The Role of State Ownership in the Internationalization of Chinese Firms
Die Rolle der staatlichen Beteiligung in der Internationalisierung chinesischer Firmen

Masterarbeit zur Erlangung des akademischen Grades „Master of Science“
im Fachbereich Wirtschaftswissenschaft
der
Universität Bremen
eingereicht am
Lehrstuhl für International Management and Governance
Prof. Dr. Sarianna M. Lundan
von
Lara Herber
Rotweingarten 17, 53179 Bonn
3082149
Bonn, 27.04.2019
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III. List of Abbreviations

CSAs .................. Country-Specific Advantages
FDI ................... Foreign Direct Investment
FSAs .................. Firm-Specific Advantages
GDP .................. Gross Domestic Product
IB ..................... International Business
IoT ................... Internet of Things
JV ..................... Joint Ventures
M&A ................... Mergers and Acquisitions
MIC 2025 ............. Made in China 2025
MNEs .................. Multinational Enterprises
n/a ..................... Not Available
OFDI ................... Outward Foreign Direct Investment
OLI ..................... Ownership-Location-Internalization
POEs .................. Privately-Owned Enterprises
R&D .................... Research and Development
SASAC ................. State-Owned Assets Supervision and Administration Commission
SMEs .................. Small and Medium-Sized Enterprises
SOEs .................. State-Owned Enterprises
TRE ..................... Thomson Reuters Eikon
UNCTAD ............. United Nations Conference on Trade and Development
WOS .................. Wholly Owned Subsidiary
1 Introduction

Crossing borders and entering new international markets has long been and will continue to be a requirement for multinational enterprises (MNEs) to establish growth on global scale. This process, known as internationalization, may encompass various strategies and goals, and can be promoted by the state. As an example, China, the country with the second largest gross domestic product (GDP) in the world, along with its government, actively encourage, manage and support state-owned enterprises (SOEs) to go abroad and expand internationally (Rugman, Nguyen, & Wei, 2014; W. Wei, Alon, & Ni, 2011). The internationalization of SOEs is therefore an important factor for foreign direct investment (FDI) (UNCTAD, 2017b, p. 30). Overall, Chinese outward FDI covers over 170 countries (Cui & Jiang, 2012, p. 265). Especially, Chinese SOEs are prevalent players in outward FDI and with a large number of SOEs in China (18% of SOEs in the world economy are headquartered in China (UNCTAD, 2017b, p. 31)) they play a major role in the country’s outward FDI expansion strategy (Rugman et al., 2014). Therefore, China’s outward FDI and political thinking are heavily intertwined what is reflected in the governmental strategies of China (Rugman et al., 2014).

The industrial-political strategy Made in China 2025 (MIC 2025), initiated by the Chinese government incentivizes and calls for Chinese companies to invest in 10 key technologies abroad in order to become global leaders in high-technology products and upgrade the country into a ‘manufacturing superpower’. Knowledge about advanced technologies, which China cannot yet provide itself, should be gained from abroad, especially from Germany, and transferred to China to accelerate the catch up process and to skip stages of technological development and research and development (R&D) (Jungbluth, 2018; Wübbeke, Meissner, Zenglein, Ives, & Conrad, 2016). By adopting strategies like MIC 2025 that aim at fulfilling their own domestic economic interest, Chinese firms are influenced by the external forces of the government in international investment and expansion decisions (Stoltenberg & Yang, 2008).

Germany, with the quality label of ‘Made in Germany’, is a favored competitive investment location for Chinese investors due to both its know-how in industrial sectors such as high-tech mechanical engineering, manufacturing and automotive technology, and its openness to foreign investments (Jungbluth, 2018). Skills in R&D, multiple strategic assets such as knowledge and expertise in technological

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1 According to UNCTAD (2017a) FDI is defined as „an investment involving a long term relationship and reflecting a lasting interest and control by a resident entity in one economy […] in an enterprise resident in an economy other than that of the foreign direct investor“ (p. 3).
areas and hidden champions make Germany a pioneer within the developed economies and attractive for Chinese companies to move up the value chain (Yang, Chen, & Tang, 2019, p. 4). The continuous appreciation of the Chinese currency Renminbi against the Euro favors the trend of investing in Germany (Hans Böckler Stiftung & NRW.INVEST, 2015). Despite the attractiveness of the country, Chinese FDI in Germany only reached a maximum of 0.5% (EUR 2.3 billion) in 2015 of all FDI (EUR 474 billion) (Deutsche Bundesbank, 2018, p. 52 and 63) within the period of 2000-2016 (Deutsche Bundesbank, 2004-2018). If Chinese investments made via subsidiaries in Hong Kong are added, the share is 0.7% (EUR 958 million) (Deutsche Bundesbank, 2018, p. 64). Although China invests very little in Germany per year, Germany with Chinese FDI of EUR 20.6 billion is the second largest recipient in Europe after the U.K. with EUR 42.2 billion in 2000-2017 (Hanemann & Huotari, 2018, p. 32). Again, this high outward FDI of China can be traced back to state’s engagement and (in-)formal institutional factors in the home and host country (Ren, Hao, & Ying, 2012).

Since active Chinese government involvement controls SOEs, guides FDI outflows and formulates pro-active investment strategies, the role of state ownership in the internationalization of Chinese firms is crucial to research. The internationalization of Chinese firms and their search for new innovative knowledge, production and process know-how abroad, and brands is especially interesting with regard to Chinese firms that are state-owned and therefore are incentivized and supported to invest abroad.

1.1 Research Question

Major Chinese acquisitions, such as the takeover of the mechanical engineering company Kuka by the Chinese company Midea or the acquisition of EEW, an energy group, by Beijing Enterprises Holding, are continuously boosting and stimulating research into the internationalization of Chinese companies. But there are not only private Chinese investors coming from China. According to Hanemann & Huotari (2018), the majority of Chinese foreign investments in Europe are made by state-owned companies. This raises the question to what extent state-owned enterprises’ internationalization decisions are supported and influenced by the Chinese government from a financial and advisory point of view. SOEs actively entering and investing in developed countries may be driven by the announcement of specific political strategies. The following research question derived from this is: Is state ownership crucial for the internationalization of Chinese firms?
1.2 Theoretical and Practical Relevance

Theoretical relevance of this topic lies in the wealth of literature to outward FDI of Chinese firms (Berning & Holtbrügge, 2012; Buckley et al., 2007; Z. Wei, 2010). Chinese state ownership is discussed quite often by international business (IB) scholars (S. Hong & Nong, 2013; Kovacic, 2017; Yu, 2013). Furthermore, outward FDI and internationalization of Chinese firms with a focus on state ownership is covered by other international researchers (Benito, Rygh, & Lunnan, 2016; Cui & Jiang, 2012; Huang, Xie, Li, & Reddy, 2017; Kling & Weitzel, 2011; Knutsen, Rygh, & Hveem, 2011). To summarize, the internationalization of SOEs from emerging countries has become an interesting research topic in IB and, according to Buckley et al. (2007), there is a lack of sufficiently disaggregated data to conduct an analysis of the forces influencing the Chinese outward foreign direct investment (OFDI).

Therefore, this master thesis is intended to build on and extend existing literature regarding the role of the Chinese state in explaining and influencing the internationalization of emerging market firms like Chinese SOEs (J. Hong, Wang, & Kafouros, 2015; Pan et al., 2014; T. Wei, Clegg, & Ma, 2015) and the effect of Chinese state ownership on international investments (Cui & Jiang, 2012; Du & Boateng, 2015; Luo, Xue, & Han, 2010). According to Liang, Ren, & Sun (2015), there is lack of literature studying the mechanisms of how the state impacts globalization decisions of Chinese SOEs. This thesis attempts to shed further light on this relatively unexplored topic.

This increased and present theoretical relevance is supported by the need for enhancing practical relevance. The large number of Chinese companies and their internationalization towards Europe is an important topic in IB literature, which is why many researchers collect data about Chinese investments in Germany over a defined period of time (Emons, 2013; Jungbluth, 2013, p. 13, 2016, 2018). Whereby the focus is often more on transactions and investments by industry or sector (Rusche, 2017a), by patent application (Rusche, 2017b; SMB Consultants, 2017), by states (Hanemann & Huotari, 2015; Rusche, 2017b; SMB Consultants, 2017), by series investments (Hans Böckler Stiftung, 2017; Rödel & Partner, 2017), by employees and revenue of firms (SMB Consultants, 2017), by employees after acquisition (Reisach, 2016), by regional distribution and size of Chinese investors (SMB Consultants, 2017) and less on the type of ownership over a longer time span. This research void is to be closed with the present work by conducting secondary data analysis for gaining deeper information about the role of state ownership in the internationalization of Chinese firms. To summarize, this master thesis should fulfill...
its goal to extend IB literature and research about Chinese SOEs appearance and behavior in the German context.

1.3 Structure

This master thesis is divided into two sections, one theoretical and one practical. At the beginning, a short introduction to the Chinese state policy MIC 2025 is given. In the following theoretical section, SOEs are at first defined and characterized. Basics of the standard work ‘The eclectic or ownership-location-internalization (OLI) paradigm’ from IB is discussed and applied to Chinese SOEs. Afterwards, motivations, strategies and entry mode of Chinese SOEs will be presented and the role of state ownership in the internationalization of Chinese firms will be further discussed. In order to conclude the theoretical discussion, three hypotheses are developed, which have to be tested with the empirical section. In the empirical section, the secondary data analysis is presented as the method used. After an explanation of the nature and relevance of this analysis, the method is explained in detail with a focus on harmonization of data entries, definition of state or private ownership and the three hypotheses. In a subsequent chapter, the results and findings are analyzed. Before a summarizing conclusion is drawn, the strengths and limitations of the secondary data analysis are pointed out.
2 The Chinese State Policy ‘Made in China 2025’

The origin of the internationalization of Chinese companies can be traced back to 1979, immediately after the introduction of the ‘open-door’ policy by the Chinese government with the intention of connecting Chinese companies with foreign investments to the world economy (Keller & Vanoli, 2012). In 1999, the Chinese government first launched its ‘Go Global’ policy directed primarily at SOEs promoting own high-performing firms to do outward investments abroad for improving global competences affecting Chinese firm’s growth and the world’s economic development (Alon, Wang, Shen, & Zhang, 2014; Child & Marinova, 2014; Ren et al., 2012; Yang et al., 2019, p. 3). This policy marks the starting point for many other strategies formulated by central, provincial and municipal governments (Yang et al., 2019, p. 3).

Recently in 2015, the Chinese government initiated the ‘Made in China 2025’ policy resulting out of increased demand for smart manufacturing products in China (Wübbeke et al., 2016). MIC 2025, as the central industrial-political strategy of China, aims to transform Chinese firms into global leaders in high-quality and high-technology products and upgrade the country into a ‘manufacturing superpower’ by 2050 (Jungbluth, 2018; U.S. Chamber of Commerce, 2017, p. 13; Wübbeke et al., 2016). Upgrading becomes the main focus for China with regard to economic stagnation, rising environmental pollution and a working age population that is shrinking (U.S. Chamber of Commerce, 2017, p. 40).

MIC 2025 focuses on advanced technologies that China is currently unable to provide with existing technologies and therefore is still highly dependent on foreign inputs. MIC 2025 shows that China primarily targets the following 10 key technologies (Wübbeke et al., 2016, p. 19):

- New generation information technology
- High-end computerised machines and robots
- Space and aviation
- Maritime equipment and high-tech ships
- Advanced railway transportation equipment
- New energy and energy-saving vehicles
- Energy equipment
- Agricultural machines
- New materials
- Biopharma and high-tech medical devices
By investing in these sectors abroad, especially in Germany, domestic competition should be enhanced by technological upgrading and large-scale technology transfer. Global expansion should grow to enhance the overall competitiveness. China is striving to gradually replace and substitute foreign technology with its own technology and indigenous innovations at home. Thus, enormous state backing helps Chinese high-tech companies realize investments. MIC 2025 also mentions the state partly supporting and funding state-owned and state-supported Chinese acquisitions of international high-tech companies to accelerate the process of catching up and to skip phases of technological development (U.S. Chamber of Commerce, 2017, p. 22; Wübkeke et al., 2016). It is often the case that the state’s active role is concealed behind investment management companies and the assessment of investors receiving government financial resources is often difficult due to opaque ownership networks and funding structures that appear as a source of suspicion from a Western point of view. These so-called Chinese state-led FDI in high-tech sectors are upcoming and thus under-researched (Wübbeke et al., 2016).

Finally, it is to be noted that Chinese outward FDI is determined by state support. This means that the Chinese government plays an important role since it determines the conditions for incentivizing firms to invest abroad (Guo & Clougherty, 2015). The state promotes FDI into industrial and technological sectors like robotics or high-end machine tools and plays a fundamental role in economic planning which raises concerns for economic and commercial partners (U.S. Chamber of Commerce, 2017, p. 6; Wübbeke et al., 2016). On one hand and in reaction to that, monitoring and forecasting the impact of MIC 2025 on critical targeted sectors in the international economy and the possible distortion of competition is claimed by opponents (U.S. Chamber of Commerce, 2017, p. 7). Conversely, technology transfer to China increases China's production potential and, in the long term, its gross domestic product. This, however, increases Chinese import demand via a macroeconomic expansion effect in China, which in turn usually means rising German exports (Welfens, 2017).
3 Theoretical Foundation

Following the introduction to the Chinese state policy MIC 2025, the theoretical foundations are now in place. The theory is the basis to develop hypotheses, which will later be validated by empirical research. Therefore it is necessary to define SOEs in order to create a universal understanding. The eclectic or OLI paradigm is the theoretical underlying concept that explains the behavior of SOEs based on its ownership advantages. Afterwards, motivations, strategies and entry mode of Chinese SOEs will be presented and the role of state ownership in the internationalization of Chinese firms will be further discussed. The development of three hypotheses rounds off the theoretical foundation.

3.1 Characteristics of State-owned Enterprises

The history of state enterprises can be traced back to 1949, the year the People’s Republic of China was founded. After the war, the country was characterized by poverty and underdevelopment in sectors like industry, education and healthcare. At that time, state enterprises took over the reconstruction of the country, were large employers, and had many social responsibilities in areas such as social systems, education, and medical care. With the opening of the country towards a socialist market economy and turning away from being a planned economy around 1979, China began to transform and restructure its own state enterprises. Many unprofitable and smaller state enterprises were dissolved, privatized or sold (Gang & Hope, 2013; J. Li, Xia, Shapiro, & Lin, 2018). State-owned enterprises were created by separating ownership and management “while the state retains ownership or majority control, it gives increasingly more autonomy to SOEs’ managers to run the business” (Gang & Hope, 2013, p. 5). During the reform in 2003 the State-owned Assets Supervision and Administration Commission (SASAC) was set up under the authority of the State Council and controls and manages currently 96 enterprises and their assets². SASAC acts like an ‘investor’ on behalf of the state and has extensive power and responsibilities such as appointing senior management positions in SOEs (Gang & Hope, 2013; Liao, 2009; Morck, R., Yeung, B., Zhao, 2007; Zhou, Guo, Hua, & Doukas, 2015). Throughout the process of reform, inefficient autonomous state-oriented state enterprises were turned into competitive, profitable SOEs with centralized models of ownership.

² The complete list of SASAC companies can be found here: http://www.sasac.gov.cn/n2588035/n2641579/n2641645/index.html
SOEs are now active market participants and less bound to state policy and state support systems (Gang & Hope, 2013; J. Li et al., 2018).

Despite the restructuring, SOEs are instruments of governmental policy, crucial for key economic activities in their home countries and necessary to achieve China’s progress in technology and globalization. Chinese SOEs strive to secure natural resources, new technologies and knowledge as well as to gain access to new markets for their own Chinese products by engaging in outward FDI (Alon, 2012; UNCTAD, 2017b, p. 37). Economic and industry politics are often directed primarily to SOEs, since SOEs contribute to national GDP and to the total economic and social welfare of China as well as economic growth of the country (Stoltenberg & Yang, 2008).

UNCTAD defines SOEs as "separate legal entities established or acquired by governments to engage in commercial activities, including FDI operations, by way of having affiliates abroad or engaging in non-equity modes" (2017b, p. 30). Moreover, government share should amount >10% of the capital(UNCTAD, 2017b), the government should be larger than the other shareholders or amount ‘golden shares’, meaning significant participation in corporate management compositions and key strategic decision (UNCTAD, 2017b, p. 30). Often, the government prefers having 100% ownership (UNCTAD, 2017b, p. 35). Unfortunately, organizational management structures in Chinese state-owned enterprises are often hard to identify and non-transparent, making it difficult to assess governmental influence in Chinese firms (Rugman et al., 2014).

SOEs pursue multiple differing goals. On one hand, they strive for social, economic and public goals and the general interests of the home state, such as increasing independence from other country’s resources, creating jobs and ensuring economic stability (Anastassopoulos, Blanc, & Dussauge, 1987, p. 38; Rudy, Miller, & Wang, 2016). Especially in terms of globalization, fulfilling economic objectives is most important (Liang et al., 2015). Conversely, profit objectives of the firm like creating financial return on investment to the government are also dominant and affected by relevant systems, rules, policies, and regulations imposed by the government (S. Hong & Nong, 2013, p. 118; Rudy et al., 2016). Often firm and state objectives are diverging (Anastassopoulos et al., 1987, p. 38).

SOEs are fundamentally different from privately-owned enterprises (POEs) in terms of resources, strategies, size and capabilities. In contrast to POEs, SOEs following the ‘state logic’ face less pressure to earn and maximize profits with regard to their reliance on the government to finance their foreign operations (Globerman & Shapiro, 2009). Therefore, POEs following the ‘market logic’ have to compete more with technological and marketing skills (Yang et al., 2019, p. 5). Apart from that, the
latter is often said to be better with regard to market orientation and innovation. SOEs are typically large and larger in size than POEs allowing POEs to better establish and perform in foreign environments (UNCTAD, 2017b, p. 31; Yang et al., 2019, p. 5). Often, greater flexibility and autonomy in POEs help in management decisions and support the integration of acquired firms (Yang et al., 2019, p. 5). Other scholars believe that SOEs are on par with POEs in terms of efficiency, profitability and technological advancement if they are managed professionally (Aharoni, 2018).

However, SOEs enjoy a privileged relationship with the government (Rudy et al., 2016). This is demonstrated by soft budget constraints and greater access to resources, e.g. the providing of capital in difficult financial situations contributing to the firm’s survival (Kornai, 1979). Also, the government that holds shares is tolerant and patient with long-term investment projects. Due to these higher investment opportunities, SOEs can operate in a manner whereby they assume a greater deal of risk and can manage more time-consuming investments that are supported by a transaction cost perspective (J. Li et al., 2018; Pan et al., 2014; Rudy et al., 2016). In addition to privileged financial resources, SOEs receive preferred regulatory treatment (Rudy et al., 2016).

In case of China, SOEs in China receive financing advice in addition to favorable conditions for financing and insurance, foreign exchange provision and taxation through state banks and offices. Furthermore, the Chinese government provides information services, events and training on countries and industries, human resources, law and travel regulations (Reisach, 2016). In contrast to private companies, Chinese SOEs have lower tax rates and therefore make more after-tax profits indicating tax reductions and exemptions (S. Hong & Nong, 2013, p. 124 and 186). Since outward FDI projects in China has to be approved by multiple state-owned institutions and agencies, Gang & Hope (2013) state favorable treatment when it comes to licensing or succeeding in getting government procurement contracts (Luo et al., 2010). Although SOEs heavily benefit from these governments offers, aggressive competition is happening between SOEs in China (Gang & Hope, 2013). When it comes to investments in host countries, Chinese SOEs participate in the competition in an unfair manner due to their receiving of (in)direct subsidies by the Chinese government (Globerman & Shapiro, 2009). This is also supported by economic theory stating that it is not state ownership that contributes to firms’ efficiency and performance in a foreign country, but competition that is managed by corporate governance and the distribution of ownership and control rights (Kovacic, 2017).
3.2 The Eclectic or OLI Paradigm and Chinese Ownership Advantages

Many theories in IB literature attempt to explain the foreign activities of firms. The most widely accepted theoretical concept is the eclectic or OLI paradigm mentioned first by Dunning in 1980, encompassing given explanations about level, structure and growth of FDI and international production of enterprises (Dunning, 2001; Dunning & Lundan, 2008, p. 109; X. Wu, Ding, & Shi, 2012). According to Dunning’s OLI framework, there are three factors that promote FDI through realization and combination (Dunning & Lundan, 2008, p. 101):

- Ownership-specific advantages
- Location-specific advantages
- Internalization advantages

The first relates to how far a firm is able and willing to gain access to or acquire assets that other competitors do not have (Dunning, 1980). Assets of ownership-specific advantages comprise resources and competences generating future value and include capital, technology, and preferred access to markets. These assets have to be unique to firms. In addition, assets can also be location-specific such as the availability to all firms of a labor force in a specific cultural and political environment or the openness of a country to foreign investments. The third factor, internalization advantages, comprises the firm’s gains through the ability to leverage internalized knowledge gained through experience as they relate to both ownership and location-specific advantages. Here an appropriate example is better organizational efficiency in the exploitation of assets in the host country in the way of outbound FDI (Dunning & Lundan, 2008, p. 100).

The OLI paradigm is dynamic, meaning changes in FDI levels can be attributed to single changes in ownership, location or internalization advantages of the enterprise as well as to strategy changes. By the same token, there is interdependence and interaction of the three components making the significance and configuration of the three components country-specific (Dunning, 2001; Dunning & Lundan, 2008, p. 102). To assess the role of state-ownership in the internationalization of Chinese firm’s it is necessary to focus on ownership advantages. Ownership advantages can be regarded on either a country or firm level (Dunning & Lundan, 2008, p. 106).
CSAs and FSAs of Chinese SOEs

In particular, new internationalization theory states that home country-specific advantages (CSAs) are the basis for firm-specific advantages (FSAs) (Rugman, Nguyen, & Wei, 2016). CSAs are defined as “exogenous location factors in a country that represent economic and institutional environments (including geographic location, factor endowments, government policies, national culture, institutional framework, and industrial clusters)” (Rugman & Nguyen, 2014, p. 53).

From Porter’s point of view, CSAs provide the foundation for the global platform that gives the MNE its ‘diamond’ advantages based at home for succeeding in international competition (Porter, 1990; Rugman & Li, 2007). FSAs occur through recombination with complementary assets of home CSAs and can be understood as unique internal strengths that the firm has in comparison to rival competitors (Rugman & Nguyen, 2014; Verbeke, 2013, p. 6). These are necessary to the existence of the MNE since FSAs have to overcome costs and risks of doing business abroad and the liability of foreignness (“costs of doing business abroad that result in a competitive disadvantage for an MNE subunit” (Zaheer, 1995, p. 342) arising from psychic distance³ (Verbeke, 2013, p. 15). This reiterates that, Chinese home country FSAs are a result of home CSAs and are deeply rooted in Chinese institutional, political and economic environment (Rugman et al., 2014).

Some examples of home CSAs of Chinese SOEs are that they are bestowed privileged access to funds and loans from banks and state capital, are afforded softer budget constraints, and provided with investment insurance when investing in the host country, thus making them into a successful competitor (Benito et al., 2016; Gang & Hope, 2013; S. Hong & Nong, 2013, p. 15; Knutsen et al., 2011; UNCTAD, 2007, p. 124). In addition, “low labour cost, large scale of economies, subsidized capital, and privileged access to government connections” are home country advantages that Chinese SOEs have embedded in them (Rugman & Nguyen, 2014, p. 61). The policy of the government towards innovation namely MIC 2025 that expects firms to come up with own innovative technologies based on acquired capabilities abroad does also count as an ownership advantage on a country level (Dunning & Lundan, 2008, p. 106; Wübbeke et al., 2016).

Home-country FSAs include advantages such as government support and can be divided into political and financial FSAs (Rugman et al., 2016). Political FSAs comprise preferred access to diplomatic organizations, knowledge about foreign

³ Psychic distance are factors like culture, language or legal and commercial framework differences that arise between home and host country and that economically determine the type of investment (Dunning & Lundan, 2008, p. 106). Large psychic distance exists e.g. between China and Germany (Holtbrügge & Berning, 2018).
environments, bilateral trade and investment agreements, and international political
and economic relations and support (Anastassopoulos et al., 1987, p. xi; Benito et al., 2016; Knutsen et al., 2011). The government also provides knowledge by
publishing a ‘Countries and Industries for Overseas Investment Guidance Catalogue’ which contains advice on preferred outward FDI locations and industries,
and if Chinese companies adhere to this catalogue, they receive preferential
treatment in the form of funding, taxes, customs etc. (Luo et al., 2010). Conversely,
financial FSAs for SOEs include the receipt of direct subsidies from the state as a
shareholder and, lesser payments of dividends. Preferred access to special loans
offered by the government to promote foreign expansion can also be included as
well as fast government approval for FDI and positive state incentives like tax
breaks (Anastassopoulos et al., 1987, p. 84; Morck, R., Yeung, B., Zhao, 2007; X.
Zhang, Ma, Wang, Li, & Huo, 2016). In literature there is no consensus required to
the allocation of state-ownership. Berning & Holtbrügge (2012) and Ding (2000)
regard state-ownership as a FSA. Rugman et al. (2016) and Child & Marinova
(2014) identify state-ownership as a CSA.

Often, the reliance on home CSAs makes it difficult for Chinese firms to
transfer the emerging FSAs to host countries since these are only applicable to the
home country (location-specific). That’s why until now, Chinese MNEs mainly
generate and combine home country-bound FSAs with home CSAs but are not able
to develop recombination capabilities (highest-order FSAs) with host CSAs. In
reality, Chinese firms depend on home country CSAs that might abate or stop them
from investing into the development of FSAs (Rugman et al., 2016). According to
Rugman et al. (2016) this is especially valid for SOEs: “Chinese government’s
support and the role of state ownership […] confer Chinese firms resource
advantages in their OFDI, thus compensate for their lack of intangible knowledge-
based FSAs” (p. 277). Finally, the preferred regulatory treatment of SOEs results in
the motivation to establish nonlocation-bound FSAs in the host country and transfer
them back home for employing them and helping the SOEs to be more competitive
(Rudy et al., 2016).

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4 Knowledge about foreign environments is available to Chinese firms through information
collections provided by the government with the intention to ease outward FDI and to solve
investment difficulties. Here, e.g. data is being collected in the ‘Obstacle Report Rules on the
Investment to Different Countries’ about existing problems that investors have in investing
abroad (Luo et al., 2010).

5 Nonlocation-bound FSAs include the exploitation across borders like knowledge, know-how
or management capabilities. Location-bound FSAs are infrastructure or plants that are
beneficial only to a specific domestic market (Rudy et al., 2016).
3.3 Motivations, Strategies and Entry mode of Chinese SOEs

Motivations

Against the motivations prevailing in mainstream theory that firms internationalize to exploit competitive ownership advantages (asset-exploitation), Chinese firms internationalize to react to competitive disadvantages (asset-seeking) (Child & Rodrigues, 2005). This fits to the late-comer perspective stating that firms within a more recently developing economy, such as China’s, have only minimal competitive advantages like low labor costs and do not possess special assets in their home country that can be exploited in host countries. Therefore, they have to catch up with early developing countries on a firm level (technology and know-how) and on a country level (infrastructure and skilled labor force) by searching for new resources (Child & Rodrigues, 2005; Mathews, 2006). Latecomer firms can profit from the experience of firms that are already established in various sectors, internationalize very rapidly achieving a global position in the world economy but therefore demand governmental funding e.g. to do acquisitions (Child & Rodrigues, 2005; Lessard, 2018; Mathews, 2006).

Often the internationalization of firms from emerging markets is related to the springboard perspective based on the assertion that Chinese firms in internationalization still lag behind competitive Western companies (Luo & Tung, 2007; Yang et al., 2019, p. 1). This theory states that emerging firms engage in outward FDI as a springboard to acquire strategic assets to compensate for competitive disadvantages. Acquiring assets is essential for companies to help overcome latecomer disadvantages and assert themselves in global competition. Simultaneously, they circumvent institutional and market constraints in their home country (Luo & Tung, 2007). Subsequently, the acquired resources must be effectively integrated into the Chinese company so that the “possession of strategic assets per se is a necessary but not sufficient condition for Chinese firms to create sustainable competitive advantages” (Deng, 2009, p. 83). Often Mergers and Acquisitions (M&A) or Joint Ventures (JV) between emerging countries and Western MNEs serve as a springboard for the extension of the own competence portfolio and a way to gain access to sophisticated resources by offsetting domestic institutional constraints (e.g. regional protectionism) and latecomer disadvantages in intangible knowledge-based FSAs (Child & Rodrigues, 2005; Luo & Tung, 2007, 2018; Rugman et al., 2016). In summary, it can be stated that Chinese internationalization is the answer to restricted markets in the home country (Schüler-Zhou, Schüller, & Brod, 2012). By using the springboard, Chinese firms make beneficial use of
advantageous policies and financial support provided by the Chinese government (Luo & Tung, 2007).

Other motivations for SOEs to undertake FDI in host countries lie in the acquisition of resources and capabilities, as well as in securing intangible, nonlocation-bound FSAs that can afterwards be transferred back to the home country to improve its competitive standing. Therefore, FDI of SOEs can result in FSAs flowing back to the domestic country (Rudy et al., 2016). Apart from that, Schüler-Zhou et al. (2012) also mention intense competition in China between native Chinese firms and foreign-funded firms pushing domestic firms to internationalize.

**Strategies**

With regard to strategy, strategic asset-seeking FDI is still the prevalent method for Chinese M&A to acquire strategic assets like advanced proprietary technology, know-how and management expertise from a country apart from itself (Rudy et al., 2016; Rugman et al., 2016; Z. Wei, 2010). In mainstream IB there is a consensus that strategic intent is a major motivation for companies to expand abroad (Deng, 2004). Literature has pinpointed two strategic asset-seeking FDI strategies and related FSA flows that are relevant for SOEs to react to opportunities and challenges during internationalization. Both strategies should support SOEs in fulfilling its goals, including those like social, economic and public goals of the home country as well as profit objectives of the firm. The strategies applicable to Chinese SOEs are known as asset-replicating FDI and supply-controlling FDI (Rudy et al., 2016).

As one of the subcategories of asset-seeking FDI, asset-replicating FDI “entails an SOE’s acquisition of a foreign, target firm with the intent of replicating its strategic assets in other countries and eventually replicating those strategic assets in its home country” (Rudy et al., 2016, p. 72). Therefore, the home country that is lacking in capabilities should be developing and learning to and adopt acquired capabilities and (non-)location-bound FSAs. A long-term investment horizon and soft budget constraints are important for SOEs to make asset-replicating FDI financially viable (Rudy et al., 2016).

Supply-controlling FDI starts with the home country determining that it is missing resources for its SOEs, and the inherent firms lacking capabilities to address the needs of the state. A solution to overcome this shortage is the acquisition of location-bound FSAs from foreign firms to exploit these new capabilities at home in the long run. After a transformation into nonlocation-bound FSAs they can be transferred back to the home country to serve the needs of the
state. Here, the state wishes to control the production and supply of critical inputs for its SOEs at home (Rudy et al., 2016). Besides the asset-seeking foreign expansion (acquiring resources and making use of them for their own benefit), Kotabe & Kothari (2016) found out through historical longitudinal analysis of Chinese emerging market firms that Chinese MNE also use opportunity-seeking motives (tapping into untapped foreign market niches and enhancing innovation capabilities).

**Entry mode**

By driving one of these FDI strategies, Chinese (state-owned) firms often opt strategically for cross-border M&A as a mode of entry into Europe to catch up with global conglomerates, while simultaneously compensating for competitive disadvantages, benefitting from institutional incentives and thus improving ownership advantages (McIntyre, 2008; Rui & Yip, 2008; UNCTAD, 2012, p. 43; Y. Zhang, Duysters, & Sergey, 2013). For many years M&A has proven to be an “effective vehicle for multinationals to expand overseas” (Yang et al., 2019, p. 3) and acquisitions are, particularly in the case of China, the most common way of outward FDI supported by the government (Holtbrügge & Berning, 2018). M&A is defined as a transaction in which management and control rights are transferred from a company to be acquired to the acquirer. The more rights that are transferred, the more influence the acquirer can exert on the company, and the more the company to be acquired depends on the buyer. There are three forms of M&A. First, the acquisition of minority equity stakes means the acquisition of less than 50% of all shares (Lucks & Meckl, 2015, p. 31) and no hierarchical controlling influence of the acquirer. In Germany, there is a threshold of 25% (Lucks & Meckl, 2015, p. 31), also called blocking minority, with which the buyer is able to fend off important decisions. A foreign takeover of 25% or more is always scrutinized and can be prohibited by the German state. Second, gaining access to another firms’ resources is also possible via the acquisition of majority equity stakes. Majority equity stakes of more than 50% of all shares (Lucks & Meckl, 2015, p. 31) grant the buyer significant influence in the form of decision-making and control rights over management and operations. The last form of M&A is the acquisition of 100%, a complete acquisition (Lucks & Meckl, 2015, p. 31).

Through acquisitions in the host country Chinese firms have the intention to “gain access to technology, to secure research and development skills, and to acquire international brands” (Child & Rodrigues, 2005, p. 392) by growing market strength. Often M&A of German firms with advanced technological know-how takes place for reasons of insolvency within German companies or because German family-run companies no longer find successors (Rudy et al., 2016). By acquiring
underperforming foreign companies, Chinese competitiveness is increased through strategic asset-seeking FDI (Buckley, Cross, Tan, Xin, & Voss, 2008). Ultimately, if the offer of the buyer is above the market value of the firm’s assets, an acquisition is advantageous (Rudy et al., 2016). With this, the government is crucial in outward M&A decisions of emerging market firms and is essential for the decision-making process and success of Chinese M&A state ownership (Du & Boateng, 2015; Kling & Weitzel, 2011). “Firms’ CBM&A [cross-border M&A] decisions in China are influenced by different levels of government, either through FDI incentives and support schemes or through government-administered approval systems” (Du & Boateng, 2015, p. 432). The possibility of SOEs taking higher risks abroad than POEs and investing with a long-term approach is only possible for SOEs due to financial backing from their home governments (Rudy et al., 2016; UNCTAD, 2007, p. 124).

Furthermore, acquisition efforts are supported by the Chinese government in form of soft budget constraints allowing Chinese SOEs to pay higher prices for foreign investments compared to private enterprises (Guo & Clougherty, 2015; Rui & Yip, 2008). Overpaying is often the case for SOEs that are fully government-owned and that internationalize because of the prestige of their managers, as they are less likely to be penalized for such bad investments (Cuervo-Cazurra, Inkpen, Musacchio, & Ramaswamy, 2014). Another reason for M&A overpaying is national pride as part of informal institutions influencing the developing firm when investing in assets in developed countries (Hope, Thomas, & Vyas, 2011). Consequently, in the case of Chinese acquisitions, the ‘social’ net present value of the investment is often higher than the ‘financial’ net present value, nevertheless making the acquisition an attractive one (Rudy et al., 2016).

### 3.4 Role of State Ownership in the Internationalization of Chinese Firms

Engaging in FDI depends on the economy, the institutions and the culture in the home country as well the host country. According to institution-based theory, institutions such as the government and institutional environments in the home country define “the rules of the game” and influence and shape the behavior and strategy of emerging market firms and their decisions about outward FDI (Du & Boateng, 2015; North, 1990, p. 1). Institutional theory suggests that institutions can be classified into two groups. Informal (normative and cultural-cognitive) institutions include state ideology, national pride, firm-government relations or political connections which leads to discrimination between SOEs and non-SOEs (Alon,
Fetscherin, & Gugler, 2012; Scott, 2013, p. 231; Tan & Ai, 2015). Formal (regulatory) institutions include “governmental policy, the bureaucratic administrative system, and the government ownership arrangement in firms” (Ren et al., 2012, p. 12) that play a decisive role in encouraging emerging firms to go global (Marinova, Child, & Marinov, 2011; Pan et al., 2014; Scott, 2013, p. 231). Hereby, the state is crucial in forming and influencing formal institutions by launching policies affecting the performance of their own economy and the activities of firms (Ren et al., 2012). Therefore, enterprises base their actions and decisions on institutions and chose the type of internationalization, FDI, location and industry upon market situation or government interference with which they are confronted (Dunning & Lundan, 2008, p. 108).

Thus, political and economic factors in the home country determine the relationship between the state and the MNE (UNCTAD, 2017b, p. 36). When going abroad, SOEs to an extent represent their home country (Anastassopoulos et al., 1987, p. x). By the same token, the internationalization of SOEs depends on the level of development in the home country and the prevailing foreign expansion strategy (UNCTAD, 2017b, p. 36). The decision of Chinese SOEs to globalize is influenced by state-controlled mechanisms shaping institutional environments. In other words, state ownership control influences SOEs globalization in the context of the host country and is more important today than managers’ political connections (Liang et al., 2015). In the case of China, its state policies actively support the internationalization and activities of its firms (UNCTAD, 2017b, p. 37). Thus, Chinese outward FDI has to align with political and nationalistic goals of the Chinese government due to political control and Chinese government policies (Child & Rodrigues, 2005; Kolstad & Wiig, 2012). Furthermore, not only strategic or diplomatic goals of the government must be taken into account, but SOEs degree of internationalization is determined by the improvement of economic performance (Benito et al., 2016).

Various opinions exist among IB scholars with regard to state ownership as an enabler or hindrance of internationalization. In general, state ownership politically links together a firm and its home country. Firms with state ownership are resource dependent on the institutions within their home country, therefore they do more to conform with than resist isomorphic (more similar) institutional pressures that vary across countries and through which their perceived image by the host country is influenced (Cui & Jiang, 2012; Meyer, Ding, Li, & Zhang, 2014). This is also described by the resource-based view stating that state ownership equips SOEs with important resources such as soft budget constraints in the form of subsidized loans or other financial, political or informative benefits helping them in
internationalization and strengthening the firm’s competitive advantages abroad (Cuervo-Cazurra et al., 2014; Lu, Liu, Filatotchev, & Wright, 2014). By the same token, firms with high levels of ownership can handle heterogeneity of institutional environments in the target country more easily (Pan et al., 2014). Prior entry experience of firms abroad is no longer a requirement for succeeding in host countries due to home government support and well-developed institutions in the host country (Lu, Liu, Wright, & Filatotchev, 2014). Liu, Jiang, Zhang, & Zhao (2013) found that governments’ supportive policies can to some extent explain international venturing of emerging firms. They state that the more strategically flexible an emerging Chinese firm is, the more it conducts international venturing. This positive linkage is emphasized by high domestic institutional government support. In sum, and according to Child & Rodrigues (2005), Deng (2007) and Taylor (2002), especially strong governmental support in the form of financial backing, tolerance and encouragement of outward FDI through governmental policies is a facilitator in the internationalization of Chinese (state-owned) firms. In addition to state ownership, government affiliation and the perks that come with that in the form of expedited permits to expand overseas affect outward FDI propensity. Firms that are highly affiliated with the government face preferred treatment and are more prone to internationalize (Wang, Hong, Kafouros, & Wright, 2012; J. Wu & Chen, 2014).

Scholars of the same opinion argue that state ownership significantly helps Chinese companies on their way to internationalization, as long as the Chinese government’s interests and goals are aligned with Chinese MNE interests (Rugman et al., 2014). One prerequisite is that managers in Chinese firms perceive government support as favorable to their own internationalization activities (Gaur, Ma, & Ding, 2018). It is found that although the goals of Chinese companies and Chinese state goals are often complementary, conflicts in the form of protectionism arise between Chinese firms and Western host country governments (Rugman et al., 2014). Often, there is concern about national security threats expressed by the host country and about China pursuing non-commercial objectives by buying up key technologies, and thereby hindering competition due to preferential governmental treatment and resource allocation as well as government support (Globerman & Shapiro, 2009; X. Zhang et al., 2016). This is enforced by “the opacity of its decision-making processes and the inadequacies of its consultative procedures” (Gang & Hope, 2013, p. 16). However, literature also states that market-oriented governance structures of SOEs are compatible and advantageous for the economy of the host country (Liang et al., 2015). Also, previous experiences with Chinese investors in Germany are not perceived as negative, contrary to the expressed concerns and widespread mistrust that can exist (Emons, 2015). Furthermore, there
is a positive correlation between state ownership and FDI for Chinese SOEs that are allocated with focal government resources (M. H. Li, Cui, & Lu, 2017).

Other dissenting scholars advocating the resource dependence theory argue that the dependence of manufacturing SOEs in emerging countries by the home country leads to a lower degree of international expansion due to high percentages of state-owned shares. This effect can be mitigated through well-developed institutional home environments (Huang et al., 2017). This follows institutional theory stating that because SOEs are more embedded in institutional home countries and bestow several advantages that POEs are not afforded, the domestic institutional compatibility that welcomes and legitimizes SOEs at home reduces outward FDI frequency in the form of the establishment of foreign subsidiaries. Simultaneously, possible foreign institutional incompatibility due to lack of legitimacy or transparency concerns in the host country limits SOEs expansion from their home country (J. Li et al., 2018). J. Li, Xia, Shapiro, & Lin (2018) also mention coercive (degree of reliance and dependency on governments) and mimetic (imitating behavior of other SOEs) pressures mitigating the negative effect of state ownership on outward FDI propensity. The scholars Hu & Cui (2014) show that state ownership does not necessarily result in a higher OFDI propensity due to the fact that “SOEs often struggle to fulfill the multiple and sometimes conflicting goals of FDI that arise from their close connection with the government and their own business needs” (p. 757).

High levels of government ownership even mitigate the positive linkage between institutional development and emerging market firms’ propensity to expand and go global (J. Wu & Chen, 2014). Negative effects of state shareholding on Chinese firm’s international diversification (Lu, Liu, Filatotchev, et al., 2014) and on OFDI (Xia, Ma, Lu, & Yiu, 2014) were also found as well as an effect on Chinese firm’s decision of wholly owned subsidiary (WOS) entry mode (Cui & Jiang, 2009). Finally, Xia, Ma, Lu, & Yiu (2014) regard state ownership as an ‘obstacle’ for emerging market firms to go abroad and Du & Boateng (2015) mention state ownership as a damage to corporate value, resulting in reduced decision-making processes in a competitive market. This goes along with agency theory supporting the view that SOEs do not succeed abroad due to inefficiency (Cuervo-Cazurra et al., 2014).

Whether or not state ownership supports or hinders SOEs internationalization, Liang et al. (2015) found out that “the presence of the state per se is not a key predictor of globalization. Rather, it is the state-led governance and control mechanisms such as government ownership arrangements and executives’ political connections” (p. 236) that exert the influence of the state. However, it can be stated that state ownership in Chinese SOEs is multi-faceted (Huang et al., 2017).
3.5 Hypotheses Development

Based on the afore-mentioned theory about Chinese SOEs in the international context, three hypotheses are derived in the following.

3.5.1 ‘Made in China 2025’ Investments of Chinese SOEs in Germany

The Chinese government plays a decisive role in the operations and decision-making processes of Chinese SOEs (Chen & Young, 2010; Cui & Jiang, 2012; Morck, R., Yeung, B., Zhao, 2007). By setting up the MIC 2025 policy and naming key technology sectors, the Chinese government indirectly defines the rules of the game of internationalization. Hereby, Chinese SOEs and their opaque network and financial structures are suitable means to adhere to the state’s policy since these represent the goals of the home country (Pan et al., 2014). Chinese state-led FDI is directed to seek out favorable investment locations outside of the home country. This includes countries like Germany with a high degree of advanced technologies and extremely high levels of expertise, as key targets for growth by Chinese investors. By combining the state backed SOEs as means to realize investments with openness to foreign investment from resource-rich countries like Germany and know-how intensive firms to invest in, the following hypothesis can be derived.

H1: Chinese SOEs invest more often in German sectors that are part of MIC 2025 than non-SOEs.

3.5.2 Entry Mode of Chinese SOEs in Germany

By pursuing MIC 2025, Chinese SOEs are forced to find a rapid path to internationalization as a way to fulfill strategic and diplomatic goals of the government and accomplish their own economic profit objectives. Gaining access to new technologies, knowledge and managerial capabilities is a necessary condition to becoming global leaders at home. For Chinese SOEs, M&A is the preferred method of entry as opposed to Greenfield (entering a new market by establishing a plant, factory or subsidiary), JV (entering a new market by building a partnership with locals) or other non-equity modes since resource investment and control is highest. It also constitutes the fastest way of gaining access to new markets, gaining market share and power, and enables a quick transfer of nonlocation-bound FSAs
from host to home country by simultaneously saving R&D costs (Deng, 2008). The possibility of Chinese SOEs acquiring an existing firm in the host country results out of the privileged relationship with the government. Government support in the form of soft budget constraints and favorable conditions for financing allows Chinese SOEs to handle the high degree of risk that M&A are subject to. With support from literature positing that state ownership is necessary for the decision-making and success of Chinese M&A, and because of cross-border M&A as the primary mode for Chinese state-owned firms to invest abroad (Kling & Weitzel, 2011; Rui & Yip, 2008), hypothesis two for Germany reads as follow:

H2: Chinese SOEs choose M&A as the preferred mode of market entry in Germany.

### 3.5.3 Transactions of Chinese SOEs and non-SOEs in Germany

The internationalization of Chinese SOEs in the form of M&A comes with a higher degree of risk-taking in foreign environments. According to Child & Rodrigues (2005) and Alon (2008), certain acquisitions bear the risk of being overpaid for due to over-evaluation by the target firm. In general, the purchase prices from Chinese investors are 30% higher (von Alten, Haberstock, & Merschmann, 2017, p. 44) than investors from different countries. This also applies to Chinese SOEs that more often pay higher prices for foreign investments when compared to private enterprises due to Chinese government support in the form of soft budget constraints to help succeed in internationalization (Guo & Clougherty, 2015; Rui & Yip, 2008). Often “POEs from developing countries are unlikely to have the financial resources to build the infrastructure and supporting industries for such a risky, long-term investment” (Rudy et al., 2016, p. 74). Also, investment values for M&A deals are significantly higher than for Greenfield Projects in the EU (Hanemann & Huotari, 2015). To be noted, the government’s tolerance and support of investments with a long time-horizon in the form of financial backing lead to the firms’ capability to take higher risks and pay more for potentially lucrative investment targets. Based on transaction value defined as the price paid for the acquisition of or stake in firms, the related hypothesis is:

H3: Chinese SOEs invest more in Germany than non-SOEs with regard to transaction values.
4 Empirical Research

In the empirical section, the theory regarding the influence of state ownership in internationalization needs to be empirically validated by real data through the derivation of hypotheses from the theory and their subsequent confirmation or rejection. To find answers to particular hypotheses, collecting data is a good way to gain information (Vartanian, 2011, p. 3). Therefore, the first step is to provide a database with Chinese state-owned and private firms investing in German companies. For this research, the design of secondary data analysis was chosen with a research question-driven, not a data-driven approach, as research questions were formulated a priori. After explaining the nature and relevance of secondary data analysis the method focuses on each aspect of data handling from dataset identification to dataset interpretation.

4.1 The Nature of Secondary Data Analysis

Secondary data analysis has become an increasingly popular research method within the increase in availability of electronic information sources and the rising use of the Internet (Zikmund, Babin, Carr, & Griffin, 2013, p. 159). Secondary data is defined as “gathered and recorded by someone else prior to, and for purposes other than, the current project” (Zikmund et al., 2013, p. 160). In secondary data analysis, data from previously collected sources are collected and harmonized after compounding to test formulated hypotheses. In contrast to secondary data, primary data is collected by researchers through interviews, surveys, focus groups etc. for the project at hand and data is examined afterward (Zikmund et al., 2013, p. 185). This allows the highest control over data in terms of wording and framing (Vartanian, 2011, p. 15).

The advantage of secondary data is that it is freely available, faster and less costly than assembling primary data. Time and money is saved by eliminating primary data activities like sampling and data processing. It also may provide data that is otherwise not accessible due to access charges for large-scale databases of analytics companies. Since secondary data already exists, subjects do not have to be accounted for (Zikmund et al., 2013, p. 160).

The disadvantage of secondary data is the inadequacy. Often the data is not intended to address the needs of the research issue, because of variant definitions of concepts and classifications, divergent or inappropriate units of measurement, a
lack of clarification of the data's validity and other time frames (Zikmund et al., 2013, p. 160). Also, it is possible that some important data is missing within the dataset.

The objective of secondary data analysis in this research is the simplest form of secondary data research: fact-finding. Fact-finding relates to the identification of all information about Chinese state-owned enterprises investing in German companies (Zikmund et al., 2013, p. 180; Zikmund, D'Alessandro, Winzar, Lowe, & Babin, 2017, p. 122). External secondary data generated by researchers or organizations not involved in the subject under consideration are published and distributed online and used for this analysis. Despite previously stated concerns, the quality of secondary data is of a higher quality than ever before and therefore its usage for the goal of analyzing the role of state ownership in Chinese enterprises during internationalization is supported (Vartanian, 2011, p. 14).

4.2 The Relevance of Using Secondary Data Analysis

One of the primary motivations for using secondary data analysis is the ability to take overlapping datasets and consolidate it in a manner that suits the research question at hand. Thus, it is crucial to conduct one comprehensive, harmonized and large-scale research dataset.

Utilizing existing datasets collected by researchers for achieving the one’s own goal of secondary analysis benefits from the huge number of resources they have incorporated and the wide variety of data sources. Thanks to data sharing, interchange and publishing, new findings can be generated and research potential can be enhanced. Since existing data is already collected, existent and more or less available, it can be cost-efficiently used and transferred to new research niches. In this case, Chinese state ownership.

With regard to time, secondary data analysis is essential in this case, as the collection of primary data would exceed the 15-week timeframe. Also, it is harder for students without financial resources to obtain information and access databases owned by large analytics companies; thus, this is a barrier to research. Another limitation is that the search for Chinese investments in German companies can only be done on German or English websites, as Chinese websites are not able to be translated. This is a hindrance and further supports secondary analysis. Therefore, from a financial, temporal and feasible point of view, secondary analysis is the best solution to test hypotheses about the role of Chinese state ownership in the internationalization process.
4.3 The Method of Secondary Data Analysis

The method used is a six-step process of secondary data analysis from data gathering to data interpretation (compare Figure 1). As a first step, all relevant datasets to be found in the Internet containing Chinese investments in German companies were collected and saved (1.). An overview of used reports including datasets for the secondary data analysis is shown in the Appendix Table 1. In total, 21 datasets were collected.

The reports found contain either whole datasets or extracts of datasets regarding Chinese investments in German companies. Thus, the first challenge was gaining access to whole datasets in an Excel format (2.). After direct e-mail addressing the respective dataset owners, only Mr. Rusche from Institut der Deutschen Wirtschaft, Ms. Jungbluth from Bertelsmann Stiftung and Mr. Leymann from University of Bremen sent their used whole datasets in Excel format and provided access to their research. Furthermore, Mr. Utesch-Xiong also from University of Bremen granted access to Thomson Reuters Eikon (TRE) database. Re-use of this data was made possible under typical scientific standards. The found extracts of datasets about Chinese investments in German companies were often available in pdf format and thus had to be transformed into a compatible electronic format (Excel format).

In the next step, an Excel file showing all found datasets on Chinese investments in German companies was created (3.). An extract of the Excel file in digital form can be found in the Appendix Table 2. The individually-collected datasets of the different owners were copied on Excel tabs. In total, the composed, original dataset consisted of 1,301 entries coming from 21 datasets. Original data was archived for backup purposes.
4.3.1 Harmonization of Data Entries

The aim of the harmonized dataset is to make similar variables from different datasets comparable and to show all investments from Chinese companies into German companies with regard to state or private ownership, MIC 2025 sector, acquired company share, and transaction value. This required harmonization of the data (4.) as all datasets had a different scope of information, slightly different descriptions of categories, and many duplicates. Often, the entries in the harmonized dataset on the first tab in the Excel file were linked to their original data.
The harmonized dataset shows the current status as of the beginning of January, 2019. All Chinese investments into German companies from 2001 to 2018 that have ever been made are included, with the exclusion of Greenfield investments. 2001 was chosen as the starting year. This was chosen because the Euro had since been introduced, making it easier to compare transaction values. The classification by year was made on the basis of the effectiveness of the acquisitions. There are also German companies included in which investments have been made, but which are now acting independently once again or which no longer exist (see comment section in the Excel for more information). In the case of JV, only those who settle in Germany apply. If a German company has been sold several times, the last acquisition is valid (e.g. Sunways has been in Chinese ownership (LKD Solar) since 2011, but was resold to Shunfeng International Clean Energy in 2014 (see comment section in the Excel for more information)). The acquisition by foreign companies is also included if the foreign company is in Chinese ownership (called bridgeheads). An example of this is the acquisition of Whitesell Germany GmbH & Co. KG by Nedschroef B.V. owned by Shanghai Prime Machinery Co. Ltd.

The pooling of datasets has to be adjusted, meaning some data entries have to be taken out of the harmonized dataset. To show all Chinese investments in German companies, investments or acquisitions that are planned or pending are not included since there is no transaction flow yet. Unknown, unnamed or un-specified investors or companies from Germany or China were removed due to unclear allocation. Cooperation for causes such as for joint research and pilots without transaction flows were left out (e.g. Telefónica Germany und Huawei Technologies Co.). The sale of real estate or industrial land (e.g. Pirensus Services GmbH and China Construction Bank Corp.) was not considered in detail either since the focus is on the sale of German companies. Foreign companies that are owned by German companies and are acquired by Chinese companies are neglected, since investments have to take place in Germany (example of the acquisition of Finnish Lumikkko Technologies Oy, belonging to German Bitzer Group, by Songz Automobile Air Conditioning Co. Ltd.). Participation in growth financings (e.g. Jenavalve Technology GmbH and Beijing Legend Capital Management Co. Ltd.) and Series A/C Venture Financing Rounds were not included, as several investors usually participate and the individual breakdown by Chinese investors is difficult. The same applies to financing through, for example, the Sino-German High-Tech Fund (SGHF) or High-Tech Gründerfonds (HTGF). Also, some Chinese company takeovers are
not made public and are therefore not included for fear of bad publicity (Emons, 2013, as cited in Tripitz, Groll & Ghane, 2011, p. 27-28).

For the harmonization of the dataset, missing data was always completed with original research and for entries not available (n/a) an attempt was made to fill in the blanks (4.2). The assignment of SOEs and POEs was the prerequisite for all hypotheses, therefore appearing first in the flow chart of secondary data analysis (4.2.1). To answer the first hypothesis, the assignment and definition of German companies to MIC 2025 was necessary (4.2.2). The second hypothesis required information about Chinese-acquired company shares in German firms indicating entry mode (4.2.3). Finally, data about transaction values helped in answering the third hypothesis (4.2.4). All sub-points are explained in detail in the following.

4.3.2 Distinction of Chinese State and Private Ownership

The assignment of SOEs or POEs was based on the datasets of the secondary analysis and personal research. For personal research it was assumed that Chinese SOEs often establish subsidiaries in the home or host country that then receive funds from their parent company to invest abroad (Cuervo-Cazurra et al., 2014; Gang & Hope, 2013). By definition, subsidiaries must have at least half of the shareholder voting rights of their parent company (UNCTAD, 2017a, p. 3). The capital increases on the Chinese stock exchanges also make a major contribution to the financing of the subsidiaries’ investments abroad (Hans Böckler Stiftung, 2017). Because of the preferred access enjoyed by SOEs and their subsidiaries to capital, and according to the research of Jungbluth (2013), state-owned subsidiaries or units in the harmonized dataset have also been referred to as SOE-owned entities either in the home or the host country. Therefore, when a Chinese company has more than 10% of state shares (UNCTAD, 2017b, p. 30) (threshold for controlling assets) it is categorized as an SOE, or SOE-owned entity when the parent company has more than 10% of state shares (UNCTAD, 2017a, p. 3, 2017b, p. 30). POEs are privately-owned enterprises controlled by individuals and thus n/a meaning no information regarding ownership is available or both state and private investors were involved (e.g. consortium investment). Finally, for figuring if an entity is state-owned or privately-owned, Chinese companies within the dataset were matched with the companies in the United Nations Conference on Trade and Development (UNCTAD) SO-MNE database also provided by Mr. Utesch-Xiong and with the list published by SASAC. The UNCTAD SO-MNE database covers approximately 1,500 firms and provides information on state ownership shares (UNCTAD, 2017b, p. 30).
One of the companies listed in the UNCTAD SO-MNE database is CITIC Group Corporation Ltd. and is an excellent example of the interdependence and opacity of company and ownership structures in the harmonized dataset (compare Figure 2). Based on literature, large Chinese companies are often conglomerates with multiple nested and cross-shareholdings, involving central state actors as well as provincial governments, investment funds, company management and private investors. The internal structures of corporate governance are not completely transparent, particularly in the case of fully state-owned companies and financial information only has to be published for stock companies (Reisach, 2016).

![Figure 2: Ownership structure of CITIC](image)

CITIC Group (China International Trust and Investment Corporation) is owned by the Ministry of Commerce and therefore a state-owned finance and investment company (Emons, 2013). CITIC Group sold 100% shares of CITIC Limited to its subsidiary, CITIC Pacific (later renamed CITIC Limited) in 2014. Today, CITIC Limited, the largest Chinese conglomerate, is 58% owned by CITIC Group (CITIC Limited, 2018). CITIC Capital Holdings was founded in 2002 as a large investment management and advisory firm and indirectly partially belongs to CITIC Group. CITIC Capital Holdings belonged to CITIC Limited from its incorporation. In 2009, China Investment Corporation (CIC) became a shareholder and in 2012 Qatar Holding LLC (QH) joined as well. Recently in 2014, Tencent Holdings Limited acquired voting rights (CITIC Capital, n.d.). CITIC Limited (58% state-owned) and China Investment Corporation (CIC) is China's sovereign wealth fund and therefore also state-owned and colored blue (CITIC Capital, 2015).
According to a press release from CITIC Capital in 2012, Qatar Holding LLC possesses 22% ownership, CITIC Limited (former CITIC Pacific Limited and CITIC International Financial Holdings) holds 43% and China Investment Corporation has 31% ownership (CITIC Capital, 2012, p. 1).

In 2017, the Chinese asset management firm CITIC Capital Holdings, as co-investor of British private equity firm 3i, acquired 27% interest in the German company Formel D and therefore is part of the harmonized dataset. This Chinese firm is also a common example of mixed ownership and the separation of ownership and management that is found within Chinese firms investing in German companies. On one hand, with a significantly large majority share of state-owned assets they are state backed and more incentivized than POEs, according to IB literature. Conversely, they have private investors and are thus privately-owned and potentially privately managed as well. The outdated numbers of 2012, coupled with no new information being available regarding the shares of Tencent Holdings Limited, makes the assessment of state or private ownership and management control difficult. According to definition, a 10% threshold of state shares being state-owned classifies CITIC Capital Holdings as a state-owned entity. Literature asserts that higher levels of state ownership are better than dispersed ownership structures like that at CITIC due to the receipt of more government support and political connections as well as the free-rider problem in dispersed structures (Yu, 2013).

Overall, mixed ownership consisting of private and state ownership and control is often prevalent within the dataset. It is possible that Chinese firms are more often privately managed and controlled than by the state, which may indicate that not all truth can be represented in ownership type and that it is not always obvious who actually controls the firm (Aharoni, 2018; Milhaupt & Zheng, 2015). Generally, in China, control can be exercised by anyone holding shares (Bruton, Peng, Ahlstrom, Stan, & Xu, 2015). On one hand, even if the state does not formally control a company, there are still a number of ways in which the government can influence the company’s management, especially since the state shareholders guarantee proximity to the state and the resulting privileges (Musacchio & Lazzarini, 2017). Conversely, oftentimes the difference between ownership and control weakens the state’s monitoring function in the underlying private company’s CEO, resulting in less trust and commitment to provide resources for the international growth of the company (Hu & Cui, 2014). Thus, the term state-owned does not have to mean government-run (Alon et al., 2014). Therefore, the long existing, persistent dichotomy of firms being either state-owned or privately-owned is not suitable anymore and further replaced by a hybrid model as a crucial organizational form (Bruton et al., 2015).
4.3.3 Assignment of German Companies to MIC 2025

To answer the first hypothesis German companies were assigned the 10 key technologies of MIC 2025 (4.2.2). The assignment is based on Jungbluth (2018), meaning that each individual company has been checked and assigned to the main product or the first mentioned product. An investment belongs to MIC 2025 if the field of activity of the German company fits fully or partially to one of the 10 MIC 2025 key technologies (Jungbluth, 2018).

The first key technology, 'New generation information technology', unites technology, media and telecommunications. Most of the companies in this category are software companies or software developers. The first category also includes Internet of Things (IoT) companies and information technology companies. Additionally, there are firms engaged in the development of systems e.g. hotel management systems or lift control systems. For the latter, the media, platforms such as web portals, mobile advertising platforms or hospitality data processing platforms apply.

By far, the largest category is 'High-end computerised machines and robots'. Since this key technology is narrow and highly specific, all companies in the sector of industry and mechanical engineering are included here. First, it includes all kind of machinery production (textile machines, automated machines, industrial sewing machines, press manufacturer, mobile machines, industrial machinery manufacturer, machine tool manufacturers like power tools, injection molding tools, lathes, grinding machines, and pumps) and machinery and plant engineering (fiber placement systems, crane systems, drilling systems or systems engineering). Second, companies that are engaged with metal processing are also included, e.g. aluminum and plastics manufacturer or developers of zirconium and titanium products.

The third key technology of 'Space and aviation' is reflected in airlines for ground and cargo handling services in the aviation industry, airline catering companies, and airports. Furthermore, companies that are engaged in the production processes of the aerospace industry, such as airplane and aviation parts manufacturers, will be included.

The following category of 'Maritime equipment and high-tech ships' includes shipping companies or shipyards, ship control and monitoring system manufacturers, and all consultative technical services around the shipping industry. ‘Advanced railway transportation equipment’ comprises railway technology,
infrastructure and products such as railway electrification and power supply systems.

Since ‘New energy and energy-saving vehicles’ is very restricted in its definition, the scope is widened to include automotive and vehicle construction. Here, there is a large amount of suppliers to the automotive industry and service providers to the automotive industry and its suppliers. Companies that manufacture products for the automotive industry produce car antennas, vehicle interiors, automobile glass, vehicle lights or carbon and glass fiber semi-finished products. In addition, technologies (exhaust gas treatment and emission reduction technologies and electrical drive and control technology) and systems (semiconductor systems and automotive reception systems) fall within the automotive and vehicle sector.

The seventh key technology of ‘Energy equipment’ deals with companies in the energy sector and environmental technology firms. Renewable energy can be gained from the sun (solar technology providers, solar inverter manufacturers, photovoltaic firms, manufacturers of CIGS thin-film modules) or from wind (offshore wind farms, firms engaged with the production of rotor blades for wind turbines). Also, providers for water measurements, specialists for industrial wastewater, waste treatment plants and recycling companies are included here.

‘Biopharma and high-tech medical devices’, being the last key technology of MIC 2025, fall under the category of pharma, biotechnology and health. Pharmaceutical companies, biotechnology companies, medical technology companies, specialized clinics and research institutes can be found within the dataset. Companies in this category are engaged with pharmaceutical packaging or the production and development of medical systems (blood sugar measuring systems) and devices (dental lasers) and healthcare products (plasma protein products and products for the treatment of coronary and endovascular artery diseases).

No companies could be assigned to the key categories of ‘Agricultural machines’ and ‘New materials’. Companies that do not fit into MIC 2025’s key technologies have been classified into self-chosen categories based on Jungbluth (2018) into ‘Consumer goods’, ‘Insurance’, ‘Hotel and gastronomy’, ‘Finance’ or ‘n/a’.

4.3.4 Determination of Chinese Entry Mode in Germany

In order to find out whether Chinese SOEs choose M&A as their preferred entry mode, the acquired company shares must be considered with each investment (4.2.3). When investing in another company, the buyer can choose between a
minority equity stake (<50%), a majority equity stake (>50%) or the acquisition of 100% of shares. Minority equity stakes between 25% and 50% lie above the blocking minority. Information on the acquisition of shares is derived from secondary research and completed with personal research. In case of deviations the mean value was taken. For the second hypothesis, only majority equity stakes or 100% acquisitions were considered M&A as they can exert a significant influence on the company's activities and decisions.

4.3.5 Identification of Transaction Values of Chinese Companies

Some data entries contain different information about the transaction value (4.2.4). Clarity is realized with further online research. In the case of diverging transaction values, estimated values were not taken into account due to inaccuracy. If transaction values differ, the average deal size is calculated. Transaction volumes in USD have been translated at daily exchange rates to Euro. Currency fluctuations in transaction values are possible, but attempts were made not to round in order not to falsify the values. For stock companies with annual capital increases, individual transaction values for buying shares were added (for calculations see comment section in the Excel). In most cases, Chinese investors first invest in German companies with small stakes and then gradually increase their capital shares (Reisach, 2016). The latest, cumulative value for the shares applies.

Of all 1,301 identified investments in the original dataset, 381 entries are contained within harmonized dataset and were thus taken into account and deemed to have potential in answering the three hypotheses and research question posed at the beginning. After finalizing the harmonized dataset, data was analyzed and extracted (5.) (see chapter 5). A comparison is made between the results of the harmonized dataset and results of existing studies by others. This also includes consulting firms that have not undergone a double-blind review meaning that they do not necessarily have to meet the academic standards of a journal article. Nevertheless, a comparison is suitable due to the large amount of data they have incorporated. Finally, hypotheses are addressed by interpreting data (6.) after mentioning strengths and limitations of this research (see chapter 6).
5 Analysis of Findings and Results

The harmonized dataset contains a total of 381 Chinese companies’ investments in German firms between 2001 and 2018. Chinese investments in German companies were in the double-digit range from 2011 onwards and have increased continuously into almost every year since (compare Figure 3). Most of the investments were made in 2016. After that, Chinese investments fell again. For the period of 2005-2017 SMB Consultants (2017) and for the period of 2011-2016 Rödel & Partner (2017), researching about Chinese investments in Germany, found the same (almost) continuous increase.

![Number of Chinese investments in Germany from 2001-2018](image)

It is noticeable that some Chinese companies occur very often within the dataset and have acquired several German companies in different years. The private Chinese company Fosun International Holdings Ltd. made 13 investments in German companies, via its own holding or via subsidiaries between 2014 and 2018. For the state-owned companies, a Chinese company called AVIC (Aviation Industry Corporation of China) invested six times during 2013-2015 in German companies, often via subsidiaries.

The difference between state-owned and privately-owned is also reflected in their frequency distributions (compare Figure 4). The majority of Chinese companies in the harmonized dataset are privately-owned (n=207). State-owned and SOE-
owned entities comprise approximately 20% of all investments (n = 88). The rest cannot be assigned or are consortium investments. The unbalanced distribution of private and state coincides with the findings of SMB Consultants (2017) for the period of 2005-2017, with the findings of PwC (2016) from 2011-2016 and with the results of the research of Jungbluth (2016, 2018) who also investigated Chinese investments in Germany within 2014-2017. This contradicts the findings of Hans Böckler Stiftung & NRW.INVEST (2015) who claim to have found that about half of all acquisitions can be attributed to state-owned companies.

Since the unveiling in 2015 of the political strategy MIC 2025, it is clear that Chinese firms concentrate on the mentioned strategic sectors. 287 out of 381 German companies can be assigned to a sector of MIC 2025. The other 94 investments belong to the sectors ‘Consumer goods’, ‘Insurance’, ‘Hotel and gastronomy’, ‘Finance’ or are not classifiable (‘n/a’). Secondary data analysis shows that POEs (n=162) invest more often in sectors that are part of MIC 2025 than SOEs (n=38)/SOE-owned entities (n=41). The bar chart below (compare Figure 5) shows corresponding percentages for each type of ownership. Therefore, Hypothesis 1 (Chinese SOEs invest more often in German sectors that are part of MIC 2025 than non-SOEs) is not confirmed and has to be rejected. When comparing Figure 4 to Figure 5 it is noticeable that the state share has slightly increased. This can be seen as a possible indication of an increased interest of state actors into purchasing know-how for the implementation of MIC 2025 in Germany (Jungbluth, 2018).
MIC 2025 targets 10 key technologies of which only 8 can be assigned to the data in the harmonized dataset. Again, the total number of MIC 2025 German companies is n=287. Both, SOEs (-owned entities) and POEs have an investment preference within the machinery and industry sector 'High-end computerised machines and robots' (compare Figure 6). Furthermore, the automobile sector 'New energy and energy-saving vehicles' is quite interesting for Chinese companies. These results are in line with the findings of Chinese acquisitions from 2005-2017, as asserted by the research that shows SMB Consultants (2017) having the highest number of acquisitions for mechanical engineering and automotive. These results are also consistent with those of PwC (2016) from 2011-2016, placing an investment focus on industry and automotive, and those of Jungbluth (2016, 2018) which also show industry and mechanical engineering in first place for 2014-2017. These are followed by automotive and vehicle construction, and energy and environmental technology (Jungbluth, 2016, 2018). Based on a period of 2014-2016, Rödel & Partner (2017) also mention mechanical engineering as trending industry that fits to the findings in the harmonized dataset.
Investments of Chinese companies in MIC 2025 by key technology

According to theoretical foundation, M&A is a common mode of entry for Chinese firms. M&A is defined as having at least a majority equity stake (>50%) and up to 100% ownership acquisition. Minority equity stake means having <50% of all shares. There is no further differentiation regarding blocking minority due to a lack of significant results. Total number of investments is again 381. For minority equity stake (0%-50%), there are 53 investments (compare Figure 7). For majority equity stake (51%-100%), there are 310 investments. The remaining 18 investments are JV or n/a meaning no information about majority or minority equity stake was found.

Data indicates a higher number of M&A (n=69) than acquired minority equity stakes (n=14) for SOEs/SOE-owned entities. Therefore, Hypothesis 2 (Chinese SOEs choose M&A as the preferred mode of market entry in Germany) is confirmed.
The high number of POEs’ investments is also reflected in transaction values. During 2001 and 2018 Chinese POEs invested approximately EUR 21 billion for acquiring stakes in German firms (compare Figure 8). This is in contrast to SOEs/SOE-owned entities that together invested less than half of that figure, approximately EUR 8.5 billion. Therefore, Hypothesis 3 (Chinese SOEs invest more in Germany than non-SOEs with regard to transaction values) is not confirmed and has to be rejected. When calculating average deal sizes the results are different. Average transaction value per investment deal amounts for POEs EUR 192 million and EUR 350 million for SOEs (SOEs = 173 million/SOE-owned entities = EUR 177 million). This finding indicates that SOEs, when investing in German companies, pay approximately 45% more than POEs although they did fewer total investments in German companies compared to their counterparts.
The highest transaction value (EUR 7.3 billion) ever paid was made by Tenaclou3 Prospect Investment Ltd., a unit of privately-owned Zhejiang Geely Holding Group Co. Ltd., in Daimler AG for a minority equity stake of approximately 10% in 2018. The most expensive acquisition was made in 2017 by the consortium led by private company CK Hutchison Holdings in ista International, an energy service provider at the price of EUR 4.5 billion. When comparing findings to Hanemann & Huotari (2018), Chinese FDI transactions to Germany between 2000 and 2017 amount to EUR 20.6 billion (Hanemann & Huotari, 2018, p. 32). Chinese investments into German companies amount to EUR 28.3 billion in the harmonized dataset for 2001-2017. Differences occur because the two researchers excluded investments below 10% stakes, included only China (not Hong Kong) as origin country and set a different time frame (Hanemann & Huotari, 2018). For example, they excluded the 7.6% stake of HNA Group in Deutsche Bank with a total volume of EUR 3.3 billion and neglected the acquisition of ista International by Cheung Kong, which is owned by CK Hutchison Holdings, for EUR 4.5 billion, due to its location not being based in mainland China (Hanemann & Huotari, 2018, p. 37).

To summarize the findings from the analysis, investments made by privately-owned companies more than double the number of investments made by state-owned enterprises. Chinese investments in German companies have only increased significantly in the past 10 years, peaking in 2016 and then decreasing again. In 2015, MIC 2025 was announced so it is not the case that investments have shot up significantly after the announcement of the strategy. Three quarters of all Chinese investments made in German companies can be assigned to one of the 10 key technologies of MIC 2025. Due to the high number of POEs, they invest more often
in MIC 2025 sectors than their state-owned counterparts. In particular, heavy investments are being made in the industrial and machinery sector as well as in the automotive industry. When Chinese companies, privately-and/or state-owned, invest in German companies they prefer to choose M&A in the form of majority equity stakes or 100% ownership. M&A is one of the most cost-intensive modes of entry as evidenced by high transaction values. Privately-owned companies invested twice as often in German companies as state-owned companies between 2001 and 2018. However when only considering the average deal size, SOEs invested almost twice as much as POEs. Finally, hypotheses 1 and 3 are directed and comparative between SOEs and POEs. The rejection of both may be due to the unbalanced distribution of state and private ownership.

6 Strengths and Limitations

As with all research, this research is subject to strengths and limitations. Beginning with strengths, this empirical research is the first of its kind to provide a comprehensive overview of investments made by Chinese state-owned enterprises in German companies over the period of 2001 to 2018. Not only are Chinese companies included as investors, but the dataset also includes acquisitions of German companies by European companies that are already Chinese subsidiaries. This is important because those bridgeheads often hide real ownership (Hans Böckler Stiftung, 2017). Furthermore, a clearer distinction has been made between different forms of state-owned enterprises (SOEs and SOEs entities). At this point in time, no composed and harmonized dataset of this size brought about by secondary data has ever been created. Therefore, it fulfills its goal to extend IB research about Chinese SOEs behavior in the German context.

The first set of limitations of this empirical study stems from the size of the used datasets and the method of secondary data analysis. Some reports found contained only extracts of big datasets. Even after direct data access requests were made to dataset owners, access to whole datasets was denied. This limits the scope of secondary data analysis since many of these datasets may have strong potential for secondary data analysis if this data were fully available. Where access to the datasets has been granted and where data was made available, it is still a dark field for secondary data analysts to know how, and under what circumstances, secondary data has been collected, analyzed and evaluated. Also, each study with a dataset is subject to its own limitations in how they define, measure and operationalize data.
information such as state ownership differently. Another negative issue of secondary data analysis is that the researchers’ data used within the harmonized dataset could often not be validated with online research. This may be due to the fact that the researchers had other data sources at their disposal. Thus, the information in the secondary data is fully trusted.

Limitations also arise from the nature of datasets. To that end, the individual 21 datasets were very different in content and scope. Units of measurements such as language or currencies varied between the datasets. This is a common disadvantage of secondary data (Zikmund et al., 2013, p. 160). As found secondary data was not collected with an explicit focus on state-ownership, data is often incomplete in this respect, highlighting another downside of secondary data analysis (Vartanian, 2011, p. 15). Company information is rarely accessible due to a lack of legal disclosure obligations in China (Reisach, 2016, p. 6). Therefore, the identification of state ownership in Chinese firms is often difficult to ascertain, which is mentioned by Musacchio & Lazzarini (2017) and problematic for a researcher in a university context. In contrast to students, professional researchers from large institutions have various resources and contacts to get access to data, particularly from China (Vartanian, 2011, p. 3). They also have access to chargeable M&A databases from NORDAKADEMIE or to Zephyr from Bureau von Dijk. The lack of Chinese language and therefore the lack of understanding and non-availability of information coming from China is a major hindrance. Understanding Chinese press releases, company homepages, reports or networks proved to be particularly difficult although Reisach (2016) advises against using Chinese media as a source for independent analysis. Since China is not a centrally planned economy, the scrutiny of information, lack of transparency, and fragmented ownership structures in Chinese firms make it hard to identify state ownership that is reflected in 86 out of 381 n/a entries within the dataset for type of ownership. Often, the state does directly hold shares in Chinese companies but “governments use a variety of holding companies and complicated pyramid ownership schemes to hold shares” (Musacchio & Lazzarini, 2017, p. 268) or the government holds shares directly via the treasury or indirectly via funds, making the assessment of minority- or majority-owned state companies almost impossible for amateurs (Musacchio & Lazzarini, 2017).

The same applies to transaction values. According to Rusche (2018), for less than 50% (Rusche, 2018, p. 2) of Chinese transactions is a transaction value published in Germany and usually only when listed companies are involved (Rusche, 2017a). Data needed for the harmonized dataset is also much more nuanced and limited, or very well hidden. The lack of suitable data and n/a entries
severely limit the ability of the research to draw solid conclusions. Since a transaction value could be found for 48% of the investments, the actual transaction volume is much higher. Furthermore, there are individual investments with very high transaction values that lead to peak values and distort the overall picture of average transaction values. In general, statistical gathering of investments from China to Germany is not easy, because on one hand they are kept silent and on the other many transactions are carried out via Hong Kong, the British Virgin Islands and the Cayman Islands (‘round-tripping’). This further supports the assumption that the exact actual transaction volume is higher (Emons, 2013; Z. Wei, 2010).

Finally, when it comes to analysis of the harmonized dataset, findings are only valid for Germany and not transferable to other countries. The focus is on China as an investment country. Investments of investors coming from Indian or Arab countries that invest in Germany at a comparable individual investor level are not taken into account (Emons, 2013). The harmonized dataset is not exhaustive and makes no claim to completeness. As a free market economy is dynamic, it cannot be ruled out that in the meantime companies have been resold, renamed, changed ownership structure, or made new investments. Secondary data excluded Greenfield investments, which is why they were also excluded here allowing a sole focus on Chinese investments in German companies.

To summarize, it was possible to create a harmonized dataset of Chinese investments in German companies over a time period of 18 years, including 381 identified data entries. This dataset forms the basis for further research in Chinese IB theory, e.g. for investigating relationships between state ownership and the size of the acquired company or state ownership and acquisition out of insolvency. Overall, the findings of the harmonized dataset are in line with other research. This contradicts the statement of Vartanian (2011, p. 17) that secondary data is not appropriate for testing hypotheses. Although limitations arise due to lack of access to datasets, completeness of datasets, different units of measurements, lack of Chinese language, and so on, an analysis could be conducted. Based on that, hypotheses can be confirmed and rejected.

For future research, a more comprehensive and more validated data collection with regard to state ownership and transaction values is needed in order to maximize the potential of data evaluation. To investigate possible consequences of MIC 2025 it will take a few more years to see long-term effects since this plan is in the early stages (Wübbeke et al., 2016). As mentioned, this study only focuses on Germany. Further extension of research to other investment locations would be interesting to investigate, particularly Chinese internationalization processes all over Europe and their pursuit of building Chinese international value chains within the EU
Furthermore, it would be exciting to see what happens to a German company’s performance after a takeover of a state-owned Chinese company or to address the question of whether Chinese investors are more likely to invest in German MNEs as opposed to small and medium-sized enterprises (SMEs). Furthermore, it is unknown which SOEs receive preferential treatment from the state and to what extent, since there are differences between Chinese SOEs that are directly subordinate to the government or, for example, managed by SASAC and SOEs that belong to different local and provincial units that do not receive special treatment and invest abroad due to commercial reasons (Alon et al., 2014). A further differentiation between local and central SOEs would provide new insights including which of those is more likely to engage in FDI. Since the dichotomy between state and private companies was so prevalent, a further distinction between state, partial state and private would be reasonable in future research. It would also be intriguing to research the exact origin of Chinese investments, whether from mainland China or elsewhere and how many investments are diverted via Hong Kong (Jungbluth, 2018).

7 Theoretical and Practical Conclusion

From a theoretical view, it is a fact that Chinese SOEs have a special relationship to the state and receive substantial governmental advantages in the form of soft budget constraints, greater access to resources, and tolerance and encouragement of outward FDI what is defined as home CSAs. Long-term investment horizons of SOEs allow more risky and more time-consuming investments that require special regulatory treatments and often financial backing and advice. The Chinese government not only helps from a financial point of view but also provides information services and workshops or trainings for investing abroad that is part of home FSAs (Jungbluth, 2013, p. 25). This strong governmental support goes hand in hand with the internationalization of Chinese firms to outwardly engage in asset-replicating or supply-controlling FDI by announcing political strategies. Especially MIC 2025, the industrial-political strategy of the Chinese state, advises Chinese firms to predominantly invest in 10 key technologies abroad in high-tech countries to help China become a global leader in technology and manufacturing. The Chinese government’s call to invest abroad as a means to catch up signals that China is not yet ready to develop its own FSAs. They instead rely on CSAs, still in the springboard mode and need to tap into new markets to gain
valuable resources. Often the chosen entry mode for Chinese SOEs for high-tech investments abroad is M&A, which is often associated with full control of ownership and quick access to resources of the acquired firm. State ownership is not only essential for the decision-making process and success of Chinese M&A, but also helpful in acquiring target firms due to increased financial leeway and the capability of paying higher transaction values for stakes in firms (Kling & Weitzel, 2011). In literature, state ownership as an enabler or hindrance of internationalization is a double-edged sword. According to a resource-based view, Chinese SOEs are equipped with resources (financial, political or informative benefits) that help them in internationalization and therefore let them better handle the conditions in the institutional host country environment (Cuervo-Cazurra et al., 2014; Lu, Liu, Wright, et al., 2014). As long as Chinese SOEs interests are aligned with MIC 2025, state ownership helps in internationalization (Rugman et al., 2014). In opposition to the positive correlation between state ownership and FDI for Chinese SOEs that are found by M. H. Li et al. (2017), there are also other dissenting scholars advocating the resource dependence theory stating that the dependency of firms with state ownership on the home country leads to less internationalization (Huang et al., 2017). Institutional theory belongs to the same negative strand indicating that SOEs are more embedded in a compatible institutional home country and thus outward FDI is reduced due to possible foreign institutional incompatibility in the host country because of a lack of legitimacy or transparency of firm operations (J. Li et al., 2018).

From an empirical view and with the help of secondary data analysis, it is found that POEs make up the majority of Chinese investments in German companies. This is also reflected in higher shares of POEs investing in MIC sectors than SOEs which leads to the rejection of Hypothesis 1. The assumption of Chinese SOEs choosing M&A in Germany as preferred mode of entry could be confirmed in Hypothesis 2. Hypothesis 3 has to be rejected since POEs invest more in German companies with regard to transaction values in absolute sums. Hypotheses 1 and 3 are directed and comparative between SOEs and POEs. The rejection of both may be due to the unbalanced distribution of state and private ownership in the harmonized dataset. The difficulty of determining whether companies are state-owned or not is one of the limitations responsible for the results. Besides the list provided by SASAC there is no other reliable source indicating state ownership of Chinese firms. Therefore, the search for monetary subsidies and financial state support is complicated due to fragmented ownership structures. Opaque financial networks and non-transparent management structures that often hide the state make it difficult to determine state ownership and in turn, governmental influence. Information is often incomprehensible from a European linguistic perspective so that the exact number
of SOEs remains in the dark. This calls for an approach to increase transparency through disclosure obligations of internal structures of corporate governance financial information not only for stock companies but for all Chinese acquisitions with state participation (Wübbeke et al., 2016).

To combine the theoretical and the practical sections, as well as to answer the research question, it can be stated that state ownership is crucial in the internationalization of Chinese firms and plays a role from a theoretical point of view. Not only the state as an institution is crucial, but the advantages that come with it bring benefits to the enterprise when investing abroad and aid SOEs to internationalize and help them overcome disadvantages. Empirical findings can partially support this statement for Germany. On one hand, transaction values of SOEs are, on average (not in sum), significantly higher than those of POEs, supporting the theoretical view of SOEs being financially backed by their government. Conversely, SOEs do not invest more often in key technology sectors of MIC 2025 than POEs, contradicting the theoretical assumption of state support in key technologies.

To summarize, it is conceivable that Chinese investments of SOEs and POEs in Germany will not decline significantly if the following occurs: First, Germany retains its superior location-specific advantages by being a pioneer in manufacturing and mechanical engineering and further welcomes foreign FDI with host CSAs by maintaining open investment policies. Second, China continues to lack the specific knowledge that is needed to become global leaders in high technology. The state will further play a role in guiding, managing, supporting and controlling outward FDI of SOEs and internationalization processes of incentivized firms by developing political strategies to promote FDI that allow China to finally catch up, realizing their aspiration of shifting away from being a cheap producer (‘Made in China’) and becoming a high-tech country (‘Created in China’).
## 8 Appendix

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6 The database can be found here: https://www.aei.org/china-global-investment-tracker/?ncid=txtlnkusaolp00000618
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<td>Gunnar Leymann</td>
<td>Übernahmen deutscher Unternehmen</td>
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Table 1: List of datasets for Secondary Data Analysis
Table 2: Extract of harmonized Secondary Data Analysis

The complete Excel file is stored on the electronic storage medium enclosed with the thesis. The first tab shows the harmonized dataset of Chinese investments in Germany. Here the order in the table is alphabetically sorted according to the name of the German target company. The second tab contains the composed dataset including information about duplicates. The following tabs show the results of the pivot table. After the list of datasets for the analysis, the subsequent tabs show the individual datasets of the researchers that were used for secondary data analysis.
9 Bibliography


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