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Chinese Agricultural and Manufacturing Investment in Kenya: A Scoping Study

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ABSTRACT

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THIS PAPER EXAMINES ONGOING CHINESE investments in Kenya's agricultural and manufacturing industries. Overall, we found that more and more Chinese firms are exploring business opportunities in these two sectors, although growth has been unsteady. Chinese manufacturing investments have concentrated on activities like building materials and light manufacturing, with an aim to serve growing domestic markets in Kenya and neighboring countries. By comparison, Chinese investment in agriculture is more recent and still in its trial period, but several ongoing projects suggest growth potential. In terms of knowledge transfer, all the firms we interviewed provide on-site training to their local employees; we also found evidence of subcontracting, imitation, and forward linkages between Chinese companies and local firms. Generally speaking, Chinese investment's local linkages have been increasing over the years but remain at a low level.

Our field research also found a considerable disparity between official registration information and on-the-ground investment activities. Neither the Chinese Ministry of Commerce (MOFCOM) nor the Kenya Investment Authority (KenInvest) have been able to monitor small investment projects that are "flying under the radar" or keep track of any subsequent changes to investment plans. Moreover, Chinese investments in the manufacturing and agricultural industries in Kenya are dominated by private, migrant entrepreneurs, who have mainly been driven by market considerations, such as production cost and market proximity, rather than government incentives in home or host country. Business strategies and decision-making are usually contingent on entrepreneurs' prior experience in China and African countries.

INTRODUCTION

GIVEN ITS GEOGRAPHICAL ADVANTAGE AND COMPARATIVE STRENGTH in political stability and economic development, Kenya is considered the continent's focal point in China's "One-Belt-One-Road" policy. China became Kenya's largest trading partner in 2015, surpassing India. Further, Chinese investment in Kenya has multiplied with the "going-out" of numerous Chinese enterprises, both state and privately owned. Why are Chinese companies investing in Kenya, what are they investing in, and what are the economic and social impacts of rising Chinese investment on the host country?

This paper examines the state of Chinese investment in Kenya's agriculture and manufacturing sectors. It reviews Kenya's underlying political economy that conditions foreign investment, motivations and evolving patterns of Chinese investment, the potential technology spillover effect and other linkages between Chinese firms and the Kenyan society, and challenges facing Chinese investors. While we found evidence of technology transfer in the forms of on-site training, subcontracting, imitation, and forward linkages between Chinese companies and local firms, spill-over effects have remained at a low level, impeded by the insufficient development of local supply chains, infrastructure, and political and regulatory uncertainty. Moreover, we discovered a huge gap between official registration and Internet-based information and investment activities on-the-ground, which calls for more empirical research efforts in the future.

KENYA'S POLITICAL ECONOMY

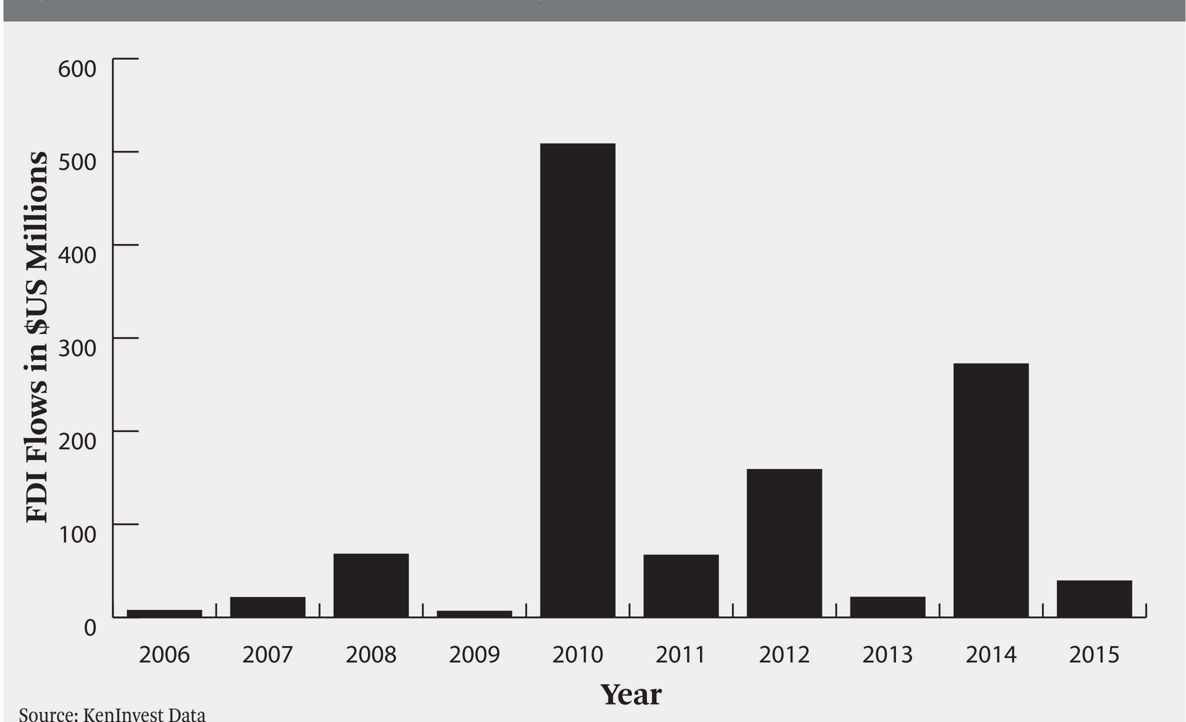
CHINA AND KENYA: HISTORICAL ENGAGEMENT AND BILATERAL RELATIONS

SUN CATEGORIZES CONTEMPORARY CHINA'S MULTIPLE interests in Africa as political, economic, security, and ideological.[1] This typology can be applied to China-Kenya relations, with policy priorities varying over time. Diplomatic relations between Kenya and the People's Republic of China (PRC) was established in December 1963, two days after Kenya's independence. Since then, Kenya has been an important Chinese ally in international affairs on issues like state sovereignty and the One China Policy. One recent example of Kenya siding with the PRC in a diplomatic competition between the PRC and Taiwanese government was in 2016. Upon the request of the Chinese government, the Kenyan government deported about 50 Taiwanese fraud suspects to Mainland China, despite strong protests from Taiwan.[2] In addition, China's One-Belt-One-Road policy emphasized Kenya as the gateway to Africa. Given Kenya's convenient location at the junction between East African countries and the Indian Ocean and its relative strength in market potential, infrastructure and political stability, the One-Belt-One-Road policy listed Kenya as one of the pilot countries for China-Africa Industrial Capacity Cooperation.[3] Moreover, China has also boosted its defense cooperation with Kenya, targeting piracy and terrorism challenges. The presence of China's private security force in Kenya has also intensified owing to many ongoing, large-scale construction projects such as the Mombasa-Nairobi Standard Gauge Railway (SGR).[4]

In the 1950s and the early 1960s, Kenya was exporting raw materials such as sisal, cotton, and pyrethrum to China, while China was exporting semi-processed products to Kenya including tea and base metals.[5] During Mao's era, bilateral economic relations between the two countries stagnated because of ideological conflicts.[6] Since the opening, reform, and the official adoption of the "going-out" strategy in China, economic engagements between China and Kenya have been revitalized. A series of bilateral agreements were signed in the 2000s on cooperation in trade, investment, education, culture, and energy. In recent years, diplomatic relations and economic cooperation between the two countries have deepened due to a few high-profile projects, especially the SGR project, which was announced during Prime Minister Li Keqiang's visit to Kenya in 2014.[7] In 2015, Chinese exports to Kenya reached US$ 5.9 billion, increasing by 20 percent compared to 2014; meanwhile, Kenyan exports to China witnessed a 28 percent increase, reaching US$ 100 million.[8]

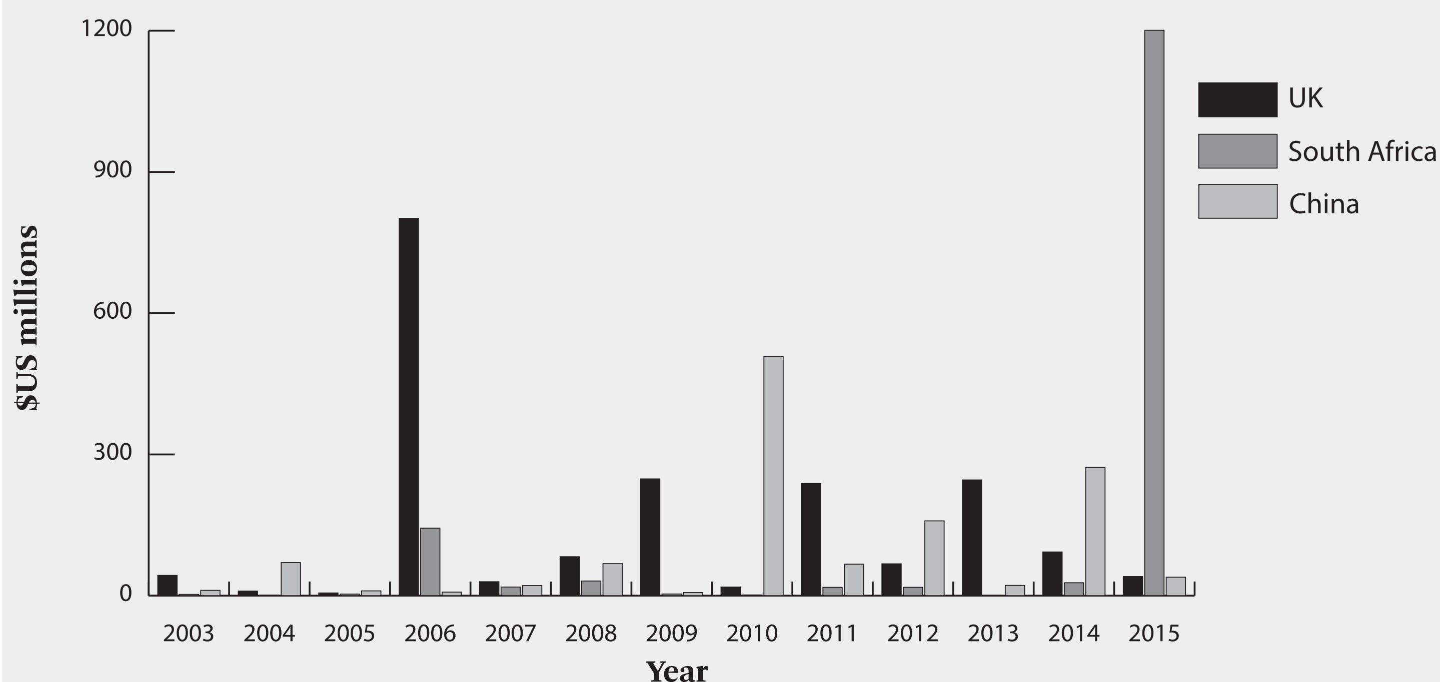
In terms of pinpointing the exact amount of Chinese foreign direct investment (FDI) to Kenya, accounts vary wildly depending on the source. Official Chinese data suggests that before 2000 Chinese investment in Kenya was almost non-existent. However, as Figure 1 shows, Chinese FDI's growth in Kenya is astonishing. After Kenya's presidential election in 2012, which forecasted political stability in the country for the next few years, Chinese FDI inflows almost tripled in 2013. Between 2013 and 2015, Chinese FDI in Kenya showed steady growth. By the end of 2015, Chinese FDI stock in Kenya amounted to US$ 1.1 billion - more than 22 times that of 2006 and placing Kenya 12th among African countries.[9] Kenya was also the largest recipient of Chinese investment in Africa in terms of FDI flows in 2015.[10]

Figure 1: Chinese annual FDI Flow into Kenya in US$ (millions) 2006-2015



Source: KenInvest Data

Figure 2: Annual FDI Flows to Kenya by Top 3 Largest Investor Nations 2003-2015 (US$ millions)



Source: KenInvest Data

On the other hand, data from the Kenya Investment Authority (KenInvest) shows considerable discrepancies compared to Chinese official data. KenInvest's data (Figure 2) shows that although Chinese FDI inflow to Kenya has been growing, there have been fluctuations over the years and the average annual FDI inflow from China to Kenya was only US$ 97 million between 2003 and 2015. The two largest annual FDI inflows took place in 2010 and 2014, reaching US$ 508 million and US$ 272 million respectively, but for almost all the other years annual FDI inflows were less than US$ 100 million. According to KenInvest, China became the third largest investor in Kenya in 2008, with US$ 1.26 billion in FDI stock that accounted for 13.5 percent of Kenya's total FDI stock.[11] The first and second largest investors are the UK and South Africa. KenInvest data also shows that in 2015 South Africa invested US$ 1.2 billion, which is more than ten times the investment from China or UK and accounted for 83.5 percent of total FDI inflows to Kenya in that year.

Official data on sectoral breakdowns of Chinese FDI in Kenya is unavailable, but references can be found in some recent studies. A 2016 business perception index survey covered 75 Chinese companies in Kenya, among them, "38 (are) in the manufacturing, construction or energy sectors and 37 are in the service sector, including trade, hotels, restaurants and travel agencies."[12] Another report, citing data from *The Financial Times*, finds that Chinese FDI in Kenya focuses on metals, communications, and manufacturing, specifically automotive.[13] However, the accuracy of the scale of Chinese investment projects covered in news articles should be subject to careful scrutiny. For example, Foton' East Africa assembly plant received wide media coverage; they were reported to have invested more than US$ 50 million since 2011,

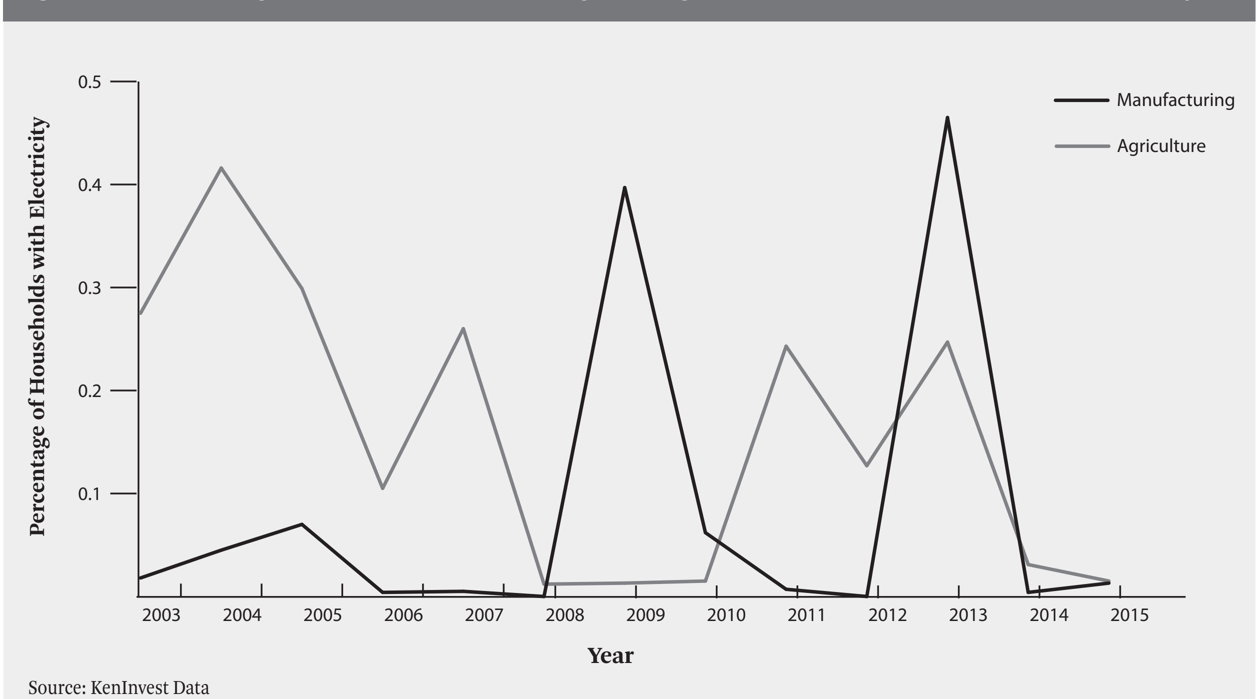
with the capacity to produce at least 3,000 units per year.[14] However, our field study revealed that the investment size was closer to 30 million Chinese yuan or less than US$ 5 million and the production capacity was only about 100 to 120 units per year. Foton's operations have been hampered by disagreements with landlords, issues with subcontractors, and tax code violations.[15] During our second visit in 2017, we were told that the factory had ceased operations and was being sold due to liquidity problems. The significant divergence between media reports and reality suggest that the only way to get a real understanding of Chinese investments in Kenya is through fieldwork-based analysis.

As economic exchanges and cooperation between China and Kenya intensify, the Chinese community in Kenya is also growing rapidly. In 2007, the number of Chinese citizens living in Kenya was estimated to be approximately 8,000.[16] According to a Chinese industrial association in Nairobi, that number had increased to between 40,000 and 50,000 by the end of 2015.[17] However, it is difficult to give an accurate account because there are both short-term migrants and long-term residents, and cases when the former transitions to the latter. For instance, one interviewee noted that many Chinese investors in Mombasa are former engineers and technicians from Chinese construction companies that decided to start their own manufacturing or service business when their employment contracts ended.[18]

2008 POST-ELECTION VIOLENCE

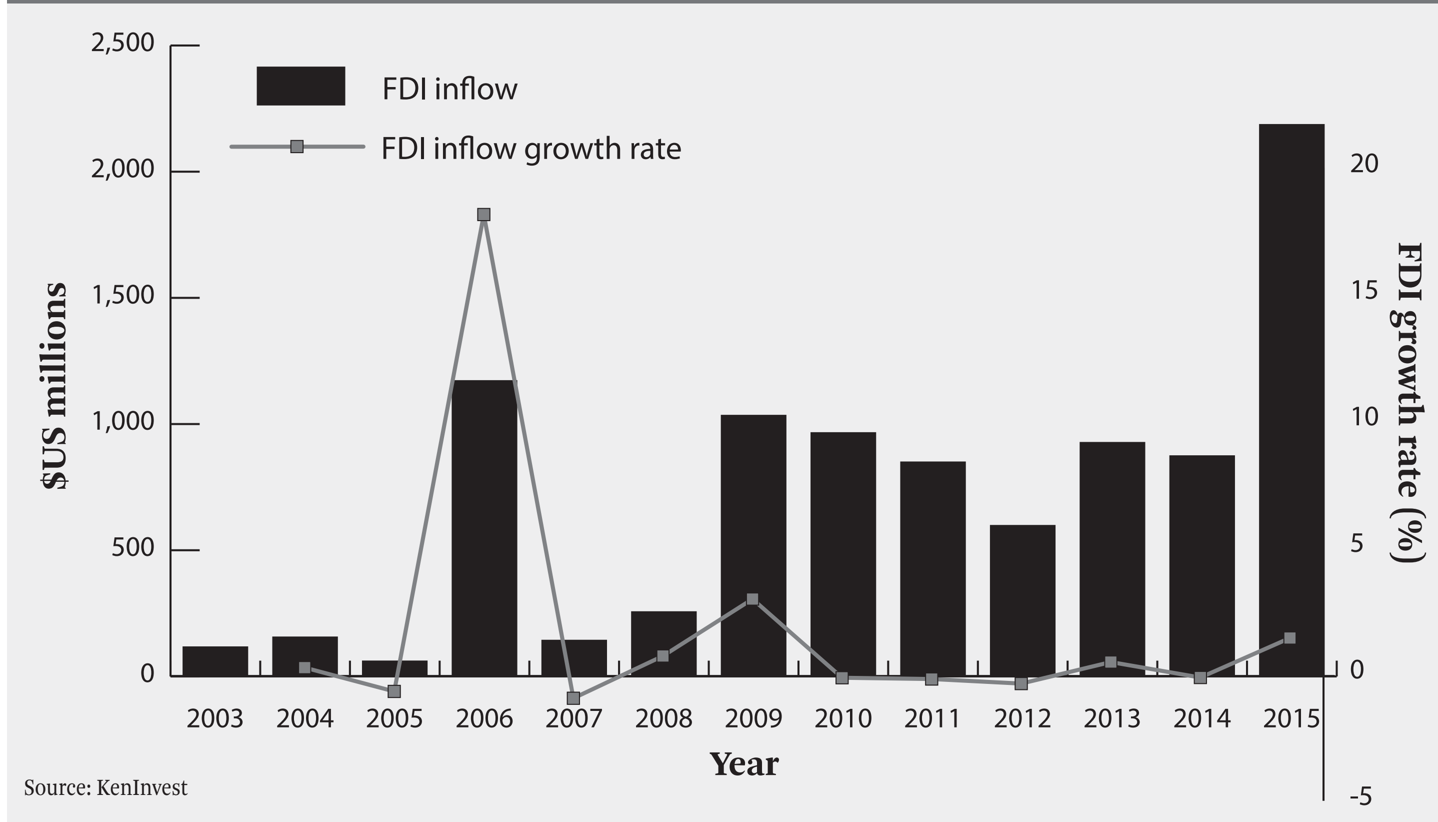
A CONTROVERSIAL 2007 PRESIDENTIAL ELECTION IN KENYA triggered intra-tribal hatred and violence that spread across the country and lasted for nearly two months, resulting in 1,133 deaths and 100,000 displaced persons.[19] The violence and political

Figure 3: Percentage of FDI in Manufacturing and Agriculture from Total FDI Inflows to Kenya



Source: KenInvest Data

Figure 4: FDI inflow and FDI growth rate to Kenya 2003-2015



Source: KenInvest

instability that followed have had a significant impact on the country's investment climate. A 2016 report on Chinese investment in Kenya attributed Kenya's poor performance in attracting FDI to corruption, inadequate infrastructure, and a poor investment climate, including the 2008 post-election violence.[20] An empirical study examining the impact of post-election violence on the flower industry in Kenya found that domestic conflicts have displaced workers and obstructed transportation, both of which have contributed to a drop in export volume, eventually lowering investment and growth.[21] The study also pointed out that small firms were more

Table 1: Exports to US under AGOA Provisions for Select Countries (millions US$)

Country	2011	2012	2013	2014	2015
Kenya	260.59	254.23	308.56	378.91	368.27
Lesotho	315.23	300.93	321.28	290.31	299.69
Mauritius	156.77	162.79	191.19	223.06	215.25
Ghana	1.58	2.8	2.73	3.83	9.2
Ethiopia	10	10.2	10.35	12.03	17.65
Tanzania	5.29	7.53	10.39	17.48	27.32
South Africa	6.52	6.13	5.84	6.1	8.37

Source: Reproduced from Kenya EPZ 2015 Performance Report, EPZA, July 2016.

vulnerable to these difficulties than large firms, which enjoy stable contractual relationships, strong affiliations with industry associations, and have access to more resources.[22]

Figures 3 and 4 show FDI values in the manufacturing and agricultural sectors, as well as their respective percentage of total FDI inflows to Kenya between 2003 and 2015. In general, FDI in both sectors has remained at low levels. The manufacturing sector has received only US$ 876 million in FDI over the past 13 years. The agriculture sector has experienced considerable fluctuations in attracting FDI; it received huge FDI inflows in 2009 and 2013, totaling US$ 842 million, while in other years agricultural investment was negligible. Due to the influence of post-election violence, FDI in both sectors dropped significantly in 2008. After 2008, FDI inflows to Kenya have gradually recovered as political stability increases. Although the manufacturing sector *per se* is growing in terms of sectoral output and employment, FDI inflows to the manufacturing sector as a percentage of total FDI inflows to Kenya have been decreasing, indicating a loss of foreign investors' confidence.[23]

EXPORT PROCESSING ZONES PROGRAM IN KENYA

KENYA ADOPTED THE EXPORT PROCESSING ZONES (EPZ) ACT in 1990 to encourage and facilitate export oriented investment in the manufacturing, commercial, and service sectors by providing EPZ companies with various tax benefits and preferential treatment in regards to administrative procedures and operations.[24] Tax incentives include a ten-year corporate income tax holiday, import duty exemption for industrial inputs, 100 percent investment deduction on EPZ buildings and machinery investments, and preferential procedural treatment which includes rapid approval and licensing and one-stop shop business registration services.[25] EPZ firms enjoying these benefits can only sell up to 20 percent of their products to Kenya or East Africa Community countries, which are considered as part of the domestic market under uniform customs regulations.[26] In other words, EPZ firms are required to export at least 80 percent of their products outside of East Africa.

The African Growth and Opportunity Act (AGOA) has brought considerable benefits to Kenyan EPZs given the significance of the garment EPZ firms and the labor-intensive nature of their production. In 2015, EPZ firms accounted for 90 percent of Kenya's apparel exports to the US.[27] Table 1 shows that Kenya has become one of the top African apparel exporters to the US since 2014.[28] In addition, EPZ contributions to manufacturing industry output was 3.12 percent in 2014 and 3.27 percent in 2015, demonstrating a steady increase since 2011.[29] Meanwhile, several major EPZ development constraints have been recognized, including high production costs, a shortage of raw materials, low efficiency, and labor unrest.[30]

In 2015, Kenya's Ministry of Industrialization and Enterprise Development launched the Kenya Industrial Transformation Programme (KITP), which intends to provide sector-specific initiatives to "support selected sectors which Kenya has competitive advantage".[31] These sectors include agro-processing, garments and textiles,

construction materials, information technology, as well as small and medium enterprises. How government support and incentives will be provided to encourage investment in these selected sectors under KITP still remains to be seen.

There are three licensed EPZ firms owned by Mainland Chinese investors as listed on EPZA's website: Erdemann, Future Garments, and Hui Commercials.[32] In our field study, we confirmed that Erdemann, a mineral water producer, has divested from export production and now manufactures building materials for the Kenyan domestic market. Future Garments was sold to New Wide, a Taiwanese garment company located in the Athi River EPZ, and Hui Commercials, which was said to be exporting plastic flakes to China, was not in operation during our site visit.[33] There is another firm, Anyang Batteries Co., which was reported several times by MOFCOM and Chinese media to be operating a battery assembly plant in the Athi River EPZ since the early 2000s.[34] We didn't find the company registered through either KenInvest or EPZA. A member from the Chinese business council confirmed that Anyang had stopped operation several years ago.[35]

METHODOLOGY AND DATA

OUR RESEARCH BEGAN WITH A DESK STUDY OF CHINESE manufacturing and agricultural investments in Kenya from various online sources, including MOFCOM registrations of Chinese overseas investment projects. We coded all 28 investments approved for Kenya that stated an intention of engaging in manufacturing or agricultural activities, using the UN Standard of industrial classification, i.e., ISIC Rev.4.[36] We used different online sources such as news articles, academic papers, government documents, and advertisements posted by the companies themselves, and were able to confirm only six of these companies as having active FDI companies in Kenya. This could be due to various reasons. For example, the company name registered may be different than the name of the operation on the ground, the company may not have an online presence if they are not seeking to advertise through that medium, or the project simply never materialized. Nevertheless, we found twelve investment projects in manufacturing and agricultural sectors that are not registered with MOFCOM, at least not under the same company names. These investments range from a pyrethrum plantation to light manufacturing (batteries, tissue papers), building materials, and automotive assembly. Nonetheless, we noticed that government documents and newspaper articles on many of these projects were dated back to 2011 or earlier, therefore field study is required in order to determine the up-to-date status of these investments.

Our field study shows even greater disparities between registered companies and those currently open for business. We first visited KenInvest, where we obtained a list of registered Chinese companies.[37] That list suggested that 92 out of 222 registered Chinese companies were engaging in manufacturing or agricultural activities. Only three companies from the KenInvest list match with MOFCOM's registry (Appendix A).

Table 2 shows the top five Chinese investment projects by capital that were registered in Kenya, although none of them were registered with MOFCOM.

Table 2: Top Five KenInvest Registered Chinese Investments, by Capital (Kes and US$)

Company	Business Scope	Capital (Kes million)	Capital (US$ million)	No. Chinese Employees	No. Local Employees	Date of First Entry	Current Status
Glass Africa Ltd.	Glass manufacturing	205.55	244.2	0	147	2/2/1993	Likely to never have materialized
Coveka Sugar Co. Ltd.	Manufacturing white mill sugar	1,655.4	186	5	500	3/19/1999	Likely to never have materialized
Edermann Co.	Manufacturing of mineral water	425	100	10	81	7/22/2005	Stopped operations
Famonar Ltd.	Manufacturing of cigarettes	14	73	14	73	12/19/2001	Unable to confirm
Chengdu Juxian Group	Manufacturing of Cement	5,800	0	100	500	1/20/2012	Stopped construction

Source: KenInvest

Using snowball techniques, we also visited the Chinese Embassy's Economic Consulate and the Kenyan Federation of Oversea Chinese Companies. They connected us with Chinese firms in Nairobi, which then were able to introduce us to other Chinese firms located in other major cities in Kenya. Most of the interviews were done in August 2016 and follow-up visits to some plants took place in July 2017. By the time of our field study, it seems that none of the top five registered Chinese companies shown in Table 2 were still in production. For example, Erdemann was found to have stopped production in 2011 but continued to be listed on the EPZA's website. An interviewee who used to work in a motorcycle assembling plant noted that many motorcycle assembly companies from China exited the market after 2010 due to increasing competition among Chinese companies producing and selling similar products. A cement project initiated by Juxian Group from Sichuan, one of the three projects that were registered with both MOFCOM and KenInvest, was said to have stopped operations because of over-capacity in Kenya's cement industry. In addition, we were unable to confirm the status of the two largest investments, Glass Africa and Coveka Sugar, both of which were registered in the 1990s. It is likely that they were mere pledges rather than actual investments, since the stated investment value of the two projects exceeded US$ 400 million, while KenInvest's data suggests that Chinese FDI stock in Kenya by 2003 was only about US$ 11 million, as shown in Table 3.

The majority of our interviews took place in Nairobi, the capital and economic center of the country. Many interviewed companies are located in industrial parks that are not far from Jomo Kenyatta International Airport. We also visited Nakuru, Eldoret, and Kisumu, where there are some Chinese investments in plantations, agro-processing, and building materials manufacturing. In addition, we conducted

Table 3: FDI Inflows to Kenyan Manufacturing and Agricultural Sectors (US$ millions)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Agriculture	2.08	6.99	4.26	5.01	0.75	0	411.11	59.95	6.26	0	430.72	3.22	28.01
Manufacturing	32.21	65	18.21	122.71	37.3	3.04	13.02	14.08	206.46	76.06	228.58	27.28	32.37

Source: KenInvest

interviews with two Taiwanese garment EPZ companies and several Chinese companies in the service industry. We asked all the interviewed companies to complete a survey on their investment motivations (Appendix B). Of all the 22 manufacturing and agricultural companies we interviewed, including the two Taiwanese garment companies, only five were registered with KenInvest and only two matched MOFCOM registrations.

There are a few explanations for the disparity between our desk study and the results of our field research. First, since MOFCOM registration is only a precondition for obtaining foreign exchange certificates, the MOFCOM database only captures overseas Chinese projects and companies that need to move money out of China. In practice, many projects were established by Chinese expatriate entrepreneurs who have taken residence in Africa and accumulated their capital and experience overseas. These companies, strictly speaking, are Kenyan companies owned by Chinese citizens, and normally do not register with MOFCOM. In some cases, such as with Future Industry and Cway Group, a "parent company" was established in China after the African "subsidiaries" had been in operation for years. Cway Group was first founded in Nigeria in 1999 by Che, an entrepreneur from Liaoning Province, to produce bottled water, and it has expanded to other African countries since 2004. The company's bottled water production was said to have captured more than 90 percent of the Nigerian market and employs 150 Chinese managers, 30 Indian managers, and more than 4,000 local workers.[38] Outside Nigeria, Cway Group also owns plants in Kenya, India, Egypt, and Tanzania. Most country managers are also minority shareholders of the company, which has proven to be an effective incentive mechanism. The Chinese headquarters was founded in Shanghai in 2011 to coordinate financing for its African operations and to manage supply chain relationships in China. Similarly, Future Industry was started in Madagascar in 1998 by five investors from Hubei Province to manufacture aluminum products. They now have factories and assembly plants in seven African countries including Tanzania and Kenya. A holding company and an assembly plant was set up in Hubei in 2008, but the assembly plant was closed due to fierce market competition and difficulties in securing payment. Now the Chinese "parent company" is mainly responsible for providing financial and logistical support to its subsidiaries in Africa.

Secondly, MOFCOM and KenInvest data relies on Chinese investor's self-reporting, while many investors ended up in trade or other businesses despite their declared intention to engage in manufacturing at the time of registration. Moreover, official data in China and Kenya is outdated because government authorities often fail to monitor the implementation of these investments. For example, many EPZ firms change their legal names after the ten-year tax holiday expires so they can continue enjoying tax exemptions. Last but not least, most companies in the manufacturing and agriculture industry are small, private enterprises employing 50 to 200 workers, and a majority of them have little media presence.

FINDINGS

IN OUR FIELD STUDY, WE DISCOVERED CONSTRUCTION materials as a major sub-sector of Chinese manufacturing investment in Kenya. We interviewed producers of aluminum products, roofing materials, and bricks. Twyford Ceramics, a ceramic tile producer that has had manufacturing plants in four African countries since 2015, started its operations in Kenya in 2017. A few high-profile infrastructure projects undertaken by Chinese contractors have helped drive Chinese investment in building materials and related services such as auto repair and logistics. Outside of construction-related sectors, Chinese investment in other manufacturing activities is generally small, though there are some investments that are looking to expand. For example, Golden Lion currently has two plants producing batteries and tissue paper, respectively. Its battery production accounts for 70 percent of the Kenyan domestic market and its tissue paper plant, Phoenix Paper, is one of the three largest tissue paper producers in the country. The company is planning to invest in a third plant to produce diapers. In the electricity sector, Yocean first began with electric transformer repairs in early 2015 as one of the only two repair service providers in Kenya; it has since used profits made from the repair business to expand and include transformer assembly.

In addition, Chinese entrepreneurs have also begun to explore investment opportunities in agribusiness. Of the five agriculture investors we interviewed, four were farming pyrethrum (a plant in the daisy family), stevia, and flowers while the fifth engages in donkey slaughtering. All projects were started between 2012 and 2016 and are still in their early stage. Chinese investors identified inadequate knowledge of the agricultural industry and global value chain, dominance by existing market players, and restrictive government regulations as obstacles in the agricultural industry.

All interviewed Chinese companies provide on-site training to their local workers in a learning-by-doing manner and most firms have a probation period for newly recruited employees. In general, the technology level of Chinese companies in Kenya is low. In one case, we saw local workers that started their own business in the same industry, using skills, knowledge, and business networks they acquired when working for the Chinese company. This, however, is not happening systematically. As one Chinese manager noted, "starting one's own business requires not only skills, but also

capital and network resources. For local employees, it is the commercial awareness and business acumen that needs to be improved first."[39] Due to the underdevelopment of local supply chains, most Chinese companies import their equipment and raw materials from East Asia and do not have regular local suppliers; agro-processing companies are the exception. In some situations, Chinese companies work with raw material suppliers in neighboring countries including Uganda or Tanzania, but these regional suppliers are also owned by Chinese rather than Africans.

SUB-SECTORAL INVESTMENT DISTRIBUTION

WE CONDUCTED SEMI-STRUCTURED INTERVIEWS WITH 27 companies in total (Appendix C); of these, 18 are in manufacturing and five in agro-business. In terms of geographic distribution, five are located in Mombasa, two in Nakuru, two in Naivasha, one in Kisumu, one in Eldoret, and all the rest are located in the Nairobi region. In addition, we also confirmed another nine Chinese investments that are active processing building materials, plastics, paper, and food and beverage products.

Manufacturing

AS DISCUSSED PREVIOUSLY, THE KENYAN MANUFACTURING sector has experienced ups and downs in recent years. On the one hand, high profile construction projects have improved infrastructure and boosted market demand; on the other hand, high production costs and weak supply chains remain obstacles to the development of Kenya's manufacturing industry.

The significant divergence between media reports and reality suggest that the only way to get a real understanding of Chinese investments in Kenya is through fieldwork-based analysis.

There are at least three Chinese aluminum producers operating in Kenya: Creation Aluminum, Future Industry, and Great Wall Manufacturing. All three factories are located in industrial parks in suburban Nairobi, while Future Industry has an additional plant in Mombasa. Ganglong International produces roofing materials and steel plates in Nakuru County and Lever Stone produces limestone bricks in west Kenya. Both are small plants employing fewer than 20 workers and sell to local households. Beijing Electricity Transmission & Transformation Co. (BETT), now a subsidiary of State Grid Corporation of China, has owned a plant making concrete poles in Kenya since 2003. In addition, the owner of Edermann - the EPZ firm that ceased operations - has set up a gypsum board factory, which claimed to have employed 300 local workers.

One large manufacturing plant was completed in 2017 by Twyford Ceramics, a joint venture between Sunda International and KEDA Energy. Both investors are private firms from Guangdong Province. Sunda has years of experience conducting import and export in African markets and KEDA is a leading machinery manufacturer in China. Together, they invested about US$ 30 million to set up the ceramics plant along the outskirts of Nairobi. Twyford Kenya commenced production in early 2017 and employs nearly 500 workers. Fuyao Glass, one of the world's largest auto glass producers, also made plans to invest in a factory producing tempered glass for

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buildings in Kenya. The stated investment value is US$ 8 million. However, follow-up interviews with the company's country manager suggested that the project has progressed slowly.[40] Another Chinese firm, China Wuyi, has committed US$ 100 million to build a precast concrete panel factory and a building materials supermarket.[41] The precast concrete panel factory was put into production in late 2017 and was said to employ 200 to 300 local workers, but construction of the building materials supermarket had not yet begun due to the presidential election in August 2017.[42]

Light manufacturing is another sub-sector that attracts Chinese manufacturers. Golden Lion Group, which began operations in 2011, is arguably the largest battery manufacturer and one of the largest tissue paper producers in Kenya. Kenya Asia is one of several Chinese furniture makers in Nairobi, producing rattan plaited articles. Oboya, which used to be a sub-contractor for flower packing suppliers in Kenya, started its own production in 2016 eyeing the prominent flower export industry. Cway Group, a Chinese-owned company based in Nigeria, produces bottled mineral water and peanut snacks in Nairobi. We also confirmed four other investments in light manufacturing, including one paper manufacturer, which employs about 100 workers, and three bottled water and beverage producers.

There are also some active investments in automotive and machinery assembly. Foton East Africa imports spare parts from China and assembles heavy trucks in Nairobi. It employs 60 to 70 local workers and assembles about 100 units per year. However, when we went back in August 2017, we were told that the plant had ceased production. The owner of Foton East Africa also has another TV assembly plant, branded as Aucma in the local market since 2006. Yocean was started in 2015 to provide transformer repair service to Kenya Power & Lighting Company (KPLC) but has recently expanded to assembling transformers. Shengya Machinery, from Shandong, China, has assembly plants producing brick making machines in Ethiopia and Nigeria, but its plans to set up an assembly plant in Kenya never materialized since the market demand in the country was limited, according to its country manager.

Besides investments from Mainland China, we also found a cluster of Taiwanese export-oriented garment factories. All of them were motivated by tax incentives under AGOA to invest in Kenya. There are at least four Taiwanese garment EPZ companies, three in Mombasa EPZs and one in Athi River EPZ. They import raw materials from China and Taiwan and export finished products to the US market. Together they employ over 12,000 local workers. However, almost all of these companies have been experiencing labor unrest since 2015.

Agro-business

A TROPICAL CLIMATE AND ABUNDANT FERTILE LAND have made agriculture the largest contributor to Kenya's domestic economy.[43] Foreign investors have also demonstrated great interest in Kenya's agricultural industry. By 2015, agriculture had become the second largest economic sector in Kenya in terms of FDI stock, surpassing manufacturing.

Despite the seemingly favorable investment environment, Chinese agro-business investment in Kenya is still in its infancy. Two Chinese companies, Yishan Agriculture and Senju International, were found to be planting pyrethrum in Naivasha and Machakos and both of them were subcontracting with local farmers. An investor from Fujian Province invested in three flower farms in Eldoret and Naivasha in 2016 and exports roses, hydrangeas, and eryngiums to China and Europe. In addition, Goldox has been involved in donkey slaughtering in Baringo since early 2016, exporting donkey hides and donkey meat to China. The owner also plans to set up a farm raising donkeys and crocodiles. Another Chinese investor was said to have invested in a stevia plantation, but details about the investment size and implementation status were not clear.

ANALYSIS

INVESTMENT MOTIVATIONS

WHEN CHINA ANNOUNCED SINO-AFRICA INDUSTRIAL cooperation as a priority in late 2015, Kenya attracted wide media attention as one of the pilot countries.[44] President Xi Jinping proposed ten major cooperation plans for 2016-2019, the first three of which covered industrialization, agricultural modernization, and infrastructure.[45] These cooperation plans were to be supported by a series of financial and political commitments by the Chinese government. However, our field research suggests that these policy aspirations have not yet trickled down to benefit on-the-ground investment projects initiated by Chinese investors. As one interviewee put it, "*in theory*, incentives from Chinese central and provincial governments, financial or non-financial, will provide critical advantages to Chinese companies; but *in practice*, we haven't got any yet."[46] One manager pointed out that tax rebates and subsidies may be available to overseas Chinese manufacturing investments that import industrial inputs and equipment from China. Companies can apply for these financial incentives at provincial or local MOFCOM units and decisions are made depending on investment size and the industry in which the investment is located. However, only one investor we interviewed, Twyford Ceramics, confirmed that it had received subsidies from local Chinese governments. Twyford's general manager further commented, "what is absent in the Belt-and-Road Initiative is sectoral and sub-sectoral guidelines, as well as mechanisms to engage private enterprises, for whom access to finance is always a challenge." Similarly, very few Chinese companies we visited had participated in or benefited from business tours organized by the Chinese government, which were considered as too general and failing to provide firm-specific guidance except for some high-profile projects.

There are several reasons that may have contributed to this divergence. State capitalism by nature favors state-owned enterprises (SOEs) over private-owned enterprises, and as a result, a majority of Chinese bank loans have flown to Kenya's construction and power sectors in which large SOEs are concentrated, and few private

firms in manufacturing and agricultural sectors have benefited from the subsidy scheme.[47] Of the 24 total manufacturing and agricultural projects we interviewed, 23 are private companies and only one is owned by an SOE. Besides the difference in ownership structure, there could also be a size bias. The Chinese government, as well as state-owned banks, are more aware of and/or willing to support large-scale investments than smaller ones. But so far, a majority of Chinese manufacturing and agricultural investment are small and medium enterprises. In some cases, an investment that started as purely private could grow to attract the Chinese government's attention and interest. One example is Yishan Agriculture. Li, Yishan's owner, started planting pyrethrum in 2013 on 66 hectares (ha) of land. By 2015, he had expanded to more than 1,000 ha and was subcontracting with over 3,000 local households. As Yishan became famous in pyrethrum planting, Hubei Province's State Farm Agribusiness Bureau, which has previously invested in multiple plantation projects in Mozambique and other African countries, approached Li - who's originally from Hubei, to discuss co-investment in setting up a US$ 7 million processing plant to extract oil from pyrethrum.[48] Li is also experimenting with cross-cropping, planting aloe vera in muringa and castor oil plant fields. This story also calls for a study of Chinese investment in Africa from a processual perspective. Investment is an ongoing process that is continually shaping and simultaneously shaped by the surrounding environment. As investment develops, motivations for and incentives or resources accessible to the investors may also evolve when different opportunities and challenges surface.

Moreover, although few government incentives have been made available to Chinese private entrepreneurs in the manufacturing and agriculture sectors, the expanding Chinese community, including the increasing presence of Chinese international contractors in Kenya, has indirectly promoted Chinese investments. Creation Aluminum's manager commented, "the increasing Chinese investments from China in African countries after 2005 are less attributable to incentives provided by the Chinese government than Chinese domestic economic growth and the accumulation of knowledge and experience in the international market by Chinese investors."[49] About half of all the interviewees reported that they have benefited from other Chinese businesses and social networks, which facilitate access to information and help develop supply and distribution networks. Nine interviewed companies in building material manufacturing, packaged water production, and auto repair services reported that international Chinese contractors are among their major clients. "It is normally easier for Chinese sales person to access Chinese potential clients, that's why I leave local clients to my local sales team and take care of Chinese clients myself," said Chen from Cway Group.[50] There are also examples of supply chain relationships developed among Chinese companies in Africa. For example, Phoenix Paper has been sourcing base paper from Global Paper, a Chinese company in Uganda, for the past six years.

"What is absent in the Belt-and-Road Initiative is sectoral and sub-sectoral guidelines, as well as mechanisms to engage private enterprises, for whom access to finance is always a challange."

Future Industry was first established in Madagascar in 1998. Its Kenyan operation was opened in 2003, producing aluminum doors and windows as well as outer walls. The company now has factories in seven African countries. The Kenyan operation is

one of the largest and, unlike other subsidiaries, focuses on retail and small-scale projects. It is also a sub-contractor for multiple Kenyan government construction projects that were contracted to large Chinese SOEs, including the Two Rivers shopping complex project. The contract value of these Chinese-initiated projects accounted for 60 to 70 percent of the company's profits. "Chinese international contractors all have strong financial support, so unlike local clients most of which are small private real estate developers, they never have any difficulties in repayment," said Yang, the company's public relations manager.[51] She also noted that they plan to make the Kenyan subsidiary into the headquarters for their African operations.

Although few government incentives have been made available to Chinese private entrepreneurs in the manufacturing and agriculture sectors, the expanding Chinese community, including the increasing presence of Chinese international contractors in Kenya, has indirectly promoted Chinese investments.

Our survey results show that sixteen interviewees consider preferential investment policies or close relations with host governments as "important" or "very important" in relation to their investment decisions. Twelve companies reported that host government officials have visited their production sites. However, when asked what types of incentives the Kenyan government has offered, most responded in a negative fashion. "In most cases it takes a long time for the government to implement the promised incentives, and sometimes, they simply did not deliver," said one interviewee.[52] Several companies complained that the Kenyan government imposed a lot of restrictions on work permits for Chinese employees and requirements for local employment that were not stated in formal laws and regulations. "When applying for work permits for Chinese employees, we are required to submit a full list of all our employees, and a visa is only granted when the government decides that no local candidates are eligible for that position."[53]

Local government's enthusiasm depends on the significance of an investment project to that particular area. In Kenya, licenses for pyrethrum planting, processing, and export are limited to applicants who farm at least 1,000 acres or sub-contract with no fewer than 1,000 households.[54] In other words, large projects are preferred to smaller ones. When Yishan Agriculture started contract farming in 2015, it received assistance from the county government in organizing information sessions and mobilizing local farmers to participate, and even witnessing the contract signing. Smaller investors, on the other hand, reported little support from local government.

Chinese investors have yet to learn how to cope with contradictions and constant changes in host government policies. Some interviewees complained that they have received "mixed messages" from the host government. For example, although Kenyan government policy guidance puts a great emphasis on industrialization and manufacturing, existing customs rules are actually discouraging local manufacturing since they exempt import duty for whole machines but charge up to 25 percent import duty for spare parts. In other cases, although tax discounts are applicable to certain fixed asset investments, it usually takes months and even years for investors to obtain approvals from all the regulatory agencies, such as the Ministry of Industry and Ministry of Finance, before they can apply for tax rebates from the Kenya Revenue Authority.

EVOLVING INVESTMENT STRATEGIES

FOR SMALLER SCALE CHINESE INVESTMENTS IN MANUFACTURING and agriculture, there is a clear "move up the ladder" effect. Migrant Chinese entrepreneurs have emerged running small Chinese restaurants to becoming traders and investors over the past half century. The first batch of Chinese migrants, most of whom were from China's coastal provinces like Fujian and Guangdong, came to Kenya in the 1950s and 1960s. Many of them began working in Chinese restaurants and started their own restaurants later, because foodservice requires little skills and capital. One Chinese expatriate, who has been in Kenya for over 30 years, estimated that before the 1990s the Chinese population in Kenya was smaller than 1,000 and located primarily in Nairobi.[55]

The second wave of Chinese immigration to Kenya began in the 1990s and the early 2000s, when China took a more active role in global trade after its accession to the World Trade Organization and the adoption of the "Going-out" Strategy. Chinese communities began to spread to other major cities like Mombasa, Kisumu, and Nakuru. Many came as traders, importing goods from China to sell in the Kenyan market, or as owners or investors in Chinese restaurants. Having acquired more experience and financial capacity, some began to explore investment opportunities. In our survey, more than half of the interviewees considered their experience as importers/exporters with Kenya as an important driver of investment. Tony Xu, the owner of Golden Lion Group, is considered one of the most successful Chinese entrepreneurs in Kenya. He came to the country in 1994 as a journalist for *Xinhua News Agency*. He left to start his own trading business in the late 1990s. His extensive experience and human resources network in China and in Kenya constitute a critical competitive advantage, which led him to set up a factory producing tissue paper in 2006 and a second one to assemble batteries in 2009. The two plants now employ over 300 local workers and a third plant producing diapers is now under construction. The new plant requires higher technology compared to the existing tissue paper factory and is aimed at high-end customers in the East Africa region.

Work experience in other factories in the same or related industry also contributes to investment decisions. Candy Ma, a female Chinese entrepreneur, started as a seamstress in a Taiwanese garment company, Hantex Garment, in 1998. She was gradually promoted to the position of general manager of the company's factories in Shenzhen and Myanmar. In 2001, Hantex opened a plant in Mombasa to take advantage of export incentives under AGOA. Forty-five managers and technicians were brought from China and 50 from Myanmar, including Candy. Hantex established a subsidiary, Future Garments, in Athi River EPZ in 2007 where Candy acquired minority ownership and served as its general manager. As labor costs rose over the years, from US$ 120 per month in 2007 to US$ 200 in 2013 as estimated by Candy, Future Garments sold its Nairobi plant to New Wide, another garment company from Taiwan and arguably the largest in Kenyan EPZs. Candy Ma moved to Ethiopia to start her own factory, where labor costs are even lower and government FDI policies are more

favorable. Her new factory, C&H Garments, has a management team comprised of Chinese, Kenyans, Egyptians and Filipinos, most of whom have worked with her for a long time. She attributes her success to her work experience in the industry and the supply chains and client networks accumulated over the years. Her co-investor, Helen Hai, said that their long-term goal is to become a pan-Africa export-oriented garment manufacturer.[56]

Weng, Creation Aluminum's owner and general manager, originally came as a technician with Future Industry in 2002 and was promoted to deputy general manager after four or five years. In 2009, Weng left Future Industry and, together with a friend who serves as a silent partner and investor, set up Creation Aluminum. Weng's previous experience with Future Industry helped him to develop technological and managerial skills, which are essential to his role as Creation Aluminum's general manager. Weng brought 20 to 30 local workers with him when he left Future Industry, many of whom later became experienced technicians responsible for training new employees. Six other interviewees also reported that they have either worked for other factories in the related industries in Kenya or other African countries, and that these experiences have helped them develop supply chain relationships, distribution networks, and obtain industry knowledge.

A second dimension of "up the ladder" refers to moving up the value chain. Yu, Yocean Manufacturer's owner, was brought to Kenya in the 2000s as a project manager for China National Cable Engineering Corporation (CNCEC). After his contract with CNCEC ended, he created his own company as a subcontractor for KPLC's large electric infrastructure projects. During this period, he discovered a huge business opportunity in repairing transformers. By 2013, there were over 10,000 malfunctioning transformers in Kenya, yet there was no repair service provider in the country. He opened his transformer repair business in January 2015, which by the end of that year had expanded to nearly 50 workers. Encouraged by the Kenyan government's new policies to encourage local manufacturing, Yu, along with two Chinese SOEs, invested in a transformer assembling plant in 2016. During our first field visit in June 2016, Yu had just been awarded a contract to supply transformers to KPLC for the following three years. When we returned to Nairobi in August 2017, Yu had rented two more workshops and tripled his workforce. But, Yu has a grander vision for his business. "My goal is to become an integrated service provider in the electricity sector that not only plays a role of supplier or contractor and manufacturer, but can eventually upgrade to be a system operator and solution provider."[57] Yu is currently exploring opportunities with KPLC for micro-power generation, financed by a US$ 100 million development program sponsored by the World Bank.

LOCAL LINKAGES AND TRAINING

THE LONG-TERM IMPACT OF FOREIGN INVESTMENT on the economy and society of host countries depends to a large extent on if and how technology and ideas can spill over to local firms and institutions. Economic development experiences in East Asian

countries like China have shown how formal training or informal technology transfer in FDI has been essential to economic prosperity and how national policies and regulations contribute to shaping that process.[58] In our field research, we found evidence of subcontracting, imitation, and forward linkages between Chinese companies and local firms in the manufacturing and agriculture sectors.

When Yishan Agriculture started planting pyrethrum in 2013, Li was leasing land for plantation. But he soon realized that it was not cost-efficient given high labor and management costs. At peak season, he hired over 100 local workers and eight Chinese managers. Strikes and other kinds of labor tensions significantly affected his firm's productivity. In 2014, Li was accused by the local government of using child labor because he was hiring primary school students to work on weekends during the harvest. All this led to his decision to adopt contract farming. Now, Li retains ten agriculture technicians who, in turn, supervise over 3,000 households that plant over 1,000 hectares of land. Li has worked with these technicians to modify technology and make adaptations to the local environment and develop a new planting technology that combines water storage and seedling protection. Li also taught his sub-contractors how to implement this planting method. Li noted, "my technicians supervise the process of planting, weeding and harvesting. Ongoing support in field is the key because the timing of harvesting is critical in pyrethrum. It needs to be done every two weeks."[59]

About half of all the interviewees reported that they have benefitted from other Chinese businesses and social networks, which facilitates access to information and help develop supply and distribution networks.

There are also examples of developing local linkages in the manufacturing industry. BETT, a stated-own company based in Beijing, was the first to set up a concrete pole plant in Kenya in 2003. Before BETT, all the poles used in Kenya were made of wood. The company spent two years lobbying the Kenyan government to convince them that concrete poles were more economically efficient because they have a longer lifespan, and at the same time, are more eco-friendly as a replacement for wooden poles.[60] After BETT's successful lobbying efforts, about 15 other concrete pole factories were established in Kenya, which were all owned by local investors except for one. Because concrete pole production has low technology barriers to entry, the largest challenge was market receptivity, which meant that BETT's operations and previous efforts paved the way for other investments. For example, Jungle Energy, a Thika, Kenya based company, decided to invest in producing concrete poles after KPLC had adopted a new policy in 2011 to encourage the use of concrete poles.[61] Jungle Energy's plant was said to have a production capacity of 100 poles per day, larger than BETT's production capacity of 70. According to BETT management, many of these competitors have poached experienced workers from BETT.[62]

Future Industry's manager also noted that five or six of her local employees, mostly from the sales team, had started their own businesses as distributors or agents in the aluminum building materials sector. Some of them now act as distributors for Future Industry and have introduced local clients to the company. In addition, two former local technicians have gathered their own production teams and work as subcontractors. According to the Chinese managers at Future Industry, cooperating with local sub-contractors is better than cooperating with other Chinese firms because

local sub-contractors focus on small-scale projects and have no direct conflict of interest.[63]

Almost all interviewed companies provide on-site training to their local workers in a learning-by-doing manner, *i.e.*, without formal classroom sessions. Training is conducted by experienced Chinese or local technicians and can last one month up to a year, depending on the technology level required. In Yishan Agriculture, Kenya Asia, and Goldox Abattoir Chinese technicians were hired for the sole purpose of training local workers. As Kenya-Asia's manager pointed out, "the cost of having Chinese technicians in Kenya is very high. Besides, getting work visas for Chinese workers have been challenging."[64]

We also saw some other technological linkages between Chinese firms and local institutions, but not in a systematic manner. For example, Yocean hired technicians from KPLC as technical consultants and invited them to give lectures to its workers. Further, Yishan is in discussions with some local universities to send students majoring in agriculture to its farm. The local government has also encouraged Fuyao Glass to recruit from local vocational training institutes.

In addition, community relations have also proven to have a significant impact on Chinese investment in Kenya. In early 2017, Goldox Abattoir was reported on by local media for generating environmental hazards in the rural community where it was based, which led the local government to launch inspections of the facility.[65] Within a month, Lu, the Chinese owner of the abattoir, had imported waste disposal machines from China to improve its waste management. When we visited Goldox in August 2017, we were told that the abattoir now sells bone powder to animal feed producers and pluck to local crocodile farms as feed, while waste is dehydrated and distributed to local villagers as fertilizer. Lu's rectification efforts were eventually recognized by local journalists, who later wrote that, "donkey abattoir turns foul smell problem into revenue."[66] The local health inspection officer also decided that Goldox, "had abated the nuisances arising from the discharge and emission of effluents."[67] Lu thought that several of Goldox's socially responsible activities had also made a difference. First, he drilled a well for the local community for free, which is greatly appreciated because access to clean water is limited in the region, especially during dry seasons. Secondly, he hired over 50 high school graduates from the local community and has become one of the largest employers in Baringo County.[68] In addition, Goldox is also building a farm to raise donkeys to ensure a sustainable supply to the abattoir. They also buy corn and grass feed from local farmers and hire them to care for the donkeys. According to Lu, the villagers have formed a voluntary team that helps facilitate communication between Goldox and the government. "They stand together with us because they know that we have brought employment and income that they never enjoyed before."[69]

While, in general, Chinese companies have expressed little interest in engaging local industrial associations, Yocean has been one of the few exceptions. Yocean's owner acknowledged that the importance of industrial associations was usually overlooked by Chinese investors. In the manufacutring industry, Kenya Association of Manufacturers (KAM) has played a critical role in lobbying the government and

influencing policy-making, referring to the recent raise of the import duty on steel from 10 percent to 25 percent in order to protect local industry. The absence of Chinese investors from the association's activities makes them less informed on policy change in the host country. In addition, this isolation also presents an obstacle to building mutual trust between Chinese investors and the local community. Determined to overcome these barriers, Yu decided to obtain a certification for ISO 9001 Quality Management. Independent auditors provided training to its managers and employees, and a series of internal and external auditing also helped to spot management issues for the company to address."It is very important to understand that Africa is not a legal vacuum, and that short-cuts and noncompliance is not a sustainable way to make profits. Therefore, adopting ISO 9001 is a way of introducing external pressure to motivate better management in our company."[70]

Our field study also identified an emerging group of Kenyan intermediaries that are bridging the gap between Chinese investors and the host society. Previous China-in-Africa studies have paid more attention to the importance of Chinese expatriates in facilitating Chinese investment, though there have been some efforts of "reinserting African agency" back into the picture.[71] Take contract farming as an example. One of contract farming's biggest challenges is "side-selling" or a breach of contract by local farmers by selling to non-contracting buyers for higher prices. In some countries, industrial associations were formed for self-regulation, such as the association of ginning companies in Zambia's cotton industry.[72] In the pyrethrum planting business, where industrial self-regulation is not available, local agents became essential to Yishan Agriculture's success. Li hired three local agents who in turn manage over 50 sub-agents to coordinate harvesting and buying of pyrethrum from local farmers. Most of these local agents are village or tribal leaders that are respected in the local community, and who receive commissions based on their buying volumes.

On our way to visit Goldox, we wondered how Lu, a Chinese man in his 70's who speaks neither English nor Swahili, could manage the plant with over 150 local employees. We learned that his assistant manager - a young Kenyan who speaks fluent Mandarin Chinese - was delegated to handle financial affairs and negotiations with local governments and sellers. The Kenyan assistant manager had studied in China for five years and obtained a master's degree from a technology university in Northeast China. This is a practical example of how international students from Africa are playing an increasingly important role in China-Africa engagements, which can be an interesting topic for future research.

CHALLENGES FACING INVESTORS

KENINVEST REGISTRATIONS SUGGEST THAT THERE are a great deal of unsuccessful Chinese investments. Although a number of Chinese investors came with high hopes of making profits, many only became aware of various investment challenges after the fact. Many interviewees stressed investing in Kenya's hidden costs, especially in regard

to the implementation gap and other informal practices. Establishing an investment is merely the first step in the "long march" for Chinese capital in Africa.

LABOR RELATIONS

MOST CHINESE COMPANIES REPORTED LABOR RELATIONS as their greatest development concern. Chinese investors and local workers have different views on labor rights and politicization of these issues further complicates some of these situations. More than one third of our interviewees have experienced at least one strike in their companies. In the garment industry, ongoing labor tensions since 2015 have escalated to the point of obstructing operations for Taiwanese EPZ firms. The general manager of one company acknowledged that there were some extra-legal practices in his plant, such as required over-time during peak seasons, that contributed to labor tensions, but that schedule was common practice in the garment industry because the workload fluctuates significantly between peak and non-peak seasons. In 2016, strikes were on the rise throughout Kenya's garment industry and workers in these Taiwanese garment firms advocated for a pay raise and to set up a union branch. Managers rejected both requests on the basis that "profit margin of garment export processing is very low, and the factory cannot afford to pay any extra raise on top of what is provided by the law." Management also resisted the intervention from the labor union, thinking it too politicized. After a few months of unfruitful union negotiations, employee shirking, and several incidents of physical confrontations, the factory decided to shut down its operation in February 2016 and dismissed all 1,700 workers in May. Another Taiwanese firm denounced the strikes by workers as illegal and dismissed another 1,500 workers on strike because they did not attend the hearings held by the company. Both factories lost contracts worth millions of dollars and several thousands of workers were let go. When we returned in 2017, all these factories had gradually resumed operation. We were told that the local government had intervened and "compromise was made between the labor union and the management."[73] Details of the negotiations, however, were not revealed.

Managers from these garment companies complained that certain members of Parliament were provoking anti-FDI sentiment to win local voters' support for the upcoming general election and that the Kenyan government, including EPZA, had done little to mediate labor tensions in these companies. "When we first came to Kenya ten years ago, EPZA was very active in attracting foreign investment, providing land, one-stop shop service and favorable policy supports. Now it has become much more passive in doing so."[74] One Taiwanese firm also petitioned the Chinese Embassy, which refused to intervene invoking China's non-intervention principle.

The long-term impacts of labor unrest on the entire garment sector still remain to be seen. We were told that Ashton Apparel, an Indian firm, had also stopped production due to large-scale strikes. Moreover, garment firms are not the only ones that have suffered from labor tensions. In August 2017, local workers on the SGR project protested against low pay and poor working conditions.[75] The next day, fourteen

Chinese workers on the SGR project were injured during an attack by over 200 young Maasai men in Naivasha.[76] Two local chiefs were arrested afterwards for suspected connections with the attack. Local tribal politics may have played a role, as one local journalist revealed that this incident was a reflection of the long-existing tensions between the Kikuyu and Maasai people. The Kikuyu are generally more educated and skilled and therefore prevail in the labor market, but the Maasai feel entitled to employment by the SGR because construction takes place in the community where they reside.[77] All these examples show the challenges of managing labor relations and relations with local communities by Chinese investors in Kenya. Some Chinese companies mentioned that employment screening, *i.e.*, selection of employees that are less likely to join a labor union, use of local human resource managers or external consultants, and internal grievance procedures helped in mitigating labor tensions, but Chinese investors in Kenya still need to develop systematic and long-term strategies for managing labor relations.

SUPPLY CHAINS AND VOCATIONAL TRAINING

MOST CHINESE COMPANIES INTERVIEWED ARE ENGAGING in production activities that require low technology such as assembly and auto repair, and almost all the interviewees mentioned underdevelopment of local supply chains as an obstacle for upgrading to more sophisticated production activities. For example, the local supply of machinery spare parts is almost non-existent, and international shipping and customs clearance for imports from Asian or European countries is costly and time-consuming. The manager of Shengya Machinery estimated that shipping from Shanghai to Nairobi takes on average 45 days. For garment export processing companies, factories have to order raw materials from East Asia after they receive orders from importers in the US, and the entire process take up to five months, whereas in Vietnam it takes only two to three months. From time to time, Chinese companies help each other out when supply from China cannot meet their production schedules. This happens in the building materials and garment sectors where there are a number of Chinese or Taiwanese companies. Supply chain instability undermines the development of industrial clustering and growth of investment.

Another related issue is the lack of skilled labor. All firms interviewed as part of this research stated that a majority of their local employees were inexperienced workers when hired that would receive on-site training during a probation period. Most firms value practice over skills taught in vocational training institutes because they are considered as "impractical or detached from market demand." Longyun Garment's manager noted that in Vietnam, several garment training institutes had greatly contributed to workforce development in the garment industry, but there was no training program of similar quality in Kenya.[78] Nevertheless, some Chinese companies viewed inadequate vocational training as a market opportunity and decided to bridge the gap. As a long-term machinery supplier to Kenya's vocational training institutions, AVIC International has been hosting an annual Africa Technology

Challenge (ATC) for the past three years. Each year hundreds of Kenyan vocational education students are selected to participate in ATC and receive guidance and assistance from Chinese technicians during the competition. Winners have the opportunity to pursue a master's degree at the Beijing University of Aeronautics & Astronautics with a scholarship provided by AVIC. More time is needed before the long-term impact of this socially responsible project and others like it can be evaluated.

INSTITUTIONAL ENVIRONMENTS

UNPREDICTABILITY IN THE INSTITUTIONAL ENVIRONMENT also presents a challenge to Chinese investment. Many mentioned encountering fraud and land disputes during the investment process. For example, Goldox first acquired a piece of land outside of Nakuru City to construct the abattoir and Lu, the owner, hired a local lawyer to handle all the paper work and due diligence. However, two months later, a third party showed up and claimed to be the real owner of the land. Lu sued the original seller for contract fraud in Kenyan court, but it took three years before he could get a decision in his favor, and until today, that decision has still not been enforced. Subsequently, construction of the abattoir was delayed for two years because of land issues.

Corruption is also frequently mentioned by Chinese companies as a hurdle to investing in Kenya. A majority of interviewees believed that Chinese firms are easy targets for rent-seeking government officials for several reasons. First, there is a collective action problem for investors willing to "enforce" anti-corruption efforts.[79] Secondly, as one Chinese manager noted, "there are some Chinese companies that don't follow the rules and therefore, contributes to the reputation or perception of Chinese investors as violators of the law," *i.e.*, the typical "bad apple" argument. Thirdly, many Chinese investors prefer to "stay on good terms" with the government and paying bribes seems to be a better alternative to formal procedures. This acceptance of bribe-paying as a necessary cost of doing business has been influenced by the relational practice in China. Many have referred to their experience of doing business in China in the 1990s, when "they could pay to get anything done because implementation of rule on paper is flexible."[80] Other challenges are increasing security concerns, including political and ethnic conflicts and the threat of terrorist attacks. In the agriculture industry, which has traditionally been dominated by Indian and European investors, there is also a considerable latecomer disadvantage.

CONCLUSION

THIS PAPER EXAMINES ONGOING CHINESE INVESTMENTS in Kenya's agriculture and manufacturing industries. Our field research found a considerable disparity between the official registration information and investment activities on-the-ground. Neither the Chinese MOFCOM nor KenInvest have been able to monitor small

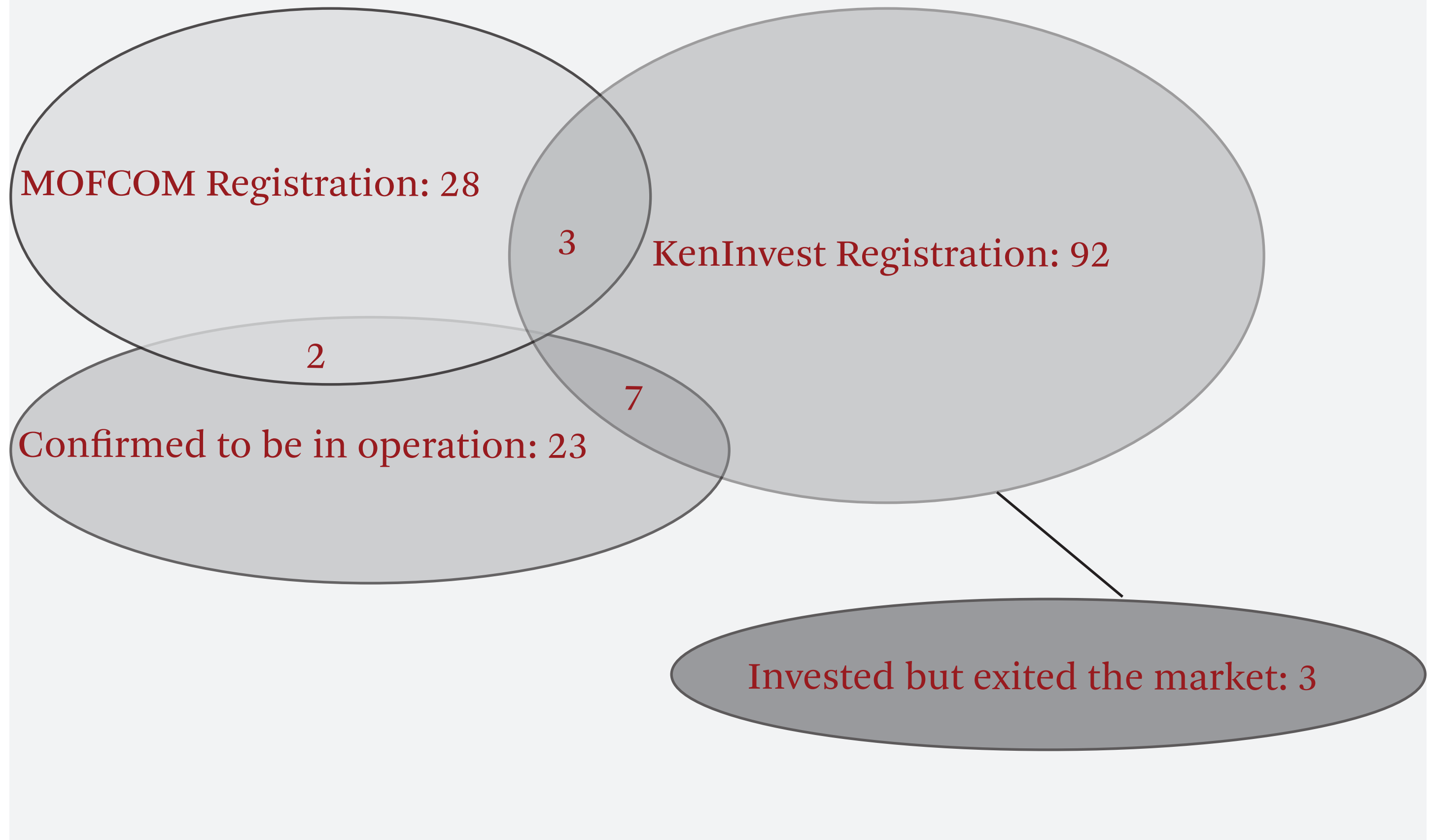
In our field research, we found evidence of subcontracting, imitation, and forward linkages between Chinese companies and local firms in the manufacturing and agriculture sectors.

investment projects that are "flying under the radar" or keep track of any subsequent changes in their investment plans. Moreover, Chinese investments in the manufacturing and agriculture industries in Kenya are dominated by private, migrant entrepreneurs, who have mainly been driven by market considerations, such as production cost and market proximity, rather than government incentives from home or host country. Business strategies and decision-making are usually contingent on their prior experience in China and African countries.

Overall, we saw that more and more Chinese firms are exploring business opportunities in these two sectors, but growth has been unsteady. The building materials, and related services, sector have attracted many investors, partly due to the increasing presence of Chinese international contractors in Kenya. Light manufacturing is also attractive to Chinese investors aiming at the growing domestic markets in Kenya and in neighboring East African countries. In comparison, Chinese investment in agriculture is more recent and still in its trial period, but several ongoing projects have suggested growth potential. There are a few Taiwanese garment factories operating in EPZs, taking advantage of export incentives provided by AGOA, but labor tensions constitute an obstacle for their expansion. In terms of knowledge transfer, all the firms we interviewed provide on-site training to their local employees; we also found evidence of subcontracting, imitation, and forward linkages between Chinese companies and local firms. Generally speaking, local linkages of Chinese investment have been increasing over the years but remain at a low level. Moreover, underdeveloped local supply chains impede the development of a quality workforce, which further constrains Chinese investors from engaging in more sophisticated production activities or developing industry clusters that are likely to have more spill-over effects on the local economy. ★

APPENDIX A

Matching Analysis of Agriculture and Manufacturing Firms from MOFCOM, KenInvest, and Fieldwork Data



APPENDIX B

Questionnaire on Drivers of Investment

What factors matter to your decision to invest?	
Use 1-5 to answer [5=strongly agree, 4=agree, 3=neither agree/nor disagree, 2=disagree, 1=strongly disagree]	
Your company's experience as exporter/importer with this country	[-]
Lower cost of raw materials	[-]
Lower labor cost	[-]
Access to global markets	[-]
Attractive local or regional market	[-]
Financial incentives from Chinese central government	[-]
Non-financial incentives from Chinese central government	[-]
Financial incentives from Chinese provincial government	[-]
Non-financial incentives from Chinese provincial government	[-]
Incentives from host government	[-]
Close relations (informal) with host government	[-]
Have any host government officials visited your investment?	Yes/No

APPENDIX C

List of Interviewed Chinese Investors in Manufacturing and Agricultural Industries in Kenya

Company	Business	Location	ISIC Division	Products	No. Employees	Ownership	Online Presence (Yes/No)
Creation Aluminum Industry	Manufacturing	Nairobi	25	Aluminum doors and windows	75	Private	No
Future Industry & Trade Co.	Manufacturing	Nairobi	25	Aluminum doors and windows, outer walls	150	Private	Yes
Cway Group Co.	Manufacturing	Nairobi	11	Bottled water and peanut snacks	30	Private	Yes
Foton East Africa Co.	Manufacturing	Nairobi	29	Heavy trucks assembly	120	Private	Yes
Ganglong International	Manufacturing	Nakuru	25	Roofing materials and steel structures	20	Private	No
Oboya Manufacture Co.	Manufacturing	Nairobi	22	Flower accessories	10	Private	Yes
Yocean Group Ltd. Co.	Manufacturing	Nairobi	27	Electric transformers assembling	150	SOE-Private joint venture	No
Golden Lion Co.	Manufacturing	Nairobi	27;17	Batteries and tissue paper	220	Private	Yes
BETT	Manufacturing	Nairobi	23	Concrete poles	125	SOE	Yes
Sunda International Trade Co.	Manufacturing	Nairobi	23	Ceramics	650	Private	Yes
Fuyao Glass Co.	Manufacturing	Nairobi	23	Architectural glass	N/A	Private	No
Lever Stone Co.	Manufacturing	Kisumu	23	Limestone bricks	55	Private	No
Kenya Asia	Manufacturing	Nairobi	31	Rattan plaited articles	30	Private	No
Goldox Slaughterhouse	Manufacturing	Baringo	10	Donkey meat and hides	200	Private	Yes
Senju International Co.	Agriculture	Naivasha	1	Pyrethrum	5	Private	Yes
Yishan Agriculture Co.	Agriculture	Naivasha	1	Pyrethrum	10 (contracting with 3,000 households)	Private	Yes
China-Kenya Flower Industry	Agriculture	Eldoret	1	Flower	20	Private	No
Hantex Garment Co.	Manufacturing	Mombasa	14	Apparel	2,200	Private	Yes
Longyun Garment Co.	Manufacturing	Mombasa	14	Apparel	1,700	Private	Yes

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