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Chinese investment in Africa's manufacturing sector:

An analysis of potential impact on recipient economies

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Abstract

Foreign direct investment as a form of international activity can impact the recipient economy in many beneficial ways, ultimately leading to GDP growth in most cases. However, investment flows rather target developed countries instead of developing regions such as Africa, as many investors consider the risk aspect as too significant.

China has managed to transform from a country suffering poverty and underdevelopment to a global economic power and one of the manufacturing hubs of the world. In terms of its outward strategy, China also undertook a transition. Within a few years of opening its doors for outward investment, China became the third largest foreign direct investor, investing all over the world. At the same time, Africa plays a minor role in its outward investment strategy, but outflows are on the rise.

For Africa itself, Chinese investment, especially in manufacturing, is promising. Currently, China is facing rising labour costs and competition. Africa, particularly Sub-Saharan-Africa, offers a potential new production destination for Chinese investors not least because Chinese investors are characterised by a strong entrepreneurial will and risk-taking feature.

Compared to impact of foreign direct investment which host economies usually face, the outcome of Chinese investment in Sub-Saharan Africa's manufacturing sector is less clear. Sure enough, this region benefits by increased employment, the introduction of new products, additional knowledge and skills etc., with their corresponding spillover effects. Nevertheless, negative environmental consequences, strong competition for local enterprises or questionable labour standards must be faced as well. Overall, the net impact seems rather positive.

Keywords:
foreign direct investment, FDI, China, Africa, SSA, manufacturing, flying geese theory, motive, impact, effect

JEL classification:
F21, F23, F61, F62, 014, 055

I Outline

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III List of abbreviations

BRI	Belt and Road Initiative
CARI	China and Africa Research Initiative
CNSE	Center for New Structural Economics
EIC	Ethiopian Investment Commission
FDI	foreign direct investment
FOCAC	Forum for Africa – China Cooperation
GDP	gross domestics product
LDC	least developed countries
M&A	mergers and acquisitions
MNE	multinational enterprise
MOFCOM	Ministry of Commerce
ODI	Overseas Development Institute
OECD	Organisation for Economic Co-operation and Development
OFDI	outbound/ outward foreign direct investment flows
OLI	ownership – location – internalisation
PRC	People's Republic of China
R&D	research and development
SAIS	(Johns Hopkins University) School of Advanced International Studies
SET	Supporting Economic Transformation
SEZ	special economic zone
SME	small and medium-sized enterprise
SOE	state-owned enterprise
SSA	Sub-Saharan Africa
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization

1 Introduction

1.1 Research problem

Foreign direct investment (in the following "FDI") as a form of lasting cross-border investment implies a significant commitment of resources and can be classified as a high-risk involving strategy of internationalisation. As a consequence, those companies who conduct FDI are rather large. Guided by certain motives, most foreign investment targets developed economies. Destinations such as economies in transition or Africa seem less attractive. For Africa, in particular, investors face numerous risks, and many are not willing to bear them. Overall, FDI can affect host economies in multiple ways. While most economies attach a rather positive connotation to FDI, they do not only benefit from it, but FDI also poses some costs to them.

China is encouraging its domestic firms to conduct FDI since the year 2000 by introducing a new policy. Ever since FDI outflows rose continuously and in 2017, China became the third largest foreign direct investor worldwide. While data provides varying results on China's preferred destinations, Africa seems to play a minor role, yet, nowadays its presence is on the rise. Also, literature seems to focus on Chinese investment in the resource sector of Africa, however, data offers a multifaceted division of FDI flows to this region.

Faced by increasing competition and costs in China, especially rising wages, and characterised by a willingness to take risks, Sub-Saharan Africa (in the following "SSA") seems to be an attractive FDI destination for Chinese firms active in manufacturing. Investment in this labour-intensive sector might impact host economies all over SSA. Sure enough, FDI recipient economies can expect a number of benefits arising due to the Chinese presence in SSA. However, recipient economies need to understand that FDI by those investors is also accompanied by a range of costs which might differ from common ones.

This bachelor thesis aims to analyse which potential impact Chinese OFDI has on recipient economies in Sub-Saharan Africa. Under consideration of the Chinese investment approach, the focus lies solely on OFDI to the manufacturing sector.

1.2 Course of investigation

As provided in the research question, this thesis will analyse potential impact of Chinese OFDI on recipient economies in SSA and will focus on the manufacturing sector. To assess the impact, an analysis with academic literature as a basis was chosen. This approach also constitutes the basis for the other, non-main chapters in this paper. Due to the current relevance of the topic, sources whose academic eligibility is questionable will be introduced in short. To provide a clear picture of FDI flows, data by the United Nations Conference on Trade and Development will be examined.

Based on the research question introduced in chapter 1.1, the term FDI will be defined, conceptualised, and classified in chapter 2.1. Furthermore, investment prerequisites and motives for conducting FDI will be provided in chapter 2.2. Chapter 2.3 will include an overview of the regional division of FDI inflows and as worldwide FDI flows to Africa are small, major challenges of investment in this region will be also examined in this chapter. Chapter 2 will end with common impact of FDI on recipient economies, starting by the criteria needed for assessing the impact in chapter 2.4.1 and ending with a general model of FDI impact on host economies in chapter 2.4.2.3.

Thereafter, chapter 3 will examine Chinese global and African presence. Starting with Chinese global policy and investments in chapter 3.1, with an overview of FDI outflows over several years, chapter 3.2 will target China's African policy and investment. A short introduction of the Sino-African relation will be provided in chapter 3.2.1. Special focus will lie on understanding Chinese investment in Africa, with respective FDI inflows, the sectoral composition and corresponding ownership structures, all those aspects will be examined in chapter 3.2.2.

While Africa can be divided into two main regions, i.e. Northern Africa and SSA, the focus of chapter 4 will lie on China's outbound FDI activities in SSA's manufacturing sector. Chapter 4.1 will address the Chinese OFDI approach towards SSA and will end with an overview of their destination pattern for manufacturing. Chapter 4.2 will analyse potential impact of manufacturing FDI on recipient economies in SSA. This chapter will end with a modification of the impact model and the model based on the findings of this chapter will be compared with the generic model introduced in chapter 2.4.2.3.

In chapter 5 the findings will be summarised, and an answer to the research question will be given. In addition, a critical acclaim and an outlook on potential developments of the topic will be provided.

2 Foreign direct investment

2.1 Definition, conceptualisation and classification

FDI constitutes a pivotal element of international economic integration, also known as globalisation, as it possesses the ability to create stable and long-lasting links between economies (OECD, 2008a, p. 14). The term itself is defined in various ways, while the most prominent definition is being provided by the Organisation for Economic Co-operation and Development (in the following "OECD") (Bodomo, 2017, p. 8). The OECD defines FDI as follows: "[Foreign] Direct investment is a category of cross-border investment made by a resident in one economy (the direct investor) with the objective of establishing a lasting interest in an enterprise (the direct investment enterprise) that is resident in an economy other than that of the direct investor." (OECD, 2008a, p. 17). Lasting interest is further specified as "[…] the existence of a long-term relationship between the direct investor and the direct investment enterprise and a significant degree of influence on the management of the enterprise. The direct or indirect ownership of 10% or more of the voting power of an enterprise resident in one economy by an investor resident in another economy is evidence of such a relationship." (ibid., p. 48 f.). In this connection, the direct investor is not necessarily an enterprise, but can also be an individual or other, such as a government body. There are different types of FDI, mergers and acquisitions (in the following "M&A"), as well as greenfield investments are usually in the focus of academic literature (ibid., p.20 ff.). "A merger occurs when two (or more) companies agree to merge into a new single company rather than remain separated for creating business synergies. An acquisition is the purchase of existing shares issued by another company for increasing ownership or control level by the acquiring company." (ibid., p.197). Often those two terms are being used interchangeably thus, they are simply known as M&A. The second type, greenfield investments, refers to the establishment of new enterprises by the foreign direct investor (ibid., p. 126 ff.). FDI can be indicated as flow or stock. The term flow refers to the value of FDI during a given period of time, usually a quarter or a year, whereas the term stock measures the total level of FDI at a given point in time, in most cases this constitutes the end of a quarter or of a year (OECD, n.d., n.pag.). The direction of FDI can be either outward/outbound or inward/inbound, i.e. FDI inflow is defined as: "All liabilities and assets transferred between resident direct investment enterprises and their direct investors into the reporting economy for the reporting period, usually for one year." (World Bank, 2018, p. 162 ff.). For the purpose of this

paper, OFDI will refer to outbound/outward FDI flows. Finally, FDI should not be confused with portfolio investments. In contrast to FDI, portfolio investments are usually not aimed at influencing the management of the respective foreign direct investment enterprise. These investors rather seek for earnings resulting from the acquisition and sales of shares or similar (ibid., p. 17 ff.).

In general, an investor can enter foreign markets not only by FDI, but there exists a variety of strategies, e.g. export or licensing (Zhang et al., 2007, p. 756). While exporting requires few financial, physical, human, technological or organisational resources, and can be easily reversed, it classifies as a low risk-strategy and is often characterised as the first internationalisation method or stage by enterprises (Gaur et al., 2014, p. 12; Lin & Ho, 2017, p. 1). In contrast to exports, FDI involves a higher commitment of resources, cannot be easily reversed and is therefore classified as the most complex strategy of internationalisation. Logically, potential returns are higher with increasing risks (Gaur et al., 2014, p. 12).

Due to those considerations, literature finds that large firms are more likely to engage in FDI than small ones as the size of a company is often linked to a competitive advantage in resource endowment (Lin & Ho, 2017, p. 2). Following this thought on enterprise size and FDI activity, investments by multinational enterprises (in the following "MNE") dominate FDI statistics (OECD, 2015, p. 5). The OECD Guidelines for Multinational Enterprises (OECD, 2008b, p. 12) do not provide an explicit definition for MNEs, however, they provide the following specification: "These [MNEs] usually comprise companies or other entities established in more than one country and so linked that they may co-ordinate their operations in various ways." While those guidelines do not explicitly state that MNEs are large companies, another committee of the OECD, namely the Business and Industry Advisory Committee to the OECD (BIAC, 2015, p. 5) emphasises that the guidelines do not explicitly address small and medium-sized enterprises (in the following "SME") and recognise that SMEs often do not possess the same capacities as large companies when being active internationally. Overall, "[…] the MNE Guidelines were not developed with the average SME in mind." (BIAC, 2015, p. 5). For the purpose of this paper, the term MNE will not imply any specific company size, however, there is a tendency that MNEs are rather large firms.

2.2 Investment prerequisites and motives

There are certain prerequisites which need to be fulfilled for companies to conduct risk-involving FDI. In this context, the economy which receives FDI is called "host", whereas the investing one is being referred to as "home" economy (OECD, 2008a, p. 14).

The OLI paradigm by John H. Dunning from 1973, also called eclectic paradigm, explains the determinants of FDI and foreign activities of MNEs (Verbeke & Yuan, 2010, p. 89). Dunning underlines that three conditions are needed to justify the costs of doing business abroad instead of investing at home (Eden & Dai, 2010, p. 14 f.; Tallman, 2003, p. 46). First, the company must possess ownership (O) advantages which other companies do not have or not as distinct in serving a specific market. Reference is made to unique competitive or monopolistic advantages including property rights or expertise. Second, the host economy must provide some location (L) advantages (Eden & Dai, 2010, p. 14 f.; Tallman, 2003, p. 46; Anyanwu, 2011, p. 9). Location factors, which make FDI preferable might be e.g. high shipping costs or trade barriers, but also labour advantages or natural resources. Overall, location advantages arise from different aspects like government regulations, macroeconomic stability, or the endowment of natural resources of the recipient, to name some (Tallman, 2003, p. 46; Anyanwu, 2011, p. 9). Third and finally, internalisation (I) refers to advantages by companies, when performing certain activities in-house when expanding to another market rather than selling or leasing them (Eden & Dai, 2010, p. 15). The OLI paradigm suggests that only when all of the three factors are favourable, FDI will take place (Tallman, 2003, p. 46).

As the essential three OLI prerequisites for international expansion exist, literature specifies some investment motives. A framework by Dunning and Lundan from 2008 proposes a four-way classification of FDI motives (Pananond, 2015, p. 78). The herein explained motives are based on Dunning's OLI paradigm (Franco et al., 2008, p. 4). First, foreign investors might want to invest in another country due to its resources. Resources can be divided into two groups. Resources might be natural ones, typically oil or gas. Some natural resources might not be available in the home country, or if available, then at higher costs, so that the investor conducts FDI to exploit them (Pananond, 2015, p. 78). As a consequence, the investor usually exports the acquired natural resources or resource-based products afterwards (World Bank, 2018, p. 22). Human resources constitute the second group of resources. Although human

resources may be available in the home country, yet, their costs might be higher or specific skills are missing. There is an understanding that FDI offers the possibility to get access to cheap labour abroad. Overall, this FDI motivation is called resource-seeking motive. In literature the focus often lies on the natural resource aspect and subsequently, some authors name this motive natural resource-seeking (Pananond, 2015, p. 78; World Bank, 2018, p. 22). A second motive is known as market-seeking FDI. As the name indicates, the aim is to get access to markets (World Bank, 2018, p. 22). There are various reasons which trigger this motive. Firms might want to supply goods or services to new markets, avoid costs arising from serving a market from a distance, such as by exporting, or to have a physical presence overseas in order to discourage potential competitors (Franco et al., 2008, p. 5). As a third motive, "efficiency seekers are driven by the need to rationalise and gain from common governance of geographically dispersed activities through economies of scale and scope or through the benefits of different factor endowments in different countries" (Pananond, 2015, p. 79). In other words, efficiency-seeking FDI aims at saving costs (World Bank, 2018, p. 22). The last motive constitutes strategic asset-seeking FDI. To gain long-term competitive advantages, investors augment existing or obtain new assets (Pananond, 2015, p. 79). Often, strategic-asset seeking FDI acquires a local firm which possesses technology and brands (World Bank, 2018, p. 22). For this final motive, the focus shifts from exploiting an existing asset to acquiring it (Franco et al., 2008, p. 6).

2.3 World investment destinations

2.3.1 Regional division of FDI inflows

Based on the investment motive or combination of motives and under consideration of the high-risk component of FDI, investors carefully chose the investment destination (OECD, 2002a, p. 8). The World Investment Report 2018 and the corresponding Annex Tables by the United Nations Conference on Trade and Development (in the following "UNCTAD") provide data about worldwide FDI flows as well as stock data of the year 2017 (UNCTAD, 2018a, n.pag.; UNCTAD, 2018b, n.pag.). An overview of regional FDI inflows in 2017 can be illustrated in the following figure:

Figure 1: Overview of regional FDI inflow distribution 2017 (in % of world total)
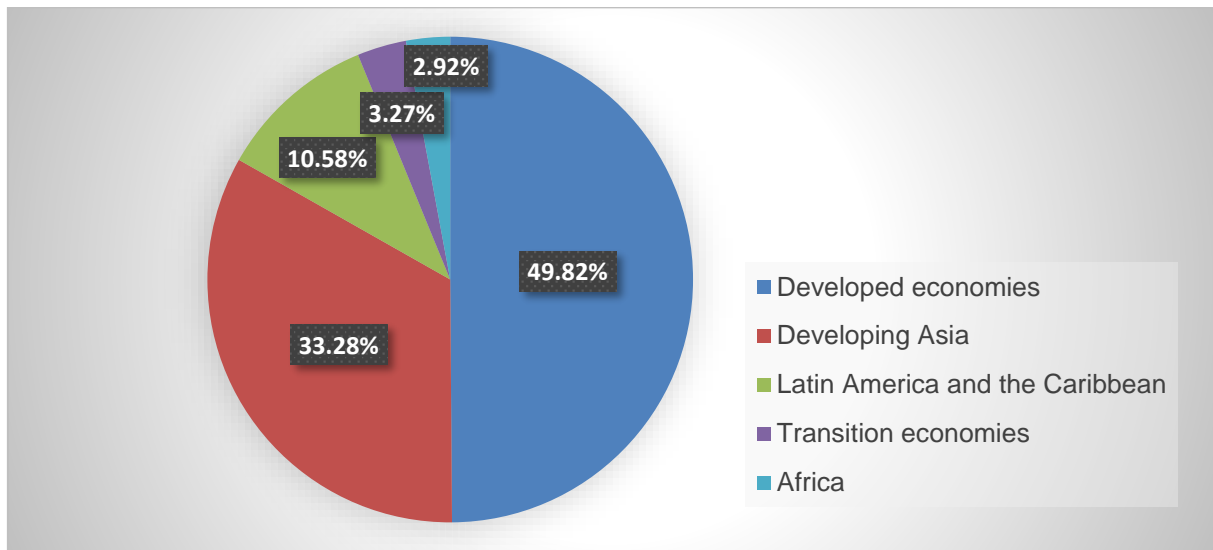
Source: own figure based on UNCTAD, 2018b, n.pag.

Obviously, there are significant differences in FDI inflows to certain regions. While developed economies and developing Asia receive ~83% of the world total FDI inflows, transition economies such as the Russian Federation, Kazakhstan, Ukraine or Serbia (UNCTAD, 2018a, p. 56) and Africa solely account for ~6%. To further divide Africa, Northern Africa (Algeria, Egypt, Libya, Morocco, Sudan, Tunisia and Western Sahara) accounts for nearly 32% of FDI inflows to Africa, while SSA, which are the remaining 49 economies of Africa, accounts for ~68% (UNCTAD, 2018b, n.pag.). The year 2017 does not only reflect a trend, but as the data further provides, FDI inflows to Africa continuously range from lowest 2.9% to highest 3.9% in a period from 2011 onwards. FDI flows per se are relatively volatile. Having a look at FDI stock data, it becomes obvious that FDI concentrates on a particular group, namely a small group of developed economies (Nunnenkamp, 2012, p. 16). FDI inward stocks in 2017 in the world are $31.5 trillion, while developed countries make up $20.3 trillion out of the world total. In percentages, all developed economies account for nearly 65% of the worldwide inward FDI stocks in 2017, while the African share in the same year is 2.75% (UNCTAD, 2018b, n.pag.). Back in 2002, the United Nations (in the following "UN") stipulated: "[…] 'A central challenge, therefore, is to create the necessary domestic and international conditions to facilitate direct investment flows […] to developing countries, particularly Africa, least developed countries, small island developing states, and landlocked developing countries, and also to countries with economies in transition'" (Nunnenkamp, 2012, p. 18). Obviously, 15 years later developed countries remain the major FDI recipients, while Africa, especially SSA, amounts for a small share in world

total FDI inflows. As the focus of this paper lies on Africa, a closer look at the decision determinants of FDI in this region will be taken.

2.3.2 Major challenges in Africa

The OECD defines three common risks which hinder investment in African countries. First, a lack of macroeconomic stability deters foreign investment. Underlined by Dupasquier and Osakwe (2006, p. 250), macroeconomic variables are excessive budget deficits or high inflation. Especially for inflation, those African economies with high inflation tend to attract less FDI. Second, uncertainty about the contractual environment poses another main constraint. Uncertainty originates from the absence of a transparent judicial system. The problem in Africa is that foreigners do not have access to the often-existing informal network of agreements and enforcement. Ultimately, investors fear to lose their assets due to the problem of non-enforceability of the concluded contracts. Third, damages caused by armed conflicts are considered the last of the three main risks (OECD, 2002a, p. 8). Indeed, political instability and the probability of war, resulting from religious, ethnic or general military interventions, are problems. Africa, compared to other regions of the world, is more prone to wars (Dupasquier & Osakwe, 2006, p. 250).

Other deterring factors in Africa include inefficiencies of public services, a lack of democracy, corruption, little integration into regional trade or poor infrastructure (OECD, 2002, p. 8; Dupasquier & Osakwe, 2006, p. 251 ff.). It is further highlighted that even if the obstacles do not seem to be tremendous, investors are showing to choose a wait-and-see attitude. The irreversibility element of FDI, especially in a case of greenfield investments, is a critical decision determinant. Whenever investors perceive such a heightened risk, they would consider investing only if an appropriate inducement is available (OECD, 2002a, p. 8).

2.4 General impact of FDI on recipient economies

2.4.1 Criteria for assessment of impact

To analyse which impact FDI has in general on recipient economies, literature proposes a range of criteria. This work focuses on twelve, which are considered common. For each criterion, not only the impact inside the firm, i.e. the foreign-owned firm, will be summarised, but also possible spillovers/ indirect effects. A certain impact of FDI on the recipient economy is most notably achieved by those latter ones. The

term spillover refers to the diffusion of knowledge, technology and work practices etc. from MNEs, who are usually well-integrated in the global market, to local firms and workers (Farole & Winkler, 2014, p. 1). "Spillovers can take place within the same industry (intraindustry, or horizontal spillovers) or in another industry (interindustry, or vertical spillovers). In the latter case, they can affect local inputs or services suppliers in upstream sectors (backward spillovers) and local customers in downstream sectors (forward spillovers)." (ibid., p. 1). This paper uses the terms spillover and indirect effect interchangeably. The criteria chosen are as follows: technology, productivity, knowledge and skills, formal education, employment, wage, poverty reduction, world economy integration by trade, economic growth, competition, environment and governmental incentives. At this point, it should be noted that the criterion of economic growth does not constitute the net effect of host economy impact but serves as one out of twelve criteria. The reason for this is that an overall assessment in terms of GDP is too broad and complex, which especially holds true for the assessment in chapter 4.2. By use of academic literature, all the aforementioned criteria are assessed in short in terms of impact inside the foreign-owned firm, spillovers and finally the overall resulting general impact on host economies.

2.4.2 Assessment of general impact

2.4.2.1 Benefits faced by host economies

There must be a positive connotation to FDI as, how Bodomo (2017, p.11) emphasises, nearly all countries of the world, in fact, encourage it. Lipsey and Sjöholm (2005, p.23) consider an answer to the impact of FDI on recipient countries as difficult, with literature not showing any signs of convergence. The OECD (2002, p.10) indicated some costs of FDI, but describes the net effect of it in general as beneficial.

Technology

There are two forms of technology itself. Technology might either be incorporated in a production process, such as technology for extraction of oil, or it can be incorporated in a product like a computer (Kurtishi-Kastrati, 2013, p. 27). Another differentiation can be done regarding technology transfer through FDI in general. The first technology transfer constitutes the investment itself as the investor uses the existing knowledge to successfully operate the enterprise abroad, usually by corresponding methods of production. Second, further R&D activities of the company in the host country lead to the generation of additional knowledge (Krüger & Ahlfeld, 2005, p. 5). Starting with the

aspect of technology, MNEs are considered as a major channel for access to advanced technologies for recipient economies, as they are among the most technologically advanced firms and account for a significant part in worldwide R&D (Borensztein et al., 1998, p. 116). The majority of R&D activities take place in the highly-developed OECD countries. At this point, FDI offers the possibility of technology transfer to developing economies as those economies often only have an undeveloped R&D sector (Krüger & Ahlfeld, 2005, p. 5). Sure enough, when an MNE establishes a foreign affiliate, geographical diffusion of technology takes place, but this does not necessarily lead to a transfer of technology beyond the borders of the foreign affiliate. MNE technologies might still leak to the foreign economy by external effects or "spillovers" (Blomström & Kokko, 2002, p. 10). Particularly for backward linkages, which are suppliers, spillover effects are the strongest. In general, MNEs work closely with local suppliers and provide them with technical assistance, training and assistance in modernising or upgrading production facilities. For horizontal spillovers, the outcome is rather unclear (OECD, 2002a, p. 13). As described in chapter 2.2, FDI takes place when a certain internalisation advantage exists which allows the foreign firm to successfully operate in a foreign market. Logically, the foreign firm does not intend to share its competitive advantage with local competitors in the host economy (Blomström & Kokko, 2002, p. 10).

Productivity

Another often-examined aspect of FDI is the aspect of productivity. Foreign firms are expected to be more efficient than locally owned firms. At this point, authors vary in defining efficiency. While classical approaches constitute value added per unit of labour input or value of output per unit of labour, capital and intermediate product input, other approaches use production functions or transmission of superior technology. Regardless of which definition is applied, due to the fact that FDI spillovers of foreign-owned to domestically owned firms are examined extensively in literature, it implies that foreign firms are more efficient. By a comparison of several studies, ranging from Indonesia, India, Taiwan to Uruguay and Morocco, it becomes evident that productivity in foreign firms is on average higher than in domestic firms. While those countries represent developing ones, there have been fewer examinations for developed countries. For those developed economies where studies exist, productivity is higher in foreign-owned plants and increases in cases of M&A, too (Lipsey, 2004, p. 354 ff.). Looking at productivity spillovers, a major aspect of productivity is the underlying

definition, as indicated above. While productivity spillovers in most cases somehow refer to spillovers of technology from the foreign to the domestically owned firm, a clearer definition seems to be problematic. Another problem which goes along with studies of productivity is the data aspect. Sales or value-added are often used for measurement of productivity. However, especially for foreign-owned firms, the value of sales poses challenges as those companies are active in intracompany transactions so that the values may not be the same as market values, which is in fact manipulation. While former studies attach a rather negative spillover effect, later ones find more evidence for positive spillovers (Lipsey & Sjöholm, 2005, p. 29 ff.). Overall, there does not seem to be clear evidence on positive spillovers from foreign firms (Lipsey, 2004, p. 365). Similar to technology spillovers above, productivity spillovers are more likely to take place in backward linkages, rather than in horizontal linkages, which empirical papers have found to hold true (Gorodnichenko et al., 2013, p. ff).

Knowledge and skills

While the consideration of technology already indicates a form of knowledge and skills, this point must be further evaluated. Undoubtedly, foreign investors use local human capital. Two groups of employees must be distinguished: higher-level and lower-level employees. Labour training, transfer of skills and transfer of managerial and organisational practices subsequently lead to the generation of a new group or higher-level employees, who then take managerial, financial or technical positions (Kurtishi-Kastrati, 2013, p. 28). The importance of managerial knowledge lies in a positive influence on business performance (Fu, 2012, p. 4). Workers, who are lower-level employees, also gain skills through training (Kurtishi-Kastrati, 2013, p. 28). Overall, MNEs tend to provide more training and similar development possibilities to the local employees than local companies do (OECD, 2002a, p. 15). Also, the foreign affiliates' training expenditures in developing countries are as much or even more than those of the parent in the home country (Blomström & Kokko, 2002, p. 147). Finally, both groups "[…] take these skills with them when they re-enter the domestic labour market" (Kurtishi-Kastrati, 2013, p. 28). Blomström and Kokko (2002, p.10) agree and define the labour market as being another channel for spillovers. When the trained staff decides to leave the MNE, they take the knowledge to local firms or establish new enterprises. Therefore, foreign investors strengthen human capital (ibid., p.10). Fu (2012, p. 22) concludes that not only do former MNE employees take the acquired

knowledge with them and spread it, but there is evidence that vertical and even horizontal spillovers of especially managerial knowledge take place.

Formal education

Similar to knowledge and skills acquired in the foreign enterprise, MNEs can be a source of formal education. While the role of MNEs in primary and secondary education tends to be rather small, it exits a clear impact of MNEs on tertiary education (Blomström & Kokko, 2002, p. 16). The World Bank defines tertiary education as follows: "Higher education, also known as tertiary education in some countries, refers to all post-secondary education, including both public and private universities, colleges, technical training institutes, and vocational schools." (The World Bank , 2017). MNEs offer employment opportunities for highly skilled graduates, e.g. graduates in natural sciences or engineering. To meet this demand, students have an incentive to complete tertiary education and governments are encouraged to invest in higher education. More direct effects arise when MNEs provide scholarships or sponsor formal education and support the development of universities or similar institutions (Blomström & Kokko, 2002, p. 16).

Employment

FDI inflows are in most cases creating new employment opportunities in the recipient economy (Bodomo, 2017, p. 11). Employment opportunities can be direct or indirect. From a direct perspective, a foreign MNE creates jobs by employing host country citizens, especially in cases of greenfield investment. Indeed, in cases of M&A, there might be even job losses due to rationalisation effects (McDonald et al., 2002, p. 42). The indirect effect can be further divided into two categories. First, jobs are created due to increased local spending by employees of the MNE. Second, the recipient economy might benefit from indirect job creation through new backward and forward linkages (Kurtishi-Kastrati, 2013, p. 28). Especially for backward linkages, a demand of inputs by local companies leads to an increase of employment in host regions (McDonald et al., 2002, p. 43).

Wage

As Lipsey (2004, p. 345) specifies, most studies which are focusing on FDI and wage impact find that foreign-owned firms pay, on average, higher wages than at least privately-owned local ones. As a matter of fact, Lipsey summarises numerous studies, the earliest from 1931, all indicating higher wages in new foreign plants. In one of those

studies it was found that in a case of M&A, wages do not show any difference if firms are acquired by foreign investors or by domestic investors. But in the following years, those firms which were acquired by foreigners raised their wages much more than those acquired by domestic investors. Trying to understand why foreign investors pay higher wages than domestically owned firms for labour of the same quality, Lipsey summarises several assumptions which exist in literature. One model finds the reason in host country regulations. Another one sees the reason in aspects of public relations. A further possibility is that foreign firms, as also described above, possess some technologies which they wish to keep inside the business and use higher wages to retain staff. While the motivations vary, foreign investors seem to be a guarantee for high-wage plants (Lipsey, 2004, p. 345 ff.). In another publication by Lipsey and Sjöholm (2005, p. 26) they find that when a foreign company takes-over a domestically owned plant, wages of white-collar as well as blue-collar workers rise in absolute terms and in relation to an industry. When a domestic firm takes over a foreign firm, an opposite effect can be seen (ibid., p. 26). Another aspect of wages is the question of whether or not the foreign presence affects the level of wages in domestically owned plants, which is known as wage spillovers (Lipsey, 2004, p. 351). Exact positive spillovers tend to take place in developed countries rather than developing ones (Lipsey & Sjöholm, 2005, p. 27 f.). While in sum, some studies find rather negative influences, others find more positive ones. Sure enough, there are various results, yet it tends to be a positive influence (Lipsey, 2004, p. 352 f.). Finally, "the combination of higher wages in foreign-owned plants and spillovers to domestically owned plants meant that higher overall wages were associated with foreign ownership" (Lipsey & Sjöholm, 2005, p. 27). There might be two main reasons for the rise in overall wage levels. The first results from the above-mentioned higher wages paid by foreign plants or second, the average wage level might rise due to an increased demand for labour. Although it is not clear which argument is deemed as more significant, the positive effect of FDI is valid (Lipsey, 2004, p. 353 f.).

Poverty reduction

Coming to poverty, the World Bank defines the global extreme poverty line to be $1.90 per day per person. In other words, roughly 10% of the world's population is living in extreme poverty in 2015 (The World Bank, 2016, n.pag.). Hemmer and Phuong Hoa (2002, p. 2. ff) are critical as to whether FDI can be a means of poverty reduction. They classify the impact of FDI in direct and indirect impacts. The indirect impact works

through FDI's contribution to economic growth, as FDI contributes to poverty reduction. Also, as will be examined later in more detail, FDI leads to tax income. Governments might use this additional budget to invest for the poor. Another indirect effect of FDI on poverty is the increased investment in infrastructure to attract foreign investors. Direct effects can result from the employment opportunities and associated income in the foreign investment enterprise, both explained in more detail above. Especially in cases of greenfield investments, labour is needed, which leads to a decrease in unemployment or underemployment. As also indicated above, employment is not only created in the foreign enterprise but particularly in vertical linkages, which constitutes indirect employment in the group of direct effects of FDI on poverty. But FDI can also lead to unemployment, often in M&As, when restructurings take place. Moreover, for suppliers in backward linkages, FDI can have no effect or a rather negative effect when the MNE relies on imports. Also, while MNEs are often technologically well-advanced, local companies, especially in developing economies tend to be rather small and labour-intensive, making them vulnerable to unemployment and resulting poverty (Hemmer & Phuong Hoa, 2002, p. 2 ff.). While there are many considerations to FDI and poverty, the OECD (2002, p. 20 f.) finds that there is a positive correlation between inward FDI stock and poverty reduction in developing countries.

World economy integration by trade

Bodomo (2017, p. 12) argues that the more FDI a country receives the more it is connected to other countries rather than staying isolated and inward-looking and thus allowing the host country to become a global player. When foreign investors decide to invest abroad, they usually bring, as indicated above, technical and managerial know-how, which finally spills over to the host economy. Locals have been seen to use this gained knowledge to start own or new businesses which then exported their products (Lipsey, 2004, p. 365 f.). The trade aspect is underlined by the OECD (OECD, 2002a, p. 10 f.). It is explained that an inflow of FDI usually comes along with an increase in trade. In a long-term, due to the rise of exports and imports, the recipient economy gets integrated into the world economy. The OECD rather finds the reasons for increased exports in the investors, instead of local companies. It is explained that imports and exports depend on the investment motive of the foreign investor (see chapter 2.2). Typically, efficiency-seeking investors export the resulting output and thereby increase the exports of the host country in terms of the balance of trade (Kurtishi-Kastrati, 2013, p. 29 f.). Lipsey (2004, p.366 f.) also finds that foreign-owned

firms are generally more export-oriented than domestically owned companies but there are "[…] also some indications that foreign firms' activities raised the export propensities of domestically owned firms.". No matter if increased exports result from foreign investors activities, from knowledge spillovers which encourage local businesses or a mixture of both, the importance of integration in the world economy by trade lies in literature's relatively consistent opinion of a positive impact on economic growth (Were, 2015, p. 72 f.).

Economic growth

While the aspect of global integration stresses a rather indirect effect of FDI on economic growth, resulting from FDI to cause trade, literature also focuses on a direct link between FDI and economic growth. To understand growth, the GDP is essential, which the OECD defines as follows: "Gross domestic product is an aggregate measure of production equal to the sum of the gross values added of all resident institutional units engaged in production (plus any taxes, and minus any subsidies, on products not included in the value of their outputs)." (OECD, 2002b). Especially the GDP per head of population, the GDP per capita, is an indicator of economic well-being and its variation over time constitutes the growth of an economy. Logically, a maximisation of the GDP is aspired by economic policy (Giovannini, 2008, p. 13). More concrete, the above-described technology, human capital as well as trade integration impacts etc. all contribute to higher economic growth which ultimately is a means of poverty reduction in developing countries (OECD, 2002a, p. 5). In 2002, the OECD points out the growth impact of FDI and specifies it as being widely accepted (OECD, 2002a, p. 9). With a focus on least developed countries (in the following "LDC"), they seem to have a smaller effect on growth. Reasons are numerous and vary. The OECD further emphasises that "[…] developing countries need to have reached a certain level of development in education, technology, infrastructure and health before being able to benefit from a foreign presence in their markets." (OECD, 2002a, p. 10). Some years later, Krüger and Ahlfeld (2005, p.11) underline the existence of rather growth confirmative impact of FDI. Finally, while there are differences in countries, industries and exact measurements of the growth effects are hard to conceptualise, Baldi and Miethe (2015, S. 2 f.) consider FDI as positively correlated with economic growth.

2.4.2.2 Costs faced by host economies

FDI does not only include benefits but can also be attached to costs accruing for the recipient economy.

Competition

FDI can positively influence competition in the host country. When foreign companies enter the market, domestic companies face a new threat. In order to remain in the market higher levels of productivity, lower prices and more efficient resource allocation can be reached. Economically, it is desirable that strong performing companies replace less productive ones (OECD, 2002a, p. 16 f.). Nonetheless, other studies attach a negative impact of FDI on competition. Forte and Sarmento (2012, p.1 ff.) find that some studies see a positive relationship between FDI and market concentration, while others find the opposite. Yet, most studies point to a positive relationship, which means that FDI enhances market concentration, especially in developing countries. Hansen and Hoenen (2016 p. 372) find an increased concentration of industries due to a wave of M&A and greenfield investments during the 2000s. More than 50 industries are characterised by high levels of global concentration, for that matter "high" is defined as more than 50% of the market being controlled by four players in the year 2010. Global oligopolies are therefore a result of FDI. De facto, in a long-term, FDI by MNEs lead to a higher degree of concentration in developing countries (ibid., p. 372). A possible outcome of this can be market dominating MNEs who abuse their position (Krüger & Ahlfeld, 2005, p. 8). As local enterprises are outcompeted, it implies a loss of employment which is especially significant in developing countries and their poverty problem (Hemmer & Phuong Hoa, 2002, p. 1).

Environment

In the case of the environment, FDI can be beneficial. Technologies by foreign investors usually tend to be more modern and environmentally less harmful (Kurtishi-Kastrati, 2013, p. 28). Depending on the investment, FDI can also have negative environmental consequences (Bodomo, 2017, p. 13). Cases have been reported of MNEs taking environmentally unsuitable equipment to developing countries (OECD, 2002a, p. 19). More concrete, literature states that companies from developed countries are moving to developing ones due to loosened environmental regulations there while in their home economies compliance to pollution controls pose additional expenditures which they are not willing to bear. In fact, this movement resembles a

search for so-called "pollution-havens" also known as the pollution haven hypothesis (He, 2006, p. 229). Looking at specific regions Marjit and Yu (2018, p. 21 f.) find it problematic to define a direct effect of trade and FDI on the environment in India. Nonetheless, an indirect effect exists through GDP growth and rising prosperity. While FDI inflows rise, same as trade, CO_2 emissions in India did as well (ibid., p.1). In the same year, Khan (2018, p. 145) found that FDI in India has an impact on pollution, especially in extractive and resource-based industries. He (2006, p. 241) can only define a small impact of FDI on problematic emissions in China. As the last region, FDI in Latin America supports the pollution haven hypothesis, although some constraints exist (Baek & Choi, 2017, p. 7). Finally, FDI tends to have a rather negative impact on the environment.

Governmental incentives

Chapter 2.4.2.1 highlights the rather positive perception of FDI in the world. As a consequence, many countries, especially developing ones and those in transition, compete to attract foreign investment by trying to offer most attractive investment conditions (Ginevičiu & Šimelytė, 2011, p. 436). Classic methods used to attract foreign investors are fiscal incentives like financial subsidies or taxes (Vuksic´, 2013, p. 352). According to the World Bank (2018, p. 75), "across sectors, 49–72 percent of all developing countries offer tax holidays, preferential or very low general tax rates, or tax allowances". While the foreign investors are attracted by those financial incentives, the host countries face the risk of losing revenue which they could have used otherwise (ibid., p. 77). Especially tax revenue could be used by the governments to further national growth (Bodomo, 2017, p. 11 f.). Not only the fact that the recipient country misses on tax revenue, but tax incentives also pose other, less visible, costs such as administrative costs. Literature does not find a clear positive impact of those incentives. Indeed, incentives are usually not determinant factors considered for location decisions of MNEs. Nonetheless, incentives play a role in the final stage of negotiations between investors and potential host countries when investors chose between the final investment location. Host countries should try to analyse the investment motives and adapt the incentives accordingly. For example, efficiency-seeking FDI aims at lowering costs, thus, tax incentives are more effective for those firms. Resources-seeking investors are rather motivated by the available resources, still, many developing countries offer tax incentives to all investors (World Bank, 2018, p. 79 f.).

2.4.2.3 Model of FDI impact on host economies

FDI can have different effects in recipient economies, with the most common ones summed up in the following table and finally classified as either positive and negative impact on hosts based on the results inside the firms and further spillovers/indirect effects:

Table 1: Common impact of FDI on recipient economy

impact / criterion	inside firm	spillovers/ indirect effects	resulting impact on host
technology	usually more advanced than in local firms	spillovers, esp. in backward linkages	+
productivity	usually higher than in local firms	spillovers, esp. in backward linkages	+
knowledge and skills	additional ones, for both higher and lower-level employees	labour market as channel for spillovers	+
formal education	promotion of tertiary education by jobs offers and scholarships/ sponsorships	incentive for tertiary education	+
employment	direct employment (esp. in greenfield operations)	indirect employment (vertical spillover and increase of local demand)	+
wage	usually higher than in local firms	wage spillovers and higher overall wages	+
poverty reduction	reduction by employment and higher wages	reduction by employment and wage spillovers, indirect by economic growth and tax	+
world economy integration by trade	usually more export oriented than local firms	spillovers above lead to (new) local businesses who export	+
economic growth	positive relation between FDI and economic growth (GDP per capita)		+
competition	usually more competitive than local firms	higher market concentration (loss of local employment)	-
environment	transfer of environmentally questionable/ harmful equipment	pollution-havens, indirect effects by growth	-
governmental incentives	foreign investor benefits from financial incentives	unfruitful incentives, loss of tax revenue	-
net impact: FDI tends to have a positive impact on recipient economies			

Source: own table based on considerations of chapters 2.4.2.1 and 2.4.2.2

Focusing on twelve criteria, the impact of them on host economies is assessed in a concise manner. An indicator of impact is the aspect of spillovers or further indirect effects. Of the common twelve criteria for investigating the impact of FDI, nine constitute rather positive impacts while the other three have a negative impact on recipient economies. As a result, the generic model of FDI and its effect on recipient economies proposes a positive net impact.

3 Chinese global and African presence

3.1 Global policy and investment

3.1.1 Go Global policy

Since 2000 the Chinese government officially encourages domestic companies to conduct investment abroad. The foundation for the encouragement lies it the so-called "Go Global" policy or "Going-out" strategy (Bellabona & Spigarelli, 2007, p. 94; Hong & Sun, 2004, p. 1). To promote the economic development in the beginning of the new century and the following years, the globalisation of Chinese enterprises is considered crucial. The overall aim of the policy is to reach up to the global level of the economic profile, get access to new markets successfully as well as acquiring skills, advanced technologies but also intangible high-value assets. To encourage local firms to invest overseas, some steps were needed. In the late '70s and the beginning of the '80s, each firm which wanted to conduct investment overseas was approved by a case-by-case basis and many norms and regulations existed. In this period, only state-owned enterprises (in the following "SOE") were granted the right for FDI. Soon after, the government established a more standardised approach. By a gradual process of learning, adapting and opening, beginning from 2000, the government experienced a change of roles from an approval-giving one to a new one which was characterised as "[…] the supplier of information and assistance services and the promoter of incentives, simplification of administrative procedures and reductions in investment risks." (Bellabona & Spigarelli, 2007, p. 94 ff.). Overall, the Chinese government does not only want its (large) SOEs to go out but also encourages (private) SMEs to do so (Gu, 2011, p. 24).

In the 7th issue of "China Go Abroad" by EY from April 2018 (2018, p.3) it is pointed out that going abroad is an inevitable trend for Chinese investors, who are expected to further deepen their international journey. Under the Going-out policy projects such as "One Belt One Road" and "Made in China 2025" are implemented and are expected to sustain high growth of China's outbound investment (EY, 2016, p. 5). In March 2015, a detailed plan for the "One Belt, One Road" or later "Belt and Road Initiative" (in the following "BRI") was published (Muttarak, 2017, p. 2). In short, the BRI "[…] is a long-term Chinese vision for improved global connectivity, expanded production and trade chains, and closer overall cooperation." (Ghiasy et al., 2018, p. 1). More concrete, with enhanced infrastructure by land and sea the BRI wants to connect China with its

neighbouring states, Asia, Africa and Europe (Holzner et al., 2018, p. 9). Accordingly, the initiative includes two major projects, which are the "Silk Road Economic Belt" and a "21st Century Maritime Silk Road", in simplified terms the former targets land and the latter sea-related matters such as ports (Muttarak, 2017, p. 2; HKTDC Research, 2018, p. 1). Logically, the BRI includes an amount of FDI projects (Holzner et al., 2018, p. 9). The second big project stemming from China's Go Global policy is "Made in China 2025". The initiative was introduced in May 2015 and intends to position China in the world market as one main competitor in technological leadership. While the generic label "Made in China" has a rather negative connotation and represents manufacturing of cheap products often based on a strategy of imitation, "Made in China 2025" represents a confident China, who is moving from a pure production-oriented part of the world to a high-technology economy. To reach this global position, targeted FDI mostly in the form of M&A are intended (Kunze & Windels, 2018, p. 3 ff). As EY (2016, p. 11) further stresses: "In China's way to become a high-class manufacturer, one critical step is the internationalization of the manufacturing industry. […] China's manufacturing industry is initiating a new wave of overseas investment […]".

3.1.2 Chinese outward FDI flows

Figures of Chinese outward FDI can be found in the UNCTAD World Investment Report 2018 and its Annex Tables and reflect the Go Global policy (UNCTAD, 2018a, n.pag.; UNCTAD, 2018b, n.pag.).

Figure 2: FDI outflows: world total and China (in mio. of US dollar)
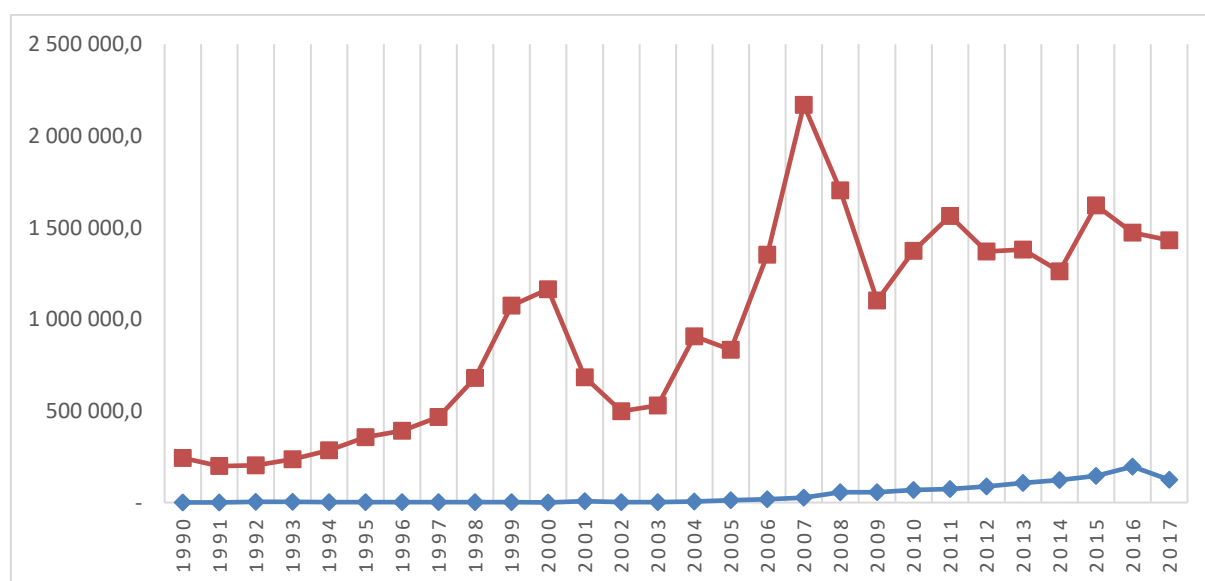
Source: own figure based on UNCTAD, 2018b, n.pag.

Figure 2 shows China's FDI outflows in a period from 1990 to 2017. While the red line represents the world total FDI outflows per year in this period and includes China, the blue line shows China's OFDI flows. Hong Kong, Macao or Taiwan are not included in the numbers of China as especially Hong Kong is a major recipient of Chinese FDI. It is further assumed that a significant amount Chinese OFDI is reinvested back into China in the sense of Hong Kong being a tax haven favouring the phenomenon of round-tripping (Casanova et al., 2015, p. 6). As the figure shows, global FDI flows are characterised by fluctuations. The UNCTAD report (UNCTAD, 2018a, p.2) notices that global FDI flows fell by 23% from 2016 to 2017, reaching $1.43 trillion. While China's FDI flows also fell in 2017, the long-term development must be examined. From 1990 to 2017, FDI outflows from China to the rest of the world rose continuously and reached a peak of $196 billion in 2016. While this figure seems small in comparison to the total world outflow, another overview of the ratio between Chinese and world FDI outflows might be interesting and is provided in the following figure 3:

Figure 3: China's share of world total FDI outflows
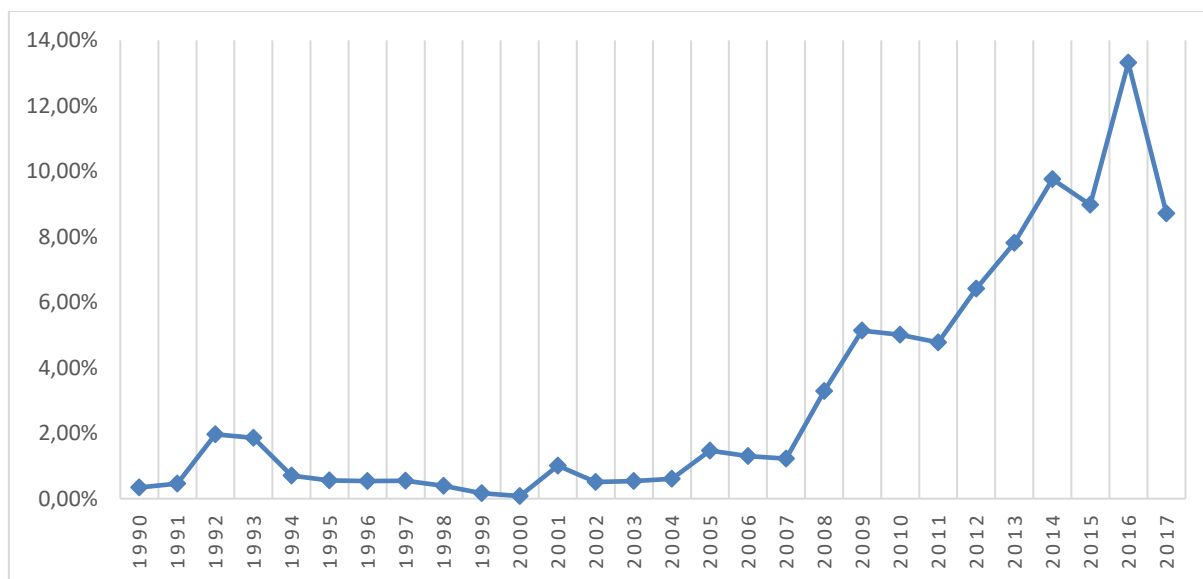
Source: own figure based on UNCTAD, 2018b, n.pag.

Figure 3 visualises the share of China's FDI outflows (excluding Hong Kong, Macao and Taiwan) to the total world FDI outflows in a period from 1990 to 2017. In 1990, the share accounts for 0,34%. After a rise in the years 1992 and 1993, China's FDI outflows remain under 1%. As described in chapter 3.1.1, the Chinese government officially introduces the Go Global policy in 2000. Beginning in 2001, numbers above 1% form and continuously rise to 13.31% in 2016. As a point of comparison, Germany's OFDI share is 3.49% in 2016. In 2017, there is a drop to 8.72% of the Chinese share

of world OFDI. The decline does not arise due to an increase of total FDI in the world or other reasons but can also be seen in the figure of total FDI outflows of China above (figure 2). The UNCTAD report reasons the decline of FDI with governmental policies of China aiming at slowing down significant capital outflows mainly in industries such as real estate, entertainment or hotels (UNCTAD, 2018a, p. 6). Altogether, China (explicitly excluding Hong Kong) is the third largest foreign direct investor in 2017 after the United States and Japan (ibid., p.6).

Another perspective of Chinese investment is provided by looking at the distribution of its outbound FDI to certain geographical regions. As data is limited, a research from 2015 (Casanova et al., 2015, p. 8) suggests that for both FDI stock and flows in 2013 Asia was the main destination for China, for each accounting for ~70%. In this research possible influences of the relation with Hong Kong have been adjusted. Asia is followed by Latin America, Europe, North America, Africa and Oceania. Africa constitutes 4% in Chinese outbound FDI stocks and 3% in its flows. Data for the same year is provided by EY (EY, 2015, p. 3). As already indicated above, Hong Kong is a major recipient in Chinese outward FDI outflow and ranks first place. Latin America, offshore financial centres, major countries in Southeast Asia, North America and finally Australia and Africa follow. Africa and Australia receive the minor amount of China's OFDI, with both accounting to 3%. The UN-Habitat in cooperation with the IHS-Erasmus University Rotterdam (2018, p. 110 f.) find China's FDI flows into different global regions in 2014 divided, by a descending order, as follows: destinations are other areas in Asia, America (excluding the USA), Europe, USA, Oceania and finally Africa with a share of 6.22%. During 2003 and 2014 between 4% to 6% of Chinese FDI flows targeted Africa (ibid., p. 110 f.). Solely with a focus on M&A, but more current, EY (2017, p. 14) presents an overview of the geographical distribution of Chinese firms overseas M&A in 2016. Ranked by a division based on the proportion of value, the European market is the most attractive destination for M&A deals. On the second rank is North America. Asia (in this case including Hong Kong, Macau and Taiwan) and Latin America follow. Finally, Africa and Oceania each account for 2% in M&A value (ibid., p. 14). To sum it up, China is a main player in international FDI. While there are differences in the distinction of the main outward FDI recipients, with a significant aspect credited to whether to include Hong Kong or not, there is a clear picture of Africa playing a smaller role in China's outward FDI strategy. Thus, a closer look at China's African policy and investment will be in focus in the next chapter.

3.2 African policy and investment

3.2.1 Sino-African relations

The links between China and Africa date back centuries. Reports notice first contacts being made already in 206 B.C. (Abdulai, 2017, p. 44). Yet, the evolvement of China-Africa relations can be divided into three significant events (Kachiga, 2013, p. 28). The first event and simultaneously first significant encounter goes back to the 15th century, when Admiral Zheng undertook a voyage to the African east coast which lead to some more expeditions and the exchange of goods (ibid., p. XVIII ff.). However, soon after, maritime expeditions of Chinese sailors ended due to Chinese internal political reasons (ibid., p.28 f.). The second event is the Bandung conference, where African and Asian countries came together in the Indonesian city Bandung in 1955 with the aim to "[…] form an alliance against colonialism, neo-colonialism and imperialism; and to work together with economic development." (Bodomo, 2017, p. 31 f.). "China offered significant financial, military and economic support to these countries. This, according to the Chinese was in solidarity with their 'African brothers' […]" (Abdulai, 2017, p. 45). Ever since, China and Africa have established tighter diplomatic relations (ibid., p.32). The third milestone of the relation between China and Africa was the creation of the Forum for Africa – China Cooperation (in the following "FOCAC") in the year 2000 (Bodomo, 2017, p. 32). The corresponding website states the objective of FOCAC as "equal consultation, enhancing understanding, expanding consensus, strengthening friendship and promoting cooperation" with currently 53 African countries having established diplomatic relationships with China (FOCAC, n.d., n.pag.). In other terms, the triennial forum provides the opportunity for African and Chinese leaders to meet and discuss economic development projects (Naniuzeyi, 2016, p. 69). Not only did trade between Africa and China increase after the first FOCAC, but Chinese OFDI also started shortly after (Koumou & Manyi, 2016, p. 132 f.).

The relation of China and Africa also deepened by the construction of the Tanzania-Zambia railway, also known as Tazara railway or "Great Uhuru Railway", in the 1970s. Until present, it is China's biggest infrastructure project on the continent. While both Western countries and the World Bank refused the funding, China agreed on it and also took the responsibility of building the railway while at the same time being poorer than both Tanzania and Zambia. Even today, China often points the railway out as a symbol of their friendship and commitment to Africa (Abdulai, 2017, p. 45 f.; McKinsey,

2017, p. 18). Overall, China tries to strengthen the so-called "South-South" cooperation (Asongu & Aminkeng, 2013, p. 1).

In current debate authors such as Naniuzeyi (2016, p.70) and Bodomo (2017, p.34) underline that China's interest in Africa is based on two considerations, namely political and economic. Politically, keeping close relations with Africa provides China with support in international organisations. In forums like the General Assembly of the United Nationals and the Human Rights Council, China considers the voting power of African governments, as they make up a quarter of the 192 member states of the UN (Naniuzeyi, 2016, p. 70; Abdulai, 2017, p. 57). Indeed, in the issue of China and Taiwan, Africa's contribution was helpful. In brief, after the Communist Party came into power in mainland China in 1949, the People's Republic of China (in the following "PRC") – China – was not being recognised by the UN, contrary to Taiwan, calling itself the Republic of China (McKinsey, 2017, p. 19; Bodomo, 2017, p. 36). One condition for doing business with China, also today, is the recognition of the PRC under the so-called "One-China" policy aiming at exclusivity and was made to oppose a secession of Taiwan (Abdulai, 2017, p. 56 f; Kachiga, 2013, p. 33). In 1971, when the UN voted to return the seat to the PRC, 26 of 76 votes came from African nations. In the 1990s roughly 90% of African economies recognised the PRC (McKinsey, 2017, p. 19). From an economic point of view, Africa offers a new market for Chinese products. This region is expected to be a preferred destination, as foreign investors usually face low levels of market-entry barriers and many opportunities (Kachiga, 2013, p. 79). In addition, China gets access to the much-needed oil and other natural resources which it needs for its economic growth (Bodomo, 2017, p. 34 f.; Naniuzeyi, 2016, p. 69 ff.). Africa is well-endowed with natural resources, e.g. 30% of world mineral reserves or 10% of petroleum oil reserves can be found on the continent (Export-Import Bank of India, 2017, p. 9). China's classical source for oil, the Middle East, is not stable politically and security-wise so that China turns to new regions. At this point Africa, offers the largest known reserves of high-quality oil (Bodomo, 2017, p. 35). The resource-seeking motive, especially natural resources, is put in the centre of criticism based "[…] on the assertion by some that China is the 'new colonialiser' or 'colonialist' and it is China's turn to 'pillage' Africa – euphemistically put by some of these observers as 'the Second Scramble for Africa.'" (Abdulai, 2017, p. 43). Thus, a closer look at Chinese OFDI towards Africa will be provided in the following chapter.

3.2.2 Chinese outward FDI flows to Africa

In a comprehensive study conducted by McKinsey (2017, p. 9 ff.; McKinsey & Company, 2017, n.pag.), a global management consulting firm, based on more than 1,000 Chinese firms across eight economies of SSA and emphasised by Abdulai (2017 p. 66), China is presented as the largest or most important trade partner of Africa, followed by the USA, France and Britain. While China-Africa trade accounted for $13 billion in 2001, two-way trade flows between Africa and China rose on average by more than 35% for both imports and exports until 2015. In 2016, the number rises to $188 billion (McKinsey, 2017, p. 20; Abdulai, 2017, p. 66). At the same time, Chinese FDI flows to Africa are facing a different situation.

Geiger et al. (2015, p. 2) describe traditional investors in Africa, especially SSA, as countries from the EU, the USA and Japan. Meanwhile, their engagement is on a decreasing trend since 2008. Nonetheless, those economies still account for 41% of total FDI inflows in the year 2012. New investors in SSA are India, Brazil and China (ibid., p. 2). In other words, from all FDI flows to Africa, China accounted for 4% in 2011 (Shen, 2013, p. 3). Only with a focus on SSA, Chen and Nord (2017, p. 2) find that in 2012, 5% of total FDI stems from Chinese OFDI. However, they also estimate a rather higher number including FDI by small Chinese entrepreneurs which do not appear in official data. Another publication by Geiger et al. (2015, p. 2) proposes: "China's share of total FDI inflows into Africa averaged about 5 percent of annual global FDI flows to SSA over the past decade.". The same source finds that in 2013, already 7% of total inflows to SSA can be credited to China (ibid., p.2). While Africa seems to play a rather minor role of China's outward FDI strategy (see chapter 3.1.2), China's FDI stock in Africa has grown from nearly zero in the beginning of the 2000s to nearly $50 billion in 2016, which is an average annual growth rate of 40% being the highest growth rate from all foreign investors and thus implying an increase in outflows from China to Africa (McKinsey, 2017, p. 20 ff.). As already indicated in chapter 3.1.2, China saw a decline on OFDI in 2017 due to capital controls by the government, which is also reflected in investments to Africa (UNCTAD, 2018a, p. 6). Overall, while data seems to be an issue and exact Chinese flows or shares of flows to Africa are unclear and some authors focus on Africa in total, while others only look at SSA, a report by the UN-Habitat in cooperation with the IHS-Erasmus University Rotterdam (2018, p. 109) clearly underlines a steady increase of China's FDI flows into Africa. Beginning in the early 2000s, FDI flows were marginal but rising up to more than $23 billion in 2014.

Similar to the deviant findings in the paragraph above, this also holds true for the industrial composition of China's outward FDI strategy towards Africa and can be seen in the following table:

Table 2: Comparison of findings on the industrial composition of Chinese OFDI in Africa

Asche and Schüller (data: 1979-2000, focus: Africa)		UN-Habitat and IHS-Erasmus University Rotterdam (data: 2014, focus: Africa)		McKinsey (data: 2015-2016, focus: SSA)	
manufacturing	46.3%	manufacturing	25%	manufacturing	31%
resource extraction	27.6%	leasing and commercial service	22%	services	25%
services	18.4%	geological exploration and development	16%	trade	22%
agriculture	7.0%	construction	16%	construction and real estate	15%
others	0.9%	import and export trade	10%	agriculture, utilities, oil and gas, and mining	13%
		wholesale and retail Trade	6%		
		agriculture	5%		

Sources: Own table based on calculations from data provided by Asche and Schüller, 2008, p. 28; UN-Habitat and IHS-Erasmus University Rotterdam, 2018, p. 117; McKinsey, 2017, p. 30

In a period from 1979 to 2000, Chinese investment (by investment value) mainly targeted manufacturing and resource extraction in Africa, both adding up to ~73%. Nanna (2015, p. 40) clarifies that this period was characterised by a small amount of FDI, as the Chinese presence in Africa mainly started off since the turn of the millennium and the introduction of the Go Global policy as being introduced in chapter 3.1. Data from 2014 provides that manufacturing and leasing and commercial services make up the largest share in Africa, both together form 47%. Geological exploration and development fall in OFDI by reaching 16%. Furthermore, trade gets more important, which also holds true for construction. For both periods, agriculture plays a minor role. Contrary to the first two sources, the last data-set refers not to inflows in a narrow sense, but a division of Chinese firms by sector in SSA. This data from 2015 to 2016 sees manufacturing and services being particularly important, with together 56% of firms active in those sectors. Trade is also important. Agriculture, utilities, oil and gas, and mining all being in one group, together have a share of 13% of Chinese firms in Africa. Obviously, the findings in the table contradict the critique introduced in chapter 3.2.1, with China being presented as "practicing neocolonialism" (Lin & Wang, 2014, p. 7) that only follows a natural resource-seeking motive. Dollar et al. (2016, p. 25) are clear about saying that "Chinese investment is attracted to natural resource

wealth, but no more so than Western investment." (see Abdulai, 2017, p. 81 and Shen, 2013, p. 4). Instead, all three sources provide manufacturing to be most important for Chinese investors.

From an ownership perspective, the Western world criticises state investment by means of SOEs in China's outbound FDI activities. While in the early overseas activities of China in the 2000s most projects were run by SOEs, beginning from 2005, more private investors became active. Characterised by an increasing share of numbers of projects, 55% of all companies active in Africa are private enterprises in 2011, most of them being SMEs (Shen, 2013, p. 4 ff.). This is emphasised by McKinsey (2017, p. 10) who not only finds an estimated 10,000 Chinese firms being in Africa, but also even 90% of all Chinese-owned firms engaging in Africa are indeed privately-owned. Those deviations arise out of several reasons, one being that China's Ministry of Commerce (in the following "MOFCOM"), until present the largest database of Chinese firms in Africa, does not provide a clear picture, which holds specifically true for international activities of SMEs (McKinsey, 2017, p. 27; Chen et al., 2016, p. 6; Gu, 2009, p. 575). Finally, Sun (2017, p.1 ff.) describes that many (small) private Chinese investors, especially in manufacturing move to SSA. In how far the definition of FDI (see chapter 2.1) and in particular the residency criterion is fulfilled, remains unclear. Overall, Brautigam et al. (2018, p. 24) find that those are only a few firms so far.

As indicated in the previous paragraph, Gu (2009, p. 573) finds differences in the sector spread of Chinese OFDI in Africa by ownership in 2008. Especially private investment is focusing on the manufacturing sector. Milelli and Sindzingre (2013, p. 25) also highlight a focus of large SOEs in resources and infrastructure in SSA while private firms concentrate on manufacturing and service industries. Based on 1,586 Chinese investment projects in SSA, Shen (2013, p. 7) provides a more detailed analysis for 2011. While 36% of private-led investment projects target manufacturing, this number accounts for 6% for government-led investment projects in 2011. SOEs rather invest in construction (35%) and mining (25%), both together making up 60% of government-led projects in 2011, while private firms only do so by 5% in construction and 16% in mining (ibid., p. 7). Overall, manufacturing FDI for both groups takes the form of greenfield investments (Gu, 2009, p. 576; McKinsey, 2017, p. 71).

From the considerations above, it is observable that literature tends to focus on SSA in combination with Chinese investments, while Northern Africa is either neglected or

included in the whole African perspective. In general, world institutions such as UNCTAD differentiate between both "regions" by providing respective data (UNCTAD, 2018b). As a consequence, in the following, this bachelor thesis will solely focus on SSA.

4 Chinese OFDI to SSA's manufacturing sector

4.1 Chinese OFDI approach towards SSA

4.1.1 Flying geese theory

Irene Yuan Sun who participated in the McKinsey research (McKinsey, 2017), argues in her publication "The Next Factory of the World: How Chinese Investment is Reshaping Africa" (Sun, 2017) that Africa has the potential to become the next global manufacturing centre and thereby will not only replace China but will start industrialisation in Africa. She concretises that due to a rise of costs, Chinese factories face a need to relocate. At this point, Africa, especially SSA, seems particularly interesting. Following an efficiency/ resource-seeking motive due to low labour costs in many SSA economies, already more than 1,500 Chinese firms engage in manufacturing there and she estimates that there must be between 3,000-4,000 Chinese manufacturing firms in SSA today. Yet, not only costs drive a relocation, but the market-seeking motive also plays a role (ibid., p.6 ff.). With this background, Sun refers to the so-called "flying geese" paradigm, which has been introduced in the 1960s by the Japanese Kaname Akamatsu (Shen, 2013, p. 34). Based on Justin Yifu Lin's considerations (Lin, 2011), in 2011 Senior Vice President and Chief Economist of the World Bank, the flying geese theory consists of two major thoughts. First, resulting in observations of East Asian countries, manufacturing firms act like geese by migrating from country to country. Started from Japan, the manufacturing "geese" flew to newly industrialised countries like Hong Kong, South Korea or Taiwan and from there to other countries, which constantly repeats, and the current developments show a trend of a next wave to Africa. The relocation takes place due to a decline in competitiveness as costs and demands change (Sun, 2017, p. 26). Having the form of an inverted V when pictured as a graph it resembles the pattern in which migrating geese fly (Lin, 2011, p.8). The second aspect targets products or more concrete, the process of industrial upgrading. As in the example of Japan, there have been few firms investing to make a certain product. Due to a learning process and increased profits, competitors follow. As a result of intensifying competition and low profits, firms look for another product

which is harder to copy. Again, the process will repeat "[…] and countries that started out by copying and learning end up inventing and teaching a mere generation or two later. […] Remarkably, large-scale, real-word data reversals […] manufacturers within each country predictably move towards making ever more complicated products." (Sun, 2017, p. 26 f.). Sun obviously believes that this industrial upgrading is possible in SSA, too.

A report called "Adjusting to rising costs in Chinese light manufacturing: What opportunities for developing countries?" by a cooperation of several organisations has been published in December 2017. Authors stem from the Center for New Structural Economics (in the following "CNSE"), the Overseas Development Institute (in the following "ODI") and the report has been published under the Supporting Economic Transformation Project (in the following "SET") (CNSE; ODI, 2017, p. ii). In short, the CNSE is part of the Peking University and promotes economic research (Center for New Structural Economics, n.d., n.pag.) while the ODI is an independent, global think tank based in London (ODI, n.d., n.pag.) and finally, SET is an ODI programme which promotes economic transformation in developing countries (ODI, n.d., n.pag.; SET, n.d., n.pag.). The report surveyed 640 Chinese light manufacturing sub-sectors of garments, footwear, toys and household appliances all characterised by high labour-intensity (CNSE & ODI, 2017, p. 15). Between 2014 and 2016, the top four challenges for those Chinese companies, all currently operating in China, are rising wage costs, rising non-wage labour costs, rising input costs and at last decreasing market demand. Especially the main concern of rising wages is crucial. Between 2009 and 2014, real manufacturing wages grew 11.4% annually. The majority of those firms do not consider relocating the production facility overseas in order to adapt to those challenges – only ~12% of respondents have established or plan to establish operations outside China (which the study does not only find to be SSA, but other destinations like Vietnam, Cambodia or Bangladesh, too) – but rather focus on technology upgrading, tighter costs controls over inputs or standardised production (ibid., p.22 ff.). In short, the authors rather oppose the flying geese theory and do not find strong evidence of many Chinese light manufacturers production relocations. Still, there is a minor group of companies who did or plans to relocate.

In general, many authors clearly specify that China is in a period of transition and challenges of its manufacturing sector (see Gu, 2011, p. 32; Milelli and Sindzingre, 2013, p. 24; Shen, 2013, p. 19; Lin & Wang, 2014, p. 15; Geiger et al., 2015, p.16; 11;

Chen et al., 2016, p. 11). China has about 85 million workers in manufacturing, most of them in labour-intensive sectors. Faced by rising labour costs and following the new "Made in China 2025" strategy to more sophisticated, higher value-added products – which indeed parallels the flying geese theory – China creates more opportunities to labour abundant, lower-income countries in low-end manufacturing (Lin & Wang, 2014, p. 15; EY, 2016, p. 10). Especially for SSA, the manufacturing opportunities are promising, as this region only accounts for less than 1% of global light manufacturing (Dinh et al., 2012, p. 25). At the same time, McKinsey (2017, p.31) finds that investments in SSA seem to be profitable, characterised by growing revenues and high-profit margins, making OFDI to this region of the world even more attractive.

While the focus of this paper does not lie on answering whether or not the flying geese theory will apply in its exact scope to SSA, the importance lies in a significant share of OFDI to SSA's manufacturing sector. Moreover, another aspect which drives Chinese presence on the continent is the underlying investment attitude.

4.1.2 Investment attitude

One of the pillars of China's foreign policy is a partnership of non-interference (Koumou & Manyi, 2016, p. 132). Although China supports political liberalisation, neither does it intervene in the internal affairs of the host economies nor does China apply any conditionalities, which the West often does (Asongu & Aminkeng, 2013, p. 10 f. ; Bodomo, 2017, p. 36). China possesses the ability to separate politics from investment. In addition, China puts emphasis on the equality of partnerships with African economies (Bodomo, 2017, p. 37). In fact, the relation of China and Africa is based on a "win-win" principle which allows the respective governments to benefit from economic relations including FDI (Koumou & Manyi, 2016, p. 132). The investment approach is underlined by a general focus of investment than on aid. Bodomo (2017, p. 37 f.) concretises: "[…] the West is still stuck to that old paradigm of seeing Africa as a humanitarian burden that must be addressed with 'aid' packages […]."

Apart from a rather political perspective of investment approaches, Chinese firms, especially the private ones, who also tend to be SMEs, are in general less risk-averse than Western companies (Asongu & Aminkeng, 2013, p. 10 f. ; Shen, 2013, p. 4). Geiger et al. (2015, p. 17) find that many Western investors are used to a more supportive institutional environment and take decisions under consideration of well-researched information finally leading to predicted risk under control. Contrary to them,

investors from developing economies are used to less-supportive institutional environments and are well-acquainted with taking risks (ibid, p.18). While Western investors stay away from poor governance environments, Chinese investors are more likely to be active there (Dollar et al. 2016, p. 25). In this connection, Chinese investors are flexible and tend to make decisions within a short period of time, even within a month (McKinsey, 2017, p. 34; Gu, 2011, p. 17). Gu (2011, p. 16 f.) finds that Chinese are characterised by a strong entrepreneurial spirit. They are willing to enter areas where profit margins are low at first and hope that, in the long-term, they will be in a leading position (ibid., p. 17). While some Western investors avoided and still circumvent war-torn and rather unstable political economies in SSA, Chinese investors do conduct FDI (Bodomo, 2017, p. 43 f.). In other words, "the Chinese entrepreneurs have changed the concept of risk because 'when Western firms see "risk", Chinese entrepreneurs see "opportunity"'" (Gu, 2011, p. 17). Those findings rather contradict chapter 2.3.2, where it is stressed that Africa seems a rather deterrent investment destination. Sun (2017, p. 169) explains "[…] that investors from developing countries are more natural investors in other developing countries. […] But perhaps most important, the Chinese showing up in Africa […] believe that Africa is in the same position China itself was a few decades ago. […] they think there's no reason Africa won't become rich as well, and soon." (also Shen, 2013, p. 29 f.).

4.1.3 Destination pattern

Based on the willingness to take risks and driven by rising costs as well as increased competition in China, Chinese investors relocate their production facilities to economies all over SSA. As the map of SSA in the Appendix provides (see 2.2 Map based on sources to assess pattern), manufacturing FDI takes place in the whole region. While this map must be critically reviewed and might not mirror reality, especially as some economies only have been mentioned scarcely in combination with Chinese manufacturing FDI (see 2.1 Sources to assess pattern), it becomes evident that Chinese FDI in SSA's manufacturing sector is diversified. Certainly, some economies attract more Chinese FDI than others, e.g. Ethiopia, Kenya or Nigeria, the latter being particularly interesting as academic literature tends to focus on oil in connection with Nigeria (Reisen & Rieländer, 2012, p. 48). This Chinese presence and activites are reflected in market shares. McKinsey (2017, p. 29 f.) estimates that 12% of SSA's industrial production is already handled by Chinese firms.

Overall, the choice of destination in terms of a target country is accompanied by deciding where exactly to invest there. More concrete, firms can e.g. build a new factory in an area without any competitors, whoever they may be, or they chose to do the contrary. For the latter case, Asongu and Aminkeng (2013, p. 11) concretise: "China's increasing direct investment in manufacturing in Africa is predominantly via industrial parks or special economic zones.". "Generally speaking, special economic zones designate an economic region with peculiar trade and business laws intended to stimulate economic development, mostly driven by labour-intensive manufacturing." (Masiero et al., 2017, p. 98). A special economic zone (in the following "SEZ") can take various forms, including free trade zones, high-tech zones, export-processing zones, etc. (Zeng, 2015, p. 3). Firms cluster due to numerous reasons. Some of the reasons are e.g. a reduction of transportation costs due to proximity to suppliers or customers, knowledge spillovers between workers and entrepreneurs or shared inputs (Newman & Page, 2017, p. 2 ff.). From another point of view, SEZs are beneficial for the economy and are thus not only supported but also developed (and operated) by governments (Newman & Page, 2017, p. 20). SEZs can create employment, stimulate exports, promote FDI and spillover effects in regard to firms outside the zone etc. (Zeng, 2015, p. 3; Farole, 2011, p. 91). There is a considerable amount of SEZs all over SSA. Although some zones have been established in the early 1990s, the majority appeared after the 2000s. Most zones in SSA do not focus on a particular sector but are quite diversified. The Chinese government supports the development of SEZs in SSA. By 2015, two Chinese zones were in operation in SSA and four more under construction, in which all Chinese-led zones are designed to support manufacturing (Newman & Page, 2017, p. 15 ff.). Finally, the distribution of Chinese investors remains unclear. While some operate in those either Chinese or local-led official SEZs, a number of private Chinese firms have established own SEZs and again others are not active in a zone at all. Under consideration of the data issue and lack of information about many small, non-documented Chinese businesses in SSA, uncertainty about the location of operations is further underlined (Newman & Page, 2017, p. 20; Fei, 2018, p. 4).

4.2 Impact of Chinese FDI on recipient economies in SSA

4.2.1 Benefits faced by host economies

As provided in chapters 3.2.2 and 4.1.3, Chinese OFDI in SSA and especially in the manufacturing sector is diversified across the region and seems to further gain importance. This may lead to profitable conditions in recipient economies,

Technology

Technology is particularly important for SSA as this region is facing a technology gap. As a consequence, many policymakers put emphasis on FDI and hope for technology spillovers (Malikane & Chitambara, 2017, p. 62). Chinese private companies seem to be technologically more advanced than local firms. In general, the McKinsey study of 2017 states that more than one-third of Chinese firms in SSA have introduced a new technology (McKinsey, 2017, p. 42). Although McKinsey does not clearly state how much technology introduction can be credited to Chinese OFDI in the manufacturing sector, the pure fact that roughly one third of all Chinese firms in Africa are active in manufacturing (ibid., p. 10) implies that a significant amount technology-introducing firms can be attributed to Chinese manufacturing SMEs. In general, technology transfer can happen in numerous ways. Those include imitation, poaching of skilled workers and forward and backward linkages (Chen et al., 2016, p. 6 f.). In 2009, Gu finds that due to language and cultural issues but also different working practices, there are only week linkages between Chinese investors and local firms (Gu, 2009, p. 576). Also, the aspect of SEZs plays a role. If only foreign, especially Chinese, firms operate in a SEZ and by this become "enclaves", technology transfers to the local economy are hardly possible (Newman & Page, 2017, p. 20; Zeng, 2015, p. 10). A positive example it the Hawassa Industrial Park in Ethiopia hosting firms active in textile and garment production. As the Ethiopian Investment Commission (in the following "EIC") publishes, investors in the Hawassa Industrial Park are from all over the globe, including China, but there are also local manufacturers (EIC, n.d., n.pag.). Following the thoughts of chapter 4.1.3, about reasons of firms to cluster and objectives of host governments, SEZs can thus be channels for spillovers. A leading organisation in research on Sino-African relations is the China and Africa Research Initiative (in the following "CARI") based at the Johns Hopkins University School of Advanced International Studies in Washington D.C (in the following "SAIS") and launched in 2014 (China Africa Research Initiative, n.d., n.pag.). One of the main researchers of SAIS-

CARI is Deborah Brautigam. Together with above-mentioned Irene Yuan Sun (see chapter 4.1.1) and other authors, and with a focus on Nigeria, they do not find strong evidence of backward linkages regarding technology transfer, and also Chinese investors in Nigeria do usually not operate in SEZs. The relationship between Chinese-owned private firms and Nigerian firms is mainly concentrated on technical assistance and support provided by local firms. Also, employees inside the foreign-owned firms seem to rarely acquire new technological know-how, which they could further spread in the local economy. At least in Nigeria, due to the nature of the work at many Chinese-owned firms, such as basic factory line processes, the potential for building technical skills is often low (Chen et al., 2016, p. 13 ff.). The latter aspect of technology transfer by employees is highlighted by the Un Habitat and the IHS-Erasmus University Rotterdam (2018, p. 124) who state that local workers, if they get trained at all, receive low-level technology training finally resulting in "disappointing" technology transfers. Tang (2016, p. 20) states that technology transfer might take place by Chinese firms selling their machines to local companies, and in the case of Ghana, this finally created new local suppliers. In sum, the scope of technology transfer seems questionable. Still, although small, spillovers will occur, e.g. by those employees who receive technological know-how and spread it across the economy.

Productivity

Until present, the aspect of productivity is less focused by literature. McKinsey (2017, p.13) implies a higher productivity of Chinese firms by stating that local businesses need to improve theirs to compete with the new foreign investors. At the same time, prices for products and services have been lowered for up to 40% by Chinese firms through improved technology and economies of scale (ibid., p. 42). In how far productivity spillovers take place remains unclear.

Knowledge and skills

By focussing on Ghana, Nigeria and Ethiopia, Gu finds in 2009 that once private Chinese investors established themselves in SSA, mostly by means of greenfield investments, they divide their workforce into two groups. The first group are local workers, who are employed in production. The second group constitutes of Chinese workers taking managerial positions. Indeed, Chinese investors consider a lack of skills of available workers as a major constraint when investing in SSA and therefore put locals only into production jobs (Gu, 2009, p. 576). By this separation of employees and sourcing of Chinese labour for key positions, a low level of knowledge and skill

transfer within the company to local workforce is implied. The division of labour force is also underlined by the UN-Habitat and the IHS-Erasmus University Rotterdam who refer to another publication of 2013. Usually, SSA workers get low- or semi-skilled operational jobs, contrary to Chinese employees who take high-skilled and managerial jobs (UN-Habitat & IHS-Erasmus University Rotterdam, 2018, p. 124). In 2017, McKinsey is more positive and states that from all kinds of Chinese investors of their survey, about 44% of managers at Chinese-owned companies are African. This number is even higher in manufacturing and reaches 54% (McKinsey, 2017, p. 42). By African people taking higher-level positions, skills and knowledge are being passed to them. While the aspect of skills and knowledge does not only refer to the division of labour, another focus lies on labour training. Geiger et al. (2015, p. 18) underline manufacturing in SSA to focus on unskilled or low-skilled jobs. While unskilled jobs are defined as jobs which do not provide any formal training to the workers, low-skilled workers receive formal training from all kinds of foreign investors, however, these trainings in Chinese private firms rather remain insufficient and results are often below expectation. In addition, workers of SSA struggle with the provided information, as communication gaps caused by language and cultural differences affect the efficiency and accuracy of training. Especially for Chinese-owned enterprises, this problem holds true as common languages like French and English are in many cases not working languages in Chinese companies (Geiger et al., 2015, p.18). The CARI team (Chen et al., 2016, p. 13) sees language and cultural differences as the main barrier to skill transfer in Nigeria. Whenever Chinese investors provide training, many firms express frustration due to the low education level making training a slow process. Shen (2013, p. 20) is more positive. With a focus on Ethiopia, he finds that the local workforce is learning fast, even though most of them have never worked in a factory before. McKinsey (2017, p. 40) is elaborating that nearly two-thirds of Chinese enterprises state to provide some kind of skills training. Especially in manufacturing, where labour is necessary, half of the surveyed firms and factories offer at least apprenticeship training. Moreover, knowledge and skills are not limited to workers inside the foreign-owned company. While some employees who were trained in Chinese companies are being poached by local firms, the labour market itself constitutes a channel for spillovers (Chen et al., 2016, p. 14; Farole, 2011, p. 94).

Formal education

Coming to formal education, some background information is necessary. As UNESCO (2014, p. 47) provides, "[…] sub-Saharan Africa still accounts for half of the world's out-of-school children and lags behind in many important areas of education.". This is mirrored in the aspect of literacy. While 979 million people live in SSA in 2014, 45 million young people and 169 million adults are illiterate, which are nearly 22% of the SSA population (UNESCO, 2014, p. 47; The World Bank, n.d., n.pag.). As elaborated on in the paragraph of knowledge and skills, education seems to be pivotal for successful transfers. While there do not seem to be any direct education effects from Chinese OFDI in SSA's manufacturing sector, FDI itself might incentivise local governments to invest more in education. In the case of Ghana, a report published under SAIS-CARI sees that there are some Chinese manufacturing firms who prefer to hire local workers who graduated from high school (Tang, 2016, p. 18) which might underline the incentive aspect for local governments also in other economies in SSA.

Employment

Employment is a critical topic in SSA. While the average unemployment rate in SSA between 1991 and 2017 ranges from 8.6% (1999) to 6.7% (2013), there are differences for each economy. Nigeria, Kenya and Ethiopia, as typical countries in focus of Chinese ODFI in manufacturing, provide varying unemployment rates. While Nigeria is characterised by low unemployment rates between 1991 and 2013, i.e. ~4%, unemployment rises ever since and reaches 7% in 2017. Ethiopia faces relatively stable unemployment rates of approx. 5% in a period from 2005 to 2017. As the last sample country, Kenya's unemployment rates start at 10.2% in 1991 and rise to 11.5% in 2017 (The World Bank, 2018, n.pag.). Certainly, official data might not mirror reality. To tackle the unemployment issue, manufacturing seems promising. Manufacturing, per se, is a labour-intensive business and compared to other sectors it is considered a major job creation guarantor (Geiger et al., 2015, p.18). At the same time, 60% of SSA's population is under the age of 24, which provides a large labour force (UN-Habitat & IHS-Erasmus University Rotterdam, 2018, p. 122). As Chinese OFDI is mostly done by means of greenfield investments, those new production facilities usually employ local workers. McKinsey (2017, p. 40) finds that while in trading firms the workforce consists of 82% locals, in manufacturing this number adds up to 95%. Onjala (2008, p. 13 ff.) observes that beginning from 2000 and ending in 2007, Chinese FDI to Kenya was dominated by manufacturing investment, while in the last years,

there is a shift to services. He also compares FDI projects over the years and finds that although employment is mainly local, the employment level is rather low (ibid., p. 13 ff.). In Rwanda, a publication by SAIS-CARI finds that from all jobs created by Chinese investors, nearly 50% are in manufacturing (Eom, 2018, p. 10). Rwanda puts a lot of effort into promoting Chinese investment with the government stating: "'[…] Rwanda should aim to attract some of the jobs that China will have to shed in the coming years in light manufacturing […]'" (ibid., p. 14). Especially Ethiopia is attractive for manufacturing due to its market size, low labour costs and attractive public policies which easily allow for land-leases (Milelli & Sindzingre, 2013, p. 25; CNSE & ODI, 2017, p. 34). Of the nearly 700 Chinese firms in Ethiopia, 62% are manufacturers (McKinsey, 2017, p. 54). One example is the Lifan Group, a Chinese private company active in many fields such as scientific research and development but also manufacturing and sales of automobiles, motorcycles and engines (Lifan Motors, n.d., n.pag.). They established a plant in Ethiopia which employs 150 workers, thereof 97% are Ethiopians (UN-Habitat & IHS-Erasmus University Rotterdam, 2018, p. 118). The criticism of Chinese companies bringing labour from China rather than hiring locals does not hold true for manufacturing (Bodomo, 2017, p. 14). Sure enough, Chinese FDI into Africa is accompanied by labour imports. While local workers are active in production, Chinese labour usually takes managerial positions (Gu, 2009, p. 576). However, the general ratio of Chinese versus local hiring in the manufacturing sector is around 1:15 (Shen, 2013, p. 38). In addition, the number seems to change in favour of local hiring the more local workers get trained (UN-Habitat & IHS-Erasmus University Rotterdam, 2018, p. 123). Chen et al. (2016, p. 12) even find that bringing labour from China to SSA is significantly costlier than hiring local workforce, even after taking productivity into account. While Chinese investment does not only directly lead to more employment, indirect effects should also be considered. Especially backward and forward linkages might lead to the generation of a relatively larger number of jobs (UN-Habitat & IHS-Erasmus University Rotterdam, 2018, p. 19). In principle, Gu (2009, p. 582) finds that Chinese investors are open to local sourcing linkages, i.e. backward linkages. The problem is that reality seems to show a less attractive situation for the investors. Often, they face an absence of local networks of specialised suppliers or if they exist, costs are higher, and quality is poor. As a result, Chinese companies "[…] turn to the reliable, tried and tested, and cost-competitive established suppliers back in China" (Gu, 2009, p. 582). More current findings of 2017 still see that Chinese firms

in SSA currently source less than half of their supply from local suppliers (McKinsey, 2017, p. 47). Out of those findings, it is obvious that there is much more potential for job creation in backward linkages. Forward linkages provide a more positive picture. The SAIS-CARI team (Chen et al., 2016, p.16) finds that nearly all Chinese firms in Nigeria rely on local distributors of their goods. By interviewing an investor, they find that: "'[…] there is an 'unwritten rule that Chinese business stops at the factory door,' at which point local distributors take over'". Sun (2017, p. 94) brings up a further aspect, namely the multiplier effect. She finds that "[…] for every manufacturing job that's created, 1.6 service jobs follow. […] 'If you get an auto assembly plant, Walmart follows; if you get a Walmart, an auto assembly plant does not follow.'" (ibid., p. 94 f.). SEZs created by the local or Chinese government are usually physically secured areas and might encourage even more investors who are less willing to take risks. More concrete, seeing Chinese investors operate in SSA might lead to even more investments of Chinese and other foreign investors, ultimately creating more jobs (Zeng, 2015, p. 3). To sum it up, in many SSA countries, like Ethiopia, Nigeria but also Ghana, Tanzania and Zambia, Chinese investors make up more than half of FDI in manufacturing and altogether have resulted in significant employment growth in those countries (UN-Habitat & IHS-Erasmus University Rotterdam, 2018, p. 123).

Poverty reduction

Poverty, as defined in chapter 2.4.2.1, affects Africa in particular. The World Bank specifies: "More than half of the extreme poor live in Sub-Saharan Africa. In fact, the number of poor in the region increased by 9 million, with 413 million people living on less than US$1.90 a day in 2015, more than all the other regions combined. If the trend continues, by 2030, nearly 9 out of 10 extreme poor will be in Sub-Saharan Africa." (The World Bank, 2016, n.pag.). Although the wage impact is rather unclear (see chapter 4.2.2), there is a definite positive impact on employment with those employment possibilities being a means to lower poverty. Indeed, manufacturing FDI is a capital-intensive sector and results in a long-term commitment of Chinese firms (McKinsey, 2017, p. 36; Shen, 2013, p. 31). This commitment can serve as a sort of "guarantee" for sustainable employment. In numbers, agriculture attributes to at least 60% of employment in SSA and those jobs are usually less fixed than manufacturing ones (Geiger et al., 2015, p. 3 ff.). Also, those millions of agricultural workers are generally earning a very low salary. By a structural transformation, namely towards manufacturing, a significant amount of the population in SSA can get out of poverty.

(Dinh et al., 2012, p. 22 f.). As a matter of fact, those countries which are considered as poor, are agrarian (Lin, 2018, p. 2). In addition, above-examined spillover effects lead to a general increase in employment. Another indicator of Chinese impact in SSA is that manufacturing FDI, in general, is mainly market-seeking (Geiger et al., 2015, p. 16; Shen, 2013, p. 18). Contrary to Chinese manufacturers in China, who export their products, Chinese factories in SSA are nearly all serving the domestic market (McKinsey, 2017, p. 29 f.). The link to poverty and poverty reduction can be easily established. Non-SOEs, who not only constitute the majority of Chinese investing firms in SSA but who also focus on manufacturing (see chapter 3.2.2) seem to manufacture and sell cheap consumer goods. As a consequence, they are able to reduce the living expenses of SSA inhabitants (UN-Habitat & IHS-Erasmus University Rotterdam, 2018, p. 122).

Introduction of new products

As Chinese manufacturing investors are market-seeking, more background information might provide a clearer picture of the potential which SSA offers. SSA has been tripling its population from 1950 to 2000, reaching a total of 760 million inhabitants in 2000 and forecasts consider a further doubling of the population by 2060. While in 2010 1.5 out of 10 people in the world were living in SSA, already 4 out of 10 people in the world will do so by 2100. As a comparison, 0.6 will live in Europe at that time (Canning et al., 2015, p. 52 f.). The numbers are impressive and SSA seems to be a large market not only for the future. By understanding the arising possibilities, Chinese private firms invest in SSA, which also benefits the local population. McKinsey (2017, p. 42) investigated in how far Chinese FDI, in general, was leading to the introduction of new products in the host economy and finds that nearly half of Chinese firms do so, which also includes those being active in manufacturing. For example, Tecno Mobile is a mobile phone brand and part of Chinese Transsion Holdings (TRANSSION Holdings, n.d., n.pag.). The company set up a facility in Ethiopia in 2011 and introduced some new products, such as a smartphone for less than $50 including a software which better captures darker skin tones and a keyboard in Ethiopia's official language constituting a product which is being adapted to the local market (TRANSSION Holdings, n.d., n.pag.; McKinsey, 2017, p. 45). Another example is the Lee Group, producing flip-flops in Nigeria. Trying to understand the host market, the Chinese-owned firm found that its poor, price-sensitive customers prefer low prices over new style. Today, they sell the same model of flip-flop in a variety of colours for about one

dollar a pair to Nigerian customers (Sun, 2017, p. 46 f.). Finally, to get a better understanding of the product portfolio, Chinese greenfield manufacturing FDI targets textiles, clothing and leather, footwear, motor vehicles and transport equipment, chemicals and pharmaceuticals as well as metals and metal products (Geiger, 2015, p. 16). By this diversified, yet incomplete list, FDI recipient economies get access to a variety of new products by Chinese market-seeking investors.

World economy integration by trade

Rwanda is a small economy in SSA and characterised by its landlocked position. As a consequence, for many years the national government focused rather on other sectors than manufacturing. Since 2014, manufacturing became more important, as Chinese C&H Garment set up a factory in a SEZ, which has attracted other investors, too. Between 2013 and 2016 this SEZ made up 4.5 to 10% of all national exports. In the case of C&H, 80% of its products are being exported, while 20% target the local market (Eom, 2018, p. 6 ff.). C&H Garment in Rwanda is not the only Chinese manufacturing company leading to more exports in its host economy and by this allowing for a world economy integration by trade. The EIC mentions Huajian, one of the largest shoe exporters in China, producing shoes for brands like Guess and Calvin Klein, setting up a factory in Ethiopia in 2011. The long-term investment of Huajian aims to export the manufactured products. More concrete, Huajian plans an export volume of $4 billion within ten years (EIC, 2014). Another example is the state-owned China FAW Group Corporation, China's oldest and largest vehicle manufacturer. The group has a factory in South Africa. The vehicles are not only being sold there, but the production facility supplies the whole African market (FAW, n.d., n.pag.). Finally, Hisense, a global Chinese electronics SOE, also has a manufacturing facility in South Africa from which it exports the products to more than ten neighbouring regions (Hisense, n.d., n.pag.). All of those four companies are rather large. As mentioned earlier, the majority of Chinese investors in SSA are being private and more likely SMEs who serve the domestic market. Nonetheless, Chinese investment, as seen in the examples above, has a positive impact on world economy integration.

Economic growth

Economic growth is crucial for SSA. Out of the existing 47 LDCs in 2018 31 are in SSA, which is a share of about 65% (UNCTAD, 2018c, p. viii). Those countries are facing severe problems. Most of the population is living in poverty, they are vulnerable to external economic shocks and growth potential is restrained (UNCTAD, n.d., n.pag.).

Without differentiating between sectors and addressing the whole continent, Doku et al. (2017, p. 166 ff.) find, based on data in a period from 2003 to 2012, that a 1% increase in China's FDI stock in Africa increases Africa's GDP growth by 0.61%. The assessment of Chinese manufacturing OFDI impact on economic growth is challenging. While official data does not provide the extent of Chinese influence on GDP development, especially the GDP per capita, there are indicators of a positive relationship. Overall, economists argue that manufacturing is pivotal for economic growth of an economy (Szirmai & Verspagen, 2011, p. 4). Dinh et al. (2012, p. 25 f.) formulate: "In almost every country the transformation from traditional agriculture toward a modern economy began with light manufacturing. […] the rapid cost escalation now facing China's export-oriented light manufacturing sector creates opportunities that could jump-start Sub-Saharan Africa's structural transformation in the near future because it is well endowed with inexpensive, low-skilled labor, a key ingredient in the initial industrialization of a long list of Asian economies." Under consideration of the flying geese theory an actual increase of Chinese ODFI in manufacturing as well as above-examined indirect effects and a tendency of a long-term commitment (Shen, 2013, p. 31), a growth impact seems realistic.

4.2.2 Costs faced by host economies

Next to the positive impacts, or benefits, of Chinese OFDI in SSA's manufacturing sector, there are also costs which the host economies must face.

Wage

Chapter 4.1.1 introduced the aspect of rising labour costs in China which forces some manufacturers to relocate the production facility abroad. Due to a division of labour force – Chinese taking higher-level positions and local workers lower-level ones – wage differences exist. However, the question arises, if Chinese-owned enterprises pay higher or even lower wages to their local labour force, compared to local firms. As a first indicator, Ado and Su (2016, p. 51) notice that "there seems to exist a tacit consensus that Chinese companies are amongst the lowest-paying companies in Africa, especially when compared to other foreign companies, including those from developing countries such as India and Brazil." Surveying 142 local workers in Chinese companies across a diversified group of companies, most active in manufacturing in a SEZ in Ethiopia, Fei (2018, p. 14 ff.) discovers that those workers consider low payment as the top challenge. The same study underlines that out of those sample

interviewees, even the lowest wages are higher than the national average wage (ibid., p. 19). Chen et al. (2016, p.12) differentiate between different manufacturing companies. Especially for those companies which require specialised training, such as in furniture manufacturing, they provide higher wages than for jobs which require less knowledge and skills. By analysing if MNEs, in general, pay higher wages than domestic firms in SSA, without focusing on a specific sector, Coniglio et al. (2014, p. 17 f.) find that Chinese firms do not only pay lower wages than other foreign investors, but also compared to domestic firms. To sum it up, it still remains unclear if Chinese firms pay lower wages in the manufacturing sector, however, there are indicators pointing into this direction.

Labour standards

While not only wages seem to be too problematic to assess and are, until present, rather negative, so seem labour standards. Shen (2013, p. 21) argues that working conditions in Chinese firms are rudimental but emphasises that they resemble those of local firms. Other authors are taking a more critical attitude and claim that breaches of labour regulations are more common among Chinese firms compared to other investors in SSA (McKinsey, 2017, p. 47). This critique is highlighted by the UN-Habitat and the IHS-Erasmus University Rotterdam (2018, p. 125) by finding that working conditions in Chinese-established factories are in general not satisfactory. Those conditions constitute non-payment of overtime hours or retaliation against unionised employees seeking better treatment (ibid., p. 125). Based on a survey by the SAIS-CARI on a SEZ in Ethiopia, "employees work five to seven days a week and six to fifteen hours per day". (Fei, 2018, p. 16). The UN-Habitat and the IHS-Erasmus University Rotterdam (2018, p. 125) emphasise: "There is, indeed, a need for Chinese companies to better understand and respect local laws and regulations concerning labour rights as well as workers' cultures and religions.". Indeed, compared to China, most African countries have stricter labour laws which are based on laws introduced by their former colonisers (ibid., p. 125). Ado and Su (2016, p. 51) summarise findings and notice that Chinese companies in general, without an explicit focus on the manufacturing sector, are characterised by "[…] tense labor/trade relations, hostile attitudes of Chinese employers toward African trade unions, frequent violation of workers' rights, poor working conditions and many other questionable labor practices." Because of the limited bargaining power of the host economies, Chinese investors are able to behave this way (ibid., p. 51). Finally, it remains unclear if spillovers exist.

Competition

During its industrial transition, China succeeded in finding a comparative advantage in especially export-oriented labour-intensive light manufacturing (CNSE & ODI, 2017, p. 1 ff.). In Sun's words (2017, p. 6), China is currently the "Factory of the World". As a matter of fact, Chinese SMEs are competitive. As they increase manufacturing OFDI, they find relatively less intensive market competition from local firms (Gu, 2009, p. 572). Indeed, compared to the domestic situation of high competition, the market in SSA seems to be a "relief". The whole region of SSA nowadays accounts for less than 1 % of global manufacturing and has been characterised by a constant decline since the 1980s while China constantly gained in shares (Dinh et al, 2012, p. 25). Those companies who are being considered as competitors in the host economy are characterised by a scarcity of local entrepreneurial skills and investment capital, which are fundamental for a competitive market (Lin and Wang, 2014, p. 16). The findings of McKinsey underline a lack of competitiveness of local firms by stating that in manufacturing, few local firms possess the necessary capital, technology and skills for decisive investments. Furthermore, the productivity level of SSA firms lacks behind the global level. If they do not manage to catch up, OFDI by private Chinese enterprises will lead to a termination of a considerable amount of local businesses (McKinsey, 2017, p. 13 ff.). Another aspect which plays a significant role is that Chinese businesses are often focusing on poor quality, but cheap products, leading to a further crowding-out effect (Chen et al., 2016, p. 18). Finally, the situation is being reflected by Gu's findings (2011, p. 6) who sees that Chinese investors are "[…] more concerned with competition with other Chinese firms than with non-Chinese competitors (Gu, 2011, p. 15).

Environment

Similar to competition costs arising out of increased manufacturing FDI, Chinese investment also seems to have a rather negative effect on the environment. China's growth came with high environmental costs and those costs seem to also appear in the host economies in SSA, once Chinese firms conduct FDI. Indeed, China is on a way of "green" standards, but many companies do not meet those, and some appeared to relocate overseas. Especially destinations such as in SSA often do not have high regulatory requirements or if they do so, they are less severely enforced. If companies have reacted and tackled environmental aspects, those are larger companies instead

of (private) SMEs, who dominate investment in the manufacturing sector (Gu, 2009, p. 583; Brautigam et al., 2018, p. 22 f.).

Governmental incentives

As a last aspect of challenges by Chinese investment, governmental incentives must be considered. Usually, SEZs offer a variety of incentives to investors, with tax reliefs being most common. "The most common type of tax incentive offered is a zero or reduced rate of corporation or income tax for a number of years, increasing gradually thereafter." (Newman & Page, 2017, p. 15). Especially those SEZs which are initiated by the Chinese government clearly define costs arising for the host government. Governments are not only responsible for regulating the zones but also for offering financial incentives to potential investors. "Incentives usually include tax holidays, waivers on import tariffs for raw materials and inputs and restrictions on strike activity. FDI recipient governments are also responsible for providing infrastructure outside the zones." (Newman & Page, 2017, p. 20). Under consideration of the economic situation of most economies in SSA, incentives are not only costly. Farole (2011, p. 103 f.) summarises that overall SEZs in SSA are underperforming when compared to their objectives which are an increase in exports, good quality and upgradable job opportunities, attraction of more FDI and resulting spillovers. For the Chinese SEZs in SSA, which mainly focus on manufacturing, the assessment of success is not possible at this point in time (Newman & Page, 2017, p. 20). Apart from incentives offered in SEZs, Ghana provides foreign investors who want to be active in manufacturing with several general incentives. Those include a reduction of the import duty on raw material imports, an exemption from the minimum investment requirement or duty-free import of foreign machinery and equipment (Tang, 2016, p. 5).

4.2.3 Modification of the impact model

To assess potential impact which Chinese OFDI in the manufacturing sector of SSA has on the recipient economies, several criteria have been analysed in the chapters above and are summarised in the following table:

Table 3: Impact of Chinese manufacturing OFDI on recipient economies in SSA

criterion / impact	inside firm	spillovers/ indirect effects	resulting impact on host
technology	usually more advanced than in local firms	spillovers seem marginal	(+)
productivity	usually higher than in local firms	spillovers unclear	(+)
knowledge and skills	low-skilled positions, insufficient training quality and transfer of and to local staff	labour market as channel for spillovers	(+)
formal education	no impact	assumed incentive for host governments	(+)
employment	manufacturing as labour-creating sector, majority of workforce is local	less significant in backward linkages, more significant for forward linkages, multiplier effect; overall: employment growth	+
poverty reduction	reduction by employment, job security by long-term commitment	reduction by employment spillovers, reduction of living expenses	+
introduction of new products	market-seeking motive of Chinese firms	introduction of new products which are adapted to the market	+
world economy integration by trade	few large SOEs exist, but they are export-oriented	spillovers unclear	(+)
economic growth	tendency of positive relation between manufacturing FDI and economic growth (GDP per capita)		(+)
wage	indication of lower wages compared to other foreign investors and local firms	spillovers unclear	(-)
labour standards	breaches of labour regulations are common	spillovers unclear	(-)
competition	usually more competitive than local firms	termination of local businesses (loss of local employment)	-
environment	transfer of environmentally questionable/ harmful equipment	spillovers unclear	(-)
governmental incentives	Chinese firms benefit from incentives in SEZs	a positive impact of incentives for Chinese SEZs is unclear, yet, costs appear	(-)
net impact: Chinese OFDI in manufacturing tends to have a rather positive impact on recipient economies in SSA			

Source: own table based on considerations of chapters 4.2.1 and 4.2.2

Indicated by brackets, the resulting impact per criterion is limited by the current availability of data. Still, the net impact of Chinese presence in SSA by manufacturing FDI tends to be rather positive. Based on 14 criteria nine are positive, while the impact of six out of those nine criteria is less distinct. Solely in employment, poverty reduction and the introduction of new products, there exists a clear positive impact which results from the effect inside the foreign-owned firm, spillovers to local businesses and the economy itself. At the same time, five criteria show a negative impact of Chinese FDI on host economies in SSA. While wages, labour standards, the environment and

governmental incentives are posing costs by Chinese FDI, although less significant, investment by Chinese firms is clearly posing costs for the competition criterion.

Comparing this model on impact of Chinese manufacturing OFDI on recipient economies in SSA to the model of common impact of FDI on recipient economies introduced in chapter 2.4.2.3, significant differences are observable. In a generic view of FDI impact on recipient economies, literature focuses on the outcome based on data of several economies and thereby, usually targets the introduced twelve criteria. For SSA and the Chinese presence, two more criteria must be analysed, which are the introduction of new products and labour standards. Based on the exceptional backgrounds of both parties, i.e. SSA mostly made of LDCs and China's own economic background in manufacturing, the two criteria are crucial. Another aspect is the outcome for each criterion. While the generic model seems to provide a clear impact of FDI on host economies, meaning it can either be positive or negative, the Chinese impact in SSA is less clear. Out of the above-mentioned 14 criteria, only four are providing a clear picture. Following this logic, the net impact in the model of classic impact is rather positive, while for SSA and China, the net impact is positive, too, but it is less distinct.

To compare the criteria and the corresponding results in detail and starting by technology, host economies generally can expect to benefit from technology spillovers, especially in backward linkages. In the case of Chinese investment, this does not hold true to the same extent. There are many constraints hindering them, especially cultural and language barriers, settlement of foreign investors in SEZs or a focus on products involving a lesser amount of technology. Productivity spillovers, in general, are mainly based on backward linkages but those indirect effects are playing an important role. For SSA, productivity spillovers seems unclear. In the generic model, knowledge and skills are not only being provided to staff inside the firms, but the labour market constitutes an important channel of spillovers. Chinese investors rather employ locals in low-skilled positions and if they provide training, not only themselves but also their expected results are challenging in terms of quality of training provided and knowledge absorption of the local workforce. For education, while literature agrees on an impact of MNEs on tertiary education, this does not necessarily hold true for Chinese FDI in SSA and is mainly linked to the current availability of data. In both the generic model and the amended model in SSA, FDI impacts employment inside the foreign-owned firm and spillovers equally in a positive way. Manufacturing is a labour-intensive sector

and serves as a job-creator and guarantor. For wage, the outcomes are contrary. Classically, wages are at the same time higher in the foreign-owned firms and there also seem to be wage spillovers and higher overall wages. Contrary to that, Chinese investment in the manufacturing sector of SSA leads to lower wages compared to domestic firms and also those of other foreign investors. Spillovers are unclear. Same as employment, poverty reduction has the same outcome in both models, i.e. a positive impact of FDI on recipient economies. In most cases, FDI leads to an increase in GDP per capita. For SSA, this seems realistic, too, especially when being positive about the flying geese theory and an implied industrialisation. For competition, both models find that FDI affects recipient economies negatively and leads to a termination of local businesses, as foreign investors are characterised by a high level of competitiveness. The criterion of the environment is similarly negative. Both the generic model and the modified model see that foreign investments go along with a transfer of environmentally harmful equipment. While the generic model provides negative spillovers in total, the outcome for SSA under Chinese FDI is unclear until present. Finally, governmental incentives always pose costs to host economies. Sure enough, foreign investors benefit from incentives and it can be a means to attract FDI, however, especially in SSA, which already suffers from economic challenges, those additional costs are crucial while at the same time, it is not clear in how far the incentives are fruitful.

To sum it up, the generic model offers a range of twelve criteria, while the modified model adds two more. Also, the "direction" of the outcome (either positive or negative) is the same for the criteria of both models, except for the criterion of wage. Differences are that the general model provides either a clearly positive or clearly negative impact while the impact of Chinese OFDI in the manufacturing sector of SSA cannot be, in most cases, clearly be attributed to whichever direction, mainly resulting due to its topicality and a limited amount of data and research. Overall, the generic model is an aggregation of an extensive amount of literature based on data over a period of years for a large number of economies all over the world, while the modified model targets a specific region (SSA) by investors from one single economy (China) in a specific sector (manufacturing) during the last years (beginning from 2000). Therefore, the particular results inside the firms and consequential spillovers vary. Still, the overall (potential) outcome is similar and points to a positive net impact on FDI on recipient economies.

5.Conclusion

5.1 Summary

FDI as a pivotal element of globalisation mainly targets developed countries and rather circumvents regions like transition economies or Africa. Certainly, FDI involves a significant amount of risks, as it implies a cross-border investment with lasting interest and thus, a high commitment of resources. Challenges in Africa, including macroeconomic stability, uncertainty about the contractual environment and damages by armed conflicts, are often perceived as too high and many investors are not taking this risk. To assess the generic impact which FDI has on recipient countries, the following twelve criteria have been looked at: technology, productivity, knowledge and skills, formal education, employment, wage, poverty reduction, world economy integration by trade, economic growth, competition, environment and finally governmental incentives. Based on the impact inside the firm and resulting spillovers or indirect effects, each criterion can be classified as either positive or negative impact. As the majority of criteria show a rather positive impact, the net impact of FDI on host economies can be classified as rather positive.

China is active in FDI since 2000 as the government officially encouraged domestic companies to invest overseas from this year on. While the first years were characterised by small amounts of FDI outflows, especially when pictured as shares of world FDI outflows, China managed to become the third largest foreign direct investor in the world in 2017. Overall, the main destinations are not clear, with a significant amount of FDI targeting Hong Kong. Africa plays a smaller role in its outward strategy although Sino-African relations get stronger and FDI flows increase. Also, critics formulate that China is solely interested in Africa's natural resources when conducting FDI. In reality, manufacturing is the dominating sector. For this particular sector, manufacturing FDI is dominated by private Chinese SMEs, rather than SOEs.

Currently, the manufacturing sector of China is facing many challenges resulting from rising labour costs and a competitive environment. While at this point in time it is not clear if the flying geese theory will apply to SSA, meaning that Chinese firms relocate to this region of and commence industrialisation there, an increase in manufacturing FDI is observable. Combined with a strong entrepreneurial drive and the willingness to take risks, Chinese private SMEs invest in new production facilities all over SSA by means of greenfield investment, often in SEZs which comes along with numerous

effects presented in the modified model of impact of Chinese manufacturing OFDI on recipient economies in SSA. This model differs from the generic model introduced in chapter 2.4.2.3. While not only two more criteria, i.e. the introduction of new products and labour standards, must be included due to the given factors of hosts and investors, the impacts of most criteria are rather showing tendencies and are not as clear as the impacts provided by the general model. The unclear outcome can be mainly attributed to the current relevance of the topic and the limited availability of data and research. Apart from that, manufacturing FDI provides the same direction of impact for most criteria, except for the criterion of wage, which is rather negative in the case of SSA. As manufacturing is a labour-intensive sector, characterised by long-term commitment and a market seeking motive of Chinese investors, the criteria of employment, poverty reduction and the introduction of new products are clear in showing a positive impact on host economies in SSA. Competition is the only criterion which is clearly having a negative effect. Overall, impacts inside the foreign-owned firm and spillovers are adapted to host country conditions, the private Chinese investors and their investment approach of increasing OFDI in manufacturing driven by increasing costs and competition in China and the willingness to take risks by doing greenfield investments all over SSA.

To answer the research question introduced in chapter 1.1, Chinese OFDI in SSA influences recipient economies by a variety of economy shaping criteria. These criteria are predefined by the model of general impact and in the case of SSA, two additional ones are needed. While the impact on employment, poverty reduction as well as introduction of new products, the latter being one of the additional criteria, is particularly positive, the impact on competition is negative. Moreover, contrary to the classically positive impact on wage, the influence in the case of the new Asian investors indicates a negative tendency. Finally, Chinese OFDI in the manufacturing sector of SSA seems to have an overall positive net impact. However, compared to the impact which recipient economies face according to the general model, the final outcome of Chinese investment in SSA is less distinct.

5.2 Critical acclaim

As a matter of fact, the generic model of FDI impact on host economies needs to be critically reviewed. The effects of FDI cannot be generalised. For every single economy of the world, there might be a different impact and theory provides little sign of

convergence for the criteria and their indirect effects. The focus of this paper lies on twelve common criteria and to gather the whole scope of general impact and later Chinese impact in SSA, a broad analysis of one single criterion would be necessary. On top of that, the "net effect" of FDI impact is being derived from aggregation of positive or negative results of each criterion. Especially the criterion of economic growth usually constitutes the net effect. As, in both the generic but especially in the modified model, the assessment GDP growth seems challenging, it constitutes solely one criterion in a range of criteria. Reality is far more complex, and a net effect includes many more criteria than those introduced in this bachelor thesis. In addition to that, this paper did not focus on prerequisites that often need to be fulfilled in order to benefit from foreign investment. For example, when the technological level in the host county is low, local firms struggle to absorb foreign technologies. This also holds true for productivity, which in most cases needs a certain threshold stock of human capital. Overall, the generic model serves as a simplification and a first indication of FDI impact on recipient economies.

Chinese presence in SSA is a very current topic with rising academic literature. Yet, until present, the focus lies rather on research and publications on natural resources rather than on the manufacturing sector. One main constraint of assessing Chinese overseas activities is the availability of data. China's MOFCOM provides the largest database of Chinese firms in SSA. The main challenge to picture the activity of Chinese firms abroad is that the Ministry only tracks investments above a certain volume and especially the activities of private SMEs are not being provided, although they constitute the majority of Chinese firms in manufacturing in SSA. As a consequence, this paper relied on publications from organisations such as McKinsey, a global consulting company, but tried to align the findings with other available sources. Thus, existing data only serves as a preliminary, suggestive tool and the impact should therefore not be overstated. Not only from the Chinese side data provided is incomplete, but this also holds true from the SSA side.

One of the key points of criticism is that this thesis views China, but mainly SSA, as homogenous. Although the focus lies not on Chinese impact in Africa as a whole, but SSA, according to the UN this region already constitutes 49 independent economies. While each economy in which China is present in manufacturing can face different impacts, those differences have not been investigated in this paper.

The whole scope of Chinese impact on SSA's manufacturing sector and the respective factors driving the presence are too broad and complex to be assessed in this bachelor thesis. In addition, as mentioned above, this work examined the net effect of FDI impact on the aspect of which direction, i.e. positive or negative, prevails and does not differentiate in terms of relative weight or other criteria. In combination with the data issue, a further focus on a smaller fraction of criteria is very challenging at this point in time and therefore, 14 criteria of Chinese presence in SSA have been analysed in a rather condensed way. Overall, this paper serves as a first picture of potential impact and aims at introducing the reader to a topic which will certainly gain more importance in the near future.

5.3 Outlook

China's current shift from a low-end manufacturing centre to a high-class manufacturer, continuously increasing overall costs and generally increased competition, will lead to more Chinese FDI in SSA's manufacturing centre. Currently, one main constraint in assessing the impact of Chinese OFDI on recipient economies is the data issue. Certainly, the next years will provide more in-depth research and a clearer picture not least because China's increasing foreign activity is gaining more and more international attention. Especially the aspects of employment and poverty reduction will be in focus. While the population of SSA is characterised by steady growth with already more than one billion inhabitants in 2017, it implies the need for constant employment generation. By also keeping in mind that current unemployment rates are already posing a challenge in various economies in SSA, while official data might not even mirror the reality, the employment aspect gets more important. At the same time, poverty is an everlasting topic in most economies in SSA. Manufacturing can be a source to mitigate those aspects as it usually comes along with significant direct and indirect creation of jobs but also encourages local business by means of a range of spillovers. Also, China managed to industrialise by its transformation from an agricultural economy to a manufacturing power, while SSA in most cases still lacks in technology and also familiar aspects such as productivity or knowledge and skills. With increased foreign investment, more spillovers will occur. Indeed, the argument of industrialisation in SSA – to a certain degree initiated by Chinese investment – even seems realistic.

In addition to the aspects touched upon in the course of this paper, many more aspects will get into focus, such as infrastructure development, cultural exchanges, Chinese investors paving the way for other (Western) investors or an increase in tourism, all resulting from manufacturing FDI and impacting host economies.

Overall, however, manufacturing does not constitute the ultimate source of growth and implied wealth nor a solution to the existing problems faced in SSA. At this point in time, SSA is dominated by agriculture and minerals and an industrialisation by means of manufacturing is a long-term process which can take decades. Certainly, manufacturing poses many opportunities, however, local governments in SSA need to get more active in shaping their countries. More concrete, governments in SSA should not only aim at attracting in general more FDI but help their inhabitants to reach a higher living standard by means of several cornerstones, such as education, infrastructure development and a stable economic and political environment which will finally increase not only domestic but also foreign investment.

IV Glossary

Developed economies	The member countries of the OECD (other than Chile, Mexico, the Republic of Korea and Turkey), plus the new European Union member countries which are not OECD members (Bulgaria, Croatia, Cyprus, Lithuania, Malta and Romania), plus Andorra, Bermuda, Liechtenstein, Monaco and San Marino, plus the territories of Faeroe Islands, Gibraltar, Greenland, Guernsey and Jersey
Developing economies	In general, all economies other than transition and developed economies
Economies of scale	The reduction of production costs that is a result of making and selling goods in large quantities
Economies of scope	The reduction of costs that is the result of sharing resources, processes and skills in producing a larger range of products
Export	The selling and transporting of goods to another country
Export-processing zone	An area of a country where firms can import, process, assemble, and export goods without paying customs duties
Free trade zone	An area of a country where national tariffs are not applied; a special area within a country where foreign firms can import materials, manufacture goods, export products, etc. without being limited by the usual rules and taxes
Industrialisation	The process of developing industries in a country or an area

Least Developed Countries (LDCs)	Least developed countries are low-income countries confronting severe structural impediments to sustainable development, they are highly vulnerable to economic and environmental shocks and have low levels of human assets
Licensing	The process of giving or getting permission to have, produce, or use something that another person or company has created or owns
R&D (research and development)	Work directed towards the innovation, introduction and improvement of products and processes
Round-tripping	The practice of investing capital abroad and then reinvesting it in its country of origin, in order to take advantage of favourable tax rates, etc., given to foreign investors
Micro, small and medium-sized enterprises (SMEs)	Enterprises which employ fewer than 250 persons and have either an annual turnover not exceeding EUR 50 million or an annual balance sheet total not exceeding EUR 43 million
Tax holiday	A period when people or companies do not have to pay any tax or not as much tax as usual on goods, services, or profits
Transition economies	South-East Europe, the Commonwealth of Independent States and Georgia
Waivers	Refrain from insisting on or using (a right or claim)

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VI Appendix

Outline of Appendix

1 Official data by UNCTAD on FDI flows and stocks

1.1 FDI inflows (used in chapter 2.3.1)

Annex table 1. FDI inflows, by region and economy, 1990-2017
(Millions of dollars)

Region/economy	2010	2011	2012	2013	2014	2015	2016	2017	% of world	% of Africa
World	1 371 919,4	1 567 676,5	1 574 711,5	1 425 376,6	1 338 531,8	1 921 305,5	1 867 532,7	1 429 807,4		
Developed economies	679 764,0	824 391,3	858 262,9	693 153,7	596 699,1	1 141 250,6	1 133 245,2	712 382,9	49,82%	
Europe	410 560,7	485 082,2	542 242,1	349 502,5	274 550,2	595 162,7	564 936,8	333 722,3		
European Union	362 685,4	434 755,9	492 007,3	344 674,8	259 932,5	515 886,1	524 010,4	303 579,7		
Other developed Europe	47 875,3	50 326,3	50 234,8	4 827,6	14 617,6	79 296,6	40 926,5	30 142,7		
North America	226 449,4	269 531,3	242 145,0	270 784,1	260 667,2	511 367,5	494 423,4	299 624,8		
Other developed economies	42 753,9	69 777,7	73 875,8	72 867,1	61 481,8	34 720,5	73 885,0	79 035,8		
Developing economies	628 479,9	663 855,7	651 500,4	648 538,5	685 292,0	744 032,5	670 158,2	670 658,0		
Africa	46 687,1	46 746,8	51 985,0	50 789,5	52 440,5	56 633,0	53 189,6	41 772,3	2,92%	
North Africa	15 745,9	7 548,1	15 759,0	11 951,5	12 039,1	12 256,1	13 830,7	13 271,0		31,77%
Other Africa	30 941,2	39 198,8	36 226,0	38 838,0	40 401,4	44 376,9	39 358,9	28 501,3		68,23%
West Africa	12 024,3	18 926,3	16 874,3	14 479,9	12 147,7	10 179,3	12 694,4	11 307,3		
Central Africa	7 799,2	5 551,9	5 460,8	5 428,3	5 305,7	8 304,5	7 344,7	5 733,4		
East Africa	5 496,3	5 872,5	6 560,8	7 253,0	6 577,9	6 864,8	7 883,0	7 624,9		
Southern Africa	5 621,4	8 848,0	7 330,1	11 676,8	16 370,1	19 028,2	11 436,8	3 835,8		
Asia	412 870,9	416 850,0	405 845,4	415 393,8	459 971,0	516 406,9	475 347,4	475 839,2	33,28%	
East and South-East Asia	314 812,3	319 856,9	324 218,8	340 238,5	387 073,8	435 076,7	390 391,6	398 286,2		
East Asia	201 806,4	233 797,6	212 356,7	221 275,4	257 479,6	317 755,1	269 778,5	264 515,4		
South-East Asia	113 005,9	86 059,3	111 862,0	118 963,1	129 594,2	117 321,6	120 613,1	133 770,9		
South Asia	34 911,8	44 326,7	32 366,5	35 597,6	41 439,2	51 179,9	54 197,0	52 047,2		
West Asia	63 146,9	52 666,4	49 260,2	39 557,7	31 457,9	30 150,3	30 758,8	25 505,7		
Latin America and the Caribbean	166 797,1	198 063,8	190 089,6	179 645,1	170 603,4	169 233,3	139 698,4	151 336,7	10,58%	
South America	129 960,6	161 282,8	157 356,5	119 834,0	126 865,6	119 870,2	95 150,7	104 205,9		
Central America	33 857,7	34 126,1	30 925,8	58 245,1	40 186,7	45 933,6	41 124,7	42 119,2		
Caribbean	2 978,8	2 654,9	1 807,4	1 565,9	3 551,1	3 429,5	3 423,1	5 011,6		
Oceania	2 124,8	2 195,1	3 580,4	2 710,1	2 277,1	1 759,3	1 922,7	1 709,7		
Transition economies	63 675,4	79 429,5	64 948,2	83 684,3	56 540,7	36 022,4	64 129,3	46 766,5	3,27%	
South-East Europe	4 603,9	7 876,2	3 605,9	4 748,7	4 626,0	4 922,9	4 597,5	5 537,5		
CIS	58 226,4	70 423,3	60 319,4	77 915,0	50 096,7	29 447,1	57 928,9	39 367,1		
Memorandum										
Least developed countries (LDCs)	23 516,5	20 028,7	21 808,5	21 266,9	25 756,0	36 802,5	30 817,4	25 548,6		
Landlocked countries (LLDCs)	27 410,4	36 299,7	33 993,4	30 237,8	28 659,4	23 687,8	22 163,8	22 738,3		
Small island developing States (SIDS)	4 580,3	4 227,2	2 489,1	2 614,4	7 246,3	3 421,6	3 991,2	4 132,7		

Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Note: Totals exclude the financial centres in the Caribbean.

1.2 FDI inward stock (used in chapter 2.3.1)

Annex table 3. FDI inward stock, by region and economy, 1990-2017

(Millions of dollars)

Region/economy	2010	2011	2012	2013	2014	2015	2016	2017	% of world
World	20 279 390,9	21 007 274,0	22 877 125,2	24 764 740,4	25 378 773,5	25 664 955,0	27 663 090,9	31 524 355,7	
Developed economies	13 480 299,7	13 890 300,5	14 786 756,0	16 108 906,3	16 299 373,9	16 384 147,3	17 672 202,4	20 331 171,2	64,49%
Europe	8 208 847,5	8 615 678,8	8 945 902,1	9 272 859,4	8 944 199,2	8 997 488,6	9 194 735,4	10 362 403,4	
European Union	7 357 407,2	7 682 088,9	7 919 288,4	8 228 780,6	7 936 557,7	7 933 003,0	8 028 099,8	9 123 982,0	
Other developed Europe	851 440,4	933 589,9	1 026 613,7	1 044 078,8	1 007 641,5	1 064 485,6	1 166 635,6	1 238 421,4	
North America	4 406 182,5	4 361 424,3	4 869 307,8	5 930 947,1	6 451 599,6	6 506 309,0	7 529 848,6	8 891 441,0	
Other developed economies	865 269,7	913 197,3	971 546,1	905 099,8	903 575,1	880 349,7	947 618,5	1 077 326,8	
Developing economies	6 123 094,7	6 450 531,0	7 364 596,1	7 846 914,0	8 452 640,7	8 677 871,5	9 234 027,8	10 353 480,6	2,75%
Africa	598 291,9	609 002,2	658 054,5	692 340,1	714 208,5	747 907,6	807 549,6	866 817,1	
North Africa	201 105,0	204 551,0	217 608,5	233 679,8	238 196,3	244 847,0	258 196,7	275 096,8	
Other Africa	397 186,3	404 451,2	440 446,0	458 660,4	476 012,2	503 060,7	549 352,9	591 720,3	
West Africa	100 005,2	115 274,5	133 227,2	145 283,3	152 850,6	159 667,3	171 081,1	186 275,8	
Central Africa	39 228,2	44 732,6	52 150,9	60 257,5	67 075,1	78 587,6	83 920,5	87 819,5	
East Africa	37 854,6	41 377,0	47 524,8	55 787,3	60 684,0	67 024,8	74 594,5	82 597,6	
Southern Africa	220 098,3	203 067,1	207 543,1	197 332,2	195 402,5	197 781,1	219 756,8	235 027,4	
Asia	3 881 158,8	4 129 761,8	4 788 813,7	5 175 077,9	5 706 164,2	6 020 753,7	6 369 274,8	7 262 946,2	
East and South-East Asia	3 020 276,1	3 273 940,5	3 814 680,1	4 209 465,0	4 644 907,0	4 930 153,1	5 220 331,8	5 990 481,7	
East Asia	1 875 956,5	2 009 154,5	2 332 351,5	2 599 169,8	2 878 626,9	3 109 291,1	3 300 677,1	3 828 193,1	
South-East Asia	1 144 319,6	1 264 786,0	1 482 328,6	1 610 295,3	1 766 280,0	1 820 862,0	1 919 654,6	2 162 288,7	
South Asia	268 959,2	276 747,4	305 408,6	314 024,1	354 467,8	390 266,4	439 683,4	506 932,3	
West Asia	591 923,4	579 074,0	668 725,0	651 588,8	706 789,5	700 334,1	709 259,7	765 532,2	
Latin America and the Caribbean	1 629 248,7	1 693 721,2	1 895 916,1	1 955 524,8	2 008 112,9	1 884 945,3	2 031 678,0	2 194 395,2	
South America	1 128 408,6	1 191 895,8	1 306 866,0	1 323 154,9	1 358 560,0	1 210 423,8	1 371 890,3	1 501 267,7	
Central America	453 142,9	456 078,5	540 815,7	582 089,5	596 426,5	618 442,8	601 519,1	629 795,6	
Caribbean	47 697,2	45 747,0	48 234,5	50 280,4	53 126,5	56 078,7	58 268,6	63 331,9	
Oceania	14 395,9	18 045,7	21 811,8	23 971,1	24 155,0	24 264,9	25 525,5	29 322,0	
Transition economies	675 996,4	666 442,5	725 773,2	808 920,2	626 758,9	602 936,2	756 860,7	839 704,0	
South-East Europe	21 179,4	23 423,1	24 767,0	58 167,5	54 456,7	53 253,6	55 180,9	68 369,5	
CIS	646 340,1	633 297,6	690 341,0	739 020,3	559 082,9	536 391,1	686 991,6	753 945,6	
Memorandum									
Least developed countries (LDCs)	144 790,8	160 046,0	181 901,2	199 152,7	223 048,5	255 714,0	287 968,7	312 114,9	
Landlocked countries (LLDCs)	180 819,4	227 554,0	260 639,6	284 081,0	309 154,1	323 805,4	346 320,8	369 652,4	
Small island developing States (SIDS)	64 147,6	62 396,2	65 393,4	73 525,0	76 086,9	79 009,2	80 959,2	85 769,9	

Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Note: Totals exclude the financial centres in the Caribbean.

1.3 FDI outflows (used in chapter 3.1.2)

1.3.1 Years 1990 to 2003

Annex table 2. FDI outflows, by region and economy, 1990-2017

(Millions of dollars)

Region/economy	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
World	243 878.2	198 854.1	203 791.2	236 281.2	285 355.0	356 883.3	392 305.8	466 320.3	679 612.7	1 075 111.2	1 163 674.5	683 280.3	437 519.1	529 081.5
Developed economies	230 766.8	187 762.6	179 740.8	200 967.0	239 270.8	303 965.6	330 922.2	398 920.8	636 863.6	1 018 667.5	1 071 786.1	623 262.7	453 773.6	479 122.2
Europe	140 954.9	115 353.0	110 959.7	103 339.5	133 734.1	172 909.0	204 599.7	249 086.3	443 198.4	767 368.9	846 101.5	413 940.7	251 860.0	279 993.9
European Union	132 184.5	107 334.4	105 016.9	93 842.6	120 745.1	157 817.9	182 279.4	226 010.4	421 815.0	728 139.5	791 534.0	394 469.7	237 572.2	258 113.1
Germany	24 234.8	22 937.2	18 539.5	17 196.2	18 859.4	39 048.6	50 804.7	41 798.1	88 824.9	108 688.4	57 085.9	39 889.4	18 942.6	55 568.1
Other developed Europe	8 770.4	8 018.6	5 942.8	9 496.9	12 989.0	15 091.1	22 320.3	23 075.8	21 383.4	39 229.4	54 567.5	19 470.9	14 287.8	21 880.8
North America	36 218.5	38 530.1	46 238.1	82 949.0	82 545.5	103 535.6	97 522.2	118 834.5	165 354.1	226 638.4	187 304.2	160 901.8	161 718.7	152 276.2
Other developed economies	53 593.4	33 879.5	22 543.0	14 678.6	22 991.2	27 521.0	28 800.3	31 000.0	28 311.1	24 660.2	38 380.4	48 420.2	40 194.8	46 852.1
Developing economies	13 111.4	10 916	22 484.5	34 290.4	45 770.9	52 306.8	60 462.3	64 171.7	41 499.5	54 229.2	88 721.4	57 494.4	39 696.1	39 453.5
Africa	658.4	1 336.2	2 385.0	575.6	1 312.4	2 975.6	1 817.4	3 557.0	1 618.8	2 604.6	1 558.0	- 3 378.1	288.4	970.2
North Africa	135.2	262.6	- 109.9	- 429.5	122.1	132.5	98.6	467.9	324.5	291.6	248.4	299.3	25.1	129.7
Other Africa	523.2	1 073.5	2 494.9	1 005.2	1 790.4	2 843.1	1 718.8	3 089.1	1 294.5	2 313.0	1 309.5	- 3 677.4	263.4	840.5
West Africa	411.5	762.4	414.7	533.8	447.0	189.2	612.7	661.5	- 540.1	673.3	964.9	- 186.9	610.0	373.7
Central Africa	51.7	51.9	79.6	43.0	14.2	34.9	22.6	31.7	0.4	18.8	33.5	49.9	- 38.8	- 23.5
East Africa	2.6	11.6	46.5	42.0	19.1	38.6	9.4	19.5	12.3	15.4	19.5	13.3	25.0	7.0
Southern Africa	57.4	247.7	1 954.1	326.4	1 310.0	2 580.4	1 074.1	2 376.3	1 821.9	1 605.5	291.6	- 3 553.7	- 332.8	483.3
Asia	11 076.0	8 108.1	17 244.0	31 125.5	39 547.9	45 519.3	55 360.0	52 746.6	31 268.0	44 217.2	79 028.3	56 637.8	33 899.2	31 833.4
East and South-East Asia	11 982.3	8 307.1	18 063.5	30 471.8	39 686.7	46 016.2	52 271.0	52 486.1	32 150.8	42 461.0	75 564.0	53 977.7	29 077.5	31 623.4
East Asia	9 654.2	7 384.2	15 536.7	26 167.5	28 667.1	33 851.5	37 441.2	36 623.6	27 315.7	32 352.7	66 537.7	33 174.8	24 075.7	25 607.6
China	830.0	913.0	4 000.0	4 400.0	2 000.0	2 000.0	2 114.0	2 562.5	2 633.8	1 774.3	915.8	6 885.4	2 518.4	2 854.7
Hong Kong, China	2 448.0	2 825.0	8 254.0	17 713.0	21 437.0	25 000.0	26 530.9	24 406.8	16 625.6	22 191.2	54 078.8	18 055.3	13 163.0	12 057.1
Korea, Republic of	1 133.2	1 591.2	1 375.7	1 443.5	2 590.1	3 868.5	4 953.3	4 411.3	4 220.3	3 967.2	4 842.1	2 743.5	3 437.2	5 018.8
Macao, China												10.6	71.1	- 4.9
Mongolia														
Taiwan Province of China	5 243.0	2 055.0	1 967.0	2 611.0	2 640.0	2 983.0	3 843.0	5 243.0	3 836.0	4 420.0	6 701.0	5 480.0	4 886.0	5 682.0
South-East Asia	2 328.1	922.9	2 466.8	4 304.3	11 019.6	12 164.7	14 829.8	15 862.5	4 835.0	10 108.3	9 026.3	20 802.9	5 001.8	6 015.7
South Asia	65.3	7.9	44.4	- 127.1	100.8	128.6	345.5	177.2	176.4	318.3	540.4	1 499.0	1 736.8	1 603.6
West Asia	- 971.7	- 206.9	- 863.9	780.8	- 239.6	- 625.4	2 743.5	83.3	-1 059.2	1 437.3	2 323.9	1 161.0	3 084.8	-1 393.5
Latin America and the Caribbean	1 367.1	1 617.6	2 668.6	2 586.8	4 314.2	3 828.4	3 245.1	7 805.4	8 729.0	7 446.0	8 118.9	4 223.3	5 485.3	6 628.3
South America	1 111.9	1 412.9	1 968.1	2 626.5	3 192.9	3 773.2	3 122.8	7 747.9	8 624.0	7 010.8	8 036.1	- 196.4	4 093.9	5 072.5
Central America	226.1	180.5	652.5	- 101.3	1 067.2	- 13.0	24.8	14.2	18.4	77.7	92.5	4 481.9	1 190.7	1 363.1
Caribbean	29.0	24.2	48.0	61.6	54.1	68.3	97.5	43.3	86.6	357.5	- 9.8	- 62.3	200.8	192.8
Oceania	9.9	29.7	186.9	2.4	- 3.6	- 16.5	39.9	62.7	- 116.4	- 38.6	16.3	10.6	23.2	21.5
Transition economies	-	-	1 566.0	1 023.8	313.2	616.9	921.2	3 227.8	1 249.6	2 214.4	3 167.0	2 523.2	4 049.4	10 505.7
South-East Europe	-	-	-	-	-	-	-	0.1	0.0	0.3	1.0	13.2	20.2	124.9
CIS	-	-	1 566.0	1 023.8	313.2	616.9	921.2	3 227.7	1 249.6	2 213.2	3 162.8	2 506.0	4 025.1	10 377.0
Memorandum														
Least developed countries (LDCs)	- 4.6	350.9	176.7	85.2	130.2	1.2	47.0	545.4	- 666.9	332.5	794.9	- 234.0	606.8	362.1
Landlocked countries (LLDCs)	32.3	53.4	115.4	52.8	110.2	103.5	66.8	24.1	95.0	42.0	48.7	- 380.0	716.9	631.3
Small island developing States (SIDS)	50.4	82.6	281.2	99.5	65.1	69.2	145.1	112.1	44.1	622.0	297.0	286.6	268.0	442.5

Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Note: Totals exclude the financial centres in the Caribbean.

1.3.2 Years 2004 to 2017

Annex table 2. FDI outflows, by region and economy, 1990-2017

(Millions of dollars)

Region/economy	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
World	905 975,4	833 351,2	1 352 327,0	2 169 105,2	1 703 548,1	1 101 886,7	1 373 658,4	1 563 807,1	1 389 507,7	1 380 874,8	1 262 007,5	1 621 889,9	1 473 283,3	1 429 972,2
Developed economies	777 539,2	704 497,9	1 120 738,4	1 843 884,1	1 368 226,8	820 410,8	965 900,3	1 128 733,0	973 653,5	890 111,6	731 670,0	1 183 568,0	1 041 458,4	1 003 208,5
Europe	396 420,7	649 954,4	763 567,1	1 288 360,1	813 609,1	401 028,5	568 686,5	560 949,2	467 069,9	387 670,0	240 295,9	728 175,4	526 427,1	417 805,7
European Union	362 270,0	568 086,6	660 905,8	1 216 216,9	752 539,6	353 373,5	461 632,9	493 619,6	406 638,3	340 878,9	222 243,8	606 648,4	452 869,8	435 736,2
Germany	20 311,5	74 543,1	116 680,2	169 319,9	71 506,7	68 541,0	125 450,8	77 928,9	62 164,5	42 270,6	99 584,2	108 177,3	51 460,4	82 336,5
Other developed Europe	34 150,7	81 867,8	102 661,4	72 143,2	61 009,5	47 655,0	107 053,6	67 329,7	60 431,6	46 791,1	18 052,1	121 527,0	73 557,2	-17 930,5
North America	338 251,8	42 907,5	270 433,7	458 145,1	387 573,3	327 502,1	312 501,8	448 716,9	374 060,4	360 813,0	354 951,1	330 388,7	354 238,7	419 256,9
Other developed economies	42 866,8	11 636,0	86 737,6	97 378,9	167 044,5	91 880,2	84 712,1	119 066,8	132 523,2	141 628,5	136 423,0	125 003,9	160 732,6	172 145,9
Developing economies	114 774,8	110 806,9	201 434,7	276 036,4	275 037,4	243 098,5	357 270,3	379 425,9	362 661,3	414 975,9	457 934,3	406 236,6	406 667,7	380 774,8
Africa	3 500,3	1 981,0	8 172,7	10 823,6	10 008,8	6 390,4	10 374,0	5 304,9	12 393,5	16 072,0	13 598,3	10 844,5	11 234,4	12 078,3
North Africa	732,2	286,8	1 134,3	5 404,3	8 653,8	2 498,2	4 780,8	1 490,3	3 098,4	392,2	769,5	1 364,1	1 513,9	1 322,8
Other Africa	2 768,1	1 694,3	7 038,4	5 425,3	1 355,0	3 892,2	5 593,2	3 814,6	9 295,1	15 679,8	12 828,8	9 480,4	9 720,5	10 755,5
West Africa	533,4	418,1	664,4	1 263,2	1 707,6	2 116,3	2 453,9	1 868,8	3 536,5	1 756,9	2 193,0	2 224,2	2 187,9	1 888,0
Central Africa	- 3,6	81,4	- 25,0	144,8	- 52,2	160,9	350,6	- 188,8	337,2	57,7	184,7	345,4	305,2	193,2
East Africa	43,7	93,1	39,8	110,9	108,9	82,1	189,2	174,0	397,8	280,0	157,4	110,0	81,8	174,1
Southern Africa	2 194,6	1 101,7	6 359,2	3 900,5	- 409,3	1 532,9	2 599,5	1 960,5	5 023,6	13 585,2	10 293,7	6 800,8	7 145,5	8 500,2
Asia	93 038,0	89 600,0	150 550,3	240 206,4	226 828,6	223 018,9	291 889,0	321 016,7	306 751,3	362 126,2	411 963,1	358 730,7	384 656,0	350 146,8
East and South-East Asia	82 669,7	73 752,2	113 424,3	188 336,5	167 284,7	188 766,9	257 826,5	277 809,2	274 145,6	314 323,7	377 117,5	310 216,6	341 693,3	305 252,6
East Asia	63 383,6	53 684,7	53 967,8	123 888,5	134 128,8	139 086,8	194 533,3	213 680,5	215 517,0	232 976,1	288 749,9	255 285,4	302 724,3	250 226,2
China	5 498,0	12 261,2	17 634,0	26 506,1	55 907,2	56 529,0	68 811,3	74 654,0	87 803,5	107 843,7	123 119,9	145 667,2	196 149,4	124 630,0
Hong Kong, China	43 636,9	27 003,1	44 475,2	64 165,8	48 379,3	59 201,6	86 247,2	96 340,8	83 410,5	80 773,1	124 032,5	71 821,2	59 702,8	82 843,5
Korea, Republic of	7 195,6	8 330,0	12 769,3	22 074,3	19 632,6	17 435,9	28 279,9	29 704,7	30 632,1	28 353,8	28 033,2	23 760,4	29 961,0	31 675,8
Macao, China	- 91,9	60,1	635,9	22,6	- 83,5	- 10,5	- 441,4	120,4	469,2	1 673,5	681,0	- 683,7	- 987,4	- 328,7
Mongolia	-	2,3	54,4	12,8	6,2	53,8	62,3	94,6	64,7	41,0	106,4	11,3	14,5	48,6
Taiwan Province of China	7 145,0	6 028,0	7 399,0	11 107,0	10 287,0	5 877,0	11 574,0	12 766,0	13 137,0	14 285,0	12 711,0	14 709,0	17 884,0	11 357,0
South-East Asia	19 286,1	20 067,4	30 456,5	64 448,0	33 155,9	49 680,1	63 293,2	64 128,7	58 628,5	81 347,6	88 367,6	54 931,2	38 969,0	55 026,4
South Asia	2 346,8	3 486,9	14 575,0	17 766,1	21 464,1	16 274,0	16 290,6	12 823,0	10 022,0	2 179,3	12 020,2	7 816,4	5 505,0	11 612,7
West Asia	8 021,3	12 361,0	22 551,0	34 103,7	38 079,7	17 978,1	17 771,9	30 384,5	22 583,8	45 623,3	22 825,4	40 637,7	37 457,6	33 281,4
Latin America and the Caribbean	18 201,8	18 859,6	42 545,9	24 860,4	37 142,3	13 592,0	54 343,7	52 205,6	41 941,4	34 598,5	31 038,2	35 627,2	9 336,5	17 327,6
South America	13 468,8	11 987,4	35 703,3	14 368,8	36 167,9	4 660,7	39 672,2	38 533,4	18 085,6	19 358,8	24 734,2	23 652,2	6 918,5	11 610,9
Central America	4 568,4	6 381,3	5 992,8	9 330,2	476,0	9 965,9	14 816,9	13 609,6	23 390,1	15 653,7	6 147,0	11 819,9	2 288,1	5 562,6
Caribbean	164,5	490,9	849,8	561,3	498,4	-1 034,6	- 145,3	62,6	465,7	- 414,0	156,3	155,1	129,9	154,1
Oceania	34,8	366,3	165,7	140,1	1 057,7	97,1	663,5	898,7	1 575,1	2 179,1	1 394,7	1 034,1	1 440,8	1 222,1
Transition economies	13 661,4	18 046,4	30 153,9	49 184,7	60 283,9	38 377,4	50 487,8	55 648,3	33 192,9	75 787,4	72 343,2	32 085,4	25 157,2	39 988,9
South-East Europe	15,9	34,0	142,0	1 167,0	564,0	139,8	320,6	389,3	438,0	500,7	481,5	525,4	237,5	266,7
CIS	13 635,9	18 101,8	30 025,2	47 943,8	59 573,3	38 256,2	50 032,0	55 112,4	32 457,9	75 166,8	71 455,0	31 250,8	24 512,6	39 454,1
Memorandum														
Least developed countries (LDCs)	1 130,7	708,4	722,7	1 464,2	3 581,3	1 079,4	4 352,4	3 283,3	4 547,6	7 986,3	3 705,7	2 420,3	4 286,5	2 860,1
Landlocked countries (LLDCs)	10,3	1 006,4	329,7	3 480,1	1 912,5	3 970,4	9 286,3	6 330,3	2 213,3	4 501,7	5 746,2	4 297,3	-2 338,5	3 227,2
Small island developing States (SIDS)	362,0	861,4	862,9	751,0	1 325,1	366,5	724,4	1 378,9	705,3	491,7	2 700,6	682,6	374,5	317,6

Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Note: Totals exclude the financial centres in the Caribbean.

2 Destination pattern (used in chapter 4.1.3)

2.1 Sources to assess pattern

2.1.1 Economies "a" to "le"

Chinese manufacturing FDI in SSA

Source	Angola	Benin	Botswana	Burundi	Cameroon	Chad	Congo	Cote d'Ivoire	DR Congo	Ethiopia	Equatorial Guinea	Gabon	Ghana	Guinea	Kenya	Lesotho
Brautigam et al., 2018 (SAIS-CARI)	X	X					X			X			X		X	
Chen & Nord, 2017				X											X	
Chen at al., 2016 (SAIS-CARI)																
Dollar et al., 2016	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X
Eom, 2018 (SAIS-CARI)										X					X	
CNSE & ODI, 2017										X						
Fei, 2018 (SAIS-CARI)										X						
Geiger et al., 2015										X						
Gu, 2011										X			X		X	
Khodeir, 2016													X	X	X	
Lin & Wang, 2014	X									X						
McKinsey, 2017								X		X					X	
Milelli & Sindzingre, 2013									X	X						
Nanna, 2015																
Onjala, 2008										X					X	
Shen, 2013													X			
Sun, 2017										X						X
Tang, 2016 (SAIS-CARI)									X	X			X			
UN-Habitat & IHS-Erasmus University Rotterdam, 2018										X			X		X	
Zeng, 2015										X						
Sum of mentions	3	2	1	1	1	1	2	2	3	15	1	1	7	2	10	2

2.1.2 Economies "li" to "z"

Chinese manufacturing FDI in SSA																
Source	Liberia	Madagascar	Mali	Mauritius	Mozambique	Namibia	Nigeria	Rwanda	Senegal	Sierra Leone	South Africa	Tanzania	Togo	Uganda	Zambia	Zimbabwe
Brautigam et al., 2018 (SAIS-CARI)	X			X	X		X				X	X		X	X	X
Chen & Nord, 2017												X		X		
Chen at al., 2016 (SAIS-CARI)							X									
Dollar et al., 2016		X	X	X	X	X	X			X	X	X	X	X	X	X
Eom, 2018 (SAIS-CARI)				X			X	X								
CNSE & ODI, 2017								X			X					
Fei, 2018 (SAIS-CARI)																
Geiger et al., 2015							X	X				X		X		
Gu, 2011		X							X							
Khodeir, 2016											X					
Lin & Wang, 2014																
McKinsey, 2017							X				X	X			X	
Milelli & Sindzingre, 2013															X	
Nanna, 2015							X									
Onjala, 2008																
Shen, 2013	X						X	X							X	
Sun, 2017							X									
Tang, 2016 (SAIS-CARI)							X				X					
UN-Habitat & IHS-Erasmus University Rotterdam, 2018							X				X	X			X	
Zeng, 2015				X			X								X	
Sum of mentions	2	2	1	4	2	1	12	4	1	1	7	6	1	4	7	2

2.2 Map based on sources to assess patter

Chinese presence in SSA – manufacturing FDI

Northern Africa

Chinese manufacturing FDI in SSA *

* Please note that this proposed map might not mirror the exact reality. Also, only those economies which appear at least twice in the sources are highlighted.

VII Declaration of originality

I hereby declare that this bachelor thesis and the work reported herein was composed by and originated entirely from me. Information derived from published and unpublished work of others has been acknowledged in the text and references are given in the list of references.
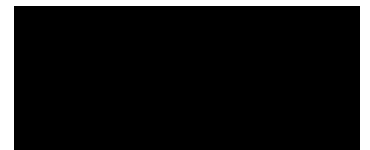
Hamburg, 19 December 2018   Signature

VIII Declaration of consent

I agree that a copy of my bachelor thesis will be accommodated into the library of the department; third-party rights will not be harmed thereby.

Hamburg, 19 December 2018   Signature