality of institution in host country not only provides a stable and secure investment environment, but also secure their rights and profits by the sound legal system and accountable regulatory regime when facing disputes and conflicts.

Chinese export to host country has always been a significant factor to attract Chinese FDI through the whole period, but the power decreases in the second period. This implies that Chinese FDI in CEE becomes less export-oriented. Chinese investment in CEE region becomes more diverse in recent period. The main purpose changed from facilitating Chinese export to CEE and EU into taking the advantage of strategic assets of CEE-11 countries in aircraft manufacturing, environment protection and some other industries that CEE-11 countries have abundant related experience.

## 5. Determinants beyond economy

Recent trend demonstrates that Chinese FDI in CEE-11 region is not only driven by economic motivations but also driven by the proactive attitudes of both home country and host country towards closer cooperation. As it can be noticed from Graph 7, there are three significant turning points that are deserved to be discussed.

Graph 7 China's FDI stock in CEE-11 countries, 2003-2014, in million US\$, MOFCOM



First, it can be noticed from the graph that Chinese FDI in Hungary increased significantly in 2010 and Hungary took 89% of total Chinese investment FDI flow to CEE region in that year. After 2010, Hungary became the largest recipient of Chinese FDI. Except for Hungary's location advantages and competitive advantages in production, the proactive attitudes to promote economic cooperation of bilateral government can be the primary momentum. China and Hungary has a long history of good bilateral relationship. Before 1989, China was an ally of Hungary on the basis of the relationship between China and Soviet Union. After the fall of the Iron Curtain in 1989, Hungary and China both signalled to continue to strengthen their relationship and these two countries even had a bilateral visa-free policy in early 1990s. During first term of premier of Viktor Orbán, Hungary government neglected the importance of China and executed a pro-West policy to seek closer cooperation with US and Western European countries. After Hungary's accession to EU in 2004, Chinese FDI in Hungary

grows steadily and Orbán begin to glorify the importance of China in his second term of premier from 2010. The new government promote a series of bilateral culture and business communication activities and Xi Jinping, who was Chinese vice president at that time, visited Budapest in 2009 and Hungarian Prime Minister Viktor Orbán visited China in 2010. The frequent communications at government and non-government level resulted in a huge raise of Chinese FDI flow. During the state visit, several big business projects were approved. In 2010, Viktor Orbán facilitated the buy-out of Hungarian biochemical giant BorsodChem made by Chinese company Wanhua Industrial Group and Chinese telecommunication company ZTE opened a subsidiary in Budapest. The bilateral relation was also further strengthened when Hungarian Prime Minister refused to meet Dalai Lama and Chinese government regarded this as a great gesture of Hungarian government to China. In conclusion, the rapid growth of Chinese FDI stock in Hungary is related to the political relations between these two countries.

The second significant turning point is that Chinese FDI in Bulgaria began to increase rapidly since 2010. The bilateral relationship between Bulgaria and China has been continuous developing since 1980s. The collapse of communism in Bulgaria did not put any obstacles in the bilateral relationship between China and Bulgaria. Bulgaria and China signed an agreement to prevent double taxation to facilitate more investments in 1989, which is earlier than most CEE countries. An agreement to support and protect of investments was also signed in 1995. Since then, Chinese FDI stock in Bulgaria grows steadily but was still at very low level when compared to Visegrad group countries. In 2010, the then Chinese Premier Wen Jiabao had a meeting with Bulgarian Prime Minister Borissov in New York and they both agreed to put more efforts to stimulate bilateral economic cooperation and culture communication. In the same year, in addition to a series of agreements and additional protocols signed in the first decade of new millennium at country level, a new series of economic agreements were signed not only at country level, but also includes cooperation agreements at region level and agreements between Bulgarian central government and individual Chinese provinces. A Bulgaria trade fair was held in Guangzhou, China to further introduce Bulgaria to Chinese investors. Most Chinese FDI flowed to renewable resources, telecommunications, automobile industry and agriculture. In 2011 Chinese company Great Wall Motors opened 20 sales offices in Bulgaria and in 2012 a joined venture was founded for electrical vehicle production in Bulgaria. After the 2010, Chinese FDI in

Bulgaria grows rapidly and became the fifth largest recipient of Chinese investment in CEE region in 2014.

From the two country cases, it can be observed that bilateral political relation and intense interactions of bilateral governments can be a driving force for China's outward FDI. In addition to the two country cases explained above, Czech republic is also a good example. Before the collapse of Soviet Union, the relationship between China and Czechoslovakia was largely depended on the relationship between China and Soviet Union. After the dissolution of Czechoslovakia, China has established the diplomatic relation with Czech Republic and upheld agreements and treaties signed by former government. But in 1990s and the first decade of 21th century, Czech Republic's foreign policy was mainly pro-West and China-Czech relation was almost the coldest in Europe. Besides, the relation between China and Czech Republic was tainted by disputes over human rights, Tibet issue and Taiwan issue. Therefore, the scale of Chinese investment in Czech Republic at that time was relatively small compared to Chinese investment in its neighbour CEE countries such as Hungary and Poland. After privatization and liberalization programme and Czech Republic's accession to EU, Czech Republic becomes an attractive destination of foreign investment. Moreover, Miloš Zeman was elected as Czech president in 2013 and the new government shifted the Czech foreign policy towards China. In 2013, Czech Republic hosted the Czech-China investment forum and marked the restart of Czech-China collaboration. In 2014, Czech Foreign Minister Zaorálek visited China, which was the first official visit of Czech Foreign Minister in 15 years. After his visit, intensive interactions between Chinese and Czech government, including two state visits of President Miloš Zeman and President Xi Jinping, have strengthened their partnership and boosted economic cooperation and culture communication. In 2015, after President Miloš Zeman's visit to China, bilateral trade volume reached US\$11 billion and Chinese FDI stock in Czech Republic reached US\$1.6 billion, which was a steep growth from 2014. Chinese president Xi Jinping's visit to Czech Republic in March 2016 stimulated even more investment. During his visit, more than 20 cooperation agreements were signed and more than US\$2 billion Chinese investments projects in Czech Republic were settled.

The most important trend can be noticed from the graph is that Chinese FDI increases rapidly in most CEE countries after 2012. One explanation for this phenomenon is that

Chinese investors regard the Eurozone crisis as a good opportunity to cut into EU market. A number of investors fled Europe due to the crisis and it enabled Chinese investors to acquire assets at a relatively lower price, especially for the brand and technology that Chinese investors need most at current phase of FDI. More importantly, the meeting of leaders of China and CEE countries was held in Warsaw in April 2012 and the then Chinese Premier Wen Jiabao proposed “12 Measures”. “12 measures” are aimed to promote cooperation and communication between China and CEE countries in business, culture and finance, to strengthen mutual understanding and to facilitate more investment projects. In September 2012, the Secretariat for Cooperation between China and Central and Eastern European Countries was established in Beijing, which marked the new era of China-CEE cooperation and implied the proactive attitudes of both side. China-CEE summit is held annually now and results in rapid growth of Chinese FDI in CEE region.

Governments’ proactive attitudes towards bilateral cooperation can positively and significantly affect investors’ decisions and affect FDI flows. Throughout the 20th century, most FDI flows were from developed economies to developing economies. But FDI from emerging economies to developed economies exploded in the first decade of 21st century. Since 2008, Chinese outward FDI flow to developed economies such as EU and US grows rapidly. Chinese companies use investments in developed economies to acquire intangible assets and move up their value chain in global market. However, this poses potential political problems for some European politicians (Meunier, 2012). Besides, according to MOFCOM’s statistical bulletin, about 2/3 of Chinese overseas investments are made by state-owned enterprises. Since China is under a different political regime, the “Socialism with Chinese characteristics” stated by Chinese government heightens the sensitivity of Chinese FDI in developed economies. Many politician and scholars suspect that Chinese FDI is not only to achieve profit maximization and they are also concerned that China would use the technologies they obtain in developed economies for military use. Besides, politicians are worried that EU countries would be dependent on Chinese investments and provide China with political and security leverage (Meunier, 2012). Therefore, EU countries did not put much effort to welcome Chinese FDI in early 2000s and there were several cases of trade disputes between China and EU. After the 2008 global financial crisis and European sovereign debt crisis, EU began to realise the importance of China as a potential “saviour” for EU

economy and most countries began to put more effort to facilitate Chinese FDI in EU, including improving communications between governments and reducing barriers for potential investors. Intensive China-EU leadership interaction, annual summit and a series of economic agreements highlight the proactive attitudes towards closer cooperation of both China and EU. Intensive political interaction leads to steep growth of Chinese FDI in EU, including 11 CEE countries. CEE countries also established a special 16+1 cooperation framework with China and it is foreseeable that China's FDI in CEE-11 will continue increasing under the promotion of bilateral governments.

## **6. Suggestions**

From the empirical analysis results and the comparison between determinants of China's FDI in CEE-11 and on EU-15, it can be noticed that there is a huge potential of closer economic cooperation between China and CEE-11 countries. Therefore, in this section, suggestions are provided for both CEE-11 countries and China to support further attraction of China's FDI into CEE-11 countries.

### **6.1. For CEE-11 countries**

First, it is necessary to make it easier for Chinese expatriate to work in CEE countries. Simplification of the visa and work permit regulation and approval procedure is a start point. Key obstacles were reported by Chinese multinational enterprises that it is difficult for Chinese employees to obtain business visa and work permit. A survey conducted by European Union Chamber of Commerce in China in 2013 indicated that 32% of respondents of the survey encountered difficulties related to obtaining residence and work permit in EU. Normally, they have to wait for about two months after submitting application documents. Although many CEE countries have set restrictions about the composition of Chinese-owned companies and require Chinese companies hiring more local employees, expatriates play a crucial role in establishing subsidiaries and recruitment of local employees and investment projects' early operation determines the future development of those projects. Governments should examine and optimize the procedure of granting related documents.

Second, more preferential and necessary investment promotion policies are needed and those policies should be actually implemented. In order to attract more Chinese FDI,



many CEE countries have promised to provide preferential treatment for Chinese investors. However, in practice, not many promised preferential treatments are implemented. Implementation process is constrained due to institutional constraints, implementation difficulties and potential conflicts with EU regulations. Governments should put more effort to implement promised preferential treatments and promote more necessary policies to keep the upward trajectory of Chinese FDI in CEE region. One policy-related issue is double taxation. Double taxation in FDI situation is that one company is levied of tax by two or more jurisdictions on the same declared income, asset or financial transaction. For example, their dividend is taxed of withholding tax in the source country and it is taxed one more time in the residence country (UN, 2011). The avoidance of double taxation enables multinational enterprises to evaluate their tax burden and after-tax income more precisely and it is conducive to attract more foreign investments. China signed agreements to avoid double taxation with most CEE countries in 1990s. After 20-year development of international business, those agreements need to be updated to be applicable in current international business environment. China has signed new taxation agreement with Czech Republic in 2009 and plans to sign the new taxation agreement with Romania in 2016, other CEE countries should also update the taxation agreement with China as soon as possible. Moreover, in addition to implementation of current policy and preferential treatment, governments should also investigate whether any more preferential policies can be adopted to further mitigate transaction costs.

Third, CEE-11 countries should promote their strategic assets as an important advantage. As it can be seen from the empirical analysis of determinants of China's FDI in CEE countries from 2003 to 2014, strategic seeking assets becomes a significant motivation of Chinese investment in CEE-11 region in recent period. But compared to EU-15, strategic assets is still not a main attractive point of CEE-11 countries. CEE-11 countries have advanced technology in automobile manufacturing, environment protection, mining, ship manufacturing and aircraft manufacturing. CEE countries should open these industries for Chinese investors who need these technologies. But it is commonly recognised that it is relatively difficult for Chinese investors to invest in some sensitive high-technology industries in CEE countries, such as aircraft manufacturing and ship manufacturing. The main reason is that it may become a potential risk due to China's special political regime and potential threat of military.

CEE-11 countries should discreetly open some of those industries for Chinese investors and those industries commonly can attract massive capital inflows. Besides, investment in high technology industries not only enables Chinese investors to learn and transfer these technologies and know-how back to China, but also creates more jobs in host countries than investment in labour-intensive low-technology industries.

More importantly, CEE-11 should work closely with other EU member states to achieve the goal of the Treaty of Lisbon. EU is a special region, which comprises 28 member states and every member state has diverse strengths and weaknesses. EU has the integrated market that Chinese companies can set up their value chain across the entire region and Chinese companies regard CEE-11 as the bridge to enter Western Europe market. However, due to the inconsistency of investment policy among member states and different institution environment, Chinese companies have to adopt different strategies for different countries and this lead to increases of operation costs. The Treaty of Lisbon, which was signed in 2009, assigned competence for a joint FDI policy to the EU Commission to end the disparate situation that each member state has a large number of bilateral investment treaties, which resulted in inconsistency of policy across EU and complexity for investors. The implementation of the Treaty of Lisbon also enabled EU and China to start the negotiation of EU-China investment treaty (Clegg and Voss, 2012). But it is not easy to achieve its goals. Every country wants more FDI flows into their own country and the multitude of different bureaucracies in member states is a disincentive to achievement of the goal of the Treaty of Lisbon. Every Member state should understand that a uniform investment policy could reduce the complexity of doing business in EU and investors can take advantages of integrated market much easier. Under the implementation of the Treaty of Lisbon, Chinese companies can better utilise the location advantages and policy advantages of CEE-11 to regard CEE-11 as a base to penetrate into Western Europe market.

CEE-11 countries should also actively take the advantage of preferential offers provided by China. In “12 Measures”, China promised to provide US\$10 billion credit for CEE countries to use in investment projects. However, only non-EU member countries in Western Balkan have used this credit in infrastructure projects. Some CEE-11 countries have utilised another specialised investment fund, the China-CEE investment cooperation fund, but it is only worth a mere US\$0.5 billion. CEE-11 countries do not

make full use of Chinese fund due to the concern that the additional conditions of using the fund may cause possible violations with EU regulation. It reveals the lack of willingness of CEE-11 countries to carry out coordination tasks and the failure to adjust the instruments created under this cooperation initiative to adapt to the EU institution. CEE-11 countries should work closely with China to revise the financing instrument and make sure these fund can achieve their primary goal.

## **6.2. For Chinese government and investors**

China has proposed “12 Measures” to promote closer cooperation between China and CEE countries. It has set the cooperation framework and it is a relatively comprehensive and pertinent solution for some macro and strategic issues. Chinese FDI stock in CEE-11 is still far behind that of Japan, South Korea and Western EU countries, apparently China needs to do more.

First, China has to establish a good national image and the image as a reliable investor in CEE countries. China is perceived as a country with long history and unique culture but China is also often criticised of human rights issues and lack of press freedom. Besides, many CEE countries hosted Dalai Lama, which becomes a sensitive issue between China and CEE countries and people of CEE countries commonly have a negative perception of Chinese government. This also reflects in the people’s attitudes towards Chinese investors in CEE host countries. A Chinese-friendly environment can help Chinese multinational enterprises to adapt into host country more quickly and smoothly. Therefore, China should put more effort to establish a good image in CEE countries. Practical methods include promoting culture communication by establishing Chinese culture centre and introducing more student exchange programmes, encouraging more people to travel to China by having more frequent direct flights from CEE cities to China and introducing more student exchange programmes to promote mutual understanding in young generation. Chinese companies in CEE countries should also strictly comply with local law and regulations to create the image as reliable investors.

Second, Chinese companies should properly manage the risk of investing in CEE countries and prepare risk aversion schemes in advance. Before investment, Chinese companies should carefully investigate the background and operation conditions of their

potential partners, analyse the prospects of the project in different situations and avoid to step into an unfamiliar industry blindly. Also, companies should positively seek supports from host country's government and private organizations for better understanding of host country's related regulations and environment. Moreover, a professional advisory committee and risk analysis team should be established to propose effective suggestion in every situation and help to design the strategy. Companies can also hire a professional consulting firm that has a solid understanding of local market to work for them. COVEC's failure in Poland is example of inadequate preparation before investment. COVEC went to Poland is under the motivation to use Poland as a start point to enter EU's infrastructure industry. In order to win the bid, they used the low price strategy that means they also had to reduce their cost. Before entering the bid, they hire a small Polish consulting firm instead of a professional international consulting firm to help them understand the business and legal environment and develop the strategy. However, that Polish firm do not have much experience of providing service for a foreign investor and they did not have enough knowledge about the infrastructure industry, which made COVEC do not have comprehensive understanding about the host country's regulations and requirements. A similar problem also happened during the signing process. In order to reduce the cost, COVEC hired a fresh graduate who do not have any knowledge about infrastructure and related legal issues as their translator. The translator only translated some parts of the contract and COVEC signed it without a full understanding, this directly caused that COVEC could not resolves their conflicts with GDDKiA in court. Although low cost has long been one of Chinese companies competitive advantages to win infrastructure contracts, the cost of pre-investment investigation is a crucial cost that cannot be cut. Chinese companies should acknowledge that CEE region is an unfamiliar market for them and only with comprehensive and solid preparation can they succeed in CEE region.

In addition, Chinese government should give more guidance for their multinational enterprises and further simplify the approval procedure of outward FDI. MOFCOM has issued investment guidance of main destinations of Chinese FDI, but the information is not up to date and it does not include specific guidance for each sector. MOFCOM should work closely with successful Chinese multinational enterprises to guide new companies to choose most suitable destination and investment mode. For high value investment, government should provide a platform for Chinese companies to negotiate

possible cooperation with foreign companies. Simplification of approval procedure is also an important method to promote more Chinese outward FDI. According to statistics of MOFCOM, after China announced that investment projects whose total value is under US\$10 do not need approval in 2011, Chinese outward FDI flows increased more than 30% in one year. China should further simplify the procedure for Chinese FDI in CEE countries and provide necessary assists such as flexible provision of foreign exchange and financing support.

FDI to CEE region has long been a short board of Chinese overseas investment. Chinese FDI in CEE countries is still at an early stage. China should not rush to spread their investment across the entire CEE region in short time. Chinese companies should focus on some key countries that have a long history of economic cooperation with China, such as Hungary and Romania. After accumulating enough experience and reputation, Chinese companies can do business in the whole region with few obstacles.

## **7. Conclusions**

In recent years, China's emergence to global market has been attracted attention from all over the world on various aspects: politics, economy and strategies. This thesis has introduced the current status and patterns of Chinese FDI in CEE-11 and in whole EU region. Based on the four main motivations of China's outward FDI, which are derived from Dunning's eclectic paradigm of international production, this thesis has also investigated the determinants of Chinese FDI in CEE-11 by using a panel dataset over the period 2003-2014. The fixed effects regression results demonstrate both conventional and idiosyncratic characteristics of China's FDI in CEE-11. Through comparison between the regression results in EU-15 and in CEE-11, the regression results reveal that there are some differences between the determinants of China's FDI in EU-15 and in CEE-11. In order to investigate whether or not the determinants of China's FDI in CEE-11 changes over time, the 12-year sample period is further divided into two subperiods to estimate the coefficients respectively and the results demonstrate that in different time periods, the determinants are different. Moreover, this thesis also analysed the political impact on the FDI flow based on several country cases.

For the whole 12-year sample period, it can be observed that China's FDI in CEE-11 countries is significantly attracted by culture proximity (LCNPP) and existing trade

relation (LEXP), which is consistent with previous studies. While China's FDI in CEE-11 is negatively associated with institution environment of host country, which demonstrate the idiosyncratic characteristic of China's outward FDI. In EU-15, the regression results show some differences. In addition to culture proximity, host country that has abundant natural resources, strategic assets, good institutional environment and low labour cost attracts more Chinese investment. China's export to the host country does not play an important role. Comparing to EU-15, CEE-11 need to improve their competitive advantages in institutional environment and strategic assets to attract more Chinese investment in the long run. When the sample period divided into two subperiods, the regression results demonstrate some differences in different periods. In recent period, host country's culture proximity (LCNPP) and existing trade relation (LEXP) with China still significantly attracts Chinese investment, but the effect of existing trade relation becomes weaker. Poor institutional environment does not have attractiveness for Chinese investment and strategic assets and low labour costs become significant determinants of China's FDI in CEE-11. The results of different time period reveal that CEE-11 countries has changed their strategies to attract Chinese investors and high-value added strategic assets become a new attractiveness with increasing importance.

From this thesis, it can be noticed that the current FDI theories are still not sufficient to explain Chinese investors behaviour in global market. In contrast to the theory, China's FDI to CEE-11 does not significantly attracted by the market size and good institution environment. Due to the intensive investment promotion policy, Chinese companies invest in CEE-11 countries usually disregard some disadvantages of the host country. While current theories of international investment usually do not include the bilateral political relation as an influential factor for FDI. China, as an emerging economy with distinct political regime, behaves differently from most developed FDI home countries. Chinese companies are facing different institutional environment and rules that can affect their business operations when they invest abroad, especially in developed economies. A good bilateral political relation can help Chinese companies to have a more friendly business environment and enjoy more preferential treatments in host country. Therefore, theorising on the strategies and choices of Chinese multinational enterprises should pay more attention to host country's institutional environment and the political relation between the host country and China. A new modern of FDI should

be established to comprehensively explain the motivation and determinants of China's outward FDI.

For policy makers of CEE-11 countries, it is important to work closely with other EU countries and put more effort to establishing a common FDI policy for the whole EU region. The market openness for Chinese investors should not be limited, but improved constantly. And CEE-11 countries should explore a method that can be accepted under the EU regulation to make the full use of Chinese capital and open more investment opportunities for Chinese investors. The "China threat" claimed by the media and some politicians is not founded. Chinese FDI in EU and CEE-11 is still at a very low level and Chinese investment in EU has already created massive jobs and revived many European companies. CEE-11 should catch the business opportunities brought by the One Belt One Road initiative to achieve economic development. Chinese governments should keep building the strategic partnership with CEE-11 countries and provide guidance for Chinese companies to adapt to the business environment of host country more smoothly.

This thesis also has some limitations. China began to publish FDI statistics following IMF FDI data statistic standard in 2003. Therefore, the data is only available for 2003-2014, which is a short period. And the data only include the data of approved FDI in each year, while actual amount of FDI may be higher than that. The data of ethnic Chinese residents in host country is very difficult to find and most countries only provide rough data about the composition of their population. The choice of explanatory variable is also a limitation. Previous studies do not have a uniform opinion about which variables can be the best proxies for the motivations.

China's outward FDI is still a new topic for scholars. Further researches should combine the econometric regression and qualitative analysis to provide a more comprehensive understanding about both conventional and idiosyncratic characteristics of China's outward FDI.

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## Appendix

Appendix 1 Summary of variable definition and data source

Variables	Variable definition	Expected sign	Data source
LFDI	China's outward FDI stock		2015 statistical bulletin of China's outward FDI
LGDP	GDP of Host country	+	World Development Indicators (2016)
ORE	The ratio of ore and metal export to the total merchandise export of host country	+	World Development Indicators (2016)
LPAT	Total patent registration in host country	+	World Development Indicators (2016)
LWAGE	Average monthly wage of host country	-	United Nations Economic Commission for Europe
LCNPP	The number of ethnic Chinese residents in host country	+	Eurostat census database, Ohio University Chinese diaspora database, Chinese embassies
LAW	The rule of law index of host country	+	World Governance Indicators (2016)
INF	Inflation rate of host country	-	World Development Indicators (2016)
LEXP	The volume of China's export to host country	+	UN Comtrade database
OPEN	The ratio of inward FDI to host country's GDP	+	World Development Indicators (2016)

## Appendix 2 Abbreviations and Acronyms

CEE	Central and Eastern Europe
CEE-11	11 Central and Eastern European EU member states, including Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, Slovenia
EU	European Union
EU-15	15 EU member states before EU enlargement, including Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden
FDI	Foreign direct investment
MOFCOM	Ministry of Commerce of the People's Republic of China
NBS	National Bureau of Statistics of the People's Republic of China
SAFE	State Administration of Foreign Exchange of the People's Republic of China
UNCTAD	United Nations Conference on Trade and Development