Beltways of Agency: Drivers, Modalities and Outcomes of Chinese Engagement in Ethiopian Infrastructure Investments

Valeria Lauria

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International Institute of Social Studies of Erasmus University Rotterdam and Sant'Anna School of Advanced Studies

Beltways of Agency: Drivers, Modalities and Outcomes of Chinese Engagement in Ethiopian Infrastructure Investments

Ringwegen van agency: aanjagers, modaliteiten en resultaten van Chinese betrokkenheid bij investeringen in de Ethiopische infrastructuur

Thesis

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Abstract

China's increasing presence in Africa has raised concerns among scholars, policy makers, and practitioners about the potentially exploitative outcome of this encounter. The core idea behind this concern is that of a one-way domination of a passive and submissive Africa by a monolithic China. This doctoral research aims to contribute to the body of literature on China-Africa relations by studying China's presence in the Ethiopian infrastructure sector as an ideal case to examine this polemic, given both the importance of infrastructure investment in Ethiopia's development strategy and the dominance of Chinese involvement within such investment, with Ethiopia receiving the second-largest amount of Chinese infrastructure financing in Africa. It is against this background that this dissertation investigates Chinese-financed, Chinese-built infrastructure in Ethiopia. To do so, the thesis advances a new interpretative concept, the Global Infrastructure Network (GIN) framework. This concept maps infrastructure projects with negotiations between different actors at the global, national, and local levels. It helps to grasp how these levels are interconnected with one another and, therefore, to identify otherwise-hidden socioeconomic and political factors shaping the expressions of agency of different actors involved at different stages of the design, financing, and implementation of infrastructure projects. The framework also helps to assess how infrastructure projects are integrated into global, national, and local economies and to scrutinise their potential to generate positive development synergies and drive favourable economic outcomes. The result is a portrait of actors, power relations, incentives, and interests at play in China-Ethiopia relations in the infrastructure sector.

The research sheds light on how, despite the diversity and fluidity of Chinese companies' behaviour and their multifaceted effects, their presence in the Ethiopian infrastructure sector exhibits positive development synergies through creating employment opportunities, accelerating technology transfer, and diversifying the production structure. It also questions the assumption of African passivity in the Ethiopian case. When one reads infrastructure projects as the result of negotiations occurring at several levels and different moments in time, my fieldwork evidence suggests that Ethiopian actors have been able to pursue their interests before, during, and after the implementation of infrastructure projects, albeit with differences in the immediate effectiveness of their actions.

This research therefore contributes to the debate on China-Africa relations at four levels. First, it advances a new conceptual tool, the GIN, that helps to interpret foreign-financed, foreign-built infrastructure projects with a map of actors, negotiations, modalities, and outcomes. Second, it sheds light on the increasing dominance of Chinese firms in the Ethiopian infrastructure sector by exploring the drivers of Chinese firms' engagement in the sector. Specifically, it shows how political and

commercial interests are strongly interlinked. On the one hand, Chinese banks and state actors play an important role in crafting normative and financial conditions to support the expansion of Chinese firms in Africa. On the other hand, Chinese firms are increasingly operating beyond the Chinese government's control and tend to follow self-interested commercial objectives. Third, the study offers a comprehensive account of how Ethiopian state and nonstate actors pursue their interests inside and outside state-led negotiations with their Chinese counterparts and shape the engagement outcome. Fourth, it presents new evidence to challenge the idea of Chinese infrastructure projects as secured enclaves. In the case of the Ethiopian infrastructure sector, several Chinese companies show an increasing integration with the local economy. However, the study suggests that the local industry makeup, marked by lack of regulations and weak local capabilities, and the characteristics of Chinese firms can condition the formation of development linkages.

Samenvatting

De toenemende aanwezigheid van China in Afrika baart wetenschappers, beleidsmakers en vakmensen zorgen omdat deze ontwikkeling tot uitbuiting zou kunnen leiden. Er wordt gevreesd voor een eenzijdige overheersing van een passief en onderdanig Afrika door een monolithisch China. Het doel van deze studie is om een bijdrage te leveren aan de literatuur over de betrekkingen tussen China en Afrika door onderzoek te doen naar de aanwezigheid van China in de Ethiopische infrastructurele sector. Gezien het belang van investeringen in infrastructuur in de ontwikkelingsstrategie van Ethiopië en de dominante Chinese betrokkenheid bij dit soort investeringen, is deze sector bij uitstek geschikt om deze problematiek te onderzoeken. Ethiopië ontvangt het op één na grootste bedrag aan Chinese infrastructurele financiering in Afrika.

Tegen deze achtergrond staat in dit proefschrift de door China gefinancierde en gebouwde infrastructuur in Ethiopië centraal. Het proefschrift beschrijft een nieuw analytisch concept: het Global Infrastructure Network (GIN)-kader. Hiermee worden infrastructurele projecten in kaart gebracht waarbij sprake is van onderhandelingen tussen verschillende actoren op mondiaal, nationaal en lokaal niveau. Met dit kader wordt zichtbaar hoe deze niveaus met elkaar verbonden zijn. Dit helpt om sociaaleconomische en politieke factoren te onderscheiden die anders verborgen blijven en die gestalte geven aan het optreden van verschillende actoren die betrokken zijn bij verschillende stadia van het ontwerp, de financiering en de uitvoering van infrastructurele projecten. Daarnaast kan met dit kader de integratie van infrastructurele projecten in de mondiale, nationale en lokale economie worden beoordeeld en kunnen de mogelijkheden om met deze projecten positieve ontwikkelingssynergieën te genereren en gunstige economische resultaten te behalen nader worden onderzocht. Dit levert een beeld op van de actoren, machtsverhoudingen, prikkels en belangen die een rol spelen bij de Chinees-Ethiopische betrekkingen in de infrastructurele sector.

Uit het onderzoek blijkt dat de aanwezigheid van Chinese bedrijven in de Ethiopische infrastructurele sector positieve ontwikkelingssynergieën oplevert, ondanks de diversiteit en dynamiek in het opereren van deze bedrijven en de uiteenlopende effecten van de bedrijfsactiviteiten. Dit komt door het creëren van werkgelegenheid, het versnellen van technologieoverdracht en het diversifiëren van de productiestructuur. Verder worden er vraagtekens geplaatst bij de veronderstelling van Afrikaanse passiviteit in het geval van Ethiopië. Wanneer infrastructurele projecten worden beschouwd als het resultaat van onderhandelingen die op verschillende niveaus en verschillende momenten plaatsvinden, blijkt uit het veldonderzoek dat Ethiopische actoren in staat zijn hun belangen vóór, tijdens en na de uitvoering van infrastructurele projecten te behartigen. Hun handelen is echter niet in alle gevallen onmiddellijk effectief.

Dit onderzoek levert dus op vier niveaus een bijdrage aan het debat over de betrekkingen tussen China en Afrika. Ten eerste is er een nieuw conceptueel instrument ontwikkeld, het GIN, dat met een kaart van actoren, onderhandelingen, modaliteiten en resultaten inzicht biedt in door het buitenland gefinancierde en gebouwde infrastructurele projecten. Ten tweede werpt het licht op de toenemende dominantie van Chinese bedrijven in de Ethiopische infrastructurele sector door de aanjagers van de betrokkenheid van Chinese bedrijven bij de sector te onderzoeken. In het bijzonder toont het de sterke verwevenheid tussen politieke en commerciële belangen. Enerzijds spelen Chinese banken en overheidsactoren een belangrijke rol bij het scheppen van normatieve en financiële voorwaarden om de expansie van Chinese bedrijven in Afrika te ondersteunen, en anderzijds opereren Chinese bedrijven in toenemende mate onafhankelijk van de Chinese overheid en op basis van hun eigen commerciële belangen. Ten derde beschrijft dit proefschrift uitgebreid hoe Ethiopische overheids- en niet-overheidsactoren hun belangen binnen en buiten de door de overheid geleide onderhandelingen met hun Chinese partners behartigen en het resultaat van het overleg beïnvloeden. Ten vierde levert het nieuwe aanwijzingen die ingaan tegen het idee van Chinese infrastructurele projecten als afgeschermde enclaves. Binnen de infrastructurele sector in Ethiopië geven verschillende Chinese bedrijven blijk van een toenemende integratie in de lokale economie. Het onderzoek wijst er echter op dat enerzijds de lokale industrie, die gekenmerkt wordt door een gebrek aan regelgeving en zwakke capaciteiten op lokaal niveau, en anderzijds de kenmerken van Chinese bedrijven bepalend kunnen zijn voor de vorming van ontwikkelingsverbanden.

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TABLE OF CONTENTS

Abstract	i
List of figures and tables	x
Selected List of Acronyms	xi
CHAPTER ONE—INTRODUCTION	1
1.1 Introduction	1
1.2 Research objectives and questions	8
1.3 Research contribution	10
1.4 Structure of the thesis	12
CHAPTER TWO— RESEARCH DESIGN AND METHODOLOGY	15
2.1 Conceptual approach and theoretical tools	15
2.1.2 The global value chain and GPN analysis	
2.1.3 The linkage theory: towards an application of the GPN to the infrastructure sector.	
2.1.4 Agency, structure, and modalities	
2.2 Research design	
2.2.1 Case selection	
2.2.2 Methodological approach	37
2.2.3 Fieldwork	
2.2.4 Ethical issues	46
CHAPTER THREE—UNDERSTANDING CHINA FROM A GLOBAL PERSPECTIVE	47
3.1 Introduction	47
3.2 The multiplicity of Chinese state capitalism	48
3.2.1 Setting the stage: the state-business nexus and the varieties of Chinese capital	
3.2.2 The internationalisation of Chinese firms: how many strategies?	51
3.3 Conceptualising China's development-finance regime	
3.3.1 A historical overview of China's development-finance regime	
3.3.2 The institutional actors	
3.4 Conclusion	02

CHAPTER FOUR—SETTING THE STAGE: ETHIOPIA AS A DEVELOPMENT STAT THE CRUCIAL ROLE OF CHINESE INFRASTRUCTURE	
4.1 Introduction	
4.2 Framing Ethiopian engagement with China: past and present governance modality 4.2.1 The governance context: Ethiopian developmentalism	
4.2.2 Sino-Ethiopian relations in historical focus: the determinants of Ethiopia's convergence.	
4.3 Chinese firms in place: contextualising the Ethiopian infrastructure sector	78
4.3.1 Ethiopia's infrastructure development: where do Chinese companies stand?	
4.3.2 The Chinese firms beyond the state: comparative advantage and business models.	
4.4 Conclusion	87
CHAPTER FIVE—THE ETHIOPIAN INFRASTRUCTURE SECTOR: CATALYSTS AN DRIVERS OF CHINA'S ENGAGEMENT	
5.1 Introduction	
5.2 The push and pull factors driving Chinese firms' engagement in the Ethiopian	
infrastructure sector	90
5.3 Macro analysis of China's economic engagement in Ethiopia's infrastructure sect	
trade, investment, contracting, and financing	
5.3.1 The China-Ethiopia trade relationship	
5.3.2 Chinese FDI and Chinese contracting	
5.3.3 Beijing's role as a lender: financing schemes, financial terms, and the convenience	e of
China's money	104
5.4 Conclusion	116
CHAPTER SIX—AGENCY DISTRIBUTION IN THE ETHIOPIAN INFRASTRUCTUR	
SECTOR	118
6.1 Introduction	118
6.2. Mapping actors and negotiations in the Ethiopian infrastructure sector	119
6.3 State actors and China-Ethiopia relations in the infrastructure sector	122
6.5 Nonstate actors and China-Ethiopia relations in the infrastructure sector	132
6.5.1 Domestic firms	
6.5.2 The local workers	137
6.6 Canalysian	1/13

CHAPIER SEVEN—CHINESE INFRASTRUCTURES AND THE ETHIOPIAN DEVELOPMENT CONUNDRUM	144
7.1 Introduction	144
7.2 Employment and labour issues	145
7.3 Outsourcing and local firms' integration into the value chain	152
7.4 Technological transfer and skill building	158
7.5 Supply chain and linkage formation with the manufacturing sector	163
7.6 Conclusion	167
CHAPTER EIGHT—CONCLUSION	170
8.1 Contribution of the thesis	170
8.2 Final thoughts and implications of research findings	175
Annex I. List of interviews	176
Annex II. List of cooperation agreements between China and Ethiopia	185
Bibliography	187

List of figures and tables

Figure 1. From the Global Production Network to the Global Intrastructure Network	32
Figure 2. The Global Infrastructure Network Framework	33
Figure 3. Ethiopia's Infrastructure Development Index	80
Figure 4. General-construction and building-construction permits for Chinese companies (2000–2016).	85
Figure 5. China-Ethiopia trade flows and balance of trade, in US \$ millions (2005-2015)	96
Figure 6. Exports from Ethiopia to China, in US \$ millions (2005-2016)	98
Figure 7. China's flow of FDI to Ethiopia, in US \$ millions (2005-2017)	
Figure 8. China's loans to Africa, by country (2000-2017)	104
Figure 9: Chinese loans to Ethiopia, by sector, in US\$ millions (2000–2017)	105
Figure 10. Chinese investments vs. completed contracts in Ethiopia, in US \$ millions (2005–17)	114
Figure 11. Total value of World Bank ICB contracts in Ethiopia, in US\$ million (2004–2016)	115
Figure 12. Stakeholder mapping of Sino-Ethiopian relationship in the infrastructure sector	121
Figure 13. Chinese companies' motivations for localising.	148
Figure 14. Main constraints facing domestic companies	154
Figure 15. Procurement of equipment, machinery, and intermediate inputs from Chinese firms, non-C	hinese
foreign firms, and domestic firms	164
Figure 16. Manufacture of nonmetallic mineral products (2002–17)	165
Table 1. Qualitative interviews	40
Table 2. Characteristics of firms surveyed	42
Table 3. Chinese contractors' participation in relation to total foreign participation	81
Table 4. Push and pull factors of China's engagement in the Ethiopian infrastructure sector	90
Table 5. Ethiopia's top import partners. Import in US \$ millions (2010-2015)	97
Table 6. Summary of licensed Chinese investment projects by sector and status, 18 January 200)5—26
December 2017	101
Table 7. Chinese-financed, Chinese-built infrastructure projects in transportation (railways, roads), e	nergy
telecommunication and water sectors Ethiopia (2000 - 2018).	107
Table 8. Loan-facilities amendments	126
Table 9. Findings: agency in Ethiopia-China encounters in the infrastructure sector	142
Table 10. Ratio of foreign to Ethiopian labour	146
Table 11. Percentage of companies subcontracting to domestic companies	153
Table 12. Survey responses of local construction companies (GC1)	156
Table 13. Total number of firms providing formal and informal training to their employees (Chinese, dor	nestic.
and other foreign firms)	159

Selected List of Acronyms

ADLI Agricultural Development-Led Industrialisation

AfDB African Development Bank

AIIB Asian Infrastructure Investment Bank

AU African Union

BRI Belt and Road Initiative

CARI China Africa Research Initiative

CBE Commercial Bank of Ethiopia

CCP Chinese Communist Party

CDB Chinese Development Bank

CHEXIM China Exim Bank

CSA Central Statistics Agency

DAC Development Assistance Committee

DBE Development Bank of Ethiopia

EEA Ethiopia Energy Authority

EEA Ethiopian Economics Association

EEPCO Ethiopian Electric Power Corporation

EEU Ethiopia Electric Utility

EFFORT Endowment Fund for the Rehabilitation of Tigray

EIC Ethiopian Investment Commission

EPLF Eritrean People's Liberation Front

EPRDF Ethiopian People's Revolutionary Democratic Front

EPRP Ethiopian People's Revolutionary Party

FDI Foreign Direct Investment

FOCAC Forum on China Africa Cooperation

GDP Gross Domestic Product

GIN Global Infrastructure Network

GTP Growth and Transformation Plan

HIPC Highly-Indebted Poor Country

IDS Industrial Development Strategy

IMF International Monetary Fund

METEC Metals and Engineering Corporation

MOFCOM Chinese Ministry of Commerce

MoFEC Ministry of Finance and Economic Cooperation

MOU Memorandum of Understanding

NBE National Bank of Ethiopia

NDB New Development Bank

NPC National Planning Commission

ODA Official Development Assistance

OECD Organisation for Economic Cooperation and Development

PRC People's Republic of China

SMEs Small and Medium Scale Enterprises

SOE State-owned Enterprise

SSA Sub-Saharan Africa

SSC South-South Cooperation

TU Trade Union

UNCTAD United Nations Conference on Trade and Development

WB World Bank

WTO World Trade Organization

CHAPTER ONE—INTRODUCTION

1.1 Introduction

Imagine a country named A. A needs to implement many infrastructure projects quickly and at low cost to unlock its development potential. Imagine also a country named B. B is a superpower that can support its firms operating abroad. With this support, firms can offer very competitive prices and operate highly efficiently. A has some construction firms, but these firms cannot achieve the same technological level as B's firms and they have much lower skills. Moreover, A has a low proportion of manufacturing and a low industrialisation level. Meanwhile, firms from B can bring their own workforce and equipment. First, imagine being a manager of one of these firms: it seems it would be perfect to run your business in A and enjoy a significant advantage. Second, imagine being a development scholar: A seems to be a textbook example of foreign dominance without development linkages. Now let us give real-world names to the two countries. A is Ethiopia, and B is China.

In the real world, Ethiopia ranks as one of the key recipients of Chinese financing and one of the largest African markets for Chinese contractors working in the infrastructure sector. Chinese officials have been able to negotiate very good conditions for their firms. Chinese firms are entering the Ethiopian infrastructure sector in significant numbers. Meanwhile, Ethiopian firms, workers, and regional and federal officials are choosing strategies to suit different conditions in the sector. Seen through these lenses, the relation between China and Ethiopia becomes more complex, and, maybe, our conclusions on the impact of Chinese firms in the Ethiopian infrastructure sector become less straightforward.

Therefore, my question is: to what extent does Chinese dominance in the Ethiopian infrastructure sector contribute to positive development synergies? This dissertation addresses this question by looking at Chinese-financed, Chinese-built infrastructure projects in Ethiopia.

In this thesis the infrastructure sector is broadly defined to include telecommunications systems, electricity production and distribution systems, transportation (including roads, bridges, and

¹ The top five countries are Angola, Ethiopia, Algeria, Kenya, and Nigeria. These countries alone account for 53 percent of 2017 gross annual revenues for construction projects implemented by all Chinese companies in Africa. (SAIS-CARI 2018).

railways), and water facilities for water-resource management.² By "Chinese-financed, Chinese-built infrastructure projects", I mean infrastructure projects that are financed by China and implemented by Chinese firms—which either engage with Ethiopian firms and workers or engage solely with other Chinese firms and workers—through interactions with Ethiopian state and nonstate actors, who may (or may not) shape the length, character, and impact of the project. My dissertation focuses on the motives and mechanisms of Chinese engagement, the role of local actors, and the outcomes for local development.

The literature on China-Africa relations has traditionally focused on Chinese foreign direct investment (FDI) and access to resources. As a result, with some exceptions (Mohan 2013; Gadzala 2015; Gu et al. 2016; Wolf and Cheng 2018; Oya and Schaefer 2019), analysts have largely overlooked Chinese companies' engagement in countries that lack natural resources and ignored a sector, infrastructure, much more important in size and scale than FDI. Moreover, the literature tends to focus on only Africa or China, not both, thereby taking an unbalanced perspective. This thesis gives both countries the same importance. The aim is thus not only to evaluate how Chinese engagement in the infrastructure sector shapes broader processes of development in Africa, but also to scrutinise how the actors involved shape these processes and, in turn, their outcomes. This entails clarifying the interests of different actors and providing a portrait of the processes, pressures, conditions, and reciprocal incentives involved.

Over the past twenty years, the People's Republic of China (hereafter China) has increasingly established itself as a prominent player across Africa. From 2000 to 2015, China's government, banks, and contractors extended US\$ 94.4 billion worth of loans to African governments and state-owned enterprises (SOEs) (SAIS-CARI). At the same time, since the turn of the new millennium, China has emerged as Africa's largest trading partner, with trade volumes increasing from US\$ 13 billion to US\$ 180 billion between 2001 and 2015—an average annual growth rate of 21 percent (McKinsey 2016). Similarly, since China joined the World Trade Organization (WTO) in 2001, its FDI in Africa has grown rapidly, helped by its "going out" strategy. The China Africa Research Initiative at the Johns Hopkins University School of Advanced International Studies (SAIS-CARI) estimates that the stock of China's FDI in Africa rose from US\$ 26 billion in 2013 to US\$ 35 billion in 2015. Meanwhile, the flow of Chinese FDI to Africa fell from US\$ 3.4 billion in 2013 to US\$ 3

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² The expressions "infrastructure sector" and "construction sector" are used interchangeably throughout the thesis.

billion in 2015 because of a slowdown in China's economic growth and falling of commodity prices.³ Findings also show that since the launching of China's going-out strategy and its announcement of the Belt and Road Initiative (BRI), its engagement in Africa's infrastructure has gained momentum. Today Africa is the largest overseas market for Chinese construction companies (Wolf and Cheng 2018).⁴

The growing scale of engagement between China and Africa is at the heart of an ever-expanding literature with opposing interpretations. This disagreement has caused heated debate about the primary motivating factors for their relation, the relation's implications for the global economy, and, most importantly, the relation's implications for the development of Africa (see, for example, Bräutigam 2011, 2015; Corkin 2011; Chin and Frolic 2007; Dollar 2008; He 2007; Gu et al. 2008; Li 2007; Mohan 2013).

Many observers think China will provide Africa with the foundation for economic growth and help the continent finally industrialise. Central to this side of the debate is the work of a few authors who contend that China's new role has the potential to bring advantages to both parties. On their view, China can improve Africa's prospects for development through win-win business partnerships that will develop Africa's infrastructure and manufacturing sectors and boost its social and economic development (Bräutigam 2009; Sautman and Hairong 2007). Zhao (2014) points out that the Chinese focus on funding infrastructure is filling a critical gap left by Western donors.⁵ Bräutigam (2011), among many others (for example, Greenhill et al. 2013; Prizzon et al. 2016), stresses the positive impact of China on African countries' negotiating power with traditional donors.

Following the same line of argument, several studies contend that China's economic engagement is delivering a number of important economic benefits in the infrastructure sector: it provides a substantial source of much-needed investment to address Africa's massive infrastructure gap; it promotes innovation in technology and management practices; and it increases market access. These

³ Chinese FDI in Africa peaked in 2008 at US\$ 5.5 billion, surpassing that of the United States for the first time (UNCTAD 2018).

⁴ The increasing number of Chinese contractors in Africa is paralleled by a decrease of European construction firms, whose share of revenues in the African market decreased from 50 percent in 2004 to 20 percent in 2017. In 2017 60 percent of contract revenues of the top 250 international contractors in Africa went to Chinese firms, up from 15 percent in 2004 (Wolf and Cheng 2018).

⁵ Since the end of the Cold War, in the drive to reduce poverty, Western donors have dramatically shifted the focus of their assistance to developing countries from infrastructure to the social sector. The share of social-sector spending grew from 29 percent in the early 1990s to 52 percent in 2002. In Africa the share of infrastructure in sector-allocated official development assistance (ODA) fell from 29 percent in the early 1990s to 19 percent in the period 2002–4 (Ohno 2013

are considered key issues hindering Africa's integration with the global economy (Gu et al. 2016; Le Pere 2017; Wolf and Cheng 2018). According to Oya (2019), China's engagement has the potential to generate a large number of low-skill jobs, allowing people to move from low-productivity and precarious activities, mainly linked with agriculture, to higher-productivity activities in higher-productivity industries, which have stronger potential to spur economic development and drive economic transformation. In the same vein, African countries expect to gain from better integration in regional and global value chains (Le Pere 2017).

In contrast to this perspective, another side of the debate sees this increasingly close partnership as a threat that could undermine sub-Saharan Africa's (SSA's) prospects for growth and development. In this context, much of the Western media and many Western policy commentaries are dismissive. In 2007 Moisés Naím coined the term "rogue donor" to describe China's "toxic aid" (Naím 2007). Former US secretary of state Hillary Clinton, during a 2011 interview, warned against a new form of colonialism in Africa. In 2018, US secretary of state Rex Tillerson criticised China for using "opaque contracts, predatory practices and corrupt deals that mire nations in debts and undercut their sovereignty". Often, claims describing China as a neocolonial power are paired with the belief that China supports authoritarian governments (Human Rights Watch 2011). According to some scholars (McCormick 2008; Penhelt 2007), China's policy of non-interference in other countries' internal affairs undermines Western donors' efforts at improving governance and reducing corruption.

Scholars on the academic left stress that the growing engagement of China in Africa has yet to significantly change the long-lasting asymmetrical relationship between Africa and the rest of the world. For some, the present logics could just reproduce many of the North-South pathologies in China-Africa relations (Gallagher and Porzecanski 2010, Rotberg 2013, Taylor 2015, 2017). As Bracking and Harrison (2003) point out, "The current process deepens and intensifies Africa's adverse terms of integration within the global political economy—terms which continue to be characterised by external dominance and socially damaging and extraverted forms of accumulation" (ibid., 9). In the same vein, Taylor (2014) argues that in China-Africa relations, "we are not witnessing auto-development, but rather high growth grounded firmly in the external, with all the vagaries and vulnerabilities that this brings" (ibid., 58). Bergesen (2008), adopting David Harvey's accumulation-by-dispossession thesis, describes Chinese engagement with Africa as a form of "surgical

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⁶ The Diplomat, https://thediplomat.com/2018/03/tillerson-slams-chinese-financial-practices-in-africa/. Accessed 1 June 2019.

⁷ David Harvey refers to the persistence of accumulation practices, which Karl Marx described as "primitive" or "original" in relation to the birth of capitalism. Accumulation practices include "the commodification and privatization of land and the forceful eviction of peasant populations; conversion of various forms of property

colonialism that involves a minimum of local disruption, a lack of local multipliers, repatriation of surplus and, eventually, limited sustainability" (ibid., 4).

Along these lines, some scholars consider Chinese engagement in the infrastructure sector to be potentially damaging. Both technological transfer and linkages with local development practices are key. "In theory", as Corkin (2012, 475) argues, "the infrastructure sector should be able to foster production linkages . . . given the lower entry skills threshold. Furthermore, according to global value chains theory, companies operating internationally should eventually look to localise and develop local linkages in order to out-source their no-core competencies". However, several authors (Le Pere 2015; Corkin 2012) describe China's supply chains and procurement strategies in Africa as strongly based on the so-called vertical-integration formula, in which all inputs (labour, management, project design, technology, and materials) are Chinese, with no or very little local involvement. Specifically, Mohan (2013) argues that China's supply chains and procurement strategies, without any organic domestic base, might limit local linkages and the development of local capacity in its partner countries. In the same way, Dollar (2016, 65) points out that among Africans, there are rising concerns about Chinese firms crowding out African construction companies. Others argue that Africa's borrowing to finance infrastructure projects might lead to Chinese "debt trap diplomacy"—the idea that China seeks to trap countries to secure its assets or strategic advantages (Krakowska 2017; Zhang and Miller 2017). In the infrastructure sector, corruption, poor working conditions, low quality of work, and low maintenance are also sources of widespread concern among scholars studying China's presence in the African infrastructure sector (Ezechukwu 2015; Konijn 2014).

This literature proves that among scholars, there is widespread concern about Chinese engagement in Africa in general and its infrastructure sector in particular. In certain cases, they reflect a general scepticism towards China-Africa relations (debt-related issues, geopolitical imperialism); in other cases, they reflect preoccupations about specific infrastructure-sector-related matters, such as vertical-integration practices and lack of local linkages. My research takes Ethiopia as a case study to address these debates. I focus on a specific aspect of Chinese engagement with Africa: Chinese-financed, Chinese-built infrastructure projects. Such projects seem to be the ideal case for exploring the debates about China-Africa relations.

rights (common, collective, state, etc.) into exclusive private property rights; suppression of rights to the commons . . . colonial, neo-colonial and imperial processes of appropriation of assets (including natural resources)" (Harvey 2006, 43).

While Chinese infrastructure provision in Africa has been much larger in magnitude than its FDI in Africa, much of the discussion of China-Africa relations has focused on trade and investment, with infrastructure receiving comparatively less attention. Yet infrastructure projects are central to China-Africa strategic relations. In 2016 alone, the turnover realised by Chinese infrastructure companies in Africa was more than twenty-five times higher (US\$ 5.5 billion) than net overseas Chinese investment in the region (US\$ 239 million) (MOFCOM, 2018; see chapter 5 for elaboration).⁸

The thesis's focus on the infrastructure sector has three additional justifications. Firstly, it is commonly agreed in the literature that adequate provision of infrastructure is an essential ingredient of long-term economic growth and development. China is a case in point: its continuous increase in economic growth and competitiveness have been supported by a huge development of physical infrastructure; that development was also a key feature of China's stimulus following the Asian financial crisis of 1997 and the global financial crisis of 2008 (Stern et al. 2017). Over time, infrastructure investments provided an opportunity to make China's economy, in particular the manufacturing sector, more competitive, thereby attracting FDI and contributing significantly to China's economic and social development.

Secondly, infrastructure is the central component of the "China-Africa infrastructure plan", formulated at the 6th Ministerial Conference of the Forum on China-Africa Cooperation (FOCAC), held in South Africa in December 2015. The plan is part of a comprehensive partnership comprising ten strategic areas: "industrialization, agricultural modernization, infrastructure development, financial cooperation, green development, trade and investment facilitation, poverty reduction, public health, cultural and people-to-people exchanges, and peace and security cooperation" (MOFCOM 2016). According to the plan, "China will step up its mutually-beneficial cooperation with Africa in infrastructure planning, design, construction, operation and maintenance. [China will] support

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⁸ The value of completed contracts is published every year in the *China Statistical Yearbook* website in the chapter titled "Economic Cooperation with Foreign Countries or Region". "Overseas contracted projects" refers to projects contracted by Chinese enterprises in the infrastructure sector.

⁹ See French (2014); Rotberg (2015); Slabbert (2012); Shelton and Kabemba (2012).

¹⁰ Financing for infrastructure has been provided largely by the Chinese state, accounting for 85 percent of total investments in 2012 (Wilkins and Zurawski 2014).

¹¹ The Forum on China-Africa Cooperation (FOCAC), established in 2000, is playing a leading role in facilitating cooperation in the China-Africa partnership. The FOCAC is the institutional expression of the relationship between China and Africa. China made its largest commitment at the 6th FOCAC summit, in December 2015, with a US\$ 60 billion package. In the last FOCAC meeting, held in Beijing on 3–4 September 2018, China pledged the same amount.. During the summit the Chinese president, Xi Jinping announced that China and Africa would work together to implement a "China-Africa industrialization plan", a "China-Africa agricultural modernization plan", a "China-Africa infrastructure plan", a "China-Africa green development plan", a "China-Africa trade and investment facilitation plan", a "China-Africa poverty reduction plan", and a "China-Africa public health plan".

Chinese enterprises' active participation in Africa's infrastructure development, particularly in sectors such as railways, roads, regional aviation, ports, electricity and telecommunications, to enhance Africa's capacity for sustainable development" (MOFCOM 2016).

Against this background, understanding Ethiopia is key to understanding more about China-Africa relations in the infrastructure sector. According to official data from the World Bank, Ethiopia's growth rate over the past decade has been one of the highest among low-income countries (averaging 10.9 percent in the period 2004–14) (World Bank 2015). Public infrastructure investment was the key structural driver of that growth. Ethiopia stands out as being among the top 20 percent of countries in terms of rate of growth of infrastructure investments: the public investment rate rose from 5 percent of GDP in the 1990s to 17.5 percent in 2016, the highest rate in Africa (Sennoga et al., 2016).

The provision of infrastructure services, transport (roads, railroads, and air), telecommunication, and energy is integral to Ethiopia's Sustainable Development and Poverty Reduction Programme (SDPRD) and the central focus of efforts to industrialise and structurally transform the country. In adopting the Growth and Transformation Plan I (GTP I, 2010–15) the Ethiopian government stressed the importance of infrastructure for growth and structural transformation, allocating 66 percent of its US\$ 11.4 billion of total investments. The same position was reinforced in the Growth and Transformation Plan II (GTP II, 2015–20), in which the government expressed the significance of the promotion of infrastructure. Against this backdrop, Chinese stakeholders have been greatly involved in Ethiopia's infrastructure sector by building and financing many infrastructure projects. Despite not being rich in natural resources, Ethiopia was the second-greatest beneficiary (after Angola) of China Exim Bank (CHEXIM) financing between 2000 and 2015 (SAIS-CARI).

I focus on Ethiopia not only because of the visible presence of Chinese projects in the country. I also aim to expand the literature by including the so-called African perspective (Mohan and Lampert 2013) in the narrative. It is striking how, in the study of Africa-China relations, the effect and multiplicity of forms of African agency has only been marginally covered.¹³ Africa is often referred to as an inert subject of outside forces with no or very little agency. Pundits and the media present a spectacle of China in the driver's seat, in a relationship in which local agents are passive and complacent about China's abusive practices, assuming China's manipulations or a certain local

¹² As part of its ambitious plan, GTP II aims to nearly double the total length of the roads in the country (up to 220,000 km from the target of 120,000 km defined in GTP I).

¹³ Exceptions are Corkin (2013), Gadzala (2015), Mohan and Lampert (2013), and Procopio (2016) Soulé-Kohndou (2018).

inclination to corruption and rent-seeking. While it would be misguided to reject the assumption of asymmetric relations between Chinese and African actors, a more nuanced understanding of the role of local agents in shaping the partnership is crucial and desirable.

What is often overlooked in the scholarship on China-Africa relations is the "reciprocal dimension"—that is, the mutual interaction and bilateral influence of the actors involved, in contrast to a one-way domination of a passive Africa by a monolithic China. In particular, in analysing China-Ethiopia relations in the infrastructure sector, we should recognise the role of Ethiopian actors in shaping the partnership, analyse how local forces are linked with external forces, and consider the actors, incentives, and power relations at play in this partnership. Specifically, we should include in the analysis the social, political, cultural, and ideological circumstances of this relationship and the involved actors' power dynamics and agency. The thesis thus seeks to add an important piece to the puzzle of Ethiopia's interaction with China. It suggests we have reason to adopt a more optimistic interpretation of local actors' agency in their relationship with their Chinese counterparts.

1.2 Research objectives and questions

China has been the object of widespread criticisms, but many of the objections to Chinese activities, as Arewa (2016) writes, "are fairly astonishing given the history of prior unequal and exploitative relationship between Africa and varied external powers" (ibid., 108). Moreover, China is often presented as a single and homogeneous bloc operating simultaneously in different parts of Africa (Lee 2006; Manning 2006). This way of describing the engagement of China with Africa is misleading; nonetheless, it has led to a great wealth of scholarship (Dreher and Fuchs 2015; Taylor 2017) scrutinising China's "real" motives and "true" strategic interests. My dissertation follows other studies (Arewa 2016; Kragelund and Carmody 2015; Gu 2009; Mohan et al. 2014) in disaggregating the China-Africa relation into its constituent parts and in reading them in relation to structures and processes within African countries. On this view, it is important to map all Chinese actors and local actors that participate in the development of Chinese-financed, Chinese-implemented projects in Africa. This perspectival shift complicates the picture, but it also helps us to evaluate how and why the interplay between Chinese interests and local interests can lead to more or less positive development synergies in African countries.

At a time in which African countries at both domestic and regional levels are multiplying efforts to access the global value chain and to facilitate intracontinental movement of goods and people through

treaties and cooperation arrangements, the infrastructure sector is an entry point for studying both China's presence and how African actors influence China-Africa relations. After years of low infrastructure investments by Western donors, those in the region are expressing a widespread demand for infrastructure (Grimm 2014). Meanwhile, infrastructure projects are the main object of China's involvement in the continent (Sun 2014). While poor infrastructure is frequently identified as a key constraint on development in many countries, little rigorous evidence has been produced on the impact of infrastructure investments in settings such as Ethiopia. In the context of Ethiopia, where urbanisation and industrialisation are both at low levels, it is particularly important to understand the extent to which infrastructure financing has led to positive development outcomes. Against this background, the expansion of Chinese infrastructure firms in Ethiopia and their possible impact on Ethiopian society as a whole speak to my fundamental research question: to what extent does Chinese penetration in the Ethiopian infrastructure sector contribute to positive development synergies?

Against this background, my dissertation studies the Chinese presence in the Ethiopian infrastructure sector by looking at Chinese-financed, Chinese-built infrastructure projects. In so doing, it deconstructs the ideas of a homogeneous China and of a homogeneous and passive African continent. Chinese actors are different and have many, sometimes competing, interests. Actors within African countries often have also contradictory interests. For this reason, I do not take the China-Ethiopia relation as one with two poles, but rather as a constellation of processes, mechanisms, and nodes in which local and Chinese interests may or may not intersect. In doing this, I apply a multilevel framework to describe the motives and mechanisms of Chinese engagement, the agency of local actors, and the outcomes for local development.

To achieve these research objectives, I divide my overarching research question into three specific research questions (SRQs):

SRQ1: What are the drivers of Chinese firms' engagement in the Ethiopian infrastructure sector?

SRQ2: How do Ethiopian actors express their agency in Chinese-financed, Chinese-built infrastructure projects?

SRQ3: To what extent do Chinese infrastructure projects enhance linkages with the local economy and support broader development outcomes?

My specific research questions address the two poles of China-Ethiopia relations by identifying motives and actions on both sides and then explaining how the results of this encounter between the pair's motives and actions play out in Ethiopia. The first question can be understood as a necessary

step to unpack the role of China in Africa. It is an explanatory question that aims to situate Chinese firms within a broader political, economic, and historical trajectory. Understanding the drivers of Chinese firms operating in the Ethiopian infrastructure sector is a preliminary step towards a description of agency distribution among Ethiopian state and nonstate actors. The second question inspires a description of how Ethiopian state and nonstate actors operate vis-à-vis Chinese stakeholders. This question is both theoretical and explanatory. It conceptualises African agency as the capacity of a set of different actors that operate within more or less stringent structures and contextual preconditions, and it motivates an explanation of the ways through which Ethiopian actors express their agency in a recognisable way. The third question is empirical. The study of Chinesefinanced, Chinese-built infrastructure projects aims to generate new evidence about development linkages in Ethiopia-China relations. Development linkages are understood here as not only infrastructure linkages—that is, the construction of roads, railways, water infrastructures, communication infrastructures, and power grids—but also economic linkages, including forward and backward employment linkages, technological transfer, transfer of know-how, linkages with the manufacturing sector, and outsourcing practices with local enterprises. ¹⁴ Taken together, my three specific research questions inform an explanation of the ways through which Chinese stakeholders and Ethiopian actors interact with one another, and they inform an assessment of the results of such interactions. In order to address these questions, this thesis will apply a new conceptual framework, the Global Infrastructure Network (GIN). The GIN was created by bringing together concepts from a range of disciplines and drawing from Global Production Network (GPN) theory, agency theory, and linkage theory. These theories reflect the key dimensions that frame the research.

1.3 Research contribution

By taking the Ethiopian infrastructure sector as a case study, this dissertation contributes to the theorisation of Chinese engagement in the African infrastructure sector and contributes to different interconnected debates (about Chinese involvement in the Ethiopian infrastructure sector, the presence of Chinese firms in Africa, African agency, and the development linkages associated with Chinese engagement in the infrastructure sector in Africa) in the literature on China-Africa relations.

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¹⁴ For an in-depth discussion about the definition of economic linkages see section 2.1.3.

Theorisation of Chinese engagement in the African infrastructure sector

This dissertation provides a new theoretical concept, the Global Infrastructure Network, to study Chinese-financed and Chinese-built infrastructure projects within the context of contemporary Africa-China relations. The GIN is a distinctive application of the widely studied GPN to the infrastructure sector. Besides making that application, this dissertation brings into the GPN framework a refined conception of agency and of linkage theory. The result is a relational framework in which different state and nonstate actors interact in negotiations at different levels—macro (national level and beyond), meso (infrastructure sector), and micro (infrastructure firms). Studying such negotiations can make sense of different perceived self-interests and the economic and political processes at several geographical levels, and it has the potential to connect the study of domestic market dynamics within China with the study of domestic market dynamics within Ethiopia by scrutinising the potential of Chinese infrastructure projects to generate positive development synergies and drive favourable economic outcomes.

Chinese economic involvement in Africa

My dissertation adds to the literature on China's increasing economic involvement in Africa, looking at the rising dominance of Chinese firms in Ethiopia and exploring the drivers of Chinese firms' engagement in the country's infrastructure sector. In particular, it confirms that Chinese banks and state actors have crafted normative and financial conditions to support the expansion of Chinese firms in Africa. Yet it also demonstrates that the notion of China as a coherent and assertive monolith and the idea of an overarching foreign policy interest linked to China's political, strategic, and security concerns should be problematised. It is true that Chinese companies have had the support of the Chinese state in entering the country, but it is also true that a state-centred perspective explains just a part of Chinese success in Ethiopia. Specifically, my dissertation demonstrates that after several years in business in Ethiopia, Chinese firms are gaining more and more room for manoeuvring. It also proves that an increasingly large number of SMEs and individual entrepreneurs are operating beyond the Chinese government's control and following self-interested commercial objectives.

African agency

According to an increasingly large body of literature on China's presence in Africa, local actors influence Chinese internationalisation strategies. My dissertation confirms this literature. It demonstrates that several Ethiopian actors influence their relations with Chinese actors at different stages of infrastructure projects. It also shows that agency is not equally distributed across Ethiopian actors. The ability of Ethiopian actors to obtain results depends on their position in a network of reciprocal relationships and, chiefly, on the presence of adequate political and economic structures. Specifically, I demonstrate that federal officials extract concessions from Chinese stakeholders by prioritising the repayment of loans from other lenders while regularly delaying repayment of Chinese loans. Regional officials defend local interests through vetoes or delays in activating otherwise-agreed projects. Workers have been able to gain better workplace conditions through on-site negotiations with Chinese business representatives. Ethiopian private firms have started cooperating with one another to push for reform to an otherwise very unfavourable economic environment.

Development linkages of Chinese engagement with the infrastructure sector in Africa

My dissertation provides new evidence to evaluate the impact of Chinese-built and Chinese-financed infrastructure on development outcomes. While the literature on China-Ethiopia trade and investment is quite extensive, the literature on infrastructure is largely absent from the latest accounts of Ethiopia's development and is largely speculative. As one of the first attempts to apply the GPN framework to the infrastructure sector and the first one to do so in the Ethiopian context, this dissertation shows that Chinese companies behave like other transnational companies operating in the same sector. It also demonstrates that, despite the persistent lack of regulations supporting local firms and workers, Chinese companies are increasingly integrated with the local economy and have contributed to the creation of employment opportunities, technology transfer, know-how dissemination, and economic diversification.

1.4 Structure of the thesis

The thesis is divided into eight chapters. Chapter 2 situates the study within the theoretical debate and presents the theoretical and conceptual framework for understanding and analysing China's engagement in the African infrastructure sector. In section 2 I discuss the reasoning behind my methodological choices underpinning the study. This is followed by a discussion on how I selected

my case study, how I collected and analysed my data, the challenges I encountered during the fieldwork, and issues related to research ethics.

Chapter 3 focuses on the core aspects of China's outward engagement, from the reform period until today. In section 1, I highlight the importance of disaggregating the different Chinese actors and the tensions between market and political objectives in China's external engagement. I then frame the chapter within the broader discourse on the restructuring process by inquiring into the evolution of state-business relations, and I scrutinise how Chinese businesses' evolution into hybrid state/private actors has influenced internationalisation and China's going-out strategy. In section 2, I analyse the political side of this tension, assessing the bureaucratic aspect of China's outward engagement. Here I pay special attention to the actors and modalities involved in structuring loan finance and I clarify how the public-entrepreneurship approach of the Chinese state still guides and influences Chinese business actors through financial and political support.

The fourth chapter shifts the focus to Ethiopia. When analysing the dynamics of Sino-African relations, most scholarship fails to consider the identity of the actors at the different state levels, how their choices are influenced, and what interests, resources, and structures determine the modalities of African actions in response to the Chinese presence. This is important as Chinese actors respond to local political and economic conditions and as the host country (Ethiopia) plays an important part in shaping the relationships among the actors. The first section of chapter 6 thus focuses on unpacking the distinctive features of the Ethiopian developmental process and scrutinising the underlying interests of, pressures on, and constraints on the Ethiopian political class. The chapter then traces the history of China-Ethiopia relations and suggests ways in which the historical narrative has influenced today's interactions. The third and final section of the chapter is a fine-grained analysis of the infrastructure sector, analysing its distinctive features and the factors explaining the growing dominance of Chinese companies in the power, telecommunication, transportation, and water sectors.

Chapter 5 responds to the first subquestion, which concerns the drivers of Chinese engagement in the Ethiopian infrastructure sector. By elaborating on the macroeconomic context, in section 2 I offer a macrolevel quantitative analysis of Sino-Ethiopian economic engagement by analysing the bilateral trade and investment relationships and portraying the dynamics of China's development financing in the country during the last decade. Following this overview, I consider the factors explaining the recent increase of Chinese firms' engagement in the country, differentiating them into institutional and structural push and pull factors. Through this analysis I examine whether Chinese companies

respond primarily to political and geostrategic interests, whether the engagement is best explained as a market process, or whether both are true.

In chapter 6 I analyse agency distribution across Chinese and Ethiopian actors participating in the negotiation and implementation of infrastructure projects. After mapping all Chinese and Ethiopian actors directly involved in these projects, the chapter goes into the modalities of Chinese financing in Ethiopia in more depth by evaluating ways in which different Ethiopian actors engage, negotiate with, accommodate, and contest Chinese actors in the latter's involvement in the country. In particular, through the loan-agreement mechanisms, I assess the ownership and agency of the Ethiopian ruling-elite coalition vis-à-vis the Chinese actors. In addition to exploring macro intergovernmental connections, I scrutinise the implementation mechanisms and the micropolitics of everyday activities with the aim of assessing how the decisions made at the top are leveraged at a lower level of bureaucracy and how the conditions of the Sino-Ethiopian partnership are shaped and adjusted through interactions with broader social forces such as workers and local businesses.

In chapter 7, I turn to Chinese infrastructure projects in Ethiopia's power, telecommunication, and transportation subsectors and explore the behaviours of Chinese infrastructure firms at the micro level through a critical and systematic analysis of development linkages. Through a firm-level survey, the chapter analyses the ways different Chinese infrastructure companies incorporate their operations into wider strategies of corporate development, and it explores how these strategies are impacting local employment, local companies, technological transfer, and skills development. Through this framework I assess how both public and private Chinese companies are evolving and adapting over time to the host country and local contingencies.

The concluding chapter summarises the thesis's findings and draws final conclusions.

CHAPTER TWO— RESEARCH DESIGN AND METHODOLOGY

2.1 Conceptual approach and theoretical tools

A wealth of scholarship (Brooks and Hummels 2009; Gani 2017; Luttermann et al. 2017; Asiedu 2002; World Bank et al. 2017) recognises the importance of infrastructure projects for national economic growth. However, in the African context, we lack an appropriate way to think about the efficacy of infrastructure projects in achieving a broader set of development goals, such as employment, technological transfer, know-how transfer, linkages with the manufacturing sector, and outsourcing practices with local enterprises. In order to understand better the role of foreign-financed, foreign-built infrastructures in Africa, it is important to have a conceptual framework that can (a) explain governance mechanisms, (b) situate projects within a global network, (c) recognise distinctive contextual aspects, and (d) evaluate the impact on the local economy.

To develop such a framework, I study the political, social, and economic components of infrastructure projects as discussed in different debates and literatures. Specifically, I draw upon the GPN framework to explore the distribution of activities among Chinese companies, institutional actors, workers, and local companies. The GPN framework helps to map all actors involved in Chinese infrastructure projects and to investigate the relational structures of Chinese firms operating in Ethiopia. To the GPN framework I add the literature on linkage theory (Hirschman 1958, 70) and African agency (Wight 1999, 2004; Brown 2012; Hagman and Péclard 2010). Linkage theory provides a way of analysing the strength and nature of economic linkages in the context of infrastructure projects and quantifying their role in inducing broader development outcomes. Recent theoretical developments in the study of African agency help to unpack power relations between China and Ethiopia over time. They also help to clarify the interests at stake and incentives driving local actors in their relations with Chinese stakeholders.

Integrating the literature on linkages and the emerging debate on agency in Africa into the GPN framework will increase the framework's explanatory power. As a result, I will be better able to identify who does what and why. Therefore, this dissertation offers a new, multilevel framework—the Global Infrastructure Network—to assess foreign-financed, foreign-built infrastructure projects in Africa. It is multilevel because I identify three interconnected, but recognisably different, levels of analysis: *macro* (national level and beyond), *meso* (infrastructure sector), *micro* (infrastructure firms).

The overall aim is to observe Chinese-financed, Chinese-built infrastructure projects from a standpoint that can integrate social, political, and economic interests and the actions of different actors engaged in these operations.

My work follows a growing literature extending the GPN framework beyond manufacturing (Coe and Yeung 2013, 2019; Foster and Graham 2017). Just a few scholars have tried to apply global value chain (GVC) theories and the GPN framework to the infrastructure sector. Wethal (2017) applies the GPN framework to construction projects and economic development in Mozambique. Corkin (2012) uses the concept of GVCs to study infrastructure projects in Angola. Foster and Graham (2017) apply the GPN framework to such areas as logistics and digital information.

Unlike methodologies (such as the GVC) whose focus on governance mechanisms mainly is confined to regulations governing transnational trade, thereby downplaying the regulatory role of domestic policies (Blair 2008), the GPN framework helps us to grasp the impact of local political economy on companies' behaviour. Moreover, by focusing on the actions of different actors in the production network rather than on variations in value during the production cycle, the GPN framework helps us to see what different agents do (and are capable of doing) in specific places and through their local transactions. In this way we can keep world-systems approaches' emphasis on the integration of spatially diverse territories but shift the focus from services and goods to what various agents in different spatial units (can) do given certain structures, institutions, and preconditions.

The choice of adopting the GPN framework may still seem counterintuitive. After all, scholars tend to use the framework to study a range of activities that, across different countries, bring a product from conception to consumer. Infrastructures are not goods that you can produce here and export there. Infrastructure projects tend to be local and subject to site-specific conditions (Ofori 2003). Still, although the construction sector is strongly influenced by specific regulatory, political, and social conditions, foreign companies tend to be the dominant actors in Africa (Ofori 2000). At the same time, foreign companies may be embedded in regulatory relationships with their home states or they may receive special support from those states through forms of tied aid, market information, and financial support (Ofori 2003).

This enlarged picture conceptualises a broad relational framework that attempts to go beyond the idea of construction projects as distinctively local phenomena. On this view, infrastructure projects are an outcome of simultaneous economic and political phenomena both at the transnational level and within countries. Such a relational network helps to give more prominence to the way infrastructure projects

are negotiated, developed, sold, and bought far beyond the local level. To put it another way, viewed through these lenses, we can see infrastructures as the final output of a series of activities that are required to bring a project from negotiation and conception, to design and sourcing materials, to construction and maintenance, to the local population (Polenske and Sivitanides 1990).

In these theoretical frameworks, the key features of the analysis are, first, Chinese firms' outsourcing and maintenance of control of core nodes and, second, the role of the receiving state in shaping governance practices. However, as Neilson et al. (2014) put it, the GPN framework, despite its focus on the ability of different actors to capture value in the production network within each country, tends to equate the state with national institutions rather than emphasising the different abilities of various actors, qua representatives of distinctive interests, within national and regional institutions to capture the value created in the production network.

Han and Webber (2020) show that on the Chinese side, engagement in Africa involves several players, from officials, to firms, to Chinese workers, both in mainland China and in African countries. On the Ethiopian side, the picture tends to be less clear. We have a great deal of knowledge about who does what in agricultural projects and in the manufacturing sector, but we know less about the actors involved in the Ethiopian infrastructure sector. For this reason, conceptualising agency distribution *within* states can increase explanatory power. The following sections review the conceptual instruments that inform my approach to Chinese-financed, Chinese-built infrastructure projects.

2.1.2 The global value chain and GPN analysis

The world-systems tradition and (more specifically) the critical analysis of core-periphery structures inaugurated the study of the commodity-chain concept three decades ago. The core-periphery distinction in world-systems theory, as Giovanni Arrighi and Jessica Drangel put it (1986), "is meant to designate the unequal distribution of rewards among the various activities that constitute the single overarching division of labour defining and bounding the world economy. All these activities are assumed to be integrated in commodity chain" (ibid., 16). Beyond the focus on the unequal distribution of rewards, other contributions to the study of GVCs focused on interdependence and the formation of GVCs.

In this vein, Gari Gereffi (1994) highlights five key areas for the study of GVCs: (a) tracking the input-output structure, (b) examining what labour and processes are included in the production phase,

(c) examining how value is added and distributed along the structure, (d) analysing territoriality (where inputs come from), and (e) examining the governance structure (the way decisions are made). In another publication, Gereffi (1995) adds to the five key areas (f) analysis of the institutional context. Laws, industrial policies, and social arrangements, he argues, affect the GVC. Since then, the literature has grown considerably. Over the years, the GVC framework has come to include industrial clusters, commodity chains, and networks (Gereffi et al. 2001; Kaplinsky and Morris 2002) and has attracted ever-increasing attention from several international organisations, such as the OECD (OECD-WTO-UNCTAD 2013) and World Bank (Cattaneo et al. 2010). As a result, a GVC, in the words of Gereffi and Fernandez-Stark (2011: 4), is to be understood as "the full range of activities that firms and workers perform to bring a product from its conception to end use and beyond", where activities are of a global scale and involve one or more firms (Gereffi and Fernandez-Stark 2011, 4).

GVC frameworks tend to understand the notion of value in pecuniary terms (Gradin 2016). In this way, power structures and social relations tend to be left outside the picture. By combining GVC framework with actor-network theory (Latour 2005) and the study of the varieties of capitalism (Hall and Soskice 2001), the GPN framework has tried to overcome the limits of the GVC framework. The GPN framework aims to incorporate all social forces that have an effect on commercial relations (Coe et al. 2004; Henderson et al. 2002; Coe and Yeung 2015). It differs from the GVC framework in two main ways (Coe et al. 2008, 272). First, it incorporates all kinds of network configurations. Second, it encompasses all relevant sets of actors and relationships. The focus is on the different actors in the production networks that include a lead firm and various locations linked by the different actors. Therefore, a GPN framework has been defined as "an organisational arrangement comprising interconnected economic and non-economic actors, coordinated by a global firm, and producing goods or services across multiple geographical locations for worldwide markets" (Coe and Yeung 2015, 1–2).

The GPN framework studies economic development through three fundamental analytical categories: power, embeddedness, and value. In GPN frameworks, power is a relational category that captures how actors are reciprocally situated to capture gains (Allen 2004). The notion of power relations refers to the dynamic processes through which key actors in the production networks can influence others to act in the former actors' interest (Dicken 2011; Henderson et al. 2002). According to Coe and Yeung (2015), power reflects the relational process through which corporate power is distributed, exercised, and governed. In other words, in GPN analysis, power is considered as a relational practice

that agent A has over agent B when A has the capacity to get B do something she would not otherwise do.

In the GPN framework, *embeddedness* refers to the contextual differences that impact the production network. It captures intersections between the network of global production and the social and spatial arrangement where the network is located (Hess 2004; Coe et al. 2008). Hess (2004) distinguishes between three specific, yet interconnected, types of embeddedness. *Societal embeddedness* refers to the relevance of historical, cultural and institutional origins in shaping economic actions (Coe and Yeung 2015). Societal embeddedness includes attitudes about working conditions, organisation of suppliers, attitudes about welfare benefits, and expectations of host governments.

Territorial embeddedness describes actors' attachments to particular territories (Henderson et al. 2002). When lead firms have ties to specific locations (for example, countries of origin), as in these places they can find advantageous conditions (for instance, political backing from national and local governments, contacts with suppliers, and access to labour), GPNs can be territorially embedded (Henderson et al. 2002, 453). According to Dicken (2011), even though transnational firms are geographically spread out in their production network, some economic activities remain anchored in particular places, affecting how firms engage with certain social dynamics.

Network embeddedness refers to how companies make production possible (Hess 2004). It can be defined as "the connections between network members regardless of their country of origin or local anchoring in particular places. It is most notably the 'architecture', durability and stability of these relations, both formal and informal, which determines the agents' individual network embeddedness" (Henderson et al. 2002, 443). Network embeddedness includes firm actors, business associations, and trade unions (Yeung 2009), all of which participate in a trust-building process that affects how stable network relations can be (Coe et al. 2004).

Value as an analytical category encompasses processes that allow actors to relate to value in the economic sense in the same network. Value in the economic sense equates with economic rent and Marxian surplus—the new value created by workers in excess of their labour costs (Dicken 2011; Henderson et al. 2002). In the GPN framework, value creation encompasses the initial creation of value (both within each of the firms and in the nodes or collective actors integrated into a given production network). Value enhancement means that actors add inputs to make goods or services more valuable (Henderson et al. 2002). Value capture reflects the capacity of actors to capture value

created in the production network through government policies, firms' ownership structures (foreign owned, domestically owned, joint venture), and corporate governance (Henderson et al. 2002).

The GPN framework is one theory among others that can help us to study infrastructure projects by mapping actors, dynamics, and economic activities within certain spatial units and across space. It fairly intuitively allows us to conceptualise economic activities as twofold processes that are situated in global economies and affect local development processes. Regarding these processes, advocates of the GPN framework stress the importance of complementing the assets of local economies with global production systems (Coe et al. 2004). One of the starting assumptions of the GPN framework is that in the right circumstances, GPNs can bring about new opportunities for national firms, more labour opportunities, new prospects to access capital, new technology, and new market-entry points (Coe and Yeung 2015). Yet it is also important to understand how the dynamics of the network do or do not enable actors to capture the gains from participating in the network. In the context of infrastructure projects, linkage theory can help.

2.1.3 The linkage theory: towards an application of the GPN to the infrastructure sector

Evidence shows the positive impact of infrastructure services on GDP.¹⁵ Many scholars have proven that investment in core infrastructures (such as roads, railways, energy, and telecommunication) can reduce transportation costs, thereby helping to expand trade (Brooks and Hummels 2009; Gani 2017; Foster et al. 2009). Based on large-scale firm-level survey data on China, Wan and Zhang (2017) analyse the causal link between infrastructure and firms' total factor productivity. They argue that roads, telecommunication servers, and cable boost firms' overall productivity. Additionally, scholars have shown infrastructure development to be an important determinant of inward FDI (Luttermann et al. 2017; Asiedu 2002). Eden and Kraay (2014) study thirty-nine low-income countries and find that an extra US dollar of public investment can increase private investment by approximately US\$ 2 and output by US\$ 1.5. Finally, good infrastructure is a precondition for participating in GVCs (Lin 2011). Using the World Bank's Logistics Performance Indicator, a recent World Bank study shows a clear relationship between better logistics and deeper involvement in GVCs (World Bank et al. 2017). Yet, despite the widespread appreciation that infrastructure investment has these effects, the impact of infrastructure on distinct elements of development (such as employment, technology transfer, and local procurement) is still poorly understood.

¹⁵ For a review of the literature, see Luo and Xu (2018).

I use the notion of linkages, as thematised by Albert Hirschman (1958, 1970), to specify how local actors can be included in a larger production system. According to Hirschman (1958), economic growth results from the combination of linkages between related economic activities, as investments in projects and industries with strong linkage effects can accelerate development (Hirschman 1981). Specifically, production linkages create new market opportunities, as nonprimary economic activities source production supplies from the host country (Hirschman 1981).

Linkages are upstream or downstream. Downstream linkages are when the goods and services provided by multinational firms become inputs for local industries. Upstream linkages are when domestic firms experience productivity improvements as a result of becoming input or service suppliers for multinational firms. As Paus and Gallagher (2008) argue, the most significant linkages are likely to arise through the sourcing policies (procurement strategies) of international firms. Indigenous potential input suppliers for international firms are converted into factual input suppliers by learning to meet international quality standards, provide on-time delivery, and develop technological efficiencies that permit them to sell at competitive prices. International firms can help local producers to enhance their technological capabilities, whether directly (through helping them to acquire technology and by sharing relevant knowledge about production) or indirectly (through their expectation of high quality and their feedback on the producers' technical output specifications).

By making local firms less dominant in a specific sector, the entrance of a new, foreign competitor might encourage domestic firms to become more efficient (Aitken and Harrison 1999). Foreign firms' production techniques and managerial practices might be more efficient than those widespread among domestic firms (Narula and Pineli 2016), which can observe and replicate the new techniques. Foreign firms train local employees, who acquire managerial and technical abilities, which they can pass on to other local firms or to the managerial structure of their own firm (Narula and Pineli 2016). Additionally, various scholars (Tregenna 2007; Bekhet 2011; Ishihara and Bennett 2010; Schwartz et al. 2009) stress job creation as a positive development linkage.

In the infrastructure sector, linkages relate to localisation, human-capital formation, technological transfer, and local procurement. A World Bank study (Ianchovichina et al. 2012) shows that infrastructure investments have high employment multipliers that work through several channels: direct, indirect, and induced. The construction, operation, and maintenance of infrastructure assets require workers (direct effect), but they also create jobs in the supply chain (backward linkages) or in the distribution network (forward linkages). Additional knock-off effects (such as increasing purchasing power) can create new jobs. For example, workers in the infrastructure project tend to

spend more. According to Ianchovichina et al. (2013), this tendency creates additional employment in sectors that supply households with consumer goods.

Infrastructure projects are intrinsically local, and this situated character may give a competitive advantage to local firms, which have stronger familiarity with local rules, languages, and manners (Ofori 2003). However, the growing intensity of globalisation entails that production supplies and labour are increasingly sourced outside (Milinga and Wells 2002). The infrastructure sector can generate clusters of industries that manufacture inputs. It relies on a range of manufactured inputs, such as cement, steel, concrete pipes and glass which can all be sources of linkage development (Wolf and Cheng 2018). Strategic efforts to encourage development and growth (for example, by indigenising supply to performance standards, quotas, development priorities, and plans) impact linkages between the infrastructure sector and manufacturing sector.

Therefore, linkages are neither automatic nor straightforward. On the assumption that each infrastructure project may have its own intrinsic characteristics and potential to generate linkages, I argue that for Chinese-financed, Chinese-built construction projects in Ethiopia, five key factors can affect the scope of development linkages: three connected with properties of Chinese firms (ownership, size, sector, length of operations in the host country), two connected with the local industry (Ethiopian policy environment, domestic capacity).

The characteristics of firms are among the important factors that affect linkages. Specifically, linkages vary according to a firm's ownership, industry (subsector), length of operation in its host country, and size (Amos and Gallagher 2013; Dicken 2011; Pavlínek and Žížalová 2016). As Morris et al. (2011) assert, "Individual firms act in very different ways even though they may operate in the same industry and same environment. This individual behaviour will reflect a number of conditioning factors, including the firm's pioneering or follower position in the industry, the firm's particular bundle of competences and the strategic visions of firm leadership, each of which affect their propensity to develop linkages" (ibid., 412).

A conducive policy environment is another factor driving the development of local economic linkages. There is broad consensus in the literature that supporting institutions and an appropriate regulatory framework are key here (Qobo and Le Pere 2018; Morris et al. 2012; Kaplinsky et al. 2011). An appropriate regulatory regime is crucial to the development of linkages, as it incentivises foreign firms to engage with local contractors (Morris et al. 2012). Such a regime should include policies addressing the development of the infrastructure sector itself; local-content policies, such as

those on labour and contracting or those aiming at improving the knowledge infrastructure or building local and absorptive capacity; policies that help actors establish joint ventures, which should enhance local embeddedness; and industrial policies that favour dynamic growth in the manufacturing sector. Likewise, institutional capacity, defined as "the ability of states to plan and execute policies and to enforce laws cleanly and transparently" (Fukuyama 2004, 7) affects linkage development. Good policies and a coherent policy framework matter, but execution and enforcement of such policies are obviously very important too.

Linkage formation is not only tied to state capacity and foreign firms' characteristics; it is also contingent on the characteristics of the local labour force and domestic companies. The potential for development linkages is only realised under certain conditions. First, indigenous firms must have a minimum level of absorptive capacity, defined as the "ability to internalise knowledge created by others and modifying it to fit their own specific applications, processes and routines" (Narula and Marin, 2003, 23). Low domestic absorptive capacity prevents Ethiopian firms from upgrading their knowledge and taking advantage of China's presence. An important additional condition for any linkage formation is thus a capable and prepared labour force.

The opportunities to develop such linkages are country specific (Morris et al. 2012). Entry barriers, skills, technology, and capital intensity vary from one country to another. In some countries, production networks require services and goods that can be more easily supplied locally given the countries' underdeveloped technology and low-skilled labour. Other countries may have traditions and widespread capabilities that can be more easily leveraged for developing upstream linkages (Morris et al. 2012).

Given the above premises, a few questions arise about Chinese firms in the Ethiopian infrastructure sector: Do they contribute to employment by localising the workforce? What kind of labour do they hire? How do procurement and subcontracting work in Chinese-led projects? To what extent are Chinese companies providing the necessary conditions for transferring technology and know-how? Do Chinese infrastructure projects promote linkages with the manufacturing sector? What are the local factors and dynamics preventing the formation of local linkages? Is Chinese firms' modus operandi consistently different from that of other foreign companies? I answer these questions in chapter 7.

2.1.4 Agency, structure, and modalities

The GPN framework is a point of departure for studying infrastructure projects within a large network of actors, both within and outside the state, and across different locations. The GPN framework can include many actors, and the relation between these actors can be affected by bargaining and negotiations whose results may be the consequence of power asymmetries. One of the tasks of network theories, such as the GPN framework, is, as Dicken (2001) put it, to "identify the actors in these networks, their power and capacities, and the ways through which they exercise their power through association with network of relationships" (ibid., 93). However, as Stevenson and Greenberg (2000) demonstrate, many researchers adopting the GPN framework fail to link the actions of individuals with their position in the network.

In using GPN frameworks, scholars mainly see networks as constraints on social actions and see agents' position in the network as capable of explaining actions in a certain setting (Stevenson and Greenberg 2000). This standpoint conceptualises actors in the network as if they all share the same goal, while their interests and strategies are often diverse and competing (Wethal 2017). For this reason, to provide a general conceptualisation of agency that explains the actions of individuals in their network position, I draw upon the literature in international relations and social theory.

One way to conceptualise African agency in particular is to draw upon the international-relations literature. The realist approach views states mainly as self-interested actors that engage with other states when they have strategic interests (Morgenthau 1954). On this view, Ethiopia and China engage with one another up to the point at which the engagement is win-win. According to constructivist scholars (Finnemore and Sikkink 2001; Wendt 1992), ideas, interests, and values are social constructions that shape preferences and actions. In other words, interests and actions gain meaning only within certain social constructs (Wendt 1992). On this view, the partnership between Ethiopia and China takes on meaning in a common justificatory narrative, largely based on ideas such as solidarity, mutuality, reciprocity, and symmetry. The institutionalist approach defines agency in light of "formal or informal procedures, routines, norms and conventions embedded in the organisational structure or political economy" (Hall and Taylor 1996, 937). This approach emphasises how formal rules, procedures, norms, and symbol systems affect actions. On this view, China-Ethiopia relations follow a historical pattern of formal and informal connections.

Realist, constructivist, and institutional approaches can capture some elements of China-Ethiopia relations. Realism can explain the non-interference approach of China, but it fares poorly at

explaining governance mechanisms that include many nonstate actors. Constructivism may explain why discourses on SSC and solidarity are so prominent in the justification of economic relations between the two countries. However, constructivism overestimates the degree to which ideas can affect real-world interactions between agents with established roles and functions. Institutionalism may explain why existing Ethiopia-China relations take a certain shape given the long-standing interest of China in Africa. Institutionalism is, however, problematic because it assumes that individual expressions of agency are legitimised through patterns; it therefore fails to account for situations in which agents find room to manoeuvre even in the absence of formal and informal procedures.

In general, realists, constructivists and institutionalists have difficulty capturing all decision-making aspects of nonstate actors. As Habeeb (1988) puts it, agency does not overlap with the aggregate power of states. By looking at the bargaining power of state agents, he argues, the structure and the context of specific negotiations can explain outcomes better than a mere look at a state's resources. In the same vein, Jessop (1989) suggests that as an institutional assemble, "the state does not and cannot exercise power. Indeed, rather than speaking about the power of the state, we should speak about the various potential structural powers inscribed in the state as institutional assemble" (ibid., 367). So state power is activated through the agency of a specific set of politicians and state officials in specific circumstances (Jessop 1989). Moreover, a too stringent focus on the state as a single actor that exercises agency leaves no room for an obvious observation: the state and negotiations within states are not the only contexts in which agency is exercised. As Procopio (2016, 43) aptly puts it, "The analysis of state institutions must be embedded in a broader understanding of state-society relations, one where different forms of agency are identified, such as state versus non-state, leader-dominated versus bureaucracy-dominated, and different relationships between particular agencies and structures are acknowledged".

As noted, the GPN framework can include a broad range of actors: states, international organisations, workers, firms, business associations, trade unions, regional administrative units, and banks. Africa-China engagement in the infrastructure sector features Chinese state actors, Chinese nonstate actors, transnational actors, African state actors, and African nonstate actors; the forms of political, social, and economic interdependence of all these actors call for a move beyond merely statist perspectives (Mohan and Lampert 2013) in which agents "are neither simply free individuals, nor script-defined role performances, but both roles and subjectivity shaped in extent and content by, and operating within, a special context" (Brown 2012, 1895).

It is important to take into account the conceptual relationship between agency and structures. This approach entails focusing on how actors may attempt to shape the context to their own advantage and focusing on how the landscape shapes their actions. One way to study the conceptual relation between agency and structures is to equate agency with ability or capacity. Agency, as Hay (2002, 94–95) notes, can be defined as the ability or capacity to realise intentions. Alternatively, agency can be broadly understood as "the ability to effect change" (Carmody and Kragelund 2016, 8) or as the ability to act for individual benefit or for the well-being of others (Castree et al. 2004). Structures can be formal or informal. Hay (2002, 94) identifies different structures, such as formal and informal structures, social structures (race, class, gender, culture), political structures (power), institutional structures, ideological structures (ideas, norms, values), and economic structures (ownership, production, division of labour, sector composition). In this view, the study of agency depends on the structures that affect actors within their network.

Another way to study the conceptual relation between agency and structures is to challenge the primacy of agency (Giddens 1984). Giddens (1984) argues that agents enable structure formation and structures constrain or enable agents to continue the structure formation. Further, it is possible to accept the idea that an agent cannot be disconnected from the social world and to understand how and why agents apply or do not apply certain schemas of action (Wight 2004). In this vein, Wight (1999) defines agency in terms of three levels (Agency 1, Agency 2, Agency 3), which are closely integrated and cannot be considered in isolation. For each of these levels, Wight takes into account both the agent and the structure. He writes of the "individual" and the "social predicates" as "agents always bring their structure with them" (Wight 1999, 110). Therefore, according to Wight, agency is first of all "freedom of subjectivity" (Wight 1999). In other words, agents can deliberate and act, but they are socially embedded in a context.

In Wight's conceptualisation, Agency 1 denotes the ability to act at the intersubjective level. It includes three necessary elements: accountability, intentionality, and subjectivity (Wight 2004, 130). In other words, given their worldviews, agents act according to their intentions in ways they can be held accountable for. Agency 2 sets the individual in a broader context. It refers to "the socio-cultural system in which persons are born and develop". Within this socio-cultural system, individuals are not "part of the whole" but agents within certain groups. In other words, agents make a judgement and deliberate within a structure informed by cultural norms. Given that a socio-cultural system includes many so-called cultural groups, individuals are embedded within a certain comprehensive structure, but individuals who belong to different groups are also "differentially placed" (2004, 132). Agency 3 depends on the role agents play in the society as a whole. Wight coins the term "positioned

practices", meaning "structural properties that persist irrespective of the agents that occupy them" (2004, 133). In other words, agents deliberate and make a judgement in order to fulfil a function that persists over time.

Wight's definition of agency is particularly helpful because it describes the relation between structure and agency by conceptualising the individual in her multiple interactions (intersubjective, groupbased, role-based). Contrary to Giddens, structure and agency remain two separate, but interdependent, analytical elements. This way of theorising agency is useful for studying infrastructure projects through the lenses of GPN frameworks. It allows us to understand how interests, preferences, and judgements are shaped differently, and perhaps simultaneously, by different structures. This is in line with Brown (2012, 1899), who argues that interpretations of African agency should be able to account for the subjective freedom of the agent and the social and political context within which agency arises. According to Whitfield and Fraser (2010), studying the structural conditions should be the first step in analysing aid negotiations. "Negotiations", as they put it, "are not just strategic games based on the choices of engaged agents; ... the interests and preferences of the actors are shaped by the global economic, political and ideological contexts in which each actor and the negotiations themselves are embedded, and indeed by the vagaries of human consciousness" (2010, 344). Therefore, structural conditions shape preferences because "these conditions present the agents with constraints to consider in deciding what they think can be achieved through the negotiation, and with resources to draw on to make their case in a compelling way so the other considers their preferences seriously" (2010, 346).

To generalise, I define structures as compounds of facts, conditions, and circumstances that affect the way an actor develops her own perceived self-interest and tries to act accordingly. Like Wight (1999), I accept the idea that different and simultaneous elements may influence how agents behave and how they justify their actions. Various normative commitments (such as political affiliation, ideology, religion), roles (being an employee or an employer), and processes of social coordination (habits, prejudices, formal and informal norms) may have an impact on how agents see themselves in society, construct their perceived self-interest, and pursue that interest. By perceived self-interest, I mean the specific interest that, from the distinctive perspective of the agent, best synthesises her or his interests within a specific negotiation. Where NC stands for normative commitments, R for roles, CP for contextual precondition, and N for the specific negotiations, perceived self-interests (PSI) can be understood as PSI₁=NC₁+R₁+CP₁+N₁, PSI₂=NC₂+R₂+CP₂+N₂, and so on. For this reason, when we speak of perceived self-interests, we are implying that such interests include a distinctive and subjective combination of different aspects that matter in one's life.

On this view, agents operate within systems of mutual expectations through which they coordinate and which form the basis of collective actions. However, I also try to acknowledge the critical capacity that agents can display while engaging in negotiations. For this reason, I avoid an ontology of structures and agents that gives preponderant weight to internalised norms, as if all behaviours were amenable to internalised codes of conduct, be they religious, political, ideological, or cultural. It seems more plausible to say that no agent necessarily moves within a single system. Rather, in her social interactions, she constructs her perceived self-interest by balancing different commitments and expectations. But perceived self-interests are truly meaningful dispositional properties only against a backdrop of a plurality of possible options—when, in other words, agents potentially perceive their self-interests in many ways. Perceived self-interest is not an objective construct but rather expresses how actors internalise norms and negotiate them in different contexts. Seen through these lenses, the same agent can translate the same internalised norms into different perceived self-interests as circumstances change. And different agents can translate different internalised norms into the same perceived self-interest in the same situation. On this view, perceived self-interests can reveal actors' critical capacities, differences in actors' perceived self-interests can help to identify properties of the negotiation situations, and, when actors are in analogous negotiation situations, commonalities across their perceived self-interests can help us to generalise about the perceived self-interest of a group of people.

According to this pluralistic conceptualisation of structures, individuals operate within structures and certain contextual preconditions but a single structure and contextual precondition can rarely explain the perceived self-interest of all agents within a group. It is reasonable to think that individual perceived self-interest is consonant with the overarching interest of a group, but we cannot assume that the two are fully consonant. Each agent, who operates within a structure and context, may in fact be influenced by other structures and contexts simultaneously and therefore perceive her self-interest in distinctive ways. On this view, it is therefore important to look at individual actors within certain groups without assuming that they behave the same way. At the same time, when we find concordance across group members' perceived self-interest, it tells us what the group's perceived self-interest is. Specifically, I look at groups of individual actors (members of the elite, regional bureaucrats, firms, business associations, workers) to see what they do during negotiations with their Chinese counterparts. Within this framework, if a commonality emerges across different perceived self-interests within the same groups of actors, we can speak of a *role-based interest*, which is the perceived self-interest of a group in its negotiations with Chinese stakeholders. Role-based interests can be better understood when we recall the definition of perceived self-interest (PSI) as a sum of

different components: PSI₁=NC₁+R₁+CP₁+N1. Within this framework, the role-based interest is derived when different PSIs reveal the same or a sufficiently analogous R. Where 1, 2, and 3 are members of the elite, each with a different PSI—PSI₁, PSI₂, and PSI₃—they have role-based interests when in each of the PSIs we can find a similar interpretation of the interest deriving from their role as member of the elite.

In sum, the fundamental idea is that in a scenario in which it is very difficult to predict all factors entering into the construction of a perceived self-interest, I compare different perceived self-interests of actors playing the same role (elites, regional bureaucrats, firms, business associations, workers), influenced by certain structures (which I take as given) and contextual preconditions, during a specific situation (the negotiations with Chinese counterparts). This comparison should help us to see whether the actors have a role-based interest. According to my framework, if expressions of agency of actors with the same role yet different normative commitments display a common trait, that trait is the role-based interest.

Against this backdrop, the study of socioeconomic circumstances, historical background, and governance practices becomes very important in exploring relations between various actors and how they engage with one another. Africa-China relationships, as Odoom (2016) writes, are more locally driven and mediated than is generally recognised. Often, in the literature on China-Africa relations, "having agency" entails the African state's "being able to reject Chinese terms and conditions". On such a view, rejecting Chinese terms and conditions entails rejecting authoritarianism at both the national and international levels.

This approach is both theoretically and empirically unsatisfactory. At the theoretical level, this view assumes that, normatively speaking, rejecting Chinese initiatives is always the right thing to do. It assumes that Chinese terms and conditions are always bad for African countries. It also assumes that African countries should mainly react against China. These claims are put forward as universally accepted, but they are in fact problematic and in need of corroboration. At the empirical level, the equation agency = rejection reiterates a partial and outdated account of Sino-African relations and preserves the perspective of concentrating all agency at the state level. Sino-African relations are not just a result of negotiations between two states to the detriment of a passive and submissive local population.

It is true that agency should be situated within the power asymmetries of international relations (Kragelund and Carmody 2016). Yet a focus on African state agency may fail to recognise structural

conditions of the global economy and of the realities within the country (Carmody and Kragelund 2016). State authorities remain key regulators and facilitators of market access (Horner 2017). However, as Hagman and Péclard (2010, 545) contend, power relations are not only shaped by "those governing" but through "heterogeneous groups with highly differentiated assets, entitlements, legitimacy and style of expression". Acknowledging this diversity, they continue, helps "to understand how local, national and transnational actors forge and remake the state through processes of negotiation, contestation and bricolage" (2010, 544).

By pulling together the relevant elements of this discussion, a conceptualisation of agency that sufficiently coherent with the GPN framework and can explain Ethiopia-China relations should distinguish between structures and agency, should be able to understand why different structures and contextual preconditions can or cannot shape agency, and should be valid for state and nonstate actors. To provide a general conceptualisation, I define agency in the context of Chinese-financed, Chinese-built infrastructure projects as the ability of state and nonstate actors playing the same role to pursue their perceived self-interest before, during, and after negotiations, given certain structures and contextual preconditions.

Such a perceived interest does not necessarily correspond with the most rational preference. It is what state and nonstate actors perceive as benefitting them given some structural conditions or imperatives. Regional relations, the power of financial institutions to direct economic activity, strong political-economic imperatives, and political settlements between elites may drive the preference for one action over others. However, situating actors within these structures does not mean that they cannot exert *any* agency. It is better to say that they can exercise *qualitatively different agency*, differing depending on how their perceived interest is the result of adaptation.

My general conceptualisation can be further specified by identifying different modalities through which the preferences relevant state and nonstate actors pursue their preferences during negotiations: agency through noncompliance, agency through cooperation, and agency through opposition.

To capture the agency of elites and local officials before and during negotiations, scholars tend to stress states' ability to devise and defend development strategies (Whitfield and Fraser 2010). However, bilateral agreements, aid conditionality, and regional treaties show that many African countries remain dependent on externally driven development priorities (Dietz et al. 2010). Exploring agency within the state requires an understanding of what elites and local officials can do in spite of

official agreements. For this reason, *agency through noncompliance* identifies the ability of state officials to not fulfil already-accepted terms of agreement.

The agency of firms and business associations in Africa has not been properly conceptualised. In general terms, agency entails the capacity to promote national business within a specific industry (Wethal 2017). However, firms and business associations may aim to promote national business or compromise on their short-term interest to set strategic relations with foreign counterparts and with domestic competitors. For this reason, *agency through cooperation* identifies the ability of firms to cooperate with one another to lobby state officials on issues of mutual importance.

The concept of labour agency is not new (Pattenden 2016). Workers seek to improve their position within the production system and to gain incremental changes in the workplace (Rogaly 2009; Herod 2001). Labour agency emerged as a way to demonstrate that workers themselves attempt to shape the landscape of capitalism (Herod 2001). In this way, labour agency can be seen as "strategies that shift the capitalist status quo in favour of workers, even if only temporarily" (Coe and Jordhus-Lier 2011, 216). Available conceptualisations of labour agency in the GPN framework tend to stress the relevance of contract issues, workers' rights, social protection, and conditions of employment. However, the risk is that of conflating what workers are capable of doing with what workers are capable of achieving. Outcomes of labour agency are obviously constrained by different social structures (cultural control, culture of solidarity, local and national institutions, workplace regimes, ideological support), but this does not mean workers have no agency. Including workers in the analysis requires us to see strategic attempts to achieve gains (not the gains themselves) as the outcome of labour agency. For this reason, I define *agency through opposition* as the ability of workers to negotiate, where the ability to negotiate includes the ability to pursue acts of defiance and resistance.

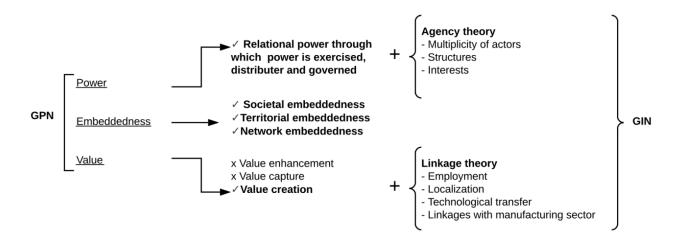
2.1.5 The Global Infrastructure Network

In formulating the GIN framework, I join several scholars (Wethal 2017, Corkin 2012, Foster and Graham 2017) who apply the GPN to the infrastructure sector. Like Wethal (2017), Corkin (2012), and Foster and Graham (2017), I believe that the explanatory merits of the GPN go beyond the value production chain and therefore can be valuable in the study of infrastructure projects. Unlike them, I believe that two of the distinctive characteristics of the infrastructure sector (infrastructures are local phenomena and there is no circulation of production) necessitate amending the GPN.

In applying the GPN to the infrastructure sector, I adopt the fundamental relational perspective of the GPN. This relational perspective links different actors and different places and, in my case, helps one see infrastructure projects, which are usually understood as entities anchored to a specific territory, as results of several exchanges between different actors at different places and times. In this way, the relational perspective of the GPN makes it possible to map all actors involved in the implementation of infrastructure projects and identity how such actors can impact the projects at different levels of the network (global, national, and local).

The GPN tends not to differentiate among the actors within the relevant entities (state and companies). The infrastructure sector comprises several actors (elites, local bureaucrats, firms, associations, and workers) that may or may not be able to shape the process of negotiation, financing, building, and managing an infrastructure project. Within this context, an analysis of the network requires an understanding of what Ethiopian state and nonstate actors are capable of doing within the network. For this reason, as figure 1 shows, I integrate contemporary scholarship on agency (Brown 2012, Giddens 1984, Whitfield and Fraser 2010, Wight 2004), which aims at capturing the ability of different state and nonstate actors to influence decision-making processes, in my reinterpretation of the GPN. In this way, I can unpack the representation of China and Ethiopia as two unitary entities and therefore multiply the number of Chinese and Ethiopian nodes within the network.

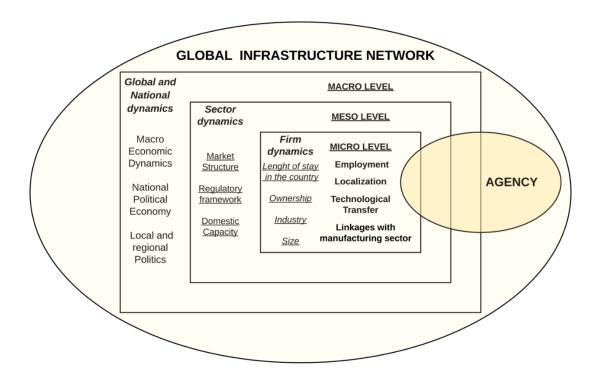
Figure 1. From the Global Production Network to the Global Infrastructure Network



The GPN framework captures value-creation outcomes. However, in order to capture the specific development outcomes of infrastructure projects, I incorporate the theory of development linkages

(Hirschman 1958, 1981) in the framework. That theory helps one study the impact of infrastructure projects on specific components of the network at the local level (employment, localisation, technological transfer, linkages with the manufacturing sector). As figure 2 shows, the result of this reformulation of the GPN framework within the context of the infrastructure sector is an explanatory framework that can identify all actors in different places and identify dynamics at the global, national, and local levels. For the sake of simplicity, I call this framework the GIN framework.

Figure 2. The Global Infrastructure Network Framework



Specifically, the GIN helps scholars to interpret foreign-financed, foreign-built infrastructure projects as the results of interconnected international conditions and national conditions in both the host and source countries in order to investigate the engagement modalities and negotiation processes and to analyse the outcomes and implications for local development.

The framework sees negotiations as interactions in different times and places within the infrastructure network. Some of the negotiations may include different Chinese actors, others may include only Ethiopian actors, and others may include both Chinese and Ethiopian actors. Here I focus on those interactions in which both Ethiopian and Chinese actors are involved. At each level, I focus on the

Ethiopian actors who engage with their Chinese counterparts in the presence of a given structure and given contextual preconditions.

Contextual preconditions shape the micro, meso, and macro levels in ways that go beyond the will of actors at the moment of negotiation. Negotiations may lead to results that will shape these levels in the future. It is therefore important to identify specific preconditions at all levels. In so doing, I rely upon the existing literature. Macroeconomic dynamics, national political economy, and politics shape the context in which political actors negotiate with their Chinese counterparts. Market structures, existing regulatory frameworks, and existing capacities shape the intrasectoral context. Length of stay, ownership, size of firm, and kind of industry shape the terrain within firms.

Within these so-defined contexts, and following the literature on African agency, I assume that Ethiopian actors try to pursue their perceived self-interests. Their perceived self-interests can be explained by referring to the interest of the group to which they belong. To explain them, I map all actors at all levels and identify the perceived self-interests of these group actors. More specifically, I zoom in on the relation between contextual preconditions and agency for each of the relevant actors. As anticipated, I assume that different contextual preconditions inform individuals' perceived self-interest. On this assumption, when different individuals who belong to the same group reveal an analogous perceived self-interest, that perceived self-interest can be considered as the group's perceived self-interest. This conceptual move helps me to map Ethiopian actors, divide them into different types, and justify my clustering by referring to the group perceived self-interest. I do not assume that given existing preconditions, all Ethiopian actors can pursue their perceived self-interest in the same way. For this reason, I focus on interactions at all levels to see the extent to which Ethiopian actors are able to pursue their self-interest. In this way, I can identify the levels at which Ethiopian actors can exercise more agency and those at which they have less room to manoeuvre.

At the theoretical level, the GIN can read two otherwise-geographically-distinct phenomena as connected. First, the increasing competition within the Chinese socioeconomic system and the resulting integration of Chinese firms in the global production system become relevant to an analysis of the evolution of the Ethiopian infrastructure sector. Second, the conception and execution of Ethiopian development strategies and the evolving production relations within the Ethiopian socioeconomic system enter into the study of China-Ethiopia relations. Moreover, by shifting the focus from state-to-state relations to negotiations between different state and nonstate actors, the GIN helps scholars to see whether there can be couplings of interests between Chinese and Ethiopian actors, between Chinese actors, or between Ethiopian actors that generate development linkages

within and beyond state space. It is against this backdrop that the GIN assumes a refined conception of agency that is theoretically sound and flexible enough to read expression of agency as intertwined with some contextual preconditions. This reading of agency avoids too idealised accounts of agency and agents, which end up failing to capture individuals' capacity to adapt to their context and to find holes in the system and exploit them to their advantage. It is also able to capture not-so-visible expressions of agency and to evaluate their significance within broader negotiations on infrastructure projects.

At the empirical level, by reading China-Ethiopia relations as the result of a constellation of negotiations at various levels, the GIN, as a new theoretical concept, helps to identify the room to manoeuvre (if any) of all actors involved with (and affected by) infrastructure projects in Ethiopia in regulating the behaviours of international actors. In particular, the analysis underlines how different interests are negotiated, how different agents adapt to existing contextual preconditions to capture otherwise-hidden bargaining-power asymmetries between Chinese and Ethiopian counterparts, between different Chinese actors, and between different Ethiopian actors. Moreover, the GIN can identify otherwise-hidden development linkages. The attention to the macro, meso, and micro levels allows scholars to go beyond the macroeconomic impact of projects and explore the local development impacts of Chinese presence on the Ethiopian infrastructure sector at the firm level (employment, localisation, technological transfer, linkages with the manufacturing sector). Furthermore, unlike other accounts that might also be able to capture the same kind of relations, the GIN can connect those relations with the higher-level dynamics such as national dynamics and sector dynamics. In particular, the GIN identifies how characteristics of local industry (for example, Ethiopian policy environment, domestic capacity) and differences among Chinese firms (for example, ownership, size, sector, and length of operation in the host country) can impact the formation of development linkages. In this way, it helps us to gain a better understanding of the present development implications of Chinese engagement in the African infrastructure sector.

2.2 Research design

2.2.1 Case selection

My research strategy follows a case-study method, with a focus on Ethiopia. As detailed by Yin (2014), case study is a selective research strategy that tries to understand a complex phenomenon by observing subjects, events, and relations in a particular context. A case-study method is the preferable

way to gain a detailed and objective description of Chinese-financed, Chinese-built infrastructure projects in Ethiopia. Engaging in a macro analysis of Chinese projects may lead to partial results. As is well known, data on Chinese projects are not entirely reliable, or, when generated though research, they depend upon a significant degree of speculation. Moreover, comparative assessments across African countries of linkages related to infrastructure projects may neglect significant differences in governance mechanisms from one country to another. Precarious balances of power, integration in regional bodies, ethnic diversity, religion, the colonial past, democratic commitments, size, and institutional stability are just some of the factors that can affect comparative assessments.

A case-study method can limit these complications through fieldwork, personal communication with relevant actors, access to public documents, and, in general, a nuanced, sustained, and continuous engagement with different actors and sources. In this way, the case-study approach has more explanatory power. And, in a case such as the Ethiopian infrastructure sector about which limited evidence is available, it can generate new knowledge that can inspire further work in the field. In overcoming simplistic narratives, it is important to look closely at what happens in host countries—their political and social environment and their broader development strategies. By directing my analysis at both China and Ethiopian development patterns and the story of China's engagement with Ethiopia, accessing official documents and policy papers for the first time, and using original data from fieldwork, this dissertation seeks an in-depth understanding of processes that have been influencing Ethiopia-China relations.

I have several good reasons to choose Ethiopia as a case study for research on Chinese-financed, Chinese-built infrastructure projects. First, so far, with some notable and very recent exceptions (Oya and Schaefer 2019; Wolf and Cheng 2018), the literature on China-Africa relations has largely focused on resource-rich countries (Taylor 2006; Corkin 2013) on the assumption that controlling natural resources is China's main objective in Africa. However, despite the paucity of Ethiopia's natural resources, the country is among the top recipients of Chinese FDI in Africa and it is the second-biggest beneficiary (after Angola) of CHEXIM financing (data from SAIS-CARI). Studying a resource-poor country in which China's presence is significant can improve our understanding of what drives Chinese state and nonstate actors.

Second, Ethiopia hosts an impressive number of China-led infrastructure projects. Over the last ten years, Chinese companies operating in the country have won a substantial number of Ethiopian government and World Bank projects. From 2004 to 2016 Chinese companies captured 63.5 percent of the value of the contracts of World Bank projects (see chapter 3). However, despite the fact that

Ethiopia features prominently as one of the key recipients of Chinese financing and one of the largest markets for Chinese contractors working in the infrastructure sector, there have been few scholarly, in-depth contributions with a focus on Ethiopia (Oya and Schaefer 2019; Wolf and Cheng 2018; Gadzala 2015).

Third, Ethiopia, the second-most-populated country in Africa and one that has registered impressive economic performance in recent years, has put infrastructure development at the centre of its last two development strategies. Over the past two decades, Ethiopian governments have been hungry for new, cheap, and quickly built infrastructures as key drivers hastening more-comprehensive development processes. Such a hunger for new infrastructures has created an ideal market for foreign companies with better skills, technologies, and financial capacities. This is particularly true for companies that, thanks to Chinese government support, are able to deliver projects quickly and at low cost. In a context in which most Ethiopian companies lack the means and competence to implement significant infrastructure projects, Chinese state and nonstate providers of infrastructures often have very strong bargaining power when negotiating with local authorities. Additionally, Ethiopia, unlike countries such as Ghana and Angola (Odoom 2016; Corkin 2012), has done surprisingly little to regulate the entry and work of foreign firms in the country.

2.2.2 Methodological approach

To make my analysis more granular, I use a mixed methodology with a strong qualitative component. The methodology combines an extensive literature review, documentary analysis of both secondary sources and official documents (in some cases made available for the very first time), in-depth interviews, direct observation, descriptive quantitative analysis, and surveys.

My preference for a mixed methodology with a strong qualitative component reflects the nature of my research questions. An explanation of the processes and networks in the infrastructure sector requires in-depth research and direct exposure to the many facets of Africa-China relations. Moreover, some fundamental research barriers affect the purely quantitative study of China-Ethiopia relations. It is well known that sources of macro data on China-Africa relations are not fully reliable (Corkin 2013). And statistical resources in Ethiopia are quite limited and often outdated.

Against this background, an extensive literature review was necessary to contextualise my analysis in broader debates about China-Africa relations. An emerging body of literature is studying Chinese

projects (especially in the manufacturing sector) in Ethiopia. Situating my work in this context was crucial for identifying key actors and their relations. A descriptive analysis of data on Chinese commercial and economic relations with Ethiopia was necessary to refine the context of my analysis. Fieldwork was therefore important for testing assumptions and generating original knowledge about the Ethiopian infrastructure sector. Therefore, as the project progressed, I collected data through interviews and surveys. However, it is not always easy to get information on the political and economic situation by interviewing Chinese stakeholders and Ethiopian officials. For this reason, it was crucial to substantiate and triangulate my findings with secondary sources. To contextualise primary data, I studied policy briefs, contracts, memoranda of understanding, industrial plans, and official agreements.

Prior to my fieldwork, I undertook a descriptive quantitative analysis of macrolevel data on trade, investments, and financing. The main objective was to create a comprehensive analysis by using secondary sources, mostly from Chinese governmental departments, Ethiopian ministries, and international organisations. I addressed the issue of data reliability by using different data sources and documents for triangulation. To analyse Chinese outward engagement and investigate its drivers and features in the Ethiopian context, I used both quantitative and qualitative methodology. Chapter 5 uses quantitative data to investigate China-Ethiopia economic relations and analyse data on trade, investments, and financing. Data for the analysis came primarily from the Ethiopian Investment Commission (EIC), Central Statistical Agency of Ethiopia (CSA), the Ethiopian Ministry of Finance, and the National Bank of Ethiopia (NBE). When necessary, I integrated data through the World Integrated Trade Solutions (WITS), UN COMTRADE, and UNCTAD databases. I also retrieved data from China's Ministry of Commerce (MOFCOM) and the Ethiopian National Bureau of Statistics. Often, I triangulated data using the SAIS-CARI database.

To the macro picture of Chinese economic engagement I added qualitative analysis. Some of the interviews focused on the functioning and structure of Sino-Ethiopian economic partnerships and on the drivers, tools, and modalities of China's engagement in the infrastructure sector. I selected interviewees based on their involvement, experience, and knowledge of the topics investigated. My sample included Chinese and Ethiopian SOEs, Chinese private firms, government officials, and external observers such as researchers, journalists, and civil society organisations. Together with the available data, these two levels of analysis helped me to substantiate the macro picture of Chinese outward engagement in Ethiopia.

To further investigate Chinese financing of infrastructure projects in Ethiopia, I constructed a database of Chinese-financed, Chinese-built infrastructure projects (in energy, transportation, and telecommunication) in the country—something that, to my knowledge, had not been systematically done previously. In Ethiopia, the full list of Chinese-financed projects in the infrastructure sector is scattered among different government and public-company offices. By consulting and integrating documents from Ethiopian Electric Power (EEP), Ethiopian Roads Authority (ERA), Ethiopian Railway Corporation (ERC), Ethio Telecom, and the China-Ethiopia department at MoFEC, I was able to construct a list of Chinese projects in the country including key financial and contractual information. I triangulated the data on the list with data from the MoF and information I gathered through interviews.

My first interviews were unstructured interviews with diplomats, economists, and officials in Beijing. These interviews allowed me to compare and contrast the perspectives of experts with different ideological backgrounds. In Ethiopia I used semistructured interviews, which I prepared before beginning my fieldwork. I designed initial open-ended questions to spark the conversation and provide the basis for improvised questions, thereby allowing respondents to offer their own accounts of the topic discussed. This flexible strategy was based on the idea that respondents could offer insights that I could not predict. It was also based on the idea that a sustained and respectful engagement with the respondents could facilitate discussions on sensitive issues. For this reason, each of the interviews lasted between thirty and ninety minutes. In some cases, I arranged follow-up interviews, which helped to cultivate a trustful relationship with the respondents. In order to avoid finding myself in the same circle of people, I selected a limited number of individual informants before the fieldwork. Then, as the project progressed and I moved around different social spaces in Addis Ababa, I established connections with different groups of informants.

The first group of informants consisted of Ethiopian public officials (high-level representatives from ministries, the government, and the Ethiopian banks). I arranged some of these interviews in advance, but for the most part I arranged them during the fieldwork. The second group of informants consisted of local bureaucrats, whom I approached in formal settings. The third group consisted of Chinese companies' managers, workers, and representatives. I kept in contact with a few Chinese informants that were critical in bridging their company with other companies. The fourth group consisted of domestic private firms. I found key informants as the project progressed. At the beginning, two key informants connected me with other companies, and, by becoming more and more aware of the market actors in Ethiopia as the project progressed, I was able to reach a significant number of local

firms. The fifth group included consultants, experts in international organisations, and think tanks. Contact with these informants gave me an overview of the infrastructure sector in Ethiopia.

I used a bottom-up design that started by considering the main Chinese and Ethiopian stakeholders operating in the Ethiopian infrastructure sector, inside and outside the state. At the local level, I first selected actors and stakeholders based on my knowledge (gained through the study of secondary literature, newspapers, policy briefs, and reports) of their direct involvement and contribution to the Ethiopian infrastructure sector. Then I approached Chinese actors. Multiple encounters with Chinese officials and Chinese entrepreneurs and workers helped me to discover mechanisms of projects implementation and negotiation.

I audiotaped all of these interviews. I also engaged in informal conversations to supplement the indepth interviews, which proved to be a priceless way of acquiring additional information without being nosy and without avoiding the constraints of an official interview. Most of the informal conversations took place during or immediately after networking events such as conferences, workshops, and roundtables or at construction sites, where I was also able to directly observe workplace conditions and labour practices. I also had several informal conversations with Ethiopian academics, employees in UN agencies, and the African Union, employees in foreign firms, construction workers in Addis Ababa, managers of firms in the Ethiopian infrastructure and manufacturing sectors, Chinese managers, and Chinese employees in the manufacturing sector. I recorded a total of sixty-eight hours of interviews. I wrote fieldwork notes at the end of each interview. I later transcribed data collected from these interviews and organised the transcripts and field notes into thematic areas. I did not code interviews in a systematic fashion; instead I relied on a deep reading to allow for a narrative analysis of fieldwork observations (Crang 1997, 186).

Table 1. Qualitative interviews

Category	Total	Share (%)
Firms	39	42.9
Government	25	27.4
Academia/think tanks	12	13.2
International organisations	12	13.2

Media	1	1.1
Consultants	2	2.2
Total	91	100

Following each meeting with a firm, I asked respondents to complete a survey in order to triangulate insights on employment, working conditions, procurement, technological transfers, and linkages with other industries. This survey was a structured questionnaire with fifty closed-ended questions. In accordance with the sampling methodology, I distributed the survey to different areas of the infrastructure sector, such as transport (railways and roads), energy, information communications technology (ICT), and water facilities.

In defining the key elements of these firms, I adopted the conceptualisation of Amos and Gallagher (2013), who, in their analysis of Chinese mining in Latin America, identify five key variables: origin (Chinese, foreign [non-Chinese], domestic), size, ownership (private or public enterprise), ¹⁶ industry, length of operation in the country (table 3). Firms were all Grade 1 contractors (GC1).¹⁷ I administered the survey to eighteen Chinese firms (ten SOEs and eight private companies), ten Ethiopian companies, and five foreign firms (one Italian, one Turkish, one French, one American, and one Swedish). Of the eight private Chinese companies, four of the companies' managers were former SOE representatives who decided to establish their own business in Ethiopia (xiahai). Of the ten Chinese SOEs surveyed, four operated in all subsectors of infrastructure except telecommunication, three only in energy, and two only in telecommunications. The other foreign firms (not Chinese) were all large private businesses active more than ten years in the country. 18 As for functional specialisation of these firms, three operated in all subsectors, while one specialised in transportation (railways) and one in telecommunications. The small sample of international firms in the survey can be partly justified by the low number of such firms in the local construction market, which nowadays is dominated by Chinese firms. As for the Ethiopian private companies, the vast majority were in general building and road construction (nine) while some were also involved in

¹⁶ The variables were selected based on the methodology used by Amos and Gallagher (2013) in "Chinese Mining in Latin America: A Comparative Perspective".

¹⁷ Grade 1 general contractors (GC1) are contractors who are qualified to undertake a variety of construction works, such as buildings, roads, railways, bridges, airports, and dams. The grade one reflects its capabilities in terms of equipment, staffing, finance and experience (Schaefer and Oya 2019).

¹⁸ In 2018, out of the thirty-two international contractors operating in Ethiopia, the vast majority were Chinese, accounting for a total of twenty-seven firms (over 80 percent), while only five were not Chinese.

energy (two) and telecommunications (one). All launched their businesses over ten years ago, and their size varied from medium to large.

Table 2. Characteristics of firms surveyed

Firms' characteristics	Total
By origin	
Chinese	18
SOEs	10
Private	8
Ethiopian	10
Foreign (not Chinese)	5
By ownership	
State-owned	10
Private	23
By industry*	
Transportation	22
Road	22
Railways	4
Energy	7
Telecom	3
Water	7
By length of operation in the country	
More than 10 years	23
Less than 10 years	10
By size**	
Medium (> = 100 and < =500)	11
Large (> = 500)	22
Total	33

Source: Author's calculations based on data from Enterprise Surveys.

^{*} Several companies operated in more than one subsector.

^{**} The survey uses the definition of size found in Ethiopian CSA's survey of large- and medium-scale construction companies.

Several factors limit the accuracy of the results of my surveys. The first limitation is a nonresponse bias. Such a bias could arise if respondents who refused to take part in the study differed in important ways from those who participated. In my case, several firms, both Chinese and not Chinese, were unwilling or unable to participate in the survey. Moreover, in some cases, firms were reluctant to share specific pieces of information, so they left parts of the survey unanswered. A second limitation is response bias: companies surveyed may have provided an answer that was systematically different from their actual experience in order to look good.

In order to mitigate the effects of these biases and increase confidence in the validity of the findings, I corroborated the survey information by triangulating through different sources: in-depth interviews, observation, and secondary data (including scientific articles, government data, company reports and publications by independent consultants). In particular, to include a wide range of potential views, I often arranged interviews with more than one employee at international companies with the aim of including both international and local staff perspectives. These limitations entail that the evidence I present is far from ideal. Yet, despite all the flaws, the findings still amount to an advance over what was previously known about the potential linkages of Chinese firms in the Ethiopian infrastructure sector.

In addition to both quantitative and qualitative data, the thesis draws on a large amount of documentary evidence. As for the secondary sources, I used a wealth of materials mainly based on scientific literature, technical and governmental reports, legal and policy documents, and media articles. The review of the existing scientific literature focused on a deep analysis of the theoretical elaborations adopted throughout the study, which refined the theoretical background and provided specific lines of research for each chapter. I combined the scientific literature with an analysis of government documents, government budgets, fiscal resources, external debts and balance of payments, laws and proclamations, and policy documents including GTP I and GTP II. I collected the material from the national audit bureau, the register of companies, EIC, MoF, Ministry of Transport, and the World Bank, IMF, and UN databases. Chinese and Ethiopian media, and other informal sources such as Ethiopian newspapers, turned out to be a key source of information.

2.2.3 Fieldwork

This thesis is based on fieldwork in both China and Ethiopia. The total length of fieldwork was eight months, three of which I spent in China and five in Ethiopia. The Chinese fieldwork took place in

Beijing between July and October 2017, while the Ethiopian fieldwork took place in Addis Ababa between June and November 2018 with a few daily trips to infrastructure projects. The first phase of fieldwork in China, at the end of the first year of my PhD programme, could be considered as an exploratory phase in which I familiarised myself with the spectrum of topics revolving around China's domestic politics, its foreign policy priorities and decision-making process, and its engagement with Africa.

The main challenge related to research on undemocratic and transitional systems such as China's and Ethiopia's is obtaining high-quality data. In the case of China, limitations concern the opaqueness, availability, and reliability of official data on China's outward engagement. In particular, reported financing values should be taken with a grain of salt, as official statistics of Chinese financing are only partially available and might not reflect the true extent of Chinese financing on the ground. Further, China is not very transparent about its trade relations and flows of overseas investment and financing. An additional challenge was political sensitivity. In China, during Xi Jinping's administration, scholars and journalists are even more subject to censorship than previously. The government's anticorruption campaign since 2012 has contributed to a sense among employees at all levels of bureaucracies and universities that they should avoid risk. Note, however, that even before Xi Jinping's administration, informants perceived a high risk of sanctions, which contributed to an uncomfortable environment for researchers.

In Ethiopia, issues of political sensitivity are exacerbated by an unstable political situation. Instability has created an atmosphere of mistrust that permeates the society, resulting in the majority of Ethiopians being cautious about the information they provide. It therefore comes as no surprise that during my fieldwork in Ethiopia, gaining access to individuals in the higher ranks of the government and of companies required time and preparation. Therefore, both in China and in Ethiopia, gaining access to interviewees was a real challenge. Despite the challenges associated with interviewing elites such as establishing trust (Liu 2018), I found Ethiopian elites and those working at high ranks in international organisations open to talking. However, accessing potential interviewees at Chinese companies required more time and adaptation.

Chinese companies think that social science research portrays them in a negative way, and, in general, they are more open when contact is established by a person they trust. Therefore, I mostly gained access gradually by developing trust with initial contacts, who were people in diplomatic bodies or Chinese friends who worked for Chinese firms in the manufacturing sector.

Ethiopian elites were reluctant to answer emails, and, in general, it was easier to get access to them either through phone calls or by directly showing up at the ministries where they worked. While it was difficult early on, this did not prevent me from collecting key information, and, once I understood customary manners and practices, Ethiopian officials started trusting me. Some of them would get in touch with me again to provide additional information, including documents and contracts, or to connect me with new contacts.

Before starting the interviewing process, I spent the first two weeks refining the purposively selected sample of fifty key informants and networking informally. People's disposition to engage in conversation with me both formally and informally often depended on who had introduced me. In this respect, my affiliation with the United Nations Development Programme (UNDP) office in Ethiopia turned out to be critical in gaining access to specific sites and to Chinese SOEs. In particular, the UNDP country officer was crucial for connecting me with the Economic and Commercial Counsellor's Office of China in Ethiopia. This connection proved useful in developing relationships with several Chinese companies' managers and in building a large network in a short time span, something that is not always easy to do considering the time constraints of doctoral fieldwork and the undeniable level of suspiciousness and scepticism towards foreign researchers among some Chinese respondents.

The suspiciousness and scepticism was proven by several weeks of struggle at the beginning of my fieldwork, in which I unsuccessfully tried to contact companies by email and telephone. When, during an interview with a Chinese SOE's manager that had previously declined to talk to me, I asked the source of his scepticism, he replied: "We are used to be misunderstood when opening up about our way of doing business. This is certainly our fault: we are quite bad when it comes to communication with our western fellows, but we are working on it. I think much of this boils down to different cultural perspective, but I don't feel like excluding, to some extent, a level of misreading toward our actions" (E42).

Another crucial aspect of fieldwork concerned language. While I am fluent in English, the most widely spoken foreign language in Ethiopia, my knowledge of the local language (Amharic) was non-existent and my Chinese proficiency is basic, at best. In Beijing, I held all interviews in English as I was speaking with senior officials who were proficient in English. In Ethiopia, I overcame language barriers by hiring two research assistants to translate during the interviews in Amharic and Chinese.

¹⁹ Interview with Chinese company manager, Addis Ababa, October 2018.

I appointed the Ethiopian research assistant through my University Alumni Network before leaving for the fieldwork. The Chinese translator was introduced to me by a young Chinese manager of the Eastern Industrial Zone (EIZ) that I met during a conference organised by the Chinese embassy in Addis Ababa and that became a good friend and a priceless source of information. In two cases, when interviewing Chinese top managers of larger companies, an interpreter was provided by the company "to avoid misunderstanding and the transference of inaccurate information" (E41).²⁰ I hired a second translator after the end of the fieldwork to decipher documents written in Amharic such as laws, regulations, and political-party publications.

2.2.4 Ethical issues

Before starting the field research, I developed a case-study protocol in order to make data collection across the different data sources more systematic and to anticipate potential problems in the proposed research framework. Guided by Yin's (2014) insights, the protocol included the following sections: an introduction of the case study; data-collection procedures; case-study questions; and an outline of the case-study reports. To address ethical considerations, I formulated an ethical protocol in accordance with the ethics principles and rules established by my university concerning informed consent and confidentiality. According to Bryman (2008), informed consent gives an individual enough information to decide whether to participate in a research project. At the beginning of each interview, I gave the participant a two-page oral-consent form. I started each interview by introducing myself and then reading the form, which included all the details concerning the duration of the interview, how the results would be disseminated, data storage, and the scope of my research.

While the majority of respondents granted me permission to record and quote from their interview, some did not authorise me to use their name explicitly and more than a few feared repercussions given the political sensitivity of the issues discussed. In order to prevent any possible repercussions, I granted anonymity to all respondents. To further prevent information from being traced to an individual, I coded each respondent with a prefix and cited them along with only a general indication of their status (for example, government official, company manager, academic). I was careful to securely store all my recordings and file notes in password-protected folders.

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²⁰ Interview with Chinese company manager, Addis Ababa, October 2018.

CHAPTER THREE—UNDERSTANDING CHINA FROM A GLOBAL PERSPECTIVE

3.1 Introduction

How has China's outward engagement evolved and transformed? Who are the main state and nonstate actors that participate in it? How do these actors interact with one another? This chapter addresses these questions by reviewing debates in different subfields within the ever-expanding literature on Chinese state-business relationships and on China's development-finance regime. A survey of the extant research on China reveals that present-day China-Africa relations are far from being the result of a linear process. A constellation of different Chinese state and nonstate actors have participated in the construction and development of China-Africa relations, sometimes with competing interests and often with the support of central institutions.

This chapter begins with a thorough analysis of the contextual preconditions shaping China-Africa relations, with a focus on the Chinese actors. Drawing on China's outward engagement, the following pages highlight macroeconomic dynamics, national political economy, and local and regional politics within China. Within the GIN framework, this preliminary work is necessary to understand Chinese actors involved in the infrastructure projects and the room to manoeuvre they have (or do not have) within the broader system of China-Africa relations. In the first section of this literature review, I reconstruct the scholarly literature on the evolution of China's state capitalism. In this way, I examine how China's capitalist restructuring has informed those social forces that have shaped its present-day internationalisation strategies. The second part of the chapter reviews debates on the intersections between China's foreign policy and its system of foreign aid institutions. Against this background, the third part zooms in on the evolution of China's development-finance regime, including the business actors and institutional actors involved in Chinese development finance, as well as its modalities and financial instruments.

Taken together, the chapter's historical reconstruction of China's state capitalism, its review of the literature on the drivers of China-Africa relations, and its analytical survey of the modalities of China's development-finance regime reaffirm the complexity of Sino-African relations as a multilayered process affecting many different actors and their different perceived self-interest at the same time.

3.2 The multiplicity of Chinese state capitalism

3.2.1 Setting the stage: the state-business nexus and the varieties of Chinese capital

Often, studies and media reports consider China as a single and homogenous body with several overlapping interests on all issues with the aid of a China Inc. model—as Wu (2016, 323) writes, "a form of economic exceptionalism with intertwined linkages between the state, the Party, and public and private enterprises" (Wu 2016). However, according to several authors (for example, Gu et al. 2016; Breslin 2013; Mohan 2013; Lee 2017), such a conception may lead to the superficial reading of China as a monolithic state—a reading with little merit, especially if one considers the broad range of agents that operate within and outside it and pursue different goals and strategies. An increasing number of scholars reject the idea of a homogenous China and focus on its intrinsic multiplicity and its highly fragmented nature. It is in this context that sinologists have coined terms such as "fragmented authoritarianism" (Liebertha 1992), "deconstructed state" (Goodman and Segal 1994), and "capitalism from below" (Nee and Opper 2012). In what follows, I review the literature on state-business relationships and on the multiplicity of capitals that make up the Chinese state.

Since 1978, successive waves of Chinese economic reforms have strongly shaped state-business relations. Through a reform programme known as "change the system, open the door" (gaige kaiang), which was defined by a dual process of opening up to the outside world and bringing strategic investment and expertise into the country (Gonzalez 2012), China turned away from a plannedeconomy model. The open-door policy affected the power balance between the state and business by signifying a shift from overt, direct control over the economy to more indirect and market-oriented forms of control and guidance. During this early period, as Naughton (2007) contends, decentralisation was driven by the need to introduce new markets and fresh incentives into the system. The 1978 market-oriented economic reform came together with a fiscal reform. Starting out in a purely centralised form, in which the central government had total control over revenue collection and budget appropriation, the fiscal system adjusted in a relatively decentralised series of arrangements in which revenues were shared by the central and provincial governments (Lin and Liu 2000). During this first wave of decentralisation, local governments also gained more authority over investment and revenues, with the management of several SOEs delegated to local governments at the provincial, municipal, and county levels (Lin et al. 2003). Special economic zones and the emergence of new, non-SOE enterprises (township and village enterprises) in labour-intensive sectors marked the beginning of regional experimentation (Lin et al. 2003).

In 1994, after a period of unprecedented growth but substantial fiscal decline, China introduced a new fiscal system that recentralised the collection of tax revenues (Ahmad and Singh 2002). In the same year, the newly adopted Chinese Company Law made it easier to gradually reorganise SOEs. This meant a massive downsizing of the state sector, with public firms confronting increased market competition and reduced access to funding from government banks (Wu 2005). This strategy was further enhanced by the 1997 "grab the large, let go the small" (zhua da fang xiao) policy. The key plan was one of picking winners and making national champions. In particular, the strategy focused on reorganising large SOEs into enterprise groups within some high-priority industries.²¹ In this way, authorities wanted to increase SOEs' economies of scale and, therefore, enhance international competitiveness (Zhu 2018, 208). In so doing, policy makers targeted a group of 120 enterprises across a range of strategic sectors²² from which to assemble a national group of SOEs—a group of profitable and influential centrally owned enterprises under the control of the Assets Supervision and Administration Commission (SASAC) bureaucracy (Huang 2008).²³ As part of this transformation, some SOEs, like other major transnational companies, were transformed into limited-liability companies. Yet, even when shares of these firms were privately held, the government retained control rights as a major shareholder by appointing board members or senior staff (see McGregor 2011, Tenev and Zhang 2002). Meanwhile, provincial and local governments were required to sell off small, inefficient SOEs, thereby pushing them into domestic market competition through various means such as selling, merging, or leasing (Wu 2005).

Another move towards ostensive firm autonomy came with the adoption of the 1999 going-out strategy (Zŏuchūqū Zhànlūè). This strategy is widely perceived as marking the beginning of a second phase in the process of industrial structural adjustment through an expansion of Chinese capital beyond China's borders (Hameiri and Jones 2016; Alden and Hughes 2009). The going-out strategy pushed Chinese firms to start drawing on both domestic and international resources. In this way, Chinese companies could increase their competitiveness, capitalise on their comparative advantage, enter new markets abroad, and ascend the value chain (Murphy 2008). Unlike the internationalisation strategies of other countries, where the private sector played the most significant role in foreign

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²¹ A 2000 report produced by the National Bureau of Statistics (NBS) Research Group contended that State Owned Enterprises should be monopolies in only eighteen industries and withdraw entirely from one hundred and forty-six competitive industries.

²² During the Fifteenth National Congress in 1997, four groups of industries were singled out as needing to keep their SOEs dominant: high-tech, non-renewable natural resources, national security, and infrastructure services (Broadman 2002)

²³ The role of SASAC is to safeguard and increase state asset value by promoting firms' profitability, not to attain strategic targets. SASAC is also responsible for appointing senior SOE managers and evaluating SOEs and top managers on a profit and performance basis. (Jones and Zou 2017).

engagement, a key feature of the Chinese approach to internationalisation was the large involvement of SOEs (Henderson et al. 2013). SOEs, heavily backed by the central government, started operating as business actors subject to market standards and competition. Together with large public companies, a number of big players (such as Huawei and ZTE Corporation) that were supposedly private but had strong state connections and a myriad of small private firms began doing business abroad (Gu 2009; Breslin 2013; Jones and Zhou 2017).

Scholarship has increasingly cast doubt upon the distinction between private and public companies, especially when players are large and powerful. Milhaupt and Zheng's (2014) theory of "institutional bridging" provides interesting insight into the hybrid and intertwined form of ownership. The authors begin by describing how, during the reform period, the 1994 adoption of the Chinese Company Law enabled private entrepreneurs to register their companies as privately owned enterprises. Simultaneously, either through wholly state-owned entities or through mixed-ownership entities (where the ownership and management of the firms were shared among state and private shareholders), the state could expand its participation in corporate shares. In other words, SOEs and large private companies started to become entrenched in what Milhaupt and Zheng call an "institutional bridging"—that is, a strong network of relationships between the state, Chinese Communist Party (CCP) organs, and senior executives of state-owned and large private enterprises in China. According to Milhaupt and Zheng (2014), Huawei epitomises this institutional bridging. The Chinese government considers Huawei a national champion. But the company receives major funding from state banks that prioritise industries considered of strategic importance, which shows how blurred the lines between the public and the private sectors are when companies are considered strategic.

These tensions are further explained by Kaplinsky and Morris (2009, 552), who contend that "private in China means that the state holds less than 50 percent of the equity. In addition, state officials may also own companies, but in their 'private capacity', and often use the connections gained through their government positions". A further distinction is offered by Hu (2005), who provides "a scalar deconstruction of SOEs" in China. Hu differentiates in particular between different SOEs according to their administrative affiliation with various levels of governments (provincial, prefectural, municipal, and county). Gu (2015) makes a similar empirical argument—namely, that the Chinese state does not exist in a unitary form but takes many forms shaped by the way local authority is organised. In her analysis, she identifies four types of presence: firms that are strongly controlled and financed by the central state; SOEs with nominal state ownership but growing autonomy and

commercial requirements; provincial companies with strong links to the provincial government; and independent firms with limited state control and no state finance.

Rithmire (2019) looks at the internal variation of the Chinese domestic business class. Her analysis differentiates between three types of domestic Chinese capital: state capital (SOEs), private capital (small and medium enterprises; large competitive firms), and crony capital (firms that enjoy access to non-market-based profits rather than benefitting from market advantages). These types diverge from one another in their degree of political vulnerability; thus, they pursue internationalisation in a variety of ways. Whereas the majority of companies in China have some political connections, most of these connections are informal, local, and arm's-length. Moreover, according to Rithmire, truly competitive firms do not depend on political access to resources for revenues and profits. In such cases, innovation and quality management make productive capital less reliant on clientelism and political affiliations. Against this background, Rithmire goes on to say, the internationalisation strategies of these companies replicate what we would expect from elite firms anywhere else in the world. First, companies pursue markets by focusing on a specific sector and geographical area in which they enjoy a competitive advantage. Second, they pursue efficiency by delocalising parts of their operations to areas in which they can enjoy a cost advantage.

Scholars have therefore stressed that we can recognise a tension between two forces during the reform period. On some occasions, the state tried to decentralise political authority and create legal and economic opportunities for new, bottom-up enterprises. On other occasions, the state recentralised important areas of economic governance and retained significant control of some of the biggest players. The result is that the picture of Chinese state capitalism, as it emerges from the rich literature in the field, is a picture of a complex mix of actors, sometimes openly controlled by the state, sometimes ostensibly private but facing significant participation of state actors, sometimes mixed, sometimes purely self-determining. It is not difficult to imagine that such variations in ownership and decision-making structures can impact how these actors operate abroad.

3.2.2 The internationalisation of Chinese firms: how many strategies?

In the international-relations literature, although there is much disagreement on the extent to which the Chinese state influences the internationalisation of state companies, the consensus is that there is a strong link between China's domestic policy and the behaviours of its firms in the international setting. Alden and Hughes (2009) paint a picture of the Chinese state in which it is in full control, with a grand plan in support of a strategic national goal set by the Chinese government and CCP. Such a grand plan entails getting control of natural resources and using Chinese firms as tools to undermine the value and power of Western democracies. In the same vein, Goldstein (2003) argues that China's "grand strategy" connects political, economic, and military means to advance both its security and its power. This view is echoed by Norris (2016), whose study employs principal-agent theory to give an account of China's economic statecraft in the context of its grand strategy. In his book, Norris demonstrates that China's strategic use of commercial actors is a tool for achieving national objectives and satisfying foreign policy interests. Within this framework, the economic gains of Chinese firms are derivative. As Norris puts it, "Hard tests for economic statecraft include instances over commercial actors to direct them to pursue strategic objective that run against the commercial actor's economic interests" (Norris 2016, 177).

As seen, the literature on Chinese economic statecraft emphasises the use of economic means as proxies to leverage support in countries that are less developed yet strategically important for security, diplomatic, or resource-related reasons. But a small, yet growing, literature adds a layer of complexity to the explanation of China's state-business relations. Within this literature, Gu et al. (2016) argue that heterogeneity and lack of coordination define the current state of government-business relations. The Chinese government and Chinese businesses do not exist in a vacuum; they are the result of negotiations that run through highly diverse routes. Gu et al. (2016, 32) also argue that, notwithstanding the remaining influence of government on the policies and structures through which these firms operate, market pressures and increasing exposure to globalisation compel Chinese firms (both state-owned and private) to operate according to their own commercial priorities (Gu et al., 32).

Breslin (2013) takes a similar standpoint in arguing that in order to understand China's impact on the South, it is necessary to decompose the concept of the Chinese state into the plurality of strategic priorities that constitute it. On this account, state policies are essential in supporting the objectives of Chinese firms overseas and helping companies to make money. Yet it would be mistaken, as Breslin puts it, to confuse "state guidance or direction" with a commercial rationale with commercial actors being used "to attain grander geostrategic ends" (ibid., 1275).

Ian Taylor's (2019) analysis of China's SOEs in Africa also stresses the contradictions among the behaviours of different actors. As he contends (ibid., 115), many SOEs operating in Africa do not see themselves as part of an overarching geopolitical strategy. For this reason, it is possible to recognise several tensions between the behaviours of SOEs and broader Chinese foreign policy. Actually, as

Taylor (2019, 115) puts it, enterprises "perceive their role (and duty) as being to maximize profits, as well as to accumulate capital for either honest or dishonest reasons". He also suggests that the ability of the Chinese government to manage, supervise, and control SOEs' behaviours has been undermined by the ongoing effect of liberalisation and the competing interests and power struggle among officials and state agencies in charge of policy implementation (ibid., 116). Such a view resonates in Lee and Zou (2017), which provides a theorised understanding of state-SOE relations based on the idea of a "highly permissive environment" with "thin regulatory framework", "weak oversight", and "profit making" orientation.

Staking the middle ground between scholars who emphasise the complexity of interests and those who stress the geopolitical strategy informing Chinese firms' internationalisation, Gonzalez (2011) draws attention to the concept of the entrepreneurial state. On this view, we should think of state companies as a key part of the state apparatus and we should think of the state as a regulator in the market economy. As Gonzalez (2011) argues: "The Chinese state has maintained an ambivalent position in the process of internationalization of Chinese firms. On the one hand, showing strands of an authoritarian quasi-developmental state, it has tried to control these processes and incorporate them into a wider foreign policy strategy. On the other hand, as an increasingly capitalist state, it has granted greater managerial autonomy to companies as part of an active industrial policy that understands the importance of independent managerial skills and market competition in firms' development" (Gonzalez 2011, 402).

The resulting framework works through the issuing of broad targets, principles, and guidelines. Within the framework, given the residual authoritarian control over personnel and capital allocation, SOEs, which remain the main engines of internationalisation, are compelled to endorse instructions or at least not directly resist them (Jones and Zhou 2017). According to Zhu (2015), the fact that such actors have gradually become detached from the central government's control does not ipso facto make them unregimented. According to Zhu, today's landscape reflects the changing framework through which these entities operate and the gradual transformation of Chinese state actors from policy implementers to semi-independent players. This change is due to increasingly complex interactions between SOEs, the Chinese government, and the host country. Lee (2017) emphasises the importance of African local actors in shaping the outcome of Chinese market entry abroad. As she argues, "Even if Beijing can still wield many policy instruments to elicit some degree of compliance from its own domestic agents, it has no jurisdictional authority over the host countries or their citizenries" (ibid., 9). As her book incisively argues, the power of Chinese state capital is thus

subject to continuous contestations and change over time and is likely to produce "uneven and contested outcomes" outside the control of Beijing (ibid., 10).

While large enterprises have led the way in the internationalisation of Chinese capital, another class of actors have found their space in the framework of China's going-out strategy. Small and medium enterprises (SMEs) and Chinese migrants have been increasingly establishing a solid foothold in the international context (for example, Dobler 2006; Gonzalez 2012; Mohan and Kale 2007; Song 2001). Such players benefit from the investment network and experience of pioneer companies, access to policy-bank financing (for medium-size enterprises), market opportunities, and reduced risks (Gonzalez 2012, Song 2001).

According to a 2016 McKinsey report, around 90 percent of firms operating in Africa are privately owned. As the report argues, while SOEs tend to be larger and in sectors such as telecom, energy, and transportation, the majority of these private Chinese companies are SMEs working mostly in the manufacturing and retail sectors. In some cases, such companies hire Chinese citizens who were employed by a large SOE working in Africa and who, through different legal and illegal means, and turned into independent entrepreneurs. In other instances, taking advantage of family or community links, migrants have moved to emerging markets to join existing enterprises or to start new ones (Mohan and Kale 2007; Dobler 2006). For Bräutigam (2018), the firms in this category seek to enter the growing market for intermediate goods (construction materials, chemicals, and so on) and processed and manufactured goods. According to several authors, such firms operate outside the state orbit and pursue their own profit (Mohan et al. 2014; McKinsey 2016; Gadzala 2015). Gadzala (2015) emphasises the importance of taking into consideration the possible implications of the growing presence of independent Chinese migrants abroad. In her view, Chinese migrants—the "unofficial China", as she puts it—have penetrated the day-to-day reality of China-Africa relations, going well beyond state control.

The economic-statecraft literature tends to stress the close links between the state and companies and the interconnection between economic and geopolitical interests. Yet, with the consolidation of China's presence abroad, such an approach does not grasp all aspects of an increasingly globalised Chinese economy; it overemphasises the role of the Chinese state and underestimates the differences among actors in host countries. Against this backdrop, scholars have started questioning the idea of a perfect correspondence between all Chinese economic actors operating abroad and the state. A significant body of literature is now deconstructing Chinese internationalisation by identifying various actors and casting light upon the multiple interactions between Chinese and local players.

3.3 Conceptualising China's development-finance regime

3.3.1 A historical overview of China's development-finance regime

The relationship between Beijing and other developing countries is deeply entrenched within the rhetoric of South-South cooperation (SSC). SSC is presented as a set of horizontal peer relations shaped by the notions of mutual benefit, win-win partnership, and respect for sovereignty (Mawdsley 2012).²⁴ A number of Chinese authors (Zhang and Xu 1986; Zou 2006; Zhao 2010) have discussed China's stand on SSC as a form of economic cooperation among developing countries originating from the idea of the poor helping the poor and offsetting each other's weaknesses. In 1964, building on the five principles of peaceful coexistence introduced in 1953 (mutual respect for sovereignty and territorial integrity, mutual non-aggression, non-interference in each other's internal affairs, equality and mutual benefit, and peaceful coexistence), Premier Zhou Enlai announced the Eight Principles for Economic Aid and Technical Assistance to Other Countries, featuring equality, mutual benefit, and "no strings attached" as the basic principles underlying China's foreign aid. China's rhetoric of unconditionality and of mutual benefit is seen by some authors as a welcome alternative to Western legacies of neocolonial influence (Asongu and Aminkeng 2012). However, others (Alden 2005; Carroll 2006) are sceptical about China's SSC rhetoric, emphasising how China has offered itself as an appealing alternative to conditional aid while following previous Western patterns. In the words of Mills and Mzukisi (2016), "The notion of a collective interest of the global South is largely a misnomer in contemporary international political economy. Countries pursue partnerships or diplomatic relations in order to maximise aggregate wealth, boost their prestige, or strengthen their relative power vis-à-vis competitors in the global system" (ibid., 81).

One consensus in the literature is the idea that China's engagement in Africa is constituted by a series of phases and transformations and has seen a shift in prominence from ideological considerations to economic ones (for example, Carmody et al. 2011; Taylor 2007; Alden 2005, 2010; Bräutigam 2008; Goldstein et al. 2006; Xu and Carey 2015). According to the literature, it is possible to identify four phases: from the 1950s to the 1970s, from the reform era to the early 1990s, from the mid-1990s to 2015, and from 2015 to today.

²⁴ SSC can be defined as the "exchange of resources, technology and knowledge between developing countries" (Maruru and Fraeters 2010, 5).

In the early 1950s, when the Chinese government started providing foreign assistance, the focus was on supporting Communist-bloc solidarity. The assistance was directed to North Korea and Vietnam as a way to assist their military efforts. In the aftermath of the 1955 Bandung Conference, breaking with the international isolation forced on it by Western countries and the United States more specifically, China extended its aid to non-Communist countries. Chinese development finance between the 1950s and the 1970s can be labelled, following Kaplinsky and Morris (2009), "third world solidarity". China supported anticolonial movements through economic and military backing with the intention of assisting oppressed nations in their fight to become independent (Burke et al. 2007, Davies 2007). In particular, before the PRC joined the UN in October 1971, China's foreign aid policy was directed at obtaining recognition of its own independence. In order to legitimise its seat, China stressed its one-China policy and offered aid in return for diplomatic support from member states (Yeh 2010). According to Haibing (2019, 79), "Such tactic had the obvious feature of ideologically coloured foreign aid, mainly arising from the strategic need of vindicating national independence". In the African context, in the 1950s and 1960s, Chinese aid was directed at a group of sixteen countries that shared China's socialist ideology. Aid focused mainly on the agricultural sector and health sector, with dispatch of medical teams as the principal form of health aid. This stage was also characterised by the entry of a limited number of Chinese companies that implemented large aid projects, such as Tazara Railways and the Benin Friendship Stadium (Morgan and Zheng 2019).

The second stage of development came in the reform era. Dreher and Fuchs (2015) note that during this phase, China decreased foreign aid to other developing countries and pursued a more pragmatic policy in which economic considerations became more dominant in its aid allocation. In particular, once Beijing and Washington established diplomatic relations in 1979, Chinese leaders became less concerned about their competition with Taipei for international support (Bräutigam 2009). The Chinese government put in place a strategy of pragmatism, which "adjusted the scale, arrangement, structure, and sectors of its foreign aid in accordance with its actual condition" (Information Office of the State Council 2011, 2).

This pragmatism was also the result of other constraints. As described by Fischer (2010), China's current account deficit persisted throughout the 1980s until a short break in 1990–91, when strong economic growth resumed. The current account fell sharply back into deficit in 1993 (at 1.9 percent of GDP), and inflation surged to a peak of 24 percent in 1994. Throughout this period, as Fischer puts it, "China's take off was turbulent indeed, . . . rapid growth tended to induce current account deficits, while strong current account surpluses were only achieved through austerity or slowdown" (Fischer

2010, 745). Against this background, as China prioritised its own economic modernisation, it restructured and shrank its aid programme in Africa (Power et al. 2012).

A third stage started at the end of the 1990s and continued until 2015. During this time, China started registering a large twin surplus and accumulating a great amount of foreign reserves (Fischer 2010). This marked a new step in the Chinese development-finance regime. This shift coincided with China's exceptionally robust economic growth and the parallel need to diversify and secure energy and resource supplies. According to Morgan and Zheng (2019, 1292), the period from the mid-1990s to 2015 saw a sharp rise in all classes of financial flows. Before 1994, when CHEXIM and China Development Bank were established, the majority of Chinese official loans followed the traditional approach to aid (interest-free loans). After 1994, as Morgan and Zhen demonstrate, the proportion of interest-free loans fell dramatically. This signalled the beginning of China's new approach to development assistance, which combines traditional forms of aid with market-based financing mechanisms (ibid.). According to Gonzalez (2012), besides a large reserve of foreign exchange and China's demand for natural resources, this new phase of Chinese development assistance has been "principally motivated" by firms' need to face global competition, domestically and abroad, and thereby lead China's industrial development.

In this context, Chinese companies have become increasingly important.²⁵ Chinese companies have gradually increased their presence in African resource-rich countries and expanded their engagement in oil and gas markets (Taylor 2007). At the same time, an increasing number of small- and medium-size private companies have started entering the African market in search of new opportunities (Gu 2009), which points to the increasing relevance of commercial logics other than resource-related engagement. This phase found its clearest institutional expression in the FOCAC, the official mechanism to promote diplomatic, trade, security, and investment relations between China and African countries.

The last phase began in 2015, when concerns about China's economic slowdown became more pronounced. As Le Pere (2017) argues, China's economic restructuring and its repositioning in the global economy require new markets that are able to counterbalance stagnating exports, rising domestic production costs, and overcapacity in the infrastructure and manufacturing sectors. Accordingly, Chinese firms are further internationalising their operations and producing economic

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²⁵ The first Chinese oil companies moved into Sudan in the mid-1990s, and they were followed by companies investing in natural gas in Nigeria, timber in Cameron and Gabon, copper in Zambia, and so on (Yi-Chong 2014).

patterns, thereby connecting new geographical regions to Chinese production networks. Now, as Lee (2017, 10) contends, the Chinese government is trying to resolve issues related to excess capacity, falling profit rates, and potential social instability arising from a shaky economy.

The 2013 BRI,²⁶ China's major transnational endeavour, is a landmark of this phase. By taking as a model the ancient Silk Road, China aims to revitalise the trade routes connecting Asia to Europe through two major segments: the Silk Road Economic Belt and the 21st-Century Maritime Silk Road. With the construction of pipelines, railways, ports, and several special economic zones (SEZs), Beijing aims at facilitating trade and creating a new stimulus for Chinese economic growth.²⁷ This shift also marks the most recent phase of Chinese firms' engagement in Africa, characterised by a surge of financing and investments in sectors such as construction and manufacturing and a further increase of Chinese firms on the continent.

As this historical overview shows, China's engagement with Africa has evolved over time, shifting progressively from ideological motivations to an increasing attention to economic outcomes. Initially, Chinese engagement on the continent was mainly driven by ideology; the limited number of large Chinese SOEs mainly implemented aid projects. At the turn of the new millennium, when sustaining strong economic growth in China required both raw materials and new export markets, an increasing number of SOEs started doing business in resource-rich African countries. Several smaller companies have also relocated to Africa and operate mainly in the manufacturing sector and through the expansion of SEZs and industrial parks. Now, at a moment in which China's economy is experiencing structural adjustment as a result of a saturated domestic market, more and more Chinese firms are trying to gain access to the African market as a response to intense competition, overcapacity, and overinvestment at home (see chapter 5). As should be obvious, especially considering the blurry partition between Chinese public and private companies, firms are not the only actors that contribute to the going-out strategy. In the next section, I therefore turn to state actors.

3.3.2 The institutional actors

A rich literature argues that Chinese institutions have greatly disaggregated, decentralised, and internationalised (Alden and Hughe 2009; Corkin 2011; Su 2012; Shen and Power 2016; Taylor 2019;

²⁶ The BRI has shaped Xi Jinping's new strategic framework of peripheral diplomacy aiming at connecting Asia, Africa, and Europe along five routes in line with the principle of "wide consultation, joint contribution, and shared benefits".

²⁷ Official documents outline five priority areas: policy coordination, facilities connectivity, unimpeded trade, financial connectivity, and people-to-people bonds.

Duggan 2020). As Su (2012, 4) writes: "We cannot treat the Chinese state as monolithic, or 'China Inc.,' in which everything works in harmony . . . the Chinese state's functionality is riddled with competing state agencies, problems of cross-department coordination, and mismatch between central and local policies". Similarly, the institutional framework guiding China-Africa relations is often considered inconsistent and contradictory, characterised by what Alden and Hugher (2009) call "harmony and discord".

In 2018, concerns with planning and coordination prompted Beijing to launch a new international-development-cooperation agency, the China International Development Cooperation Agency (CIDCA). This entity is independent from MOFCOM and the Ministry of Foreign Affairs (MFA). According to its mission, it has the explicit aim to "strengthen the strategic planning and overall coordination of foreign aid" (CIDCA 2018). According to the Chinese government, the CIDCA should perform a coordinating role similar to that of aid agencies in other donor countries. It will also assume duties previously distributed between the MFA and MOFCOM, and it will report directly to China's State Council. In an article published by *People's Daily* on 2 March 2018, government officials themselves admitted organisational issues. Ding Xuexiang, director of the General Office of the CCP, said the fund of the new agency is meant to address issues related to organisational overlap, ambiguity of authority, and low efficiency (Zhang 2018). The new guidelines called *Measures for the Administration of Foreign Aid* reflect the agency's expanded mandate. The agency, whose budget will include grants, interest-free loans, concessional loans, and funding coming from the SSC funds, can authorise and supervise Chinese development projects and monitor and evaluate them.

Despite these efforts at centralisation, several other government entities still drive Chinese outward engagement, each of them with its own mission. China's development finance is managed mainly by four bodies—the State Council, the MFA, the MoF, and MOFCOM—together with several related banks, ministries, and commissions. At the pinnacle of CCP control over the Chinese development-finance sector is the State Council, the highest executive authority within the Chinese government's administrative branch. The State Council supervises all development-finance projects with an oversight and budget-approval role. After receiving proposals from responsible departments under the State Council, the MoF plans the budget allocation of aid projects. The MOF also manages the cancellations of foreign aid debt, allows for the donations to multilateral organisations, and approves annual aid plans. A number of ministries, including the National Health and Planning Commission, Ministry of Agriculture, and Ministry of Education, are also actively engaged in development-finance activities. Competent ministries are responsible for their own foreign aid projects and budget after the latter are submitted to and approved by the State Council.

The MFA plays an important role within the Chinese development-finance regime. It represents the statutory body of China's foreign relations in charge of encouraging domestic development and stability and developing good relations with foreign partners. The MFA is responsible for reporting about the formulation and implementation of China's foreign policy, hosting diplomatic meetings, and (through diplomatic agencies overseas) fostering the political environment necessary to enable economic exchanges (Breslin 2013). According to Zhang and Smith (2017), "Political relations trump short economic gains, because it is not possible to develop good economic relations without excellent political relations" (ibid., 2335).

MOFCOM has overall responsibility for making policies and plans about trade, investment, and external economic cooperation. Within MOFCOM, the Department of Aid to Foreign Countries manages foreign aid affairs, which are implemented by the Executive Bureau of International Economic Cooperation. MOFCOM is the caretaker of Chinese companies abroad. The Economic and Commercial Counsellor's (ECC's) offices are the overseas branches of MOFCOM and an integral part of each Chinese embassy abroad. Recently they have grown in importance in China's development-finance regime through their role in supporting Chinese contractors overseas. ECC offices play a regulatory role and intermediate between the state and businesses in many developing countries. Yet it is not rare that the relation between ECC and the local ambassador becomes a proxy for rivalry between the MFA and MOFCOM. According to Corkin:

"The competition between diplomacy and politics on the one side and economics on the other plays out in African countries. While Chinese embassies report to the MFA, the Economic Counsellor's Office, which is technically subject to the embassies' managerial authority, is separated from the embassy's structure and always reports directly to the MOFCOM, serving as the MOFCOM's 'eyes and ears on the ground' "(Corkin 2011, 67). As Corkin further argues, "This can readily cause confusion, as it is apparent in some countries that the two offices do not exchange information, as they work for separate ministries that may be competing for influence in Beijing" (ibid., 67).

Duggan (2020) argues that there are several conflicts among Chinese foreign policy actors working in Africa. Their conflicts and competition for power have caused counterproductive actions and clashes between Chinese stakeholders operating in Africa. In particular, the MFA and MOFCOM debate how to handle disputes amid Chinese firms and local African personnel, as in the cases of Zimbabwe, Mozambique, Angola, and Zambia. In these countries, according to Duggan, "MOFCOM attempts to secure the commercial success of the Chinese companies, while the MFA attempts to

secure good diplomatic relations with these nations" (Duggan 2020, 230). This line of thinking is shared by Taylor (2019), who argues that although MOFCOM and the MFA are formally equal in status, MOFCOM's pursuit of commercial opportunities for Chinese companies has often contravened the goal of Chinese embassies within specific countries, thereby eroding the MFA's authority over time. This tension, according to Taylor, is also visible between policy banks and commercial banks.

In China, policy banks provide the bulk of financing. CHEXIM and China Development Bank (CDB) are the most important. These two policy banks were designed to free the "big four" state-owned commercial banks (Bank of China, Agricultural Bank of China, China Construction Bank, and Industrial and Commercial Bank of China) to act as commercial actors. With the separation of policy lending from commercial lending, according to Chin and Gallagher (2019), the government aimed to ease bank managers' moral hazard. According to the authors, "If managers could blame all their losses on policy loans, they had an incentive to direct their commercial loans toward high-risk, high-return projects. The creation of separate policy banks would enable the commercial banks to be accountable for rational, market-based lending. Similar to the model of the Western-backed multilateral development banks (MDBs), these two policy banks have initial paid-in capital from the People's Bank of China (PBC) and MoF and raise additional financing on Chinese and global capital markets" (2019, 255).

CHEXIM was set up in 1994 and tasked with promoting the exports of Chinese products and supporting Chinese companies, which, at that time, had a comparative advantage in their "going global" operations, which aimed to build and intensify their relationships with foreign countries and to improve international technological and economic cooperation and exchange. Today, CHEXIM raises funds by issuing bonds in the domestic financial market and is responsible for project evaluation, loan disbursement, credit management, and collection of principal and interest payments, with the Chinese government subsidising the difference between the interest rate CHEXIM charges in concessional loans and the benchmark interest rate the central bank sets for the government's bonds (JICA 2020).

CDB is China's largest policy bank by lending volume. It mostly supports China's microeconomic policies included in the Five-Year Plans, and it focuses on eight areas of development: electric power, road construction, railways, coal, postal telecommunication, agriculture, petroleum, and public infrastructure (Gallagher et al. 2012). The government budget for development allocates CDB a large pool of capital. The government raises the capital in financial markets with the key objective of

sustaining the expansion of SOEs (Yi-Chong 2014). In 2007 CDB created the China-Africa Development (CAD) Fund as an independent subsidiary. The CAD Fund was established in June 2007 with a US\$ 1 billion initial pledge. The fund's primary purpose is to foster Sino-African relations through connecting African projects to Chinese investors, identifying investment opportunities, and bridging financial and managerial expertise in sectors such as power generation, transportation infrastructure, natural resources, and manufacturing. Both CDB and CHEXIM rely on the State Council to determine operating principles and priorities, seemingly suggesting that they are primarily related to Beijing's wider foreign policy (Taylor 2019). Yet the way they operate displays how "profitability and commercial concerns are more important" (Taylor 2019, 105). In a similar vein, Varrall (2015) argues that the commercial focus of Chinese banks causes friction with the diplomatic goals of the MFA, "encroaching on what would traditionally be considered as MFA territory" (Varrall 2015, 25).

Alongside CHEXIM and CDB, Beijing founded two global-development banks, the Asian Infrastructure Investment Bank (AIIB) and the New Development Bank (NDB). According to its charter, the NDB provides financing to "developing countries" to financially support sustainable development and infrastructure projects. The NDB issued in 2016 its first set of financing packages for clean alternative energy, mostly financed from green-bond emissions in China's onshore renminbi (RMB) market. Unlike both the Chinese national development-finance institutions (DFIs) and the Western MDBs, the NDB has devoted 60 percent of its funding to renewable energy and is working on developing a list of sustainable-infrastructure criteria in order to evaluate projects more efficiently (NDB, 2016). The AIIB was launched in 2016 with a capitalisation of US\$ 100 billion. As of 2018, according to official figures released by MOFCOM, US\$ 340 billion was committed to BRI projects, with the bulk of the funding coming from CDB and CHEXIM.

This review of the literature shows that the state system is far from being a linear chain of command; rather, it is an agglomeration of subnational agencies, ministries, offices, and banks. These actors often have competing interests and respond in different ways to challenges in African countries.

3.3.3 China's development-finance categories, instruments, and modalities

It is common knowledge that China's development-finance flows are difficult to track and examine. Beijing has a policy of not publishing project-level records about its official financing activities

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²⁸ Any United Nations member country.

abroad. In response to the shortcomings of China's official statistics, two major independent projects have emerged to track China's development finance worldwide. SAIS-CARI tracks China's aid to, loans to, and investment in Africa using the "forensic internet sleuthing method", which triangulates China's official reports on loans with interviews with Chinese contractors and African government officials. The College of William & Mary's AidData China project tracks China's foreign aid using open-source data from China's official documents and media reports. It includes both official development assistance (ODA)²⁹ and other official flows (OOF),³⁰ and it classifies aid projects as ODA-like, OOF-like, or "vague official finance" (which captures officially financed Chinese projects for which there is insufficient information to make an ODA-like or OOF-like determination).

Available analyses based on these existing databases point out two facts about China's international lending. First, the dearth of data has led both to considerable misperceptions and confusion about how Chinese ODA is categorised and to significantly different estimates (Strange et al. 2017). Second, China's development finance differs greatly from that of traditional donors. According to the State Council's first white paper,³¹ published in 2011 and titled "China's Foreign Aid", China divides its official foreign assistance into three types: grants, zero-interest loans, and concessional loans, which qualify as ODA; preferential export credits, market-rate export buyers' credits; and commercial loans from Chinese banks, which are considered OOF finance. However, according to Deborah Bräutigam, "The lion's share of China's officially supported finance is not actually official development assistance" (Bräutigam 2011).

²⁹ ODA is the term used by the OECD Development Assistance Committee to indicate all flows that are concessional in character and administered with the goal of promoting the economic development of the recipient countries. The definition of ODA has changed over time. Up to 2018, ODA included all flows of official financing with a grant element of at least 25 percent (using a fixed 10 percent discount rate). In 2018 the OECD published the new grant-equivalent measure of ODA: a grant element of 45 percent for loans to least-developed countries (with a discount rate of 9 percent), 15 percent for loans to low- and middle-income countries (with a discount rate of 7 percent), 10 percent for loans to upper-middle-income countries (with a discount rate of 5 percent), and 10 percent for loans to multilateral institutions (with a discount rate of 5 percent).

³⁰ According to the OCED, "other official flows (OOF) are defined as official sector transactions that do not meet official development assistance (ODA) criteria. OOF includes: grants to developing countries for representational or essentially commercial purposes; official bilateral transactions intended to promote development but having a grant element of less than 25 percent; and, official bilateral transactions, whatever their grant element, that are primarily export-facilitating in purpose. This category includes, by definition: export credits extended directly to an aid recipient by an official agency or institution (official direct export credits); the net acquisition by governments and central monetary institutions of securities issued by multilateral development banks at market terms; subsidies (grants) to the private sector to soften its credits to developing countries; and, funds in support of private investment". https://data.oecd.org/drf/other-official-flows-oof.htm (accessed 3 August 2019)

³¹ In 2011 and 2014, the Chinese government released two white papers with a broad range of statistics about Chinese foreign assistance since 1950. However, the white papers do not include country-specific data; they focus mostly on regions and organise it by income levels of the recipient countries.

Grants and zero-interest loans are capitalised by the Chinese government's fiscal revenue and denominated in RMB (Chen 2018). Chinese grants are mainly offered in the form of financing for social-welfare, poverty-reduction, livelihood, and humanitarian issues. According to the two white papers on foreign aid, zero-interest loans usually promote broad diplomatic objectives. They often pay for public works such as national stadiums and conference centres and have a term of twenty years, including five years of use, a five-year grace period, and a ten-year repayment period. Notably, since the introduction of concessional loans, interest-free loans have played a decreasing role (Morgan and Zheng 2019). Grants and interest-free loans are capitalised by the government's tax revenue and distributed by MOFCOM's Department of Foreign Assistance.

Concessional loans are issued by CHEXIM's department of preferential loans and capitalised through CHEXIM's self-raised fund. According to official rhetoric, such loans are used by the Chinese government to support economic development and improve living standards in other developing countries and to boost economic cooperation between them and China. As the new released guidelines called *Measures for the Administration of Foreign Aid*³² contend, "Concessional loans shall be mainly used for supporting aid recipients' economically efficient productive projects, resource and energy exploration projects, large-scale infrastructure construction, and for provision of large quantity of mechanical and electrical products and complete equipment" (*Measures for the Administration of Foreign Aid* art. 17). In providing the financial subsidy, MOFCOM pays the difference between the loan interest rate and the benchmark interest rate used by the PBC.³³ Grants, interest-free loans, and concessional loans can only be signed with a government agency of the recipient country (State Council 2011). Loan conditions for concessional loans included an interest rate of 2.5 percent and a fifteen-year repayment period with a five-year grace period from 2001 to 2010 and an interest rate of 2.0 percent and a twenty-year repayment period with a seven-year grace period from 2011 to 2018 (JICA 2019).

To support its companies' overseas business, China provides also a number of instruments that are often mixed with its official development finance. CHEXIM provides credit to foreign borrowers for

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³² On 15 December 2014, China's *Measures for the Administration of Foreign Aid* came into effect. The measures are "China's first comprehensive ministry-level regulations regarding the administration of foreign aid, drawing on over sixty years of experience in providing foreign aid. The release of the measures represents a significant step toward a larger foreign aid reform and has significant implications for China's foreign aid, as they provide the regulatory framework for future reform and will help further standardize China's foreign aid system" (UNDP 2014).

³³ The Chinese interest rate used by the central bank of the PRC in 2020 is 4.050 percent (as of 7 March 2020).

their imports of Chinese products, technologies, and services, both in RMB and in foreign currencies. Its primary aim is to promote Chinese exports to third markets. They are subsidised, but as CHEXIM's main goal is to support Chinese exports they are not classified as ODA. Export sellers' credits are preferential loans for Chinese firms operating abroad and serve the objective of promoting Chinese exports, enhancing the companies' competitiveness in the international market, and helping them earn foreign exchange. They are administered by CHEXIM and are non-profit-oriented. Mixed credits combine lines of credit to export buyers in a borrower country with concessional loans to Chinese export sellers, often with the aim of financing a specific project. Like MOFCOM and CHEXIM, CDB offers loans and lines of credit. However, CDB only offers nonconcessional loans. Interest rates on CDB loans generally range between 3 and 6 percent (Chen 2018). In particular, interest rates were 5.25 percent and 4.40 percent in 2015 and 2016; interest rates on medium- to longterm RMB loans ranged from 4.75 to 4.9 percent (CDB Annual Report 2016). Finally, "resourcebacked finance" refers to credits granted to developing countries, particularly for infrastructure, in exchange for natural resources. The finance takes the form of commodity-backed or resource-secured loans, in what is generally called the Angola Model. Through these lines of credit, resource-rich countries use their natural resources to guarantee loans with better terms and conditions than those available from traditional commercial banks. Most of the time, the loan is contingent on a Chinese company gaining preferential access to the natural resources that will be developed.

China's development-finance tools are instrumental for Chinese companies' entry into foreign markets. Chinese policy-bank financing comes with a number of specific conditions attached and helps promote the internationalisation of Chinese firms. This is similar to other donors that use tied aid,³⁴ which limits procurement to companies from the donor countries.³⁵ However, as Mattlin and Nojonen (2015) argue, compared to other donors, China's funding agencies and companies tend to impose more encompassing requirements regarding the sourcing of inputs; for example, they demand that at least 50 percent of goods and services be sourced from Chinese contractors (Mattlin and Nojonen 2015). A central condition to qualify for a loan is that the recipient hire a Chinese contractor. In procurement projects, equipment is, in principle, also provided by Chinese exporters; and materials, technology, and services must come from China. Additionally, in the context of the development-finance regime, Chinese companies are not required to collaborate with the local private sector or communities on feasibility studies and impact assessment (Zhu 2015). According to

³⁴ "Tied aid" refers to official grants or loans that limit the procurement of goods and services to companies in the donor country.

³⁵ Radelet (2006) argues that, historically, the United States has tied about 75 percent of its foreign assistance, Greece 70 percent, and Canada and Austria approximately 40 percent.

Bräutigam and Gallagher (2014), the controversy surrounding Chinese tied finance comes from the misconception that Chinese finance to these regions is aid and should be untied. Yet, according to them, the aim of all export-import banks is exactly to supply credits for buyers of the lending nation's goods.

Chin and Gallagher (2019) refer to China's approach to development finance as "the international diffusion of a coordinated credit space model". According to the authors, the coordinated intervention of state financial institutions and commercial banks constitutes the main difference between the Chinese financial system and the private sector—centred financial systems of Western economies. Through strong coordination between all levels of government, financial institutions, and firms (the delivery agents), the model has allowed Chinese banks to control credit risk while boosting China's economic growth. In this context, "the goal is not just to supply financing at the individual level, but to help drive the development of the market for the sake of the national development" (ibid., 252).

According to Gallagher et al. (2016, 12) "Part of the reason why Chinese banks may be willing to take on more risk may be because they are less beholden to Western credit ratings. A recent G-24 Finance Ministers report showed that the Western-backed MDBs have become highly concerned about their credit ratings and have become less apt to lend to certain groups of countries whereas China's banks can rely on deep Chinese capital markets. Moreover, these banks may be willing to take on more risk because China's foreign policy is to not discriminate on the basis of borrowing country governments' domestic policy and behaviour, whereas the MDBs often have a set of domestic policy conditions that make it less apt to finance certain governments. Finally, Chinese banks appear to take on more risk because they secure some of the loans with commodities".

Kaplan (2018) defines China's state-led capitalism as a form of "patient capital" characterised by "long term maturity structure" and "high-risk tolerance". In particular, in contrast to private investors, China's policy banks are more isolated from debtors' financial distress because they are backed by both China's large foreign reserves and its guarantee of their loan portfolios (through commodity-backed loans or through guaranteed contracts with SOEs). This contrasts with the Western kind of financing, which emphasises prudent macroeconomic policies as a precondition for new financing. Thus the government both offers a longer-term development horizon and increases the risk tolerance of Chinese creditors. Its aim is to encourage long-term development nationally and stimulate greater integration globally.

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³⁶ Chinese bilateral lending is usually long term, with returns of ten years or longer (Kaplan 2018).

Yet, according to Kaplan (2018), Chinese creditors signal their risk tolerance through promising that the loans come with no political conditions and no intervention in borrowers' sovereign affairs. In the same vein, Chen (2018) argues that, even though Chinese government-backed finance offers a solution to countries in which fiscal revenues are insufficient and capital unavailable, the government could be creating a moral-hazard problem in which recipient countries' financial overextension leads them to misallocate their investments and become more indebted. As Chen argues, "Government's credit enhancement, the core of CDB model, turned 'un-bankable' projects 'bankable', and enabled the funding of infrastructure projects that could neither attract market capital nor be financed by fiscal revenue. But when doing so, the CDB also allowed projects that should not have been financed, according to commercial standard, to actually receive funds" (Chen 2018, 60). Development loans to underdeveloped regions or to blatantly inefficient projects may spur growth, or, as often occurs, they may increase the debt volume of recipient regions. However appropriate these observations are, they neglect the fact that this kind of moral hazard is not distinctively Chinese (Easterly 2006). It has been a common trait of many other forms of development engagement. And, despite such criticism, the default rate on CDB loans is much lower than that on commercial bank loans (Gao et al. 2018).

Mapping drivers, modalities, and instruments of Chinese development finance, and comparing and contrasting them with those of traditional donors, helps us to understand the rules of the game in which African state actors, African nonstate actors, Chinese state actors, and Chinese nonstate actors negotiate and make important decisions. At the moment, Chinese development finance seems to be mainly oriented towards creating a normative and economic framework that can facilitate the commercial interests of Chinese firms operating abroad. This means mitigating commercial risk, alleviating the costs of working in risky locations, enabling market access, and ensuring integration in the production network.

3.4 Conclusion

In this chapter, I have reviewed scholarship in different subfields to show why it is important to think of China-Africa relations as the result of a multilayered process involving many actors who have different and competing interests. For a long time, China has been depicted as a single entity operating abroad through different branches under central control. The literature surveyed in this chapter tells us a different story, one of an increasingly diverse set of firms and institutional actors participating in China's internationalisation. These actors operate within a development-finance regime in which

the boundaries between commercial and development finance are blurry. This chapter has set the stage for an analysis of institutions' and firms' relations on the ground and of the negotiations between Chinese stakeholders and African actors. The next chapters shift the analysis to the Ethiopian context specifically.

CHAPTER FOUR—SETTING THE STAGE: ETHIOPIA AS A DEVELOPMENT STATE AND THE CRUCIAL ROLE OF CHINESE INFRASTRUCTURE

4.1 Introduction

Chapter 3 investigated the Chinese side of contextual preconditions. In this way, it accounted for the negotiating space Chinese actors may (or may not) have in Ethiopia, given their broader outward-engagement agenda. Yet, within the GIN framework, it is also fundamental to capture the role of Chinese-financed and Chinese-built projects in the context of Ethiopian national political economy. This two-way perspective helps us, first, to identify contextual preconditions shaping Ethiopian elites, regional bureaucrats, and institutional and non-institutional actors and, second, to understand how Chinese actors adapt to (or take advantage of) the presence or absence of local and regional politics, market structure, regulatory framework, and domestic capacity.

Given Ethiopia's rapid economic growth and the high degree of state intervention in the economy, among scholars there is a frequent characterisation of Ethiopia as a developmental state. In fact, the federal government has repeatedly applauded the Chinese approach to economic development as a welcome alternative to neoliberal capitalism and has recognised Chinese efficiency in infrastructure development. The crucial role of infrastructure as a strategic asset in fostering economic development and as an enhancer of national power and prestige has been recognised by an imposing rate of public investment in infrastructure, among the highest in the world in the last decade (Sennoga et al., 2016; Moller and Wacker 2017). This trend has accelerated thanks to the Chinese government's attractive package of incentives based on cheap loans, speedy bureaucracy, and political non-interference. Capitalising on Ethiopia and China's increasingly close political and economic relationship, Chinese firms have led a rapid expansion in the infrastructure sector, strengthening their position thanks to their ability to deliver infrastructure faster and at a lower cost compared to their Western counterparts and to fill the technological and capacity void of the local workforce.

The following discussion is organised in three parts. The first describes Ethiopia's socio-political environment. In so doing, I trace the evolution of the Ethiopian developmental paradigm, focusing on past and present governance modalities and their connection with more or less rooted political and social cultures. The second analyses the historical interaction between Ethiopia and China and focuses on the factors that have contributed to Ethiopia's increasing economic and political engagement with China in the last decade. The last section turns to the recent boom in Ethiopia's infrastructure sector,

delving into the growing presence of Chinese companies in the energy, transportation, telecommunication, and water sectors.

4.2 Framing Ethiopian engagement with China: past and present governance modalities

4.2.1 The governance context: Ethiopian developmentalism

The developmental nature of the Ethiopian state is highly disputed in the literature. However, contrary to the majority of African countries, Ethiopia has a long experience of statehood, which has been driven by an indigenous process. In 1974 the installation of a Marxist military dictatorship, the Derg, ruled by Mengistu Hailemariam, established the People's Democratic Republic of Ethiopia as a one-party state. In prevailing narratives (Clapham 2017), state capitalism and the Soviet Union's strong support were among the key factors pushing the Derg to nationalise all urban and rural land. Banks, large industries, and commercial companies were also brought under state control, and segments of the rural population were relocated to collectivised farms (Clapham 2017).

In 1991, after a long and violent civil war, a Maoist peasant front—the Tigray People's Liberation Front (TPLF)—overthrew the socialist regime. The resulting precarious government has gone through several transformations since then, passing from a socialist liberation movement, to a developmental regime with China as a benchmark model, to a coalition of ethnic political movements called the Ethiopian People's Revolutionary Democratic Front (EPRDF). Since most of the population considered the EPRDF as mainly controlled by the Tigrayan ethnic minority, TPLF leader Meles Zenawi, with the aim of broadening the movement's political base, created an ethnic-based federal system. One of the core ideas was "performance legitimacy". Positive economic results functioned to legitimise the government and therefore establish the EPRDF as the rightful holder of power (Clapham 2017).

The 1994 Ethiopian constitution formalised the transformation of Ethiopia into a country-wide coalition of ethnic movements in what became known as ethnic federalism. As Vaughan (2003) puts it, the introduction of ethnic federalism is to be understood mostly as a "mechanism of conflict resolution". By reducing the inter-ethnic conflict that had divided Ethiopian society for centuries, as Cohen argues (1995, 159), EPRDF aimed to "promote equitable material conditions in all areas of the country; and improving the efficiency and effectiveness of public sector performance at the field level". As a result, the decentralisation of authority from the federal government included devolving

administrative and fiscal authority to nine regional states,³⁷ "delimited on the basis of settlement patterns, identity, language and the consent of the people concerned" (FDRE Constitution 1994, Art. 46, 47).

After its civil war, Ethiopia was permeated by a combination of ethno-nationalist rhetoric and by a state commitment to deliver rapid economic growth as a way to stabilise its power. On this view, development policy was considered as a "mean to ensuring the continued survival of the Ethiopian state and its people" (FDRE 2002). In this context, Meles Zenawi rejected the so-called neoliberal model of development as a "dead end". He looked at Asia as an example in which developmental states had been able to thrive by disrupting structural-adjustment policies. Three years after seizing power, the EPRDF adopted the agricultural-development-led industrialisation plan (ADLI). ADLI aimed at raising smallholders' agricultural efficiency through improving agricultural inputs and labour-intensive production. It also aimed to facilitate a gradual transition towards an industrial economy through fostering backward and forward linkages between agriculture and the emerging industrial sector (MOFED 2003). In 2001, continuing on the path of ADLI, the EPRDF published a set of sectoral strategies: Foreign Affairs and National Security Policy and Strategy (Ministry of Information, Addis Ababa, 2002); Industry Development Strategy of Ethiopia (Ministry of Industry, Addis Ababa, 2002); Ethiopia: Sustainable Development and Poverty Reduction Program (MOFED, Addis Ababa, 2002); and Rural Development Policy and Strategies (MOFED, Addis Ababa, 2003). The EPRDF also adopted a new political and economic stance in which the "developmental state" became even more prominent in the overall ideology of the party.

This ideational change started to become more and more evident after a split in the party leadership and the subsequent *tehadso* (renewal) campaign. In this way, Meles Zenawi was able to consolidate his power and to shape the economic agenda (Tadesse and Young 2003). Political and economic reforms aimed at causing a deep reconstruction of the economic system and a transition to a market economy through gradual and centrally directed steps.

The 2005 national parliamentary elections marked a historic event for the EPRDF under the leadership of Meles Zenawi. Responding to the pressure of international donors, opposition parties and independent candidates participated in the political competition, leading to record turnout. Among the opposition parties and independent candidates were the Coalition for Unity and

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³⁷ Nine autonomous regions plus Addis Ababa and Dire Dawa (cities administered by the federal state) (first level); zones (second level); weredas, or district authorities (third level); and kebeles (Prizzon and Rogerson 2013).

Democracy and the United Ethiopian Democratic Forces. Unofficial results suggested the Coalition for Unity and Democracy won, but, according to the final results, the EPRDF maintained a majority. This clash of results motivated political protests and accusations of electoral fraud across the country.

Political instability proved to be a good opportunity for the EPRDF to consolidate its control over institutions and government. Liberal democracy was presented as a constraint on progress. Developmental-state rhetoric escalated. And Ethiopian officials looked even more closely at Asia, and China in particular, as a key source of lessons on development. As a result, the principles of custom-made development, rapid catch-up economic growth, industrial development, and massive public investments in key areas appeared in many relevant policy decisions made by the EPRDF.

In this endeavour, the Ethiopian state took control of domestic revenues and strategic sectors, such as energy, telecoms, power, and transportation (Fantini 2013). The emphasis on centralised economic planning culminated in 2005 with the five-year Plan for Accelerated and Sustained Development to End Poverty, whose central aim was for the country to reach an average of 7 to 10 percent growth in real GDP from 2005 to 2010 through "a massive push to accelerate growth" (MOFED 2006, 165, 63). Within this framework, and through a series of administrative reforms aiming at creating a strong bureaucracy, the EPRDF began setting the institutional foundations of the "developmental state". Further, a national capacity-building programme introduced a range of new reforms aiming at upgrading institutional capacity at both the federal and regional levels. In this way, the EPRDF was able to strengthen the capacity of regional bureaucracies while consolidating its hold on the federal government (Fisher and Gebrewahd 2018; Weis 2016).

The EPRDF also established several party-controlled businesses, clustered as regional endowment companies. Under the umbrella of the Endowment Fund for the Rehabilitation of Tigray (EFFORT), endowment companies bridged the gap between the private and the public sectors by generating opportunities in areas left uncovered by private companies, investing in projects beyond the capacity of local entrepreneurs, and acting as a role model in consolidating a "culture of industry" (Weis 2016, 244).³⁸

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³⁸ At the moment, EFFORT includes sixteen companies, which operate across several sectors, such as transportation, cement, constructions, agro-processing, and industrial engineering. Some of these companies operate in areas such as cement and construction in which the state is heavily involved (Clapham 2017). As a result, EFFORT-controlled companies have been working as contractors in important public infrastructure projects. For instance, EFFORT-controlled companies produced the cement for the African Union building and produced the equipment for new state-run sugar factories (Weis 2016). However, despite receiving preferential treatment, evidence shows that EFFORT-controlled companies are yet to become profitable (Feyissa 2011).

Against this background, the state took on a pivotal role. At the heart of the Ethiopian developmental state has been the idea of "securitization of development". Securitisation of development "gives credence to the immediate need for wider state power and the aggressive mobilization of natural financial and human resources" against poverty, which is still considered as an "existential threat" (Gebresenbet 2014, 66).

The 2010 GTP represents an important turning point in the Ethiopia development strategy. In this document, the Ethiopian government publicly endorsed mega projects and thereby a significant increase in public spending. Public spending was therefore recognised as a key driver to double GDP and achieve middle-income status by 2025 (MoFED 2010). As Weis (2016, 294) explains, "The GTP captured what Meles referred as the 'single minded pursuit of accelerated development'. In contrast to previous governments the document no longer regarded it as a policy framework but as a national masterplan for mobilising and coordinating the country's development forces".

Then, in 2015, GTP II set the so-called "renaissance agenda" (Terrefe 2018), in which infrastructure projects were pivotal. EPRDF continues to think of infrastructure projects as push factors for economic and industrial growth and as a way to strengthen national power and prestige. Within this framework, the EPRDF has continued to give priority to investment through infrastructure mega projects.

The unexpected death of Meles Zenawi in 2012 and the ill-fated election in 2015, in which the EPRDF won 95 percent of the vote and all seats in Parliament, rekindled the discontent. The harsh response of the new prime minister, Hailemariam Desalegn, led to further riots and signalled a further crucial stage in the political and economic direction of Ethiopia. Following waves of protests by Oromo, Amhara, and Gurage youth, Desalegn resigned on 15 February 2018 with "the hope to facilitate an end to unrest and political crisis in the country". However, as Fisher and Gebrewahd (2018, 199) note, the relative power vacuum at the federal level, "coupled with the outbreak of renewed factionalism and introspection within dominant TPLF . . . accelerated processes of regional level regime building already underway".

³⁹ Al-Jazeera, "Ethiopia Prime Minister Hailemariam Desalegn Resigns", 15 October 2018, https://www.aljazeera.com/news/2018/02/ethiopia-prime-minister-hailemariam-desalegn-resigns-

To contain this process of regionalisation, Abiy Ahmed—the new prime minister, chair of the EPRD, and leader of the Oromo Democratic Party—has taken a conciliatory approach. He "publicized visits to communities across the country where an Ethiopia self-governing nationality has been played down in favour of the more pan Ethiopian and vague vision of *medemer* (Amharic for summation)" (Fisher and Gebrewahd 2018, 206).

On the economic front, Abiy launched the strategy called A New Horizon of Hope. Deeming sector-led growth unsustainable—with mounting debts, a chronic and worsening foreign exchange crunch, and an insufficient increase in industrial exports—the new strategy, as a MoFEC official (E9) noted, 40 tries to get returns on education and infrastructure investments by pushing the private sector to capitalise on them.

Despite international praise and widespread political enthusiasm, Ethiopian political direction remains highly unpredictable. As Terrefe (2018) puts it, "Especially since the passing of Meles in 2012, ... the centre is being challenged by less receptive, more politically accountable and increasingly critical local elites". Moreover, shortage of capital, foreign exchange issues, a weak domestic private sector, a high level of unemployment, and social unrest continue to affect the political economy.

Over the last three decades, as we have seen in this part of the section, despite the progression through phases of political stability and political instability, investments in infrastructure projects have remained an essential component of the Ethiopian development strategy. It is in this context that we must study the China-Ethiopia relation and, more specifically, the Chinese presence in the Ethiopian infrastructure sector.

4.2.2 Sino-Ethiopian relations in historical focus: the determinants of Ethiopia's convergence

In 2020 Ethiopia and China will be celebrating the Golden Jubilee of their diplomatic relationship. The connexion between China and Ethiopia can be traced back to the first millennium CE (Filessi 1972). However, the bilateral relationship started when Beijing supported the Eritrean Liberation Front during the Eritrean conflict in the 1960s; an official diplomatic relationship was then established in 1970. Nevertheless, during the entire period of the Derg regime (1974–91), contact between the

⁴⁰ Interview with MOFEC official, Addis Ababa, September 2018.

two countries was sporadic. Sino-Ethiopian relations strengthened once again after the fall of the Derg regime and the arrival of the EPRDF in 1991.

During the insurgency period, the EPRDF/TPLF had much ideological overlap with China in the form of Maoist and Marxist ideology. Yet, shortly after Ethiopia's prime minister, Meles Zenawi, took power, persuaded by the financial support of Western donors financing reconstruction and development efforts, he dropped all reference to Marxism and Leninism. At the same time, EPRDF announced its willingness to institute a federal and democratic regime with a market-economy orientation (Cabestan 2012). But China and Ethiopia tightened their relationship again after EPRDF began to fear that the donors would pressure them to accept political and economic reforms. In 1996, during the visit of Meles Zenawi to Beijing, the countries endorsed several technical- and economic-cooperation agreements. A year later, Chinese president Jiang Zemin visited Ethiopia, where, during a speech at the Organization of African Unity in Addis Ababa, he proposed working towards a twenty-first-century China-Africa relationship characterised by "long-term stability and all-round cooperation". A

Since then, the governments of China and Ethiopia have steadily strengthened their diplomatic relationship. Meles Zenawi visited China four times (in 1995, 2004, 2006, and 2011). President Mulatu Teshome visited China three times (in 2004, 2014, and 2017). And Chinese officials have visited Ethiopia on various occasions. The increasing exchange of visits by high-level delegations of both countries has been instrumental in promoting and consolidating Sino-Ethiopian cooperation and marking the start of a period of intense political relations characterised by agreements on trade, investment, and joint commercial ventures (Jalata 2017). High-ranking Chinese officials—including the premier, president, minister of foreign affairs, and minister of trade and commerce—have been visiting Ethiopia at least once a year. Building on this, in 1998 the Joint Ethiopia-China Commission was set up between Ethiopia's MoFEC and China's MOFCOM.

Since October 2000, Sino-Ethiopian bilateral ties have been even stronger thanks to the establishment of the FOCAC. In 2001 the Ethiopian prime minister conveyed Ethiopia's support for the one-China

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⁴¹ For a list of cooperation agreements, see Annex II.

⁴² https://www.fmprc.gov.cn/mfa_eng/ziliao_665539/3602_665543/3604_665547/t18035.shtml. Accessed 13 August 2019.

⁴³ Chinese prime minister Jong Zhou Elai visited Ethiopia in 1964. President Jiang Zemin visited in 1996. Premier Wen Jiabao, accompanied by Secretary of State Li Zhaoxing, visited in 1996 and in 2003 on the occasion of the second FOCAC session. Wu Banguo, the National People's Congress chairman, visited in 2010. Prime Minister Lee Kechiang visited in 2014, and State Councilor and Foreign Minister Wang Yi visited in 2016 and 2019 (Soruce: Ethiopian Ministry of Foreign Affairs, 2018).

principle. In 2003 Ethiopia hosted the second FOCAC conference. During this conference, the two countries investigated new ways to strengthen their cooperation in key fields, such as agriculture, infrastructure, investments, and trade. Since then, the forum has become the main institutional channel for China-Ethiopia relations and a platform for political, economic, and technical cooperation (Harneit-Sievers et al. 2010).

Despite such progress, the effects of the renewed relationship between Ethiopia and China were not immediately evident and Ethiopia did not yet consider China an alternative to Western donors (Hackenesch 2018). Chinese aid, trade, and investments remained limited during the 1990s and the early 2000s. At the turn of the century, Beijing financed a few road projects and sent medical aid. In the early 2000s, direct investments from and bilateral trade with China remained limited. In 2005, according to MOFCOM, the stock of Chinese investment in Ethiopia stood at less than US\$ 50 million.

A significant shift resulting in EPRDF's ties with China came in 2006, when the Ethiopian government received China's first substantial loan. During the third FOCAC conference held in Beijing in that year, China announced a comprehensive package of trading opportunities, direct investments, and US\$ 500 million of grants, interest-free loans, and concessional loans, all of which reduced Ethiopia's dependence on its traditional partners in a pivotal moment (Hackenesch 2018). In that context, the former Chinese ambassador to Ethiopia emphasised how Ethiopia was the only African country benefitting from all of the eight policy measures propounded by the FOCAC (Gu 2008). Since 2005 diplomatic channels have further intensified and party-to-party relations have strengthened substantially. Against this background, China signed a further agreement on US\$ 18.5 million in debt relief in May 2007 (FMPRC 2007).⁴⁴ From the perspective of the Ethiopian government, intensified relations with China meant both the opportunity to diversify sources of development backing and, at a moment in which other allies were withdrawing their support, the opportunity to gain political leverage at the national and international levels.

In this context, China emerged as an important source of financing for the Ethiopian government in a moment in which the country was trying to implement its infrastructure-development-based "renaissance agenda". In 2010 Foster and Morella (2010) calculated that in order to meet its infrastructure needs, Ethiopia would require US\$ 5.2 billion per year for the following decade. China's increasing role as an infrastructure financier came at a time in which the Ethiopian

⁴⁴ https://www.fmprc.gov.cn/zflt/eng/zxxx/t324405.htm. Accessed 26 March 2018.

government was in deep financial need and traditional donors and OECD creditors were denying funding for infrastructure projects (d'Orey and Prizzon 2017). ODA to infrastructure projects as a share of total ODA has been declining since the 1970s, especially in SSA (Dollar 2008; Newman et al. 2016). As a result, between 2000 and 2017, the total amount of Development Assistance Committee (DAC) donors' disbursement to Ethiopia's transport, energy, and ICT sectors was US\$ 3.5 billion, less than 30 percent of Chinese financing in the same sectors (OECD 2018). The case of the ICT sector is particularly striking. The last loan provided by multilateral banks was in the 1980s, when the International Monetary Fund and World Bank prodded the Ethiopian government to liberalise and privatise telecommunication services (Workneh 2016). The ICT sector received just US\$ 40 million from those organisations between 2000 and 2017. The general feeling is well captured by a MoFEC senior official: "We could not keep developing through grants. Grants from Western countries were helpful to confront specific problems like health and education, but in order to build the necessary infrastructure to sustain industrialization we needed a different kind of financial support ... In this sense I think China was the only option we had to close the infrastructure gap" (E75). 45

However, the Ethiopian government did not see Chinese financial flows as alternatives to development assistance from ODA donors and other financial institutions. Different sources of financing were seen as complementary and important for different sectors. Given the shortage of capital available to Ethiopia, China represented to Ethiopia an opportunity for the latter to diversify its funding sources. Moreover, even aside from the shortage of capital, the Ethiopian government considers Chinese disbursement faster and less bureaucratic compared to that of traditional donors. For the infrastructure sector, multilateral banks such as the World Bank and the AfDB have standards that are often much more expensive and time consuming to meet. When factoring in the trade-off between financial terms and speed of delivery, the Ethiopian government opted for less concessional mechanisms for providing finance that would be disbursed more quickly than that obtained on concessional terms with a procurement process that might lengthen the project cycle beyond what the Ethiopian government considered tolerable (d'Orey and Prizzon 2017). Hence, with its more streamlined and swifter procedures, China has had the advantage of sparing Ethiopia the bureaucratic hurdles involved in dealing with traditional donors, which has dramatically reduced negotiation and construction time.

Finally, on the political side, China's non-interference policy and respect for sovereignty has proved to be an alternative to the conditionality of the aid provided by Western countries; this gives the

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⁴⁵ Interview with MOFEC official, Addis Ababa, September 2018.

Ethiopian government otherwise-unavailable space for taking autonomous action. China presents its cooperation strategy as based on the recipient country's capacity to develop. While traditional donors impose political conditions, China defends its development assistance as based on integrity, mutual non-aggression, non-interference in each other's internal affairs, equality, and mutual benefit. On the one hand, this narrative has made China's increasing presence in the country more politically acceptable. On the other hand, the absence of political requirements has given new funding access to a country with very weak democratic credentials. According to an interview with the EIC, "With China there are less conditions. If we talk to the US government, they will be glad to give us loans but you have to do certain things; there are preconditions. For example, they will tell us that we need more opposition groups, lift the state of emergency, respect human rights, there are a whole bunch of these kind of stuff. But if we go to China it's easier, faster, and cheaper, but even more than that, there are less preconditions" (E19).⁴⁶

To sum up, relations between China and Ethiopia hit a turning point in 2005, when the international community started to criticise the Ethiopia government and began withdrawing economic support. At that juncture, Ethiopia saw engagement with China as an opportunity to diversify its financing without compromising on their political independence. Year after year, Ethiopian officials have seen Chinese financial mechanisms as faster, less burdensome, and more coherent with an infrastructure-centred development plan. Ethiopia has therefore multiplied its political and financial partnerships with China, in turn setting the conditions for Chinese firms to enter the country.

4.3 Chinese firms in place: contextualising the Ethiopian infrastructure sector

4.3.1 Ethiopia's infrastructure development: where do Chinese companies stand?

Having contextualised Ethiopia's socioeconomic and political setting and investigated Sino-Ethiopian institutional relations, in this section I move the analysis to the sectoral level, examining the infrastructure context within which Chinese firms operate. I begin by assessing the recent infrastructure-development boom in the country and evaluating the dynamics of Chinese firms' increasing presence in the transportation, energy, ICT, and water sectors.

⁴⁶ Interview with EIC analyst, Addis Ababa, September 2018.

One of the trends that have been of critical importance in the growth of the Chinese construction industry in Ethiopia is the substantial increase in demand for construction services. Infrastructures have held a crucial position throughout the history of Ethiopia, a landlocked country. From the imperial regime to the present day, Ethiopian elites have seen infrastructures as a precondition for economic development. However, truly large investments began when the EPRDF seized power in 1991. Under the EPRDF government, the public investment rate rose from about 5 percent of GDP in the early 1990s to 18.6 percent of GDP in 2011, making Ethiopia's investment in infrastructure the third highest in the world in proportionate terms (Moller and Wacker 2017). Using data from 124 countries, the World Bank (2015, 6) finds Ethiopia to be among the top 20 percent in terms of speed of infrastructure growth between 2004 and 2014, exceeding that of fast-growing regional peers with analogous income levels.

Several authors have pointed to this massive expansion of infrastructure investment as the main trigger for rapid Ethiopian economic growth (Moller and Wacker 2017; World Bank 2015; Nuru 2019). In GTP I (2010–15), one of the key features was the prioritisation of infrastructure development. The plan included large-scale telecommunication, energy, and transport programmes. Out of a total US\$ 11.4 billion to be invested in GTP I, 66 percent was allocated to infrastructure investment. Energy took the lion's share of the budget as it accounted for 31.2 percent of total investment (Nuru 2019). For the second phase of the GTP (GTP II, 2015-20), the government has aimed to continue expanding physical infrastructure through public investments. For GTP II, "road, railways, dry ports, air transport, energy, telecom infrastructure will be expanded with the aim of attracting investment, opening new market opportunities, reducing the price of commodities, creating competitive market environment to speed up regional economic integration" (GTP II, 169). GTP II envisages the construction of several mega-railway projects. By 2025, the Ethiopian government plans to build eight major railway corridors spanning 4,744 km, including lines to the port of Lamu in Kenya and Berbera in Somaliland. The NBE's annual report for fiscal year 2017/2018 indicates that the construction sector accounted for 71.4 percent of industrial output and that it expanded by 15.7 percent that year and contributed 19.3 percent of national GDP (NBE 2018).

Despite the increasing investment, the infrastructure gap remains large. Ethiopia still ranks low on the AfDB's Infrastructure Development Index (figure 3). In 2018 Ethiopia ranked 48th among 54 countries. Likewise, in the World Bank's last aggregated Logistic Performance Index—from 2012 to 2018—Ethiopia stood at 131st out of 167 countries, with infrastructure and logistics competence as the worst-performing indicators. The Ethiopian government is therefore in need of more infrastructures, which are seen as fundamental drivers of structural transformations in the country and

as an enhancer for national power and prestige, but it lacks the means to finance and build them itself. In this context, foreign-financed, foreign-built infrastructure projects are seen as one of the few realistic ways to push the economy in the short term with the hope of gaining higher benefits in the future.

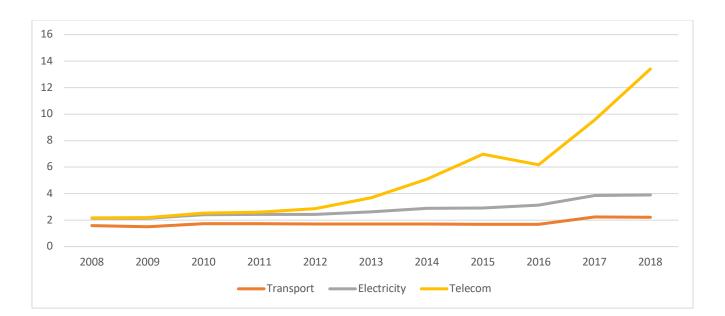


Figure 3. Ethiopia's Infrastructure Development Index

Source: AfDB, African Infrastructure Development Index,⁴⁷ 2019.

Roads

Ethiopia's plan in the transport sector included upgrading the road infrastructure and building a national and international rail network. For the road network, the efforts have concentrated on restoring, upgrading, and broadening the trunk system (ERA 2018). In the late 1990s, the road network was largely deteriorated and covered only major urban areas and some rural areas. Most areas were inaccessible and far from economic centres, markets, and basic social services. With the launch of the Road Sector Development Programme (RSDP) in 1997, by restoring and upgrading trunk and link roads, maintaining federal and regional roads, and constructing new link roads, rural roads, and district roads, the Ethiopian government began a sustained effort to improve the quality and size of the road infrastructure in the country. The RSDP, implemented through the ERA, regional

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⁴⁷ The African infrastructure-development index is used by the African Development Bank to monitor and evaluate the status and progress of infrastructure development across the continent.

roads authorities, and woreda road offices, has reached its fifth phase. Over the past twenty years, the country's road network has grown by an average of over 8 percent annually, increasing from 26,550 km in 1997 to 120,171 km in 2017. As a result, the road density per 1,000 sq km rose from 24.1 Km in 1997 to 109.2 km in 2017. The condition of the road network has also shown significant improvement: the amount in good condition improved from 22 percent in 1997 to 72 percent in 2017 (ERA 2018).

After the onset of the RSDP, between 1997 and 2015, Chinese companies won the majority of national and international tenders and built approximately US\$ 6.5 billion worth of roads covering around 3,000 km and totalling over 69 percent of the roadworks being carried out in the country at that time (table 3) (ERA 2015).⁴⁸ However, Chinese banks have financed only a small number of these roads, such as the Addis-Adama Expressway, the first toll expressway in East Africa. In 1997, the Addis Ababa ring-road project, which was in fact sponsored by the World Bank, became the first project through which a Chinese company—the SOE CCCC (formerly known as the China Communications Construction Company)—entered the Ethiopian construction market as a competitive contractor (Driessen 2019, 7). In the road sector, the Ethiopian government itself, with strong World Bank participation and minor funding from AfDB and Kuwait Fund, is the main financier.

Table 3. Chinese contractors' participation in relation to total foreign participation

Contractors	Number of projects awarded		Value (in billions of birrs)	
		% share of the total		% share of the
				total
Chinese contractors	46	69.7	25.7	77
Other foreign contractors	20	30.3	7.5	23
Total	66	100	33.2	100

Source: ERA (2015). Internal document. Accessed 5 July 2018.

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⁴⁸ Internal document from ERA.

Railways

Ethiopia's government's latest and most ambitious projects have been, first, the installation of the Addis Ababa Light Rail Transit in the capital Addis Ababa—the first modern light-railway (tram) system in SSA and a part of a nine-line railway network operated by the ERC—and, second, the major rehabilitation of the Addis Ababa-Djibouti railway line. The rail network, at a total length of 900 km, replaces the old French railways linking landlocked Ethiopia and the maritime trade routes of the Gulf of Aden. It now cuts through several industrial parks and reduces the travel time between Addis Ababa and Djibouti from forty-eight hours to twelve hours. Other projects include the railway from Addis Ababa to Afar, where potassium is extracted from the Denakil potash mine near the Danakil depression; and the railway from Addis Ababa to Bedele, a region west of the capital and one of the main coal-mining areas in Ethiopia (Cabestan 2012). Chinese enterprises are involved in all currently operating railway projects in the country, with the exception of only one. These projects have been built and operated by two Chinese firms (China Railway Engineering Corporation and China Civil Engineering Construction Company), they are financed by CHEXIM lines of credit and have a total value of more than US\$ 3.5 billion, with a further loan package for transmission lines and procurement of locomotives and rolling stock. Ethiopia has signed a fourth railway project, which is currently under construction by the Turkish company Yapi Merzeki. It is the Awash-Weldia/Haragebeya Railway Project. The total length of the railway, which serves as the northern expansion of Addis-Djibouti Railways, is 447 km.

Telecommunication

Important investment has also gone towards expanding telecommunication services, which both GTP I and GTP II consider a strategic pillar. Concerning accessibility, the total number of telecom customers for telecom services rose from 7.7 million in 2009/2010 to 39.8 million in 2015. Concurrently, the number of mobile-telecom subscribers increased from 6.7 million to 38.8 million. The number of rural kebeles with access to telecom services increased to 97 percent in 2014/2015 from 62.1 percent in 2009/2010 (in GTP II). The introduction of 3.75G and 4G internet networks, with the capacity to serve to 60 million clients, was another important accomplishment in the telecommunication sector during GTP I.

China is very prominent in the development of telecommunication in the country. The Ethiopian government, through the service provider Ethio Telecom, gave two Chinese companies, ZTE and Huawei, the right to finance, develop, and construct telecommunication. According to the original

agreement, ZTE and Huawei had to be the only contractors. However, after a dispute over contractual terms, the Swedish company Ericsson took over an US\$ 800 million slice of the contract previously awarded to ZTE (E27).⁴⁹

Energy

Together with transportation and telecom, the Ethiopian government made the energy sector one of its priority areas. Ethiopia's generation capacity is high. However, the country has harnessed only a fraction of the estimated potential for hydroelectric power (45 GW),⁵⁰ geothermal (5 GW), and wind power (10 GW).⁵¹ Ethiopia has increased its electricity-generation capacity tenfold from 380 MW in 1991 to around 4,200 MW in 2018. In GTP II, an additional 5,000 MW is planned to be added to the installed generation capacity by 2022.

According to World Bank data, in 2016 42.9 percent of the population had access to electricity, up from 23 percent in 2011. Nevertheless, Ethiopia still has one of the world's lowest levels of electrification and a wide disparity in access between urban and rural areas (26.5 percent in rural areas versus 85.4 percent in urban areas in 2016).

The energy sector is particularly important because it is seen as a proxy for realising the ambition to transform Ethiopia into Africa's manufacturing hub. Through making large investments via the state-owned companies EEU and EEP, the Ethiopian government has taken initiatives to go beyond meeting the country's energy needs and towards being a reliable energy exporter to generate foreign exchange. The hallmark project is the Grand Ethiopian Renaissance Dam, a hydroelectric dam⁵² located approximately 500 km northwest of the capital, with an expected yearly production capacity of 6,000 MW, which would make it the largest hydroelectric plant in Africa and the fifth largest in the world. The dam, now under construction by the Italian company Salini Impregilo, is expected to be completed in 2022. Its construction has been financed by the government of Ethiopia. International creditors were reluctant to finance a project that caused political tensions between Ethiopia and Egypt.⁵³

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⁴⁹ Interview with Ethio Telecom official, Addis Ababa, August 2018.

⁵⁰ Ethiopia ranks second in Africa in hydropower potential, after the Democratic Republic of Congo.

⁵¹ EEPCo. http://www.eep.gov.et.

⁵² Although the dam was set to be completed five years after its inception, because of unexpected delay it is reportedly only 62 percent completed.

⁵³ The political sensitivity derives from the fact that the parties have not reached an agreement on the Grand Ethiopian Renaissance Dam reservoir's contentious "fill" time, which is the schedule for filling the reservoir behind the dam. The fill time is expected to decrease Egypt's water access by 10 percent over six years with a

In order to diversify electrical sources and move away from reliance on fossil fuels and hydroelectric power, which is susceptible to drought, the government is also investing in solar and wind power plants. Chinese companies have dominated the power sector in Ethiopia, particularly wind and hydro energy, having constructed the Gibe III, Gibe IV, and Halele Werabesa hydroelectric dams; the 300 MW Tekeze hydro project; the 51 MW Adama I and 153 MW Adama II wind projects; and the 120 MW Ashegoda farm project. In additional to constructing dams and transmission towers, Chinese firms have been the main suppliers of electrical accessories for several AfDB-financed universal projects worth millions of dollars.

Water facilities

Since the declaration of the Millennium Development Goals, Ethiopia has made considerable progress in water-supply coverage. Data show that in urban areas, service coverage has increased such that between 1990 and 2015 the proportion of people with access to improved water supply rose from 76 percent to 93 percent, with 56 percent having water piped to the premises and 37 percent from other improved sources. The 7 percent of the population in urban areas served by unimproved water supplies mainly use surface water. In rural areas, the coverage rate increased more dramatically—from 22 percent to 56 percent, showing considerable support for the new water-supply facilities serving the rural population—but rural coverage still lags behind urban coverage (Frade 2019). In the water sector, Chinese companies have also played an important role by constructing the Mekelle City Water Supply Development Project and the Gerbi Dam Reservoir, part of the Addis Ababa Water Supply and Sewerage Project.

4.3.2 The Chinese firms beyond the state: comparative advantage and business models

As the above analysis demonstrates, Chinese firms are active in all areas of the Ethiopian infrastructure sector. There are currently eighty-one Chinese construction companies registered in Ethiopia as GC1's. Of these, eleven are SOEs while the remaining companies are private (EIC 2018). GC1's are the only contractors qualified to undertake construction works, such as buildings, roads,

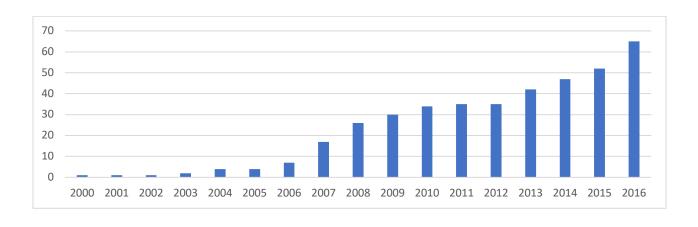
consequent significant decrease of water supply for the farming industry along the Nile (Halawa 2018). https://www.atlanticcouncil.org/blogs/menasource/egypt-s-options-in-the-development-of-the-ethiopian-dam. Accessed 26 June 2019.

railways, bridges, airports, and dams. An additional seventy registered companies work in several related areas: engineering, consultancy services, and construction-machinery rental.

There are two main groups of Chinese firms in Ethiopia. The first group includes large SOEs and large private companies, which benefit from direct and indirect subsidies from the Chinese government. Companies in this group started operations with the explicit approval of MOFCOM or provincial and city authorities. Financial incentives facilitated their access to the Ethiopian market.

The second group comprises smaller, provincial- or city-level SOEs and small and medium-sized Chinese private companies. They entered the Ethiopian market following the success of larger Chinese firms. These firms distribute the Chinese products and services required for the construction industry. Firms in this second group have often been established by former employees of larger Chinese companies who, once in the country, sought opportunities to run their own business, mainly in the procurement chain as subcontractors for smaller projects (E63, E64). Between 2000 and 2016 general-construction and building-construction permits for Chinese companies have increased exponentially (figure 4). Chinese companies have outcompeted European, American, Middle Eastern, and Korean companies.

Figure 4. General-construction and building-construction permits for Chinese companies (2000–2016)



Source: EIC, August 2018.

State and nonstate Ethiopian actors working in the infrastructure sector recognise three reasons for the success of Chinese companies: expertise, competitive prices, and business model (E17, E19,

⁵⁴ Interview with two Chinese managers, Addis Ababa, October 2018.

E53).⁵⁵ China's expertise in the infrastructure sector is linked with China's growth model. Infrastructure investment played a crucial role in China's economic reform after 1978, and China's growth model has been supported by a massive development of physical infrastructure (Chatterjee, 2005; Stephane et al. 2007). In the last twenty years, China has gradually developed its competitive advantage in the infrastructure sector through learning from donor-financed projects and accumulating experience in domestic construction projects. During this period, China has developed one of the world's biggest and most competitive construction industries (Foster et al. 2009), with power generation (thermal and hydro) and transport (roads and railways) being particularly prominent cases (Yi-Chong 2014). The country is today the world's largest producer of renewable energy, with hydropower dominating the market. China also has the world's largest high-speed-railway system (Lin and Wang 2017).

One of the key factors of success of Chinese construction firms is their low bidding price. Chinese companies' profit margins are the lowest in the market. While other competitors have profit margins in the range of 15 to 25 percent, Chinese companies work on profit margins as narrow as 10 percent (C4).⁵⁶ This is possible thanks to the Chinese government's financial incentives, such as tax credits and soft loans, which help firms to internationalise. Such incentives allow firms to adopt low-pricing strategies in the early years of their overseas ventures (see chapter 5). Once they enter a country with price advantages and establish brand reputation, they expand to other countries (Fei 2020).

Low bidding prices are also possible because of a business model that, through vertical-integration strategies,⁵⁷ allows strict control over the entire value chain. In Ethiopia, most large Chinese infrastructure companies have vertically integrated different functions. Chinese companies pursue vertical-integration strategies for two reasons: reducing risks and increasing profitability. Most Chinese companies integrate upstream and downstream to benefit from their competitive advantage in construction materials, equipment manufacturing, infrastructure capacity, and distribution networks. Through vertical integration, Chinese construction firms seek to leverage their competitive advantage, which relies on their efficiency and lower costs throughout the infrastructure value chain (planning, design, financing, building, operation, maintenance, R&D, manufacturing, and delivery). In general, for Chinese and other foreign firms operating in Ethiopia, vertical integration is a way to boost profits and maintain a competitive technological advantage over local firms.

⁵⁵ Interview with MOFEC director, Ethio Telecom director and local firm manager Addis Ababa, September–October 2018.

⁵⁶ Interview with Peking University professor, Beijing, July 2017.

⁵⁷ Vertical-integration strategy means that a firm or a group of firms controlled by the same owner is active in different phases of the whole infrastructure chain (Osegowitsch and Madhok *2003*).

Chinese companies see the ever-rising infrastructure demand of a government seeking to develop that sector as an opportunity to increase their global share and profit margins. Yet, as further argued in chapter 7, vertical-integration patterns raise concerns about their negative implications for the development of an indigenous industry in the host country, as they mostly affect local SMEs. Several interviews confirm these concerns, especially among Ethiopian firms' representatives, who blame the Ethiopian government for its lack of control over procurement practices (E54, E56, E58).⁵⁸

4.4 Conclusion

A comprehensive and critical examination of key issues in China-Ethiopia relations calls for an analysis of the interface between Ethiopia's social, political, and institutional environments. This chapter has traced the various dynamics that have led to Ethiopia's current focus on infrastructure and its gradual rapprochement to China. Under the flag of developmentalism, EPRDF has facilitated the implementation of an ambitious agenda of state-led economic transformation fuelled by high public investment. In its pursuit of this growth-oriented strategy, China has come to occupy centre stage in Ethiopian foreign policy as an alternative to traditional Western bilateral practices of tied aid and structural adjustment and as an enabler of infrastructure financing and construction.

From the perspective of the Ethiopian government, Chinese banks are a source of crucial and otherwise-unavailable infrastructure financing and Chinese firms are actors that ensure quick delivery at low cost. Relying on policy and financial support, Chinese construction firms have increased their presence in Ethiopia. Given this, a familiar issue in the discussion of Chinese expansion into Africa has been the extent to which Chinese firms' success in the African infrastructure sector is better explained through geopolitical lenses or through commercial lenses. Problematising the widespread notion of a homogenous and unilateral internationalisation strategy, the next chapter turns to investigate the different drivers behind Chinese actors' engagement.

⁵⁸ Interview with managers of Ethiopian companies, Addis Ababa, August–October 2018.

CHAPTER FIVE—THE ETHIOPIAN INFRASTRUCTURE SECTOR: CATALYSTS AND DRIVERS OF CHINA'S ENGAGEMENT

5.1 Introduction

As we saw in the previous chapters, unpacking the Chinese state helps us to question the idea that there is something like a China Inc. (Bates and Reilly 2007). China includes different actors, all of them with their own set of interests. This differentiation provided the necessary background to investigate the drivers behind China's engagement in a specific context (Ethiopia) and in a specific sector (infrastructure). Scholarly debates on the drivers of China's presence in the infrastructure sector have stressed both geopolitical motives (Fallon 2015; Leverett and Wu 2016; Miller 2017; Blanchard and Flint 2017; Dollar 2018; Reeves 2018) and commercial motives (Bräutigam and Tang 2012; Mohan et al. 2014; Shen and Power 2016; Taylor 2019; Zhu 2015).

On the one hand, China's activities in Africa, and the developing world as a whole, are seen in light of an overarching foreign policy interest and used as a platform to challenge global norms and to enhance China's geopolitical role and interests across the globe (Goldstein 2003; Alden and Hughes 2009; Norris 2016). Against this backdrop, Chinese companies' engagement in the African infrastructure sector has been variously understood as "advancing China's overall policy goals in Africa" (Gill and Reilly 2007, 41), driven by "China's ambitions to build consensus in the developing world" (Du Plessis 2016, 8), "central to [China's] global image" (Bach 2016, 39), or predominantly motivated by security and military concerns—namely, to "deter confrontation or criticism of China's approach to sensitive issues" (Pentagon 2019, i). Yet such perspectives suffer from what Breslin (2005) defines as an "outside-in" interpretation of Chinese power, which presents only one dimension of a complex political-economic process, often ignoring Chinese domestic policy.

On the other hand, some scholars conceive of Chinese actors in the infrastructure sector as purely market-driven entities fulfilling their own commercial interests in particularly favourable markets. As China-Africa relations become increasingly complex and involve an increasing number of private actors, this argument stresses the broad market objectives of small, medium, and large Chinese players that see host countries as platforms to improve their competitiveness and ascend the GVC (Zhu 2015). Yet, like the hegemony argument, this position is unidimensional as it overlooks the role of Beijing in providing financing, filling information gaps, and helping mitigate the risk of operating in risky environments.

This chapter aims to identify the major drivers of Chinese companies' advancement into the Ethiopian infrastructure sector. The main argument put forward echoes a strand of scholarship on China-Africa relations (Breslin, 2013; Gonzalez 2011; Gu et al. 2016; Mohan and Lampert 2013) that calls for a more nuanced picture, one that is sensitive to context, the role of Chinese central authorities, and the position of Chinese firms as independent and competing actors in the global economy. Through these lenses, we can explain Chinese companies' engagement in the Ethiopian infrastructure sector as a result of domestic market saturation in China, overcapacity, and escalating competition among firms. On this account, such drivers have pushed the Chinese government, whose domestic legitimacy and stability is strongly linked with its economic performance and policy outputs, to support and incentivise internationalisation in Ethiopia. However, contra the simplistic notion of firms' state-led support from the Chinese central government, Chinese companies' penetration in Ethiopia is also strongly driven by their pursuit of commercial objectives. After entering the Ethiopian market, Chinese companies use their competitive advantage to follow their commercial interest, both through negotiating with local actors and through competing with other firms (both Chinese and otherwise).

If seen through the lenses of the GIN framework, the analysis of catalysts and drivers of China's engagement in Ethiopia identifies how Chinese contextual preconditions and the interests of Chinese state and nonstate actors apply in the Ethiopian infrastructure sector. In the next pages, I proceed as follows. Firstly, thanks to several interviews I conducted, I am able to present a reading of the main drivers leading to the large presence of Chinese firms in the Ethiopian infrastructure sector. Then, in order to test the assertions of Chinese firms in the sector, the chapter analyses the China-Ethiopia economic relationship during the last decade by presenting an analytical grid for understanding the composition of China-Ethiopia economic ties. It proposes a broad perspective that focuses on the main channels of interactions between the two countries, such as trade, investment, contracting and financing, bringing new evidence to bear on the increasingly important role of Chinese firms in the Ethiopian infrastructure and the drivers of their engagement.⁵⁹ In the final section, I sum up.

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⁵⁹ In the analysis that follows, I did not include data on grant-based development assistance from China to Ethiopia, because it is neither a considerable part of China's economic engagement in the country nor significant in the infrastructure sector.

5.2 The push and pull factors driving Chinese firms' engagement in the Ethiopian infrastructure sector

Interviews I carried out with Chinese firms in the Ethiopian infrastructure sector provided me with insights on the structural factors underlying their increasing engagement in the country. I broadly categorise these factors as push or pull factors. Push factors are conditions in the Chinese domestic market that have motivated companies to internationalise. Pull factors are aspects of Ethiopia that have attracted Chinese actors. Additionally, I differentiate between institutional and structural push and pull factors (Masron and Shahbudin 2008). Institutional push factors are government policies. Structural push factors include domestic-economy and market-related factors. In the case of Chinese companies, institutional push factors include financial and policy incentives, while structural push factors include, among others, domestic market saturation, potential for increasing infrastructure capabilities, and potential for upgrading value chains. Institutional pull factors from Ethiopia include the role of the Ethiopian government in developing infrastructure and ensuring political stability; structural pull factors involve increasing market potential, providing a strategic location, and causing the so-called demonstration effect (table 4).

Table 4. Push and pull factors of China's engagement in the Ethiopian infrastructure sector

Push factors from China	Pull factors from Ethiopia		
Institutional push factors	Institutional pull factors		
Going-out policy	Proactive role of the government in infrastructure development		
Financial incentives	Political stability		
Structural push factors	Structural pull factors		
Domestic market saturation	Market potential		
Potential for increasing	Strategic location and demonstration		
infrastructure capabilities and upgrading value chains	effect		

Source: Adapted from Shen and Power (2016).

Several push factors have contributed to the internationalisation of Chinese infrastructure firms in Ethiopia. Looking at the institutional factors, the Chinese going-out strategy has played an important

role in shaping the firms' internationalisation strategies. Supportive government policies have included financial incentives such as access to cheap capital through Chinese banks for bearing the operational cost of projects, lines of credit for buying goods and machinery, access to foreign exchange, and domestic tax breaks. Currently, the Xi administration is facing some of its most pressing economic challenges, which are associated with the end of a growth era marked by double-digit rates.⁶⁰ President Xi Jinping has recently observed that China's economic slowdown and the rebalancing of its economy away from debt-fuelled investments into one driven by innovation and consumption marks a "new normal" for China.⁶¹

In the infrastructure sector, overcapacity is partly the result of an ambitious stimulus package of \$US 586 billion the Chinese government introduced in response to the 2008 global financial crisis (Yoon Ah Oh 2018). More than one-third of the stimulus was allocated to the infrastructure sector, including roads, railways, airports, power grids, and water supplies (World Bank 2010). Thanks to this investment package, China's GDP grew extremely rapidly—at around 10 percent per year—with real investment increasing by around 13 percent. However, following the slowdown in China's investment in 2011, overinvestment resulted in overcapacity, substantial surplus in sectors such as steel, cement, and aluminium, and associated losses in the financial system. Concurrently, the Chinese market reached a saturation point in sectors such as dam building and power transmission (McNally et al. 2009). This shift marks the most recent phase in Chinese firms' relocation: from more mature markets to emerging markets in Africa, with increasing involvement in projects such as railways, telecommunications, roads, ports, power stations, water facilities and industrial parks.

As one Chinese manager put it, "There is a conventional wisdom that Chinese companies 'go out' because the Chinese government tell them to 'go out', with the goal to accomplish some government's foreign policy aim. It is not like this. A lot of Chinese companies are suffering from overcapacity and increasing debt that [they] need to take under control. . . . Seeking new market in emerging economies has this main purpose. There is no other choice" (E28).⁶² Another Chinese manager emphasised the increasing domestic competition: "We have been facing increasing competition at home and we needed to find new markets. Here (in Ethiopia), thanks to our competitive advantage, we are able to be more competitive than other foreign infrastructure companies" (E41).⁶³

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⁶⁰ China's GDP growth has been decreasing since 2012. It averaged 7.3 percent between 2012 and 2017 (World Bank 2017).

⁶¹ Chinese president Xi Jinping's keynote speech at the World Economic Forum in *Davos*, Switzerland, January 2017.

⁶² Interview with manager of Chinese company, Addis Ababa, October 2018.

⁶³ Interview with manager of Chinese company, Addis Ababa, October 2018.

Confronting a saturated domestic market, rising labour costs, and overcapacity in the infrastructure sector, Chinese SOEs, multinationals, and small private companies have turned their attention abroad. Together with Chinese firms' comparative advantage—a skilled workforce, competitive bids, and low-cost building materials acquired through supply chains from China—their access to Chinese bank financing has helped them gain a foothold in Africa's infrastructure development (E39, E41, E66).⁶⁴ That access has also been consolidated through the China-Africa relation's most important diplomatic event: FOCAC. During the last FOCAC—held on 3 September 2018, in Beijing—President Xi announced a large funding pledge and reconfirmed a US\$ 60 billion commitment to Africa. The financing pledge went from US\$ 5 billion in 2006 to US\$ 10 billion in 2009, US\$ 20 billion in 2012, and US\$ 60 billion in 2015. Of that US\$ 60 billion, US\$ 20 billion is earmarked to credit lines, US\$ 15 billion goes to direct aid and zero-interest loans, US\$ 10 billion finances projects involving Chinese private companies, another US\$ 10 billion goes to a special growth-and-development fund, and the remaining US\$ 5 billion goes to support African exports to China.

Against this background, Ethiopia represents an attractive market for Chinese enterprises and an opportunity to expand Chinese firms' infrastructure services. As shown in the previous chapter, through its massive public investment in infrastructure, the Ethiopian government has been focusing its development efforts on expanding the energy, transport, telecommunication and water sectors. Moreover, despite a history of fragile political settlements, Chinese companies consider Ethiopia a relatively stable political context. As another Chinese manager pointed out, "From the company's perspective we believe there are several reasons to develop such strong relationships with Ethiopia. The first is that Ethiopia has always enjoyed a stable political environment and development and the government has very strong willingness to develop its economy. Moreover, China and Ethiopia actually share a lot of common aspects. The first one is in the government party. Both EPRDF and China Communist Party have a very strong control of their country and that is very important" (E44).⁶⁵

Equally importantly, Chinese construction companies benefit from increasing their infrastructure capabilities and gain overseas experience in project management and risk management through projects that involve high technology (E32, E45, E66). 66 China's expertise in the infrastructure sector has allowed Chinese firms to acquire experience and tap a large pool of professionals to aid in

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⁶⁴ Interview with Chinese managers, Addis Ababa, September–October 2018.

⁶⁵ Interview with Chinese manager, Addis Ababa, October 2018.

⁶⁶ Interview with Chinese managers, Addis Ababa, September–October 2018.

building and managing infrastructure and construction projects, making Chinese companies competitive in winning tenders on infrastructure projects internationally (Yi-Chong 2014).⁶⁷ Additionally, Chinese companies are looking for opportunities to make their technology standard in Ethiopia's infrastructure sector and to upgrade their value chain at home by selling their equipment or patents. Given that tied financing and competitive pricing make it easier for them to sell products, Chinese companies have the opportunity to define and export technical standards. In this regard, Ethiopia, with its demand for infrastructures and vast market for Chinese machinery and equipment, is a perfect match for Chinese business (E42, E70).⁶⁸ As a Chinese manager put it:

China has strongly advanced in the energy sector because most of its natural resources, at least those that they can use to generate energy, are located in the west of the country but a lot of major settlements and industries are in the East. This has pushed China to develop a technology called ultrahigh-voltage electricity transmission which means you can transmit the power from its source over long distances, even thousands of kilometres. . . . We are already using it in China and we want to export it to other parts of the world, so we are promoting the concept of global energy interconnection Because its great hydropower potential, Ethiopia is the best option in Africa. (E42)⁶⁹

One of the reasons for choosing Ethiopia over other countries, several representatives of Chinese companies stress, is the so-called demonstration effect and the need to expand their presence in the African market (E27, E32, E39). ⁷⁰ Being in Ethiopia is generally considered a way to demonstrate Chinese best practices to other countries in the region and therefore to create new opportunities for replicating the practices and scaling up. Ethiopia occupies a strategic position on the Horn of Africa and is also considered the diplomatic hub of the continent. Today, it hosts the headquarters of the African Union (AU), the United Nations Economic Commission for Africa, the UN's regional offices, and several diplomatic missions. As one respondent explained, "Ethiopia doesn't have any natural resources, but it's the first market of China's construction companies, and in my opinion the main reason is that it represents a model for other African countries. Every country has their embassy in Addis. Through their projects the companies can show the good outputs the country has achieved to then expand abroad" (E10). ⁷¹

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⁶⁷ Over the last five consecutive years, *Engineering News Record*, one of the industry's leading journals, ranked China's four biggest construction companies among the top ten global contractors (Yi Chong 2014).

⁶⁸ Interview with Chinese managers, Addis Ababa, September–October 2018.

⁶⁹ Interview with Chinese manager, Addis Ababa, October 2018.

⁷⁰ Interview with Chinese managers, Addis Ababa, September–October 2018.

⁷¹ Interview with Chinese manager, Addis Ababa, October 2018.

The Ethiopian infrastructure market has attracted (in addition to SOEs and large private companies) a plethora of SMEs, which look for economic opportunities independently from interstate deals. Their motivation to internationalise often resembles that of their larger competitors, although their ways of entering the new market are often different. As a Chinese business owner puts it, "The chances to make a fortune in a new market in Africa are much greater than back home. Ethiopia is now what China used to be fifteen, twenty years ago. It's a land of opportunities . . . I used to work for a big construction company back home, but competition became too bad and I decided to come here, after a colleague started to work for a large company here and explain the potential to make business" (E61).⁷²

Taken together, Chinese interviewees offered a fairly homogenous explanation of their reasons for choosing Ethiopia. On their view, domestic market saturation has necessitated the search for new markets and Ethiopia is an ideal place to benefit from China's expertise and competitive advantage. These somewhat romanticised self-descriptions tend to stress the good faith and business intuitions of Chinese entrepreneurs and managers. But is it all about that? As we will see in the next sections, the Chinese government has played an important role in the country's internationalisation. As a political authority whose domestic legitimacy and stability is strongly linked with the country's economic performances, the Chinese government, through its ministries and state-controlled banks, has enabled Chinese large enterprises and SMEs seeking fortunes to access the Ethiopian market and to benefit from their competitive advantage through trade, investment, and financing.

5.3 Macro analysis of China's economic engagement in Ethiopia's infrastructure sector: trade, investment, contracting, and financing

5.3.1 The China-Ethiopia trade relationship

Over the last two decades, trade has been rising fast in Africa, but Africa still accounts for a marginal share of world trade and is still hugely dependent on exporting commodities (UNCTAD 2017). World trade is significant for several SSA economies, where foreign trade,⁷³ marked by the economies' great dependency on imports, can often represent more than 50 percent of GDP.⁷⁴ China has emerged as a pivotal trade partner in Africa. Trade volume between Africa and China has risen more than fortyfold

⁷² Interview with Chinese manager, Addis Ababa, October 2018.

⁷³ The sum of exports and imports of goods and services measured as a share of GDP.

⁷⁴ https://data.worldbank.org/indicator/NE.TRD.GNFS.ZS.

over the past twenty years (Chen and Nord 2017). In 2013 China became the largest exporter and development partner in the region, surpassing the United States and accounting for about a quarter of SSA's trade (Pigato and Tang 2015).

The rise of Sino-African trade relations has largely been understood as motivated by China's interest in African natural resources. As seen in chapter 3, during the country's phase of exceptional economic growth, the country needed raw materials and commodities to fuel its industrialisation. However, more recently, imports from Africa to China fell from US\$ 79.8 billion in 2014 to US\$ 46.1 billion in 2016, largely reflecting the general decline of commodity prices driven by China's economic restructuring (Atkins et al. 2017). As Roberts et al. (2016, 147) argue, "The slowing of the Chinese economy has placed downward pressure on demand for many imported commodities, mainly metal ores and coal, although natural gas and food imports have also not been immune".

Though the first wave of exports was mainly from Africa to China, it is increasingly clear that now Chinese firms see Africa as an important market. With a population of over one hundred million people, Ethiopia represents one of the biggest markets in Africa (second after Nigeria) and a lucrative market for Chinese goods (Giannecchini and Taylor 2017). Ethiopia also presents an opportunity for China to access markets such as the United States and Europe because of the preferential tariff treatment granted to developing countries under a number of scheme and arrangements. Together with the rest of SSA, Ethiopia is entitled to preferential admission to the US market under the African Growth and Opportunity Act and the European Union market under the EU's Everything but Arms policy.

China-Ethiopia trade relations have grown in the past ten years to the point that China is today Ethiopia's largest trading partner. Starting around 2012, Ethiopia's trade deficit with China has increased sharply. The rise in imports from China has contributed to this trend. As figure 5 shows, between 2006 and 2016, Ethiopia consistently ran a trade deficit with China going from US\$ 420 million in 2006 to US\$ 6.01 billion in 2016; it hit a record high in 2015 at US\$ 6.78 billion. Despite major economic reforms undertaken by the Ethiopian government, such as the GTP I and GTP II, exports, which were expected to grow from US \$2 billion in 2009–10 to US \$ 6.5 billion in 2014–15, reached a mere US\$ \$3 billion (GTP II 2016).

⁷⁵ The mechanisms currently in place for official bilateral trade between Ethiopia and China are the Joint Ethiopian China Commission, the Sino Ethiopian agreement for mutual promotion and protocol (concluded in 1988), the Sino-Ethiopian agreement for trade, economic, and technical cooperation (signed in 1996), and the FOCAC.

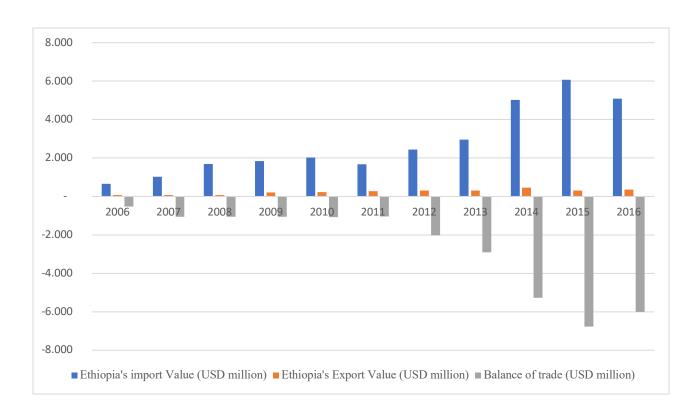


Figure 5. China-Ethiopia trade flows and balance of trade, in US \$ millions (2005–15)

Source: WITS, EIC, and National Bank of Ethiopia (2018). Author's elaboration.

The share of China's imports from Ethiopia out of total Chinese imports grew significantly between 2009 and 2012. In 2015 the value of goods exported from Ethiopia to China was around US\$ 378 million. (It peaked at US\$ 533 million in 2014, two times more than in 2010.) Overall, since 2012, China has been the third-biggest export destination for Ethiopian goods. Given Ethiopia's unadvanced industrial and technological conditions, its exports to China include mostly agricultural and semiprocessed goods such as coffee, oilseeds, sesame seeds, leather, natural gum, and tantalum (COMTRADE 2018).

In 2010 China's exports to Ethiopia were worth around US\$ 2 billion. In 2011 and 2012, China accounted for more than a fifth of Ethiopian imports. From 2006 to 2015 China's imports steadily increased on average by 12 percent yearly; in 2015, they hit a record high at around US\$ 7 billion in value (27.7 percent of the total), seven times more than its second-biggest import partner, the United States (table 5).

Table 5. Ethiopia's top import partners. Imports in US \$ millions (2010–15)

Partner	2010	2011	2012	2013	2014	2015	% (2015)
China	2,062.08	1,718.11	2,572.35	3,244.69	5,808.42	7,166.91	27.7
USA	483.59	488.87	420.50	589.92	767.99	1,060.48	4.1
Saudi Arabia	1,023.25	896.80	1,674.68	1,195.14	1,612.68	590.72	2.2
Germany	206.73	189.57	200.35	259.13	417.69	383.83	1.4
Netherlands	81.35	81.77	105.29	218.41	137.84	251.35	0.9
World	8,601.76	8,896.28	11,912.93	14,899.14	21,914.37	25,815.26	

Source: Author's analysis based on data from COMTRADE, 20 February 2018.

Year after year, China's exports to Ethiopia have shifted from low-end manufactured goods such as textiles and footwear to more sophisticated capital goods. In this context, of relevance to our analysis is the type of goods China is exporting to Ethiopia. In the last decade, China became the market leader in Ethiopia in products linked to the infrastructure sector (so-called medium technology), which accounted for 60 percent of Ethiopia's imports of medium technology between 2006 and 2016 (figure 6). In 2017 the major categories of products imported from China included electrical machinery, transport equipment, mechanical machinery, vehicles, and electronic appliances, which together accounted for over 90 percent of imports (EIC and Ethiopian Ministry of Revenues 2018).

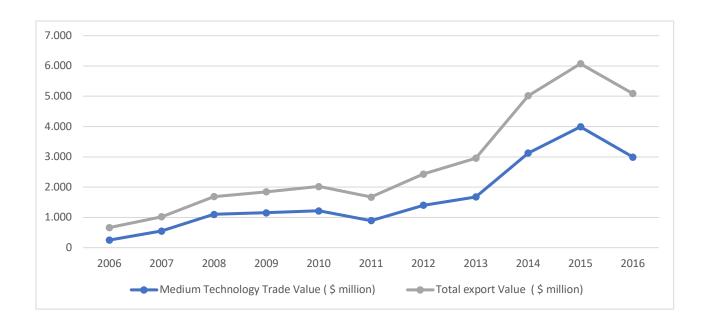


Figure 6. Exports from Ethiopia to China, in US\$ millions (2005–16)

Source: COMTRADE (2018).

This shift reflects the more general recent transition in China's industrial output. In 1980 China's industries were in light manufacturing—mainly food and textiles. Already in 2005, textile and apparel, food, and leather made up one-fifth of output, and more sophisticated sectors such as electronics, transport, equipment, and metal started to show remarkable growth (World Bank 2010). Against this backdrop, Chinese policy makers have played an important role in shaping China-Ethiopia trade relations. Supportive government policies have included financial incentives—such as access to cheap capital through Chinese banks, access to foreign exchange, and domestic tax breaks. Additionally, as we will see further below, increasing trade relations have also been facilitated by the Chinese government's loans for infrastructure projects. Chinese loans are often tied to procurement of machinery, materials, technology, and services from Chinese companies. Given that, a significant share of the goods needed for infrastructure projects come from the Chinese export supply chain.

This has several implications for Ethiopia. According to a few authors, China's economies of scale have two effects for Ethiopia as a whole. They allow China to export goods that would otherwise be unaffordable for the local private sector. And they encourage the growth of an Ethiopian retail industry (Venkataraman and Gofi 2015). In the infrastructure sector, local firms suffering from a lack of financial resources are the first to benefit from the low cost of machinery and technology they are

able to acquire from China. ⁷⁶ For instance, according to a number of Ethiopian construction companies, Chinese excavators and bulldozers are 20 to 60 percent cheaper than those made by their Western competitors (E51, E52, E55). ⁷⁷ However, the issue of Chinese commodities flooding the Ethiopian market has raised concerns about competition and quality standards. Quality is seen as a problem with Chinese devices—for instance, Chinese machinery's life cycle is thought to be shorter than Western alternatives—and both Chinese and Ethiopian firms generally consider them inadequate to be employed for more than two consecutive project cycles. ⁷⁸

To sum up, this overview of China-Ethiopia trade relations over the past decade demonstrates how Ethiopia has become an important market for Chinese goods and medium-level technology, particularly goods linked with the infrastructure sector, which has helped Chinese companies overcome domestic market saturation and move up the value chain at home. To achieve this, Chinese companies have benefitted from the actions of their government, including its provision of financial incentives, access to cheap capital, and loans linked to procurement of machinery, materials, technology, and services from Chinese companies.

5.3.2 Chinese FDI and Chinese contracting

China has consistently grown as an investor in Africa (Bräutigam 2007, 2011). Data show that the stock of Chinese FDI in SSA reached around US\$ 40 billion in 2016, from US\$ 34 billion in 2015, as compared with US\$ 16 billion in 2011 (UNCTAD 2018). Despite this rise, China is still a small player on the continent. Estimates are that in 2014, Chinese FDI flows to SSA accounted for just 7 percent of global investments in the region (Pigato and Tang 2015; UNCTAD 2015). According to statistics from MOFCOM, in 2016 China's FDI flows in Africa were about 14 percent of the amount China invested in the United States (MOFCOM 2018). 80

The 2017 UNCTAD World Investment Report shows that Ethiopia is one of the top-performing African countries in terms of FDI inflow, which amounted to US\$ 941 million in 2000, increased to US\$ 4.2 billion in 2010, and further rose to US\$ 13 billion in 2016 (UNCTAD 2017). FDI inflows

⁷⁶ Before the arrival of foreign investors, Ethiopia's manufacturing sector was far from being technologically developed enough to produce the goods that China is now importing in the country.

⁷⁷ Interview with Ethiopian managers, Addis Ababa, September–October 2018.

⁷⁸ Interview with Ethiopian managers, Addis Ababa, September–October 2018.

⁷⁹ Overall, most of the world's FDI goes to advanced economies. Six times as much FDI goes to the United States as goes to Africa (Dollar 2016)

⁸⁰ MOFCOM, National Bureau of Statistics.

have also been rising steadily since 2012. In 2016 Ethiopia registered an annual increase of 46 percent (up to US\$ 3 billion), attracting more investments than ever before and becoming the second-highest recipient among least-developed-country host countries (up from the fifth position in 2016) (UNCTAD 2017). In recent years, the Ethiopian government has provided many fiscal and nonfiscal incentives to support private investments and promote the inflow of foreign capital (Seyoum and Lin 2015). According to Seyoum and Lin (1236), "The major fiscal incentives provided to foreign investors are as follows: (i) a 100-per cent exemption from payment of customs duties and other taxes levied on all imported capital goods; (ii) all spare parts worth up to 15 per cent of the total value of capital goods are exempted from payment of custom duties; (iii) income tax holidays of up to 7 years depending on the region and the sector of the investment; (iv) exemption from payment of export taxes; (v) no taxes on the remittance of capital; and (vi) accelerated depreciation and a 5-year loss carry-forward provision, among others".

Data made available by the EIC covering 2005 to 2017 show that China is by far the biggest foreign direct investor in the country (ahead of India and Turkey), as a share of both number of projects (20.8 percent) and capital invested (21.1 percent). Specifically, Chinese FDI flows from China to Ethiopia increased from US\$ 4 million in 2005 to US\$ 784 million in 2017 (figure 7) (EIC 2018). These trends represent a relatively rapid change in the importance of Chinese FDI for Ethiopia's economy.

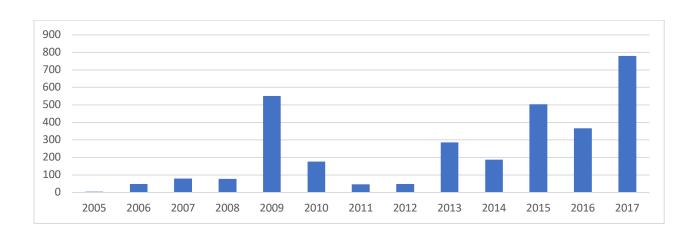


Figure 7. China's flow of FDI to Ethiopia, in US\$ millions (2005–17)

Source: EIC. Calculated from EIC (2018).

Between 2005 and 2017, the EIC registered 1,145 projects. EIC data also show that Chinese investments in the country cover different types of projects. As table 6 shows, the manufacturing sector remains the single most important area of Chinese direct investment in Ethiopia with a total of

778 manufacturing projects—111 under implementation, 515 in operation, and 152 in pre-implementation—and US\$ 934 million. As for construction and real estate projects, the data register a total of 147 projects—32 under implementation, 102 in operation, and 26 in the pre-implementation phase. The volume of capital invested is about US\$ 238 million. China's presence in the Ethiopian agriculture sector has spurred a wealth of literature. However, the number of projects, when compared to manufacturing and infrastructures, is surprisingly little. The data register 9 investment projects (4 in implementation, 3 in operation, and 2 in the pre-implementation phase) and a volume of US\$ 0.4 million in investments.

Table 6. Summary of licensed Chinese investment projects by sector and status, 18 January 2005–26 December 2017

Sector	Impl eme ntati on	Opera					Pre- imple menta tion	Total no of projs	%
	No	No	Capital	Capital	Perm	Temp	No of		No of
	of	of	in	in	empl	empl	projs		projs
	projs	projs	birr	USD					
			million	million					
Agriculture	4	3	13.78	0.47	64	53	2	9	0,78
Manufacturing	111	515	27,099.15	934.89	54.341	21.136	152	778	67,94
Mining	1	3	36.50	1.25	58	42		4	0,31
Health	1	9	14.51	0.50	58	40	1	11	0,96
Hotels and restaurants	3	28	97.37	3.35	673	211	11	42	3,66
Tour operation, transport and communication		9	24.92	0.85	203	60	1	10	
									0,87
Real estate, machinery, equipment rental, and	8	102	909.27	31.35	86.861	27.239	30	140	
consultancy service									12,22

Construction	32	89	6,006.71	207.11	10.196	27.721	26	147	
contracting including									
water-well drilling									
									12,83
Other investments *	1	3	56.00	1.93	70	245		4	
									0,34
Total	161	761	34,258.20	1,181.31	152.52	76.74	223	1.145	

Source: EIC, August 2018.

China's increasing investment in Ethiopia is linked with the establishment of several industrial parks and SEZs. ⁸¹ Learning from China's own economic development, its government considers industrial parks and SEZs to be key drivers for industrialisation. In the same way, the Ethiopian government, as stated in its two development plans (GTP I and GTP II), sees industrial parks and SEZs as drivers of structural transformation in the country. Against conventional practice, Chinese companies not only invest in and operate the parks, but are often responsible for constructing and providing the necessary infrastructure facilities, such as power transmission lines, water supply, and wastewater treatment (Ziso 2017). Between 2008 and 2015, as data from the China International Contractors Association and the American Enterprise Institute show, Ethiopian manufacturing-sector projects (factories, buildings, and so on) accounted for 16.3 percent of Chinese construction service in the country (Wolf and Cheng 2018). ⁸² Moreover, infrastructures such as roads, highways, railways, and railway terminals in the spatial corridors that connect SEZs are also part of the strategic SEZ plan in which Chinese companies are involved.

As of 2019, we can count six industrial parks built or under construction by Chinese construction companies. The list includes the Huajian Industrial Park, which is being constructed by Huajian Group; the Dire Dawa Industrial Park (east of Addis Ababa), which is being developed by China

⁸¹ Industrial parks and SEZs have been used in China since 1979 and played a significant role in China's early economic reform. Over time, these zones provided an opportunity for China to gain new technological capabilities, proved to be a tool for substantial structural transformation and industrial development, and were considered an important strategy for achieving economic growth and development (Bräutigam and Tang 2011, 2014).

⁸² The rest is divided as follows: public works (such as roads, railways, and public buildings) accounted for 49.9 percent of Chinese contracted projects, energy and water 17.5 percent, telecommunication 13.3 percent, and all others 3 percent (Wolf and Cheng 2018).

Civil Engineering Construction Company (CCECC); the Arerti Industrial Zone (northeast of Addis Ababa), which is being built by China Communications Construction Company (CCCC); and the Modjo Industrial Park, which is being built by Taiwanese firm George Shoe Company. Hawassa Industrial Park, which has been developed by CCCC, 83 is the most recent one. The EIZ is the first large-scale SEZ in Ethiopia. It is one of six SEZs that the Chinese government has set up in Africa as part of a global programme including nineteen zones around the world. Located in Dukem, Oromia State, 37 km southeast of Addis Ababa, it has been developed and operated by China's Qiyuan Group. Now it hosts twenty-three firms, which specialise in textile and garments, food processing, and construction materials (Giannecchini and Taylor 2017).

China's industrial restructuring also has implications for outward investment priorities. With increasing competition and rising domestic labour costs, mature processing industries are forced abroad to remain profitable and competitive. The Chinese government has two important reasons for lending official support to the manufacturing sector's FDI in Africa: incentivising industrial upgrading at home and transforming the Chinese national economy. As with trade, Beijing's investment targets and objectives are encouraged through financial and policy incentives (Clarke 2013). For example, the China Banking Regulatory Commission has issued directives for Chinese banks to help in tackling overcapacity in different ways, including by expanding credit support, providing foreign exchange, trade finance, and international insurance, and supporting overseas mergers and acquisitions.

To return to the central question of this chapter, how do Chinese government actors and market actors fit in this picture of China's increasing economic engagement in Ethiopia? I have shown how institutional push factors (incentives and the going-out policy) and structural push factors (market saturation and the potential for upgrading value chains) have played an important role in driving both private and public Chinese firms to come to Ethiopia. Besides a strong commercial interest, the Chinese government has been crucial for ensuring ideal conditions for Chinese trade and FDI in Ethiopia. However, it plays its major role as facilitator of Chinese firms' internationalisation through providing loans for infrastructure projects.

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⁸³ This park, which is located 275 km away from Addis Ababa, is portrayed as the first sustainable textile-and-apparel industrial park in Africa. It is said to have state-of-the-art infrastructural capacity and zero-liquid-discharge technology.

5.3.3 Beijing's role as a lender: financing schemes, financial terms, and the convenience of China's money

So far, I have focused on trade and investment. However, the Chinese government's direct participation in the African economy is mainly as a provider of financing. While the World Bank is still the main lender to Africa, China is rapidly catching up. CHEXIM subsidised a total US\$ 63 billion in loans to Africa between 2000 and 2015. In 2015 alone, China provided US\$ 8.5 billion of loans, compared with the US\$ 14.3 billion provided by the World Bank. From 2000 to 2017, the top beneficiaries of CHEXIM financing in Africa were Angola, a resource-rich country, Ethiopia at US\$ 13 billion, and Kenya at US\$ 6.8 billion (SAIS-CARI) (see figure 8).

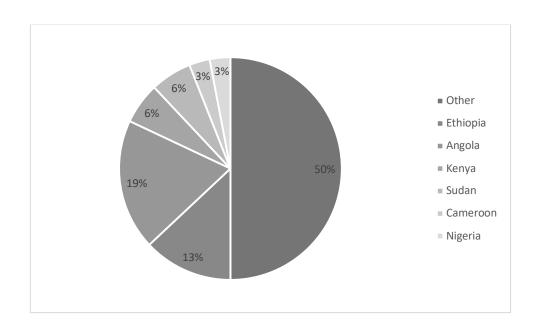


Figure 8. China's loans to Africa, by country (2000–2017)

Source: SAIS-CARI. Accessed May 2019.

As previously seen (chapter 4), public borrowing to support infrastructure financing and economic growth is central to Ethiopia's development plan. China offers development financing to Ethiopia mainly through bilateral (Sino-Ethiopian) and regional (FOCAC) frameworks. Currently, Chinese banks provide grants, interest-free loans, concessional loans, commercial loans, and preferential-export credits and seller's credits to Ethiopia. According to MoFEC, the total loan pledges to the Ethiopian government from different Chinese banks and institutions stood at US\$ 13.84 billion between 2000 and 2018, making China Ethiopia's most significant bilateral financier. Of this, US\$

952.88 million is in concessional loans, US\$ 2.46 billion is in preferential buyer's credits, US\$ 1 billion is in preferential seller's credits, and US\$ 9.58 billion is in commercial loans.

The bulk of loan commitments to the Ethiopian government go to infrastructure projects. Two sectors—namely, power and transportation—accounted for US\$ 6.5 billion of official financial flows to Ethiopia. Forty-four percent of the money went to energy generation and supply. Communications made up about 22 percent of the total share, at US\$ 2.6 billion, while water facilities accounted for slightly over US\$ 400 million. Finally, industry accounted for US\$ 1.7 billion between 2000 and 2018 (data from MoFEC, ERA, ERC, Ethio Telecom, EEP, Ethiopian Electric Utility [EEU], Ethiopian Central Statistical Agency) (figure 9).

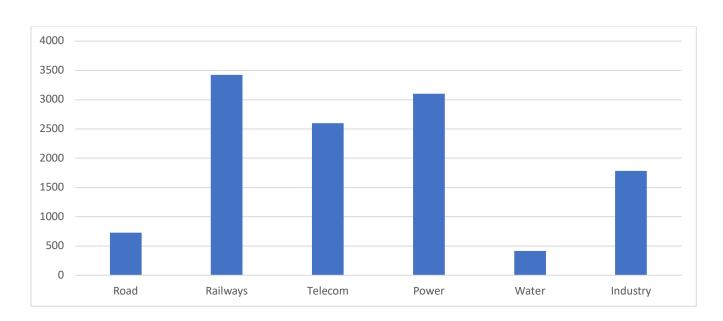


Figure 9: Chinese loans to Ethiopia, by sector, in US\$ millions (2000–2017)

Source: MoFEC, ERA, ERC, Ethio Telecom, EEP. Author's own elaboration.

The terms and conditions of loans from Chinese banks are also of particular importance for understanding the rising amount of Chinese financing in Ethiopia and Beijing's role as facilitator of firms' entry into the market. The majority of Chinese preferential and commercial loans are provided at below-market rates. The terms and conditions of loans are generally agreed on a bilateral basis with significant variations in concessionality (see table 7). Conditions vary from the 1.75 percent interest rate, five-year grace period, and twenty-four-year maturity of the Addis Ababa railway-transit concessional loans to the 3 percent interest rate, five-year grace period, and ten-year maturity of the fully commercial loan for the Genale Dawa hydroelectric power plant. On average, Chinese

concessional loans have an interest rate fixed at 2 percent per annum, with a grace period of seven years and a maturity between fifteen and twenty years. Nonconcessional loans have an interest rate between 1.5 and 3 percent per annum, with a grace period between three and seven years and a maturity between ten and fifteen years (see table 1). Preferential buyer's credits have an interest rate between 1.5 + LIBOR⁸⁴ and 2 percent with a three- to seven-year grace period and twenty-year maturity period.⁸⁵ All loans come with a commitment commission and a management fee between 0.25 and 0.5 percent. In general, Chinese loans are often three to five times larger than loans offered by other financiers, have better conditions compared to commercial loans provided by commercial banks (which come with an interest rate between 8 and 10 percent), and have a longer repayment period (usually more than fifteen years) (E9).⁸⁶

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⁸⁴ London Interbank Offered Rate (LIBOR) is a benchmark reference rate for international banking markets that serves as the basis on which lending margins are fixed.

⁸⁵ The Ethiopian SOEs pay every six months while the central government pays every two years. The Commercial Bank of Ethiopia pays the nonconcessional debt, and the National Bank of Ethiopia pays the concessional debt. In case of shortage of foreign currency from the Commercial Bank, the National Bank of Ethiopia intervenes. (Interview E9)

⁸⁶ Interview with MoFEC official, Addis Ababa, September 2018

Table 7. Chinese-financed, Chinese-built infrastructure projects in transportation (railways, roads), energy, telecommunication, and water sectors Ethiopia (2000–2018)

Sector: Transportation (Railways)

Project name	Type	Planne	Contract	Status	Length	Total	Loan	Financier	Contract	Interest	Grac	Maturit
	of	d start	signatur		in km	project	amount		or	rate	e	y period
	project	year	e date			amount	(in USD				perio	
						(in USD	000)				d	
						000)						
Addis Ababa	Railwa	2012	03-Sep-	Operat.	34	475.00	403.75	85% CHEXIM	CREC	1,75%	5	24
Light Rail	у		09					(\$)				
Transit								15% GOE (birr)				
(AALRT)												
Addis - Djibouti	Railwa	2011	16-Dec-	Operat.	329	1,663.90	1,289.00	78.1%	CREC	3%	6	15
Railway Project	у		11					CHEXIM (\$)				(renegoti
Lot 1&2								21.99% GOE				ated to
(Sebeta-Adama-								(birr)				30)
Mieso)												
Mieso -	Railwa	2012	01-Jun-	Operat.	339	1,401.80	981.26	77.69%	CCECC	3%	7	15
Dawanle	у		11					CHEXIM (\$)				(renegoti
Railways								22.31% GOE				ated to
Project,								(birr)				30)

Sector: Transportation (Roads)

Project name	Type of	Planned	Contract	Status	Length	Total	Loan	Financier	Contract	Interest	Grace	Maturity
	project	start year	signature date		in km	project amount (in USD	amount (in USD millions)		or	rate	perio d	period
						millions)						
Modjo-Hawassa	Constru	2018	12-May-	Under	52	231.46	171.08	CHEXIM (\$) (CCCC	2%	7	20
Highway Project	ction		17	construc				Tikur Wuha				
								section) - EDB -				
								World Bank -				
								Korea				
	Constru	2009	27-Jun-09	Operat.	80	138.00	117.00	CHEXIM (75%)	CCCC	2%	7	20
Addis Ababa -	ction							GOE (birr) (25%)				
Adama												
Expressway												
Bole ring road -	Constru		2-Oct-	Operat.	/	60,000.00	60,000.00	CHEXIM (100%)	CCCC	2%	7	20
Meskel Square road project	ction	/	2012									
From Kality Ring	Constru	2014	/	Operat.	/	205,472.29	102,736.00	CHEXIM (50%)	CCCC	2%		15
road to Bulbula to	ction							GOE (birr) (50%)			5	
kilinto roundabout												
road project												
Diredawa -	Constru	2014	4-May-14	Operat.	220	179.00	152.15	CHEXIM (\$)	CGCOC	1.8%	7	20
Dewelle road	ction							(85%) GOE (birr)				
section								(15%)				

Lebu Akaki Goru	Constru	2014	14-Apr-14	Operat.	30,3	171.08	981.26	CHEXIM (75%)	CCCC	1.8%	7	20
	ction							GOE (birr) (25%)				

Sector: Telecommunication

Project name	Type of project	Planned start year	Contract signature date	Status	Length in km	Total project amount (in USD	Loan amount (in USD millions)	Financier	Contract or	Interest rate	Grace perio d	Maturity period
Next-generation network expansion	Telecom expan.	2007	8 -nov- 06	Operat.	34	1,500.00	1,500.00	100% CHEXIM	ZTE	1,5% +Libor	3	13
Telecom- expansion programme	Telecom expan.	2014	10 - Jan- 2013	Operat.	329	800.00	800.00	100% EXIM Bank of china	HUAWEI	1,5% +Libor	3	13
Telecom- expansion programme	Telecom expan.	2014	10 - Jan- 2013	Operat.	339	300.00	300.00	100% EXIM Bank of china	ZTE	1,5% +Libor	3	13

Sector: Energy

Project name	Type	Planne	Contract	Status	Total	Loan	Financier	Contract	Interest	Grac	Maturit
	of	d start	signatur		project	amount		or	rate	e	y period
	project	year	e date		amount	(in USD				perio	
					(in USD	millions)				d	
					millions)						
Fincha-Amerti-	Hydro	2011	Sep,	Operat.	142.00	120.00	CHEXIM (\$)	CGGC	2,2%	3	10
Neshe EM Ge.	power		2007				(85%) GOE				
	Project						(birr) (15%)				
Fincha-Amerti-	Hydro	2008	Oct,	Operat.	63.50	54.20	CHEXIM (\$)	CGGC	2,2%	3	10
Neshe EM PTP	power		2008				(85%) GOE				
	Project						(birr) (15%)				
Bedele-Metu	Power	2009	Feb,	Operat.	12.50	10.78	CHEXIM (\$)	/	2,2%	3	10
PTP	Transm		2008				(85%) GOE				
	ission						(birr) (15%)				
Adama I Wind	Wind	2011	28-Nov-	Operat.	117.99	99.45	CHEXIM (\$)	HYDRO	2%	8	20
	power		2009				(85%) GOE	CHINA/			
	Project						(birr) (15%)	CGCOC			
								JV			
Gibe III HEPP	Hydro	2010	May,	Operat.	495.50	421.18	CHEXIM (\$)	Dongfan	LIBOR+	5	10
	power		2010				(85%) GOE	g Electric	2,4%		
	Project						(birr) (15%)	Int. Co.			
Genale Dawa III	Hydroe	2019	Sep 2010	Operat.	451.00	295.92	CHEXIM (\$)	CGGC	3%	5	10
	lectric						(85%) GOE				
	Project						(birr) (15%)				

Adama II Wind	Wind	2013	11-Oct-	Operat.	345.00	293.25	CHEXIM (\$)	HYDRO	3%	7	13
	power		2012				(85%) GOE	CHINA/			
	Project						(birr) (15%)	CGCOC			
								JV			
Hidase	Transm	2018	April	Operat.	1,458.00	1,280.57	China Electric	State	3%	3	12
Transmission	ission		2013				Equipment and	Grid			
	line						Technology				
							Company				
							Limited				
Aysha Wind	Wind	2016	Jan, 2016	Under	257.28	218.69	CHEXIM (\$)	Dongfan	2%	7	20
Power Project II	power			Constru			(85%) GOE	g Electric			
	Project			c.			(birr) (15%)	Int. Co.			

Sector: Water

Project	name	Type	Planne	Contract	Status	Total	Loan	Financier	Contract	Interest	Grac	Maturit
		of	d start	signatur		project	amount		or	rate	e	y period
		project	year	e date		amount	(in USD				perio	
						(in USD	millions)				d	
						millions)						
Addis	Ababa	Drinkin	2016	20-Nov-	Operat.	146.73	146.73	100% CHEXIM	CGOC	2%	7	20
Water	supply	g water		2015								
(Gerbi	Dam											
Project)												
Mekele	City	Drinkin	2018	3-Dec-	Operat.	270.00	251.00	100% CHEXIM	CGGC	2%	7	20
water	project	g water		2014								
(Giba Da	am)											

Sector: Industry

Project name	Type of Project	Planne d start year	Contract signatur e date	Status	Total project amount (in USD millions)	Loan amount (in USD millions)	Financier	Contract or	Interest rate	Grac e perio d	Maturit y period
Kesem Sugar	Constru	2013	22-Jul-	Operat.	123.00	123.00	CDB	COMPL	LIBOR+	3	12
Factory	ction		2012					ANT	2,3%		
Omo Kuraz 2 Sugar Factory	Constru ction	2014	5-Marc- 2013	Operat.	290.00	290.00	CDB	COMPL ANT	LIBOR+ 2,6%	3	12
Omo Kuraz 3 Sugar Factory	Constru	2015	5-Marc- 2013	Operat.	290.00	290.00	CDB	COMPL ANT	LIBOR+ 2,6%	3	12
Omo Kuraz 5 Sugar Factory	Constru	2016	13-Aug- 2013	Operat.	647.00	580.00	ICBC	JJIEC	LIBOR+ 2,9%	3	9
Wolkayt Sugar Factory	Constru	2016	10-Jun- 2013	Operat.	550.00	500.00	CHEXIM	CHINA CAMC ENGINE ERING CO.LTD	LIBOR+ 2,5%	3	9

Sources: Ethiopian Electric Power, Ethiopian Roads Authority, Ethiopian Railway Corporation, Ethio Telecom and the China-Ethiopia department at MoFEC. Author's elaboration.

Financing is structured in ways that minimise risks for Chinese companies that enter the Ethiopian market. In order to reduce risk, implement projects quicker, and circumvent the potential problem of financial management by the host government (Gu and Carey 2019), the financial package is transferred from the Chinese bank directly to the Chinese contractor without going through the host country's public finance system. At the same time, such financial schemes make it easier for Chinese firms to open new markets. According to China's bank-loan requirements, contracts must be awarded to Chinese companies, which are selected through a direct or competitive tendering process conducted in China; meanwhile, as previously seen, credit lines from Chinese banks are often contingent on the use of goods and services produced by Chinese companies.

Seen through these lenses, Chinese banks are not merely developmental. Their loans work as instruments to create market opportunities for Chinese companies, especially in a place such as Ethiopia, where, as of 2019, no quota system is in place and national law does not specify a threshold for procuring inputs locally (see chapter 7). Lack of adequate regulations in Ethiopia and the concessional terms and conditions of loans, which, we need to keep in mind, are negotiated and agreed by Ethiopian officials, create a market advantage for Chinese companies that have more advanced technology and management practices. It is therefore increasingly difficult, if not impossible, to disconnect the internationalisation strategies of large Chinese public and private firms from the actions of Chinese banks, which have set the financial and normative conditions for those firms' domination of the Ethiopian infrastructure sector.

A caveat is in order regarding the infrastructure sector. Despite increasing attention to Chinese engagement in Ethiopia, there is frequent confusion about the role of Chinese companies in the sector, as several media reports and academic works have misleadingly labelled Chinese companies as investors or financiers in the infrastructure sector. However, in the case of Ethiopia, and in Africa more generally, Chinese companies are often neither investors nor financiers but simple contractors; the ownership of the projects is retained by the Ethiopian government or Ethiopian SOEs (the so-called operators). Figure 10 shows that in 2016, the turnover achieved by Chinese construction companies was far more important (more than twenty-five times higher) than the overall amount invested by China in the country.

Figure 10. Chinese investments vs. completed contracts in Ethiopia, in US \$ millions (2005–17)



Source: EIC and MOFCOM, National Bureau of Statistics.⁸⁷ Author's elaboration.

Hence, the majority of the newly constructed SEZs and projects including roads, dams, railways, wind farms, and extensions of power and telecommunication lines are examples of vendor financing or engineering, procurement, and construction contracts, in which Chinese companies own no project assets. As contractors or vendors, Chinese engineering firms are responsible for designing, constructing, and delivering a facility in accordance with the contract's terms. Parallel to big Chinese multinational companies, which engage predominantly in large-scale infrastructure projects, a multitude of privately owned Chinese SMEs focus on transport and logistics, equipment rentals, engineering consulting, and construction services, working largely as subcontractors for larger companies.

Most Chinese construction firms have benefitted from Chinese banks' special lines of credit, permitting them to enter the Ethiopian market and consolidate their presence. However, Chinese infrastructure contracts are not only bidding part of a package deal backed by the Chinese government. In the last decade, Chinese firms have established themselves as pivotal actors in the Ethiopian infrastructure industry in their roles as contractors. In this role, they have prevailed in most tenders for infrastructure projects across the country and become more and more competitive against other foreign firms and each other. In the last few years, Chinese firms obtained a substantial portion

114

⁸⁷ The value of completed contracts is published every year in the China Statistical Yearbook website in the chapter on international foreign trade and economic cooperation titled "Economic Cooperation with Foreign Countries or Region".

of these tendering contracts through national bidding, international bidding, and construction subcontracts for projects that are financed by non-Chinese financial institutions, such as the World Bank, AfDB, and other Gulf-based Arabic DFIs.

As figure 11 shows, the share of World Bank civil-works contracts is a strong indicator of the spread of Chinese firms in the Ethiopian market. Since 2004 Chinese companies have captured an increasing share of Ethiopian contracts under World Bank international-competitive-bidding contracts. Between 2004 and 2016, the total number of contracts won was twenty-three (54 percent of the total forty-two), with a total value of over US\$ 1 billion (63.54 percent of the total US\$ 1,702 million) (World Bank 2019), making Chinese companies the top civil-works suppliers in the country.

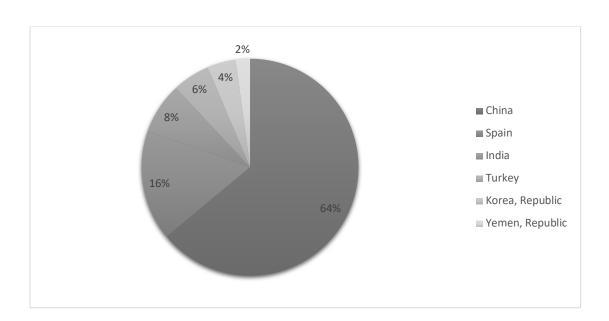


Figure 11. Total value of World Bank ICB contracts in Ethiopia, in US\$ million (2004–16)

Source: Author's calculations based on World Bank data. Accessed 7 June 2019.88

These observations attest that several Chinese infrastructure companies have been able to consolidate their presence in the Ethiopian infrastructure sector independently from the support of Beijing. Certainly, the favourable terms and conditions of loans have made it easier for these companies to first enter the market. Early government support has enormously facilitated the development capacities of Chinese firms operating in Ethiopia. Yet, although in many cases they benefit from

115

⁸⁸ Data have been accessed through the World Bank dataset on prior reviewed contracts funded by the World Bank and awarded under International Bank for Reconstruction and Development (IBRD) and The International Development Association (IDA) IBRD/IDA investment project financing and related trust funds. http://finances.worldbank.org/. Accessed 5 June 2019.

Chinese government support, large Chinese companies do what other capitalist ventures try to do: maximise their profits. Over the years, Chinese companies have come to be the most competitive firms in the market, to make autonomous business decisions, and to de facto compete with one another in new emerging markets.

This is further demonstrated by the vigorous competition among Chinese firms. Because of their strong profit orientation, Chinese companies have tried to defend their advantage in the market vis-à-vis foreign competitors and also Chinese newcomers through different strategies. For instance, in 2015, two Chinese companies (CCCC and CGOC) won several tenders in the transportation and energy sectors. This fact prompted a few other Chinese competitors to submit a complaint to the Ethiopian embassy in Beijing. Through a formal letter addressed to the Chinese ECC, the companies complained that the Ethiopian market was plagued by unfair competition because the "usual suspects", who already knew how the Ethiopian bureaucracy and procedures worked, were in a position to win all projects (E33).⁸⁹

Similarly, Fei's (2020) work on Chinese engagement in the Ethiopian telecommunication sector finds that competition between ZTE and Huawei became extremely intense after Huawei entered the Ethiopian market. As Fei explains, "The competition between [ZTE] and [Huawei] became so fierce that employees from the companies barely talked to each other even at social events organised by the Ethiopian government of the Chinese embassy. Both companies valued their respective competitive intelligence and offered special rewards to employees who managed to get their rival's bidding and contract information" (ibid., 15). Competing interests among Chinese players problematise the notion of Chinese companies being a homogenous group of actors and displays their multiple interests and dynamics.

5.4 Conclusion

This chapter contributes to the literature on China-Africa relations by looking at the drivers of Chinese firms' internationalisation into the Ethiopian infrastructure sector and the role of both government and firms. It confirms the idea that "the Chinese state", as Mohan and Tan-Mullins (2019) argue, "supports commercial ventures without necessarily steering them". After more than a decade in Ethiopia, Chinese firms principally operate following their own commercial priorities, while Chinese banks structure financial and normative conditions that enable them to continue expanding in the market.

⁸⁹ Interview with an official of China's embassy in Ethiopia, Addis Ababa, September 2018.

The resulting picture shows that the Chinese government has supported the entry of Chinese firms into the Ethiopian market as a way to solve the problem of domestic overcapacity. Chinese firms of all sizes proliferate in the Ethiopian infrastructure sector, and, despite competing with one another, they benefit from their competitive advantage and an ever-rising demand for cheap and quick infrastructure projects. So Chinese firms' success in the Ethiopian infrastructure sector cannot be explained solely through geopolitical lenses or through commercial lenses.

Within the context of China-Africa relations, an overly stark distinction between geopolitical and commercial has little explanatory power. On the one hand, Chinese companies tend to describe themselves as motivated by purely commercial motives, but the role of Chinese banks and state actors has been very important in setting the stage for the companies' expansion into the Ethiopian market. On the other hand, other geopolitical powers tend to construct an overarching narrative about China's engagement in Africa; but, given the constellations of different companies operating in Ethiopia, and how they compete with one another, it is increasingly difficult to accept the thesis that they are there to exclusively pursue the military and hegemonic interest of the Chinese government. As we have seen in these pages, host countries can play an important role in creating the conditions for determining the short- and long-term effects of China's presence in Africa. For this reason, it is now important to look at the Ethiopian side of the story. How do Chinese interests interface with domestic Ethiopian politics? What role does elite agency play in carving out Ethiopian preferences? To what extent are Ethiopian actors able to negotiate their needs vis-à-vis the various Chinese actors? These are the subjects of the next chapter.

CHAPTER SIX—AGENCY DISTRIBUTION IN THE ETHIOPIAN INFRASTRUCTURE SECTOR

6.1 Introduction

According to several scholars (Corkin 2015; Soulé-Kohndou 2018; Gadzala 2015; Lambert and Mohan 2015; Taylor 2015; Procopio 2018), the literature on China-Africa relations tends to neglect the so-called African perspective and works with an inappropriate conception of agency. In one approach, China's economic and political strength has led scholars to think that the relation between China and its African counterparts is purely asymmetrical (French 2014; Frynas and Paulo 2006; Tull 2006). On such a view, Chinese actors play in a context in which local actors are passively suffering from the adverse effects of the Chinese presence, incapable of any reaction. In a second approach, most of the available scholarship, as Procopio (2018) notices, tends to conceptualise agency as the ability of states conceived as homogeneous entities.

Lampert and Mohan (2015) summarise clearly the limits of these approaches: "The dominant assumption in much literature on the Chinese presence in Africa is that the monolithic entity China—and the Chinese state in particular—is able to set the terms of engagement with African states and to unilaterally determine events. This is problematic for two linked reasons First, it privileges unitary states as the key players in these relationships. Second, it underplays the role that African actors, both within and beyond the state, play in brokering and shaping the terms on which these relationships unfold" (ibid., 109).

This chapter aims to offer a more nuanced description of agency distribution across Chinese and Ethiopian actors who participate in the negotiation and implementation of infrastructure projects. To do so, this chapter continues to apply the GIN framework to negotiation over and implementation of infrastructure projects in Ethiopia. The preceding chapters highlighted the macroeconomic and political dynamics that constitute the contextual preconditions shaping the goals of Ethiopian actors and their Chinese counterparts negotiating on infrastructure projects. Such preconditions limit the range of possibilities within which each agent can construct and negotiate her or his perceived self-interest. In this way, the GIN helps us to see that infrastructure projects are the result of several interconnected negotiations occurring at different levels in which, within certain limits, different agents try to exert their distinctive agency on and therefore impact projects.

This chapter proceeds as follows. In section 2, I map all Ethiopian actors and their direct and indirect interactions with Chinese counterparts. Then, in sections 3 and 4 I focus on the agency distribution across several categories of Ethiopian actors. First, I describe how Ethiopian central government officials express their agency before, during, and after negotiations. Second, I look at the ways in which regional government officials pursue their perceived interests concerning infrastructure projects. Finally, I consider Ethiopian nonstate actors, such as firms and workers. I conclude the chapter by drawing conclusions of relevance to the broader debate on the agency of African actors within the context of China-Africa relations.

6.2. Mapping actors and negotiations in the Ethiopian infrastructure sector

Different Ethiopian actors have directly or indirectly affected political and economic choices over the past thirty years. It is important then to avoid a too rigid conceptualisation of the state in studying China-Africa relations. As seen in the previous chapters, the Chinese presence in Africa involves a constellation of different actors, including officials, private firms, and workers. At the same time, a number of African actors are engaging with Chinese stakeholders, including regional authorities, state officials, private firms, workers, and local communities. Ethiopia is no exception.

Ethiopia-China relations encompass a network of many relationships between many actors in the private and public sectors. As Venkatesan et al. (2017) note, infrastructure projects are "historical products of economic governance and particular political situations [that] amplifies the agency of politicians, technicians and companies". Against this background, the first basic distinction is between state and nonstate actors. State actors are government agencies, bureaucrats, federal officials, and public enterprises (which tend to have priority in establishing partnerships with Chinese actors).

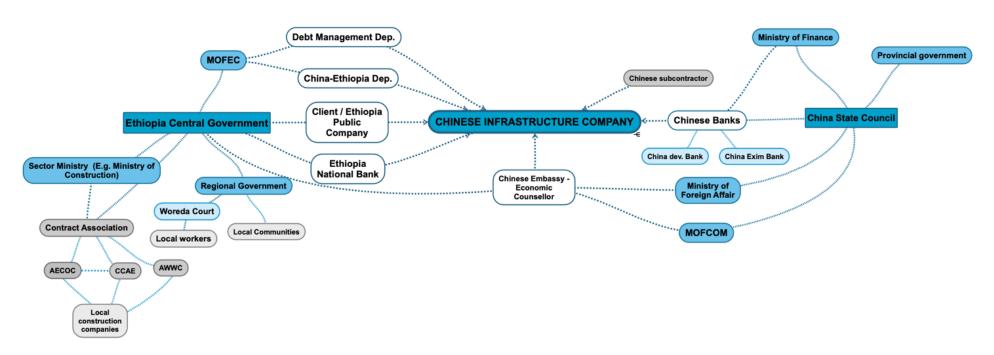
Other actors, who are outside formal state-based arenas, also exercise agency in Ethiopia (Cooper 2004; Mohan 2010; Odoom 2018). In the infrastructure sector, nonstate actors include local construction companies, local business associations, local workers, and local communities. These actors, as figure 11 shows, relate with one another in different ways. Under the umbrella of the relation between Chinese and Ethiopian governments, Chinese companies are in a direct relation with Ethiopian ministries and federal officials. Meanwhile, financial institutions, inland-Chinese government agencies, and, in certain cases, regional powers influence the strategies and choices of Chinese companies operating in Ethiopia. While Chinese companies have direct relations with Ethiopian ministries and federal officials, the relation between Chinese companies and local

communities and the relation between Chinese companies and Ethiopian firms tend to be mediated by federal Ethiopian authorities.

As figure 12 shows, only some Ethiopian actors engage directly with their Chinese counterparts. The federal government, through its agencies and ministries, engages with Chinese infrastructure companies or with Chinese diplomatic representatives in the country. Through these representatives, they engage with central institutions in Beijing. Regional officials engage indirectly with their Chinese counterparts through the Ethiopian central government. Local companies have created associations to lobby the relevant ministries in the Ethiopian central government. Local workers engage directly with Chinese infrastructure companies on the construction site.

These negotiations do not occur simultaneously. Each of these negotiations occurs at a different moment. And the position of each actor in this relational network, as the next sections demonstrate, can ensure more or less impact on the overall character of the China-Ethiopia relation in the infrastructure sector. Some actors enter the game before and during the negotiation of infrastructure projects. Others, like local workers and regional officials, participate when parties have agreed on terms and conditions of infrastructure projects.

Figure 12. Stakeholder mapping of Sino-Ethiopian relationship in the infrastructure sector



Source: Author's elaboration

6.3 State actors and China-Ethiopia relations in the infrastructure sector

This section examines how Ethiopian state actors exercise agency in their interactions with Chinese political and business actors in the pre-implementation, implementation, and post-implementation phases of infrastructure projects. In each of these phases, by adopting different tactics and stratagems, Ethiopian state actors at all levels pursue their perceived interest while negotiating with their Chinese counterparts given certain structure and contextual preconditions.

6.3.1 Federal actors

Ethiopia is known for having a great deal of ownership⁹⁰ over its policy agenda (Furtado and Smith 2008). As we have seen in previous sections, Ethiopian governments have strongly defended their sovereignty in ways that have made China an ideal partner at the international level (Furtado and Smith 2008). As Whitfield and Fraser (2010, 343) aptly put it, "The defence of ownership is in effect a defence of the sovereign rights of African states, . . . defending spaces in which African agents can struggle amongst themselves over the nature of appropriate political and economic processes".

As for government elites, their perceived self-interest consists of ensuring state actors have space to implement their political agenda. This means, as Furtado and Smith (2007, 15) put it, "to maximise the inflow of resources, while giving up as little sovereignty as possible". In Ethiopia, infrastructure projects are demand driven, unlike aid projects financed by traditional donors, which are supply driven (Warmerdam 2015). That is, the sole promoters of new infrastructure projects (those who take the lead in proposing new projects to their Chinese counterparts) are the Ethiopian government and Ethiopian public enterprises.

Over the past decade, technical ministers and public enterprises, within the imperatives of the three five-year development plans (ADLI, GTP I, and GTP II), first identified local development priorities, then set up their agenda, developed project proposals, and engaged with Chinese counterparts. In order to express their intentions, Ethiopian actors initially engage Chinese actors during high-level official visits or during FOCAC meetings. Then, within the framework of broad agreements, Ethiopian public enterprises start engaging with Chinese public and private companies by executing

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⁹⁰ Ownership is defined as a government's demonstrated ability to formulate its own development goals and processes to reach those goals.

feasibility studies and budget proposals. These studies and proposals are eventually submitted to the Ethiopian MoFEC. At this stage, the MoFEC submits a formal loan application to the Chinese government through the Chinese economic counsellor's office in Addis Ababa (E33).⁹¹ The application includes information on total project investment, loan amount, loan holder or project company's financial status, project-financing structure, loan term, loan usage, repayment method, guarantee method, project schedule, and contact information. Once the application has been submitted, Chinese banks evaluate projects through prelending investigations, and, if the application is successful, they contact the project party. At this point, Chinese banks carry out a due diligence survey, a project review, and a credit-appraisal arrangement and submit the resulting assessment report to their loan committee, to MOFCOM, and to the insurance company for approval.

Once the project is approved in broad terms, the negotiation phase on the financial and technical aspects begins. According to Proclamation No. 916/2008 and the revised Proclamation No. 970/2008, the latter of which defines the powers and duties of the executive organs of the Federal Democratic Republic of Ethiopia when it comes to resources and finance-related issues, MoFEC negotiates for the Ethiopian government. Under the supervision of MoFEC, debt-management and legal matters are negotiated between Ethiopian and Chinese commissions. The Ethiopian commission comprises the Debt Management Directorate, the Ethio-China Directorate, and representatives of Ethiopian contractors. The Chinese commission comprises a delegation of the Chinese Embassy of Ethiopia, the Chinese Ministry of Finance, MOFCOM, the Chinese lending bank, representatives of Chinese contractors, and the Chinese insurance company. The resulting financial contracts are called repayment-mechanisms agreements or preferential buyer's-credit loan agreements. In this phase, Ethiopian actors are mainly represented by MoFEC. As one interviewee from the ERC described these negotiations: "On the loan issue, we are the borrowers, we are part of the negotiation, but it is led by the MoFEC because they are the macro managers of the country; so even though we are borrowers, they are guarantors. They lead the negotiations, but we are part and parcel of it" (E36)⁹².

Once the financial contracts have been negotiated, the Ethiopian public enterprise, and the Chinese contractors that will implement the project negotiate the technical aspects of the contracts. Technical aspects include financing and costs, employment and use of materials, capacity building and technology transfer, social and environmental regulations, and taxes. The resulting deals are called contract agreements between the Ethiopian public company and the Chinese contractors.

⁹¹ Interview with senior official of China's embassy in Ethiopia, Addis Ababa, September 2018.

⁹² Interview with senior official of Ethiopian Road Authority (ERA), Addis Ababa, September 2018

Before implementing infrastructure projects, Ethiopian state officials can influence the contracts. Ethiopian state actors try to pursue their interests (a) by approaching Chinese counterparts in order to pursue infrastructure projects that are coherent with the overall Ethiopian development plan, (b) by negotiating financial terms, (c) by negotiating technical aspects of the contracts. These negotiations are not always in the overall best interest of the Ethiopian government. Yet, in these negotiations, these officials are in a position to determine some of the outcomes.

Besides the contractual aspects related to the financial and technical features of the projects, Ethiopian state officials pursue their perceived self-interest by renegotiating excessive debt burdens. Renegotiations of debt burdens have been the result of what Van Staden terms "agency through non-compliance"—that is, "Africans' strategically not fulfilling the terms of agreements to which they had ostensibly assented" (Van Staden 2018, 8). This strategy has been deliberately used by African governments to better manoeuvre in their relations with stronger partners (Van Staden 2018).

In the Ethiopian case, state officials have prioritised the repayment of loans from other lenders and delayed the repayment of Chinese loans. This has been a strategic move aiming at extracting concessions from China. For several Ethiopian officials, these delays are often the norm. As a manager of a Chinese company put it: "It is often the case that the payment to the World Bank and African Development Bank is on time and the repayment to Exim Bank is delayed. Today Ethiopia is not earning enough to cover the country's debt service, so it had to make a choice: who should we prioritise? I think the answers came pretty easily. China causes less trouble" (E41).⁹³

This is relevant to China-Africa relations. Africa's growing public debt has generated a new wave of debate about the sustainability of Chinese financing. Several media outlets and public reports warn about the danger of a new debt trap across Africa (Krakowska 2017; Zhang and Miller 2017). ⁹⁴

Ethiopia is becoming an important part of this debate on China's debt trap. In 2006 Ethiopia was one of the low-income countries that benefitted from debt relief under the Multilateral Debt Relief Initiative. External public debt fell to 18 percent of GDP in 2012. It started rising again, reaching 33

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⁹³ Interview with a Chinese company's manager, Addis Ababa, September 2018.

⁹⁴ Alarms among media and policy makers rang after China assumed control of a part of the newly constructed Hambantota port in Sri Lanka. It had spent nearly US\$ 2 billion to build the port, which soon incurred substantial losses, making loan repayment problematic. By 2015 it was clear that Sri Lanka was in danger of default. As a result, in 2017 the Sri Lanka Port Authority granted to the SOE China Merchants Port Holdings Company a ninety-nine-year lease on the facility and 15,000 acres of land to build an industrial zone (Carrai 2019; Xing 2019). Analogous concerns were raised about the preferential buyer's-credit loan agreement on the Mombasa-Nairobi standard gauge railways (SGR). According to Kenya's largest independent newspaper, the *Daily Nation*, clause 5.5 of the contract—"Neither the borrower Kenya nor any of its assets is entitled to any right of immunity on the grounds of sovereignty"—would jeopardize Kenya's sovereignty.

percent of GDP by fiscal year 2017/2018. Ethiopia's current infrastructure-financing scheme depends greatly on Chinese commercial loans. However, the repayment of these loans has always been problematic. The World Bank and International Monetary Fund's 2016 debt-sustainability analysis postulated that Ethiopia's external debt situation could become too difficult to service in the medium term. In this context, borrowing from China might push the country back into a cycle of indebtedness. High reliance on nonconcessional financing is just one part of the story. Sluggish performance of exports, a limited tax base, and, above all, a severe foreign exchange shortage due to projects that yielded underwhelming returns are exacerbating the problem. As one senior official from the China-Ethiopia department at MoFEC revealed:

If we talk about the challenge of foreign currency it comes into two ways: the one thing is the foreign-currency earning, and the other thing is foreign-currency spending. The spending of course relates to the repayment of the loans to China, World Bank, Africa Development Bank, and so on. The other thing is about currency earning. It was planned that the major projects of Ethiopia could earn foreign currency, but they failed compared to what it was expected. For example, the renaissance dam, the sugar plants, and also the industrial parks, these are the major sources expected for foreign-currency earnings, but the targets haven't been achieved. (E20)⁹⁶

Against this background, it is particularly relevant to note that in 2019, MoFEC was able to restructure Ethiopian debt to China. According to an Ethiopian official, negotiations started on April 9, 2019, when MoFEC wrote a letter to CHEXIM asking for loan-facilities amendments on certain projects. Table 8, based on MoFEC internal documents accessed for the first time by the author, shows that in 2019 Ethiopia restructured its debt by about US\$ 2 billion by getting Chinese banks to extend the grace periods and relax repayment deadlines. As a MoFEC official put it, this calculation reflects the financial advantages Ethiopia acquired as a result of the interest rate reductions and the time extension to pay the interest.

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⁹⁵ Official gross international reserves recently increased from US\$ 2.8 billion in June 2018 to about US\$ 4 billion in December 2018. The increase was largely related to the US\$ 1 billion disbursement by Abu Dhabi Development Fund at the NBE and the deposit of the first tranche of the World Bank's Development Policy Financing (DPF). Based on the authorities' calculations, the import coverage of gross official reserves improved from 2.1 to 2.4 months (World Bank 2019).

⁹⁶ Interview with senior official at China-Ethiopia Department of MoFEC, Addis Ababa, September 2018.

Table 8. Loan-facilities amendments

Chinese bank	Project name	Benefit of the amendment	Debt relief
CHEXIM Industrial and	Addis Ababa- Djibouti Railway project Gibe III	 Extension of the grace period by 10 years (from 2014 to 2024) Extension of the maturity period by 20 years (from 2024 to 2044) After the grace period ends in 2024, the payment obligation will be reduced by 50% of the amount due 	US\$ 125 million annually US\$ 20 million
Commercial Bank of China	Gibe III	 Rescheduling of payment and reduction of interest and principal by 50% for the next 3 years The payment exposure is restructured such that EEP will only be required to pay 20% of the amount due in 10 instalments starting immediately on a semi-annual basis and the remaining 80% will be paid in 10 subsequent instalments. So the payment relief will cover 3 years and the total remaining principal and interest outstanding will be paid subsequently. 	annually million
China Development Bank	Omo Kuraz 2 and Omo Kuraz 3	• Rescheduling of payment of interest and principal by 50% for the next 3 years	US\$ 23 million annually
China Electric Power Equipment and Technology Co., Ltd.	GERD-Dedessa- Holeta Power Transmission	• Rescheduling of payment of interest and principal by 50% for the next 5 years	US\$ 18 million annually

Creditor-debtor relations between Ethiopia and Western private lenders and financial institutions work differently. Ethiopia has always repaid its maturing debt with Western creditors and international financial institutions on time, as borrowing conditions and penalties are harsher. As an Ethiopian official working for the debt department says:

The good thing with the Chinese banks is that they don't go strict if Ethiopia faces any default interest or so. By strict, I mean declaring that Ethiopia is in default interest penalty. Such thing is not good for the image of the country and affects the country in one way or the other negatively. The Chinese banks are policy banks. So, first they recognise that we have difficulties to repay, then the government-to-government dialogue and the discussion between policy makers of the two countries settles any issue. Chinese can be very understanding. (E75)⁹⁷

As Kaplan (2016, 2) notes, "China's form of patient capital is often willing to endure emerging market business cycle risks. It signals such risk tolerance through promises of non-intervention in sovereign affairs. In fact, the rising power has avoided onerous policy conditions or credit being contingent on a country's macroeconomic performance . . . [articulating] its focus on long term profitability". 98

In the case of Ethiopian infrastructure projects, the response of Chinese elites to Ethiopian attempts to exercise agency through noncompliance was to mediate. Within this framework, Ethiopian elites have been able to take advantage of the flexibility of Chinese financial concessions. During a visit to Ethiopia in January 2019, China state councillor and foreign minister Wang Yi said, "As a good friend and good brother . . . the Chinese side is willing to lend a helping hand when needed by the African people to help them overcome temporary difficulties". Since this visit, as a state official said, the reaction of the Chinese government to Ethiopia's request to restructure its loans has been one of "openness to resolve the issues for the benefit of both parts" (E9). 99 There is certainly a pinch of self-indulgence in these words, but it remains a fact that Ethiopian state officials have been able to pursue their perceived self-interest in this process. Nevertheless, this conciliatory approach might not last forever. There are signs that Chinese officials are moving towards greater discipline in assessing the risk of debt default (Hurley et al. 2018). As one respondent from the China's embassy in Ethiopia argues:

The decision to reschedule debt is not only from Ethiopia government; also the Chinese government is not expected to give more burden to Ethiopia. So Chinese government is also trying to control the scale of the whole loan amount. In the meantime, I think Ethiopian government and Chinese government are communicating with each other to find the possible ways to invert the temporary repayment burden of Ethiopia. . . . Extension of repayment period and maybe the extension of grace

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⁹⁷ Interview with senior official at Debt Department at MoFEC, Addis Ababa, September 2018.

⁹⁸ Chinese banks subsidise lower credit risk through guaranteed contracts with the Ethiopian government and the Ethiopian SOEs. The confidence engenders will enhance commercial and business opportunities for Chinese contractors, suppliers, and workers.

⁹⁹ Interview with Ethiopian government official, Addis Ababa, September 2018.

period might be the way. Because for my own understanding the repayment problem especially the shortage of foreign currency is temporary for the country. (E33)¹⁰⁰

It is a significant achievement that the Ethiopian government was able to reschedule the debt. However, it is important to notice that, as the last quotation reveals, debt rescheduling may also be seen as a strategic decision of Chinese officials, who prioritise the long-term benefits of cooperation over short-term gains, which may affect the legitimacy of the Chinese presence in Ethiopia and in other African countries. A report conducted by Oxford China Africa Consultancy (2019) reveals that since 2000, China has written off about US\$ 9.8 billion of other countries' debt, of which US\$ 2.2 billion was owed by African countries; East African countries were the beneficiaries of about half of the forgiveness. As the report says (OCAC 2019, 10), "Despite its economic weight, China's leverage in negotiations is limited. Many of the cases reviewed involved an outcome in the favour of the borrower, and especially so when host countries had access to alternative financing or relied on external events (such as change in leadership) to demand different terms".

Whether or not one thinks that China is a strategic actor, another aspect is of relevance for this thesis. In the negotiations leading up to infrastructure projects, Ethiopian state officials are in a position to ask for certain projects consistent with their national development priorities and to cooperate with their Chinese counterparts in ways that the parties see as mutually beneficial. Once the infrastructure has been constructed, Ethiopian state officials also have the capacity to pursue their perceived interests by profiting from Chinese flexibility and lack of conditionality.

6.4.2 Regional bureaucrats

While the politicised high levels of the bureaucracy potentially, as Procopio (2016) writes, "have more power to strike direct deals with external actors, and more financial power than the lower levels, it is generally the lower level bureaucrats and social groups that . . . manage to leverage the decisions taken at the top". For this reason, it is important to understand who translates a deal into an actual infrastructure project, how these actors pursue their perceived interests, and how Chinese actors react. In particular, Ethiopia has a multilevel governance structure in which regional bureaucrats, given their stronger connection with local ethnic communities, often have great power to influence decision-making processes inside and outside the infrastructure sector. In the case of infrastructure projects, the position of regional bureaucrats is very important because they enter the scene only once top-level officials have already reached agreement with Chinese stakeholders on terms and conditions.

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¹⁰⁰ Interview with senior official of China's embassy in Ethiopia, Addis Ababa, September 2018.

As part of their administrative autonomy, regional governments have power over critical issues affecting their jurisdictions. Under federalism, land administration has been transferred to regional governments, which are compelled to formulate land proclamations within the framework of the federal land policy and are granted the unconditional right to self-determination, "including the right to secession" (FDRE Constitution 1994, Art. 39) (Lavers 2018). As Eshete (2003, 21) writes, "To confer the right to secession on national communities is to allow that a regional state's collective property rights take priority over the property rights of outsiders—non-members and federal government—in the region". Against this backdrop, reaching equilibrium between ethno-territorial identities and governments remains very high on the agenda of all Ethiopian politicians.

It should be obvious that infrastructure projects, even if negotiated at the very highest level, are very localised and have a visible impact on communities, thereby putting regional governments in a strategic position as possible mediators of local interests. During the last decade, that consolidation of subnational state power has made zones, woreda, and kebele bureaucrats the protectors of local population interests. These bureaucrats' behaviours follow from the exclusionary sentiment coming from below and the perception that certain projects were designed only for a particular segment of the population (Terrefe 2018). As one MoFEC senior official recalls: "During prime minister Meles Zenawi, local governments were generally supportive of the developmental-state system. So, they would say that anything happens as part of sacrificing for the nation's future development. These days, unlike ten years ago, local government questions the portion of benefit they acquire from a proposed project to the point of applying veto power over certain projects. Often these new infrastructures involve Chinese financing or building, so this becomes also their problem" (E75). 101

In 2015 Oromia and Amhara, Ethiopia's two largest states, protested against political and economic marginalisation (Fisher and Gebrewahd 2018). Addis Ababa's rapid growth has resulted in increasing pressure to convert rural land for industrial or other urban use often on the outskirts of the city. Tensions over land use between the federal government and the Oromia regional government arose when the federal government announced the Addis Ababa master plan, a plan to expand the federally run city-state into surrounding farmland in Oromia, thereby allowing the capital to incorporate pieces of land and leaving informal settlements susceptible to government redevelopment plans.¹⁰²

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¹⁰¹ Interview with a senior official at MOFEC, Addis Ababa, October 2018.

¹⁰²https://www.theguardian.com/world/2015/dec/11/ethiopia-protests-master-plan-addis-ababa-students. Accessed 23 August 2019.

In this context, as Terrefe writes (2015, 89), "the fact that all major regions are controlled by parties of or aligned to the EPRDF no longer guarantees such cohesive diffusion of policies and the implementation of mega projects". Centralised decisions, he continues (2015, 89), "cannot longer simply passed down to receive a formal rubber stamp in regional parliament". Federal officials need to discuss and negotiate with local bureaucrats, who, through these domestic negotiations, are in a position to pursue their perceived interests in bargaining with Chinese actors. The perceived selfinterest of regional bureaucrats consists of maximising the benefits for their local communities and thereby strengthening their role in communicating regional/ethnic demands.

A case in point is the Addis Ababa-Gerbi Dam Reservoir, Transmission Line, and Treatment Project. Fieldwork data show that it is one of the cases in which regional-level bureaucrats refuse to approve plans, as a way of realigning national infrastructure policies with their interests. In this case, refusing to accept an agreement is a strategic choice made in order to let local voices be heard. In a context in which ethnic differences are highly politically relevant, dissenting or vetoing is intended to show that the federal government is not pursuing the genuine interest of the country as a whole.

The Addis Ababa-Gerbi Dam Reservoir, Transmission Line, and Treatment Project was considered a strategic project by the federal government. As Feyissa (2011, 802) notes, "The fact that most of the hydroelectric projects are located in the country's peripheral regions has brought the issue of Ethiopia's de facto hierarchical citizenship into the realm of notice. In most peripheral state countries peripheral peoples are often considered as what Mamdani calls 'disposable citizens' in the drive towards a fast track development at any cost".

The population of Addis Ababa has grown 3.8 percent per year since 2007¹⁰³ and brought increasing demand for potable water. Over the past decade, Ethiopian capital has shown a significant improvement in water-service coverage. Yet water supply has always been irregular, with some areas having access for less than three hours per day (E75).¹⁰⁴ In order to deal with the water shortage, the federal government included several projects in the Addis Ababa Water and Supply Sewerage Project, one of these projects being the Addis Ababa-Gerbi Dam Reservoir, Transmission Line, and Treatment Project.

The Gerbi Dam Reservoir spreads well beyond the territory of Addis Ababa. Located 30 km north of the capital, in the Sulula and Welmera districts of the Oromia region, the dam has an estimated

http://worldpopulationreview.com.
 Accessed 2 August 2019.
 Interview with a senior official at MOFEC, Addis Ababa, October 2019

generation capacity of 73,000 m³ of water per day. The project has been in the pipeline for the past twenty years and has not been completed because of financial issues. In 2016 MoFEC and CHEXIM agreed on a RMB 923 million (US\$ 242 million) concessional loan. The parties agreed to a grace period of five years, a maturity period of twenty years, and an interest rate of 2 percent per annum. Based on the contract, the Addis Ababa Water and Sewerage Authority would be the end user and that the CGC Overseas Construction Group (CGCOC) would be the Chinese contractor (E75). ¹⁰⁵

Following the finalisation of the agreement, tensions arose between the regional government, the Chinese contractor, and the Addis Ababa Water and Sewerage Authority. According to the regional government, the social impact of the project study was underestimated. In particular, the local administration objected to the refusal of its Chinese counterpart to provide clean water to the population of the two districts (E77).¹⁰⁶

According to China's loan-processing rules, once a financing agreement is signed, the disbursement must start within two years (E75). ¹⁰⁷ Being well aware of this condition, regional bureaucrats knew that without their authorisation, the project could not be implemented. On these grounds, Oromia state officials pursued their perceived interests through noncompliance. As one such official told me, the Oromo administration expressed its unwillingness to accept the deal by cutting off communications with federal officials for over forty-eight months (E77). ¹⁰⁸ By doing so, regional powers prevented the Chinese company from starting building operations and forced the federal government to mediate with the Chinese stakeholders. As a result, contractors included new terms in the agreement that entailed that the company would provide drinking water to the local community, give higher compensation to displaced farmers, and, as an Oromia senior official revealed, include a clause within the contract committing it to construct a new bridge for the community (E77). ¹⁰⁹

This example shows that there are conflicting interests and narratives within Ethiopia. Given the precarious political equilibrium of the country, the federal government has an imperative to mediate with regional authorities, and regional authorities gain space to pursue the interests of local communities. Infrastructure projects exacerbate this tension. They are localised, and they may disproportionately impact certain communities while benefitting others. In my case study, local government bureaucrats, by undermining the plans of the federal government, forced a review of the terms and conditions, thereby actively shaping the configuration of the project. Obviously, this is not

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¹⁰⁵ Interview with a senior official at MOFEC, Addis Ababa, October 2019.

¹⁰⁶ Interview with an official of Oromia regional state office, Addis Ababa, October 2019.

¹⁰⁷ Interview with a senior official at MOFEC, Addis Ababa, October 2019.

¹⁰⁸ Interview with an official of Oromia regional state office, Addis Ababa, October 2019.

¹⁰⁹ Interview with an official of Oromia regional state office, Addis Ababa, October 2019.

always the case. And the bargaining power of regional bureaucrats seems to go hand in hand with the evolution of broader political settlements.

6.5 Nonstate actors and China-Ethiopia relations in the infrastructure sector

6.5.1 Domestic firms

To get the full picture of China-Ethiopia relations in the context of infrastructure projects, it is important to consider nonstate actors, often described as a "passive mass" (Megaptche 2018). In the context of the Ethiopian construction industry, local private actors do not have legal or institutional support to protect their business from the arrival of Chinese competitors. Despite such a disadvantage, private firms have started pursuing their perceived interests in other ways. It is in their perceived self-interest to have the state regulate Chinese entry into the Ethiopian infrastructure sector. Against this background, business associations, mainly through lobbying, try to engage with politicians, pushing for favourable policy and regulatory changes.

There are different types of construction companies in Ethiopia, with different resources, capabilities, and political connections. In this context, local and smaller companies have to rely on larger entrepreneurs or on business associations to make their voice heard at the federal level. Specifically, construction companies have tried to influence the public sphere by presenting studies and proposals to the central government, by offering recommendations to MoFEC and the Ethiopian Ministry of Urban Development and Construction, and by creating a committee to facilitate systematic consultation. Meanwhile, construction companies have tried to establish connections through personal networks with government officials.

Results from surveys distributed across a wide range of private firms demonstrate that companies have several preoccupations: resource constraints, and low capability due to a weak resource base and lack of experience and professional development; capital constraints; and a weak regulatory and governing framework to preserve their interests (see chapter 7). The vast majority of local construction companies interviewed for this thesis made frequent reference to the fact that despite the increase in public investment, their firms have not benefitted. Indeed, an estimated 60 percent of all government tenders was awarded to Chinese firms between 2010 and 2018 (E16).¹¹⁰ Private firms tend to "preferential treatment given to Chinese businesses in the awarding of

 $^{^{110}}$ Interview with EIC analyst, Addis Ababa, September 2018.

public projects and in the way the regulations are applied" (E53)¹¹¹ and to "financial, technological, and managerial constraints" (E62).¹¹²

This situation has caused widespread discontent, with Ethiopian firms blaming the government for undermining their capacity to bid equally and be competitive in the local market. Currency devaluation has exacerbated the problems. In Ethiopia, local construction companies, which rely upon imported materials and construction equipment, are highly vulnerable to financial risk associated with devaluation. According to a Habcon study (2018) NBE's decision to devalue the birr in order to encourage exports resulted in an increase of the price of construction materials by 51 percent and an overall 31 percent increase in the cost of building projects (Habcon 2018). At the same time, the study analysed how foreign companies were unaffected by the financial shock. Therefore, devaluation weakened the capacity of the private sector, resulting in the dominance of foreign contractors (Habcon 2018). As one local company's manager says:

The public procurement and property administration proclamation [No. 649/2009]¹¹³ was initially stipulated in order to grant protection to foreign companies over their Ethiopian competitor. Based on the proclamation, a principle of non-discrimination should be applied through public procurement. Still, the devaluation further degraded the already wide competitive disadvantage between local and Chinese contractors, having the opposite effect on the local companies. (E51)¹¹⁴

Many owners of local companies shared the same preoccupation (E53, E54, E56). The housing market is another major source of complaints (E54, E60). In Ethiopia, the housing sector was considered a domain of local industries. However, in the last few years, Chinese companies have considered with growing interest the opportunities created by the rapid increase of public investment in the housing market. The lack of residential real estate and the impressive number of poor-quality shelters have been a long-lasting issue in Ethiopia, and in Addis Ababa in particular, where, according to UN Habitat, an annual growth rate of 4.1 percent between 1990 and 2010 has doubled the capital's population from 1.7 to 3.4 million. In the lack of the same preoccupation (E53, E54, E56). In Ethiopia, the housing sector was considered with growing sector was considered and the interest the opportunities created by the rapid increase of public investment in the housing market. The lack of residential real estate and the impressive number of poor-quality shelters have been a long-lasting issue in Ethiopia, and in Addis Ababa in particular, where, according to UN Habitat, an annual growth rate of 4.1 percent between 1990 and 2010 has doubled the capital's population from 1.7 to 3.4 million.

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¹¹¹ Interview with Ethiopian companies' managers, Addis Ababa, October 2018

¹¹² Interview with Ethiopian companies' managers, Addis Ababa, October 2018.

¹¹³ Article 5 (2) of public-procurement and property-administration proclamation No. 649/2009 demands that "non-discrimination among candidate on grounds of nationality or any other criteria not [have] to do with their qualification, except in cases of preference specifically provided for in this Proclamation".

¹¹⁴ Interview with Ethiopian company's manager, Addis Ababa, October 2018.

¹¹⁵ Interview with several local companies' managers, Addis Ababa, October 2018.

¹¹⁶ Interview with Ethiopian company manager, Addis Ababa, October 2018.

¹¹⁷ UN Habitat, State of the World's Cities 2010/2011—Bridging the Urban Divide, 16, 169.

In 2006 the government launched the Integrated Housing Development Programme, which aimed at building between 150,000 and 200,000 housing units. At that time, commissions went entirely to local companies. However, since 2010, the number of private and public Chinese companies venturing in the housing sector has been rapidly increasing. Launched in 2014, the Poli Lotus International Centre, a US\$ 150 million project built by Chinese real estate company Tsehay, represented the first urban complex project built by a Chinese company in the country. More recently, The Royal Garden, an ambitious US\$ 194 million real estate project, was undertaken by Chinese developer Sinomark and sold as the "biggest real estate scheme in the country" The perceived encroachment of Chinese firms in Ethiopia's building industry has created fear in the indigenous business community. As one local manager maintained:

They are competing for every project, so when they win the large projects, they will force the large local companies to bid for the smaller projects. It's a vicious cycle. Take the housing market. Until ten years ago Chinese companies were not interested in these projects but preferred to focus on big high road and other million-dollar projects. We are not allowed to bid for those because of the turnover and experience requirements. Now because they see potential for growing their market, they are occupying that space as well, making things difficult for us. To contain this, we are working with GC1 associations pushing the government to restrict this Chinese involvement in the housing sector. (E 56)¹²⁰

Low capacity, shortage of capital, and lack of market regulations are generally seen as the main explanations for local companies' lack of competitiveness against Chinese companies. Deficits in engineering capability are seen as critical constraints on project design, project development, and project implementation. Companies would like to be exposed to Chinese technological innovations. As they say, this exposure would be instrumental for learning about technologies and managerial and business practices. When local business owners were asked about the potential of joint ventures for the local players, a common response was that "they have the capacity to bring technologies and the expertise needed to advance in the sector" (E55).¹²¹ As one respondent from the Construction Contractors Association of Ethiopia (CCAEC) claimed: "The issue is that we have lower capacity compared to Chinese companies, so it's difficult to cope. Most of us are of the opinion that enforcing

¹¹⁸ The US\$ 150 million project was built by Chinese real estate company Tsehay Real Estate Plc., is co-owned by China's CGCOC and Red Fox international business company, and includes public and residential buildings covering an area of 200,000 km².

http://www.globalconstructionreview.com/news/21-tower-scheme-be-et8hio0pias6-4b2ig5gest0-r8ea/. Accessed 2 September 2019.

¹²⁰ Interview with Ethiopian company's manager, Addis Ababa, October 2018

¹²¹ Interview with Ethiopia company's manager, Addis Ababa, October 2018.

the joint venture and subcontracting of works of technical as well as financial significance to locals by foreign contractors will improve our business position in the domestic market" (E62).¹²²

It is common among Ethiopian firms to criticise the federal government for not protecting the infrastructure sector from the arrival of foreign competitors. That widespread feeling has triggered network coordination and the organisation of collective actions, which, despite long-standing competition in the local market, have enabled collective-identity formation. "A collective identity among private entrepreneurs", as Schuber and Heberer (2017, 101) write, tends to result "from their belonging to the same networks, from similar social backgrounds and lifestyle patterns, and from their common exposure to the pressures and institutional constraints". In the same way, exposure to the same pressure and institutional constraints pushed local actors to merge the two biggest industry associations (the Construction Contractors Association of Ethiopia [CCAE] and the Association of Ethiopian Class One Contractors [AECOC]) in March 2019. As a CCAE source (E62) confirmed, "The principal reason for the recent unification of the CCAE with its long-time enemies, the Class One Contractors, was to coordinate against perceived risks to their economic interests and avert total annihilation by Chinese companies". 123

Moreover, Ethiopian firms have continued the process of building coalitions and harmonising lobbying strategies in other ways, setting up alliances with other business associations and ministers. ¹²⁴ As one interviewee commented:

The CCAE's advocacy strategy in matters of Chinese contractors is to demand assurance that business opportunities opened for foreign contractors will sustain the competitive advantages of local companies as well. CCAE has been trying to convince officials that in the long run, the public sector has the duty of safeguarding the well-being of the people of its country. And whether this is easier to achieve through making the construction industry efficient and foreign or distributive and local needs to be qualitatively and quantitatively argued openly. The formation of the Construction Industry Transformation Council with a sizeable representation on its Technical Committee by members of associations may be one such forum. (E57)¹²⁵

CCAE was established in 1992 and is the biggest association of construction companies in Ethiopia with over 1,500 company members from the building, road, and general-specialised-construction

¹²² Interview with CCAEC manager, Addis Ababa, October 2018.

¹²³ Interview with EEAC manager, Addis Ababa, October 2018.

¹²⁴ Addis Fortune, https://addisfortune.news/new-contractors-association-cements-bond/. Accessed 26 July 2019.

¹²⁵ Interview with Ethiopian company manager, Addis Ababa, October 2018.

industries. AECOC was established in 2006 with 13 members. It reached 55 members at the time of the unification. A memorandum of understanding was signed just before the merger in order to build a coalition with the Ethiopian Electromechanical Contractors and the Ethiopian Association of Water Work Contractors. The current minister of construction and urban development, Aisha Mohammed, worked closely with the two associations before taking her post as minister.

Some results were achieved before the strategic alliance in 2019. In December 2016, following three years of joint consultations including CCAE, AECOC, the Federal Ethics and Anti-Corruption Commission, the Ministry of Works and Urban Development, and the Public Procurement and Property Administration Agency, the government committed to amend the 2010 Ethiopian Public Procurement Directive in order to allow local bidders to form joint-venture agreements with foreign contractors. The new directive encourages local companies "to choose their partners from among competing foreign contractors before the bid closes". According to Art. 2, point B, of Attachment 6 of the new directive (on general working experience), one of the requirements for creating new joint ventures is that "foreign contractors must have at least 5 years' work experience in the sector as a contractor, in a joint venture or as subcontractors" (related working experience). Foreign contractors must have worked at least two construction jobs as contractors, members of a joint venture or subcontractor, and have completed at least 80 percent of the work safely and satisfactorily. CCAE sources (E62) 126 claim that these requirements aimed at raising barriers to entry for foreign firms with capacity and experience comparable to their Ethiopian counterparts. In order to ensure more protection, the directive increases the minimum threshold to enter international competitive bidding from ETB 50 million to ETB 150 million for construction works, from ETB 10 million to ETB 50 million for goods, and from ETB 2.5 million to ETB 7.5 million for consultancy services.

Furthermore, in December 2017, following two years of negotiations, the government approved the establishment of the Construction Industry Transformation Council with Regulation No. 417/2017. According to Art. 5 of the regulations the council should "facilitate and create conducive environment in order to make domestic construction companies to be internationally competitive beyond the national construction industry demands; deliberate on the same; provide direction for action; monitor its implementation". The prime minister acts as president of the council, with the construction minister being the deputy chairperson. Architect and Ethiopian Consulting Engineers and Architects Association president Bizuayehu Sitotaw Getahun is also a technical member of the

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¹²⁶ Interview with CCAE manager, Addis Ababa, October 2018.

¹²⁷ The other members include officials of appropriate government organs, presidents of regional states, mayors of city administrations of Addis Ababa and Dire Dawa, representatives of the concerned government offices and institutions, representatives of the private sector, representatives of other appropriate bodies (Art. 6).

council. In an interview, he said that the council has a role to play in the advancement of the construction industry. In his view, it will enable both the government and the private sector to contribute to the improvement of technological and policy-related aspects of the sector.

In a political environment in which ethnicity is the main political cleavage and in which the leveraging capacity of private actors on politicians and political parties has been very low, infrastructure firms have pursued their role-based interests by addressing key ministers. While still limited, the results are encouraging, especially when we place them in a context in which small and big private firms have struggled to compete with foreign companies. Since the arrival of Chinese companies in the country, Ethiopian firms have suffered from lack of regulations and from legislations favouring international business. Yet, in an increasingly adverse business environment, private actors have been able to rethink their individual interest, and, in light of this role-based interest, they have intensified cooperation with one another and with key ministries. Against this background, it is a widespread opinion across construction firms that both the establishment of the Construction Industry Transformation Council and the establishment of the construction-sector regulatory board are remarkable achievements and they are seen as turning points that can shape the infrastructure market in the years to come.

6.5.2 The local workers

The Ethiopian Labour Proclamation No. 377/2003 stipulates that workers and employers shall have the right to establish unions or associations. However, the confederation of Ethiopian trade unions has little influence over EPRDF policy. As Hardy and Hauge (2019, 14) write, "the Confederation of Ethiopian Trade Union (CETU) is not a government union . . . the organization attempts to represent workers in various policy discussions . . . yet its actions and statements take place in a manner that does not oppose the wider objectives of the regime". Moreover, trade unions' weak associational power and the absence of genuine collective rights "pushed workers to exert pressure through their actions as individuals" (Hardy 2019 and Hauge, 9). For this reason, as Carswell and de Neve (2013) argue, a study of labour agency should be sensitive not only to the actions of trade unions but also to "micro agency", or to "low key and often invisible ways by which people with very limited materials means make viable lives" (2013, 8).

Ethiopian trade unions are weak. Such weakness has been exacerbated by Chinese infrastructure companies that do not recognise them or strongly discourage their formation at construction sites. These companies' behaviour is born of the conviction that unions' presence leads to escalating conflicts. Customary practices also work in favour of the interest of Chinese firms. The absence of

employment agreements is just "the routine", as one respondent from the Ethiopian Ministry of Labour pointed out (E30).¹²⁸

Although the construction industry in Ethiopia is one of the largest vehicles for employment in the country, Ethiopian construction workers occupy a precarious position in the workplace, casualisation is rampant, and weak and fragmented trade unions lack the capacity to engage the government. Despite such an unfavourable environment, fieldwork evidence shows that there are cases in which Ethiopian workers in Chinese-led infrastructure projects pursue their perceived interest through subversion, deviance, strikes, and court actions in order to obtaining better conditions in the workplace.

The Dire Dawa Dewelle asphalt-and-concrete toll road has spurred debates in the Ethiopian media. It is a particularly important case because, as Schaefer and Oya (2019) note, "in the road construction sector, where firms rely on a small core of permanent semiskilled workers and large numbers of temporary low skilled workers unionisation is almost non-existent".

The toll road, inaugurated on 16 June 2018, is the second in Ethiopia, after the Addis Ababa Adama Expressway. This 220 km two-way highway is part of the Mieso-Dire Dawa-Dwelle road section, which cross over twenty-nine bridges and connects Ethiopia to the Port of Djibouti. According to an ERA 2016 report, the strategic importance of the road is "firstly to shorten the distance between the Port of Djibouti and the capital city Addis Ababa, . . . secondly to integrate the communities of the Shinile Zone within Somali Region by establishing effective mobility through the provision of economic and social services, . . . and thirdly to provide efficient and effective mobility for passengers and freight between the central part of Ethiopia and its eastern regions of Oromia, Harai and Somali" (ERA 2016).

The Chinese SOE CGCOC¹²⁹ and the ERA signed the upgrading project contract on 4 May 2014 for a total value of US\$ 259 million. A loan from CHEXIM financed 85 percent of the project. The government covered the remainder out of its budget. The terms of the loan established a 1.8 percent interest rate with a seven-year grace period and a twenty-year maturity period.

Managers working on the road projects were Chinese, while physical labour was carried out by a 5,000-person Ethiopian workforce. Chinese employees working on the site were subject to the

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¹²⁸ Interview with Ministry of Labour and Social Affairs official, Addis Ababa, September 2018.

¹²⁹ The consulting contract was given to Shandong Great Supervision and Consultation Co.

Chinese juridical system, while Ethiopian labourers worked under the jurisdiction of Ethiopian law (E36). ¹³⁰ During the project unskilled labourers were paid 74 ETB per day. High-skilled workers such as equipment operators received the highest income, with wages around 30,000 ETB per month after factoring in overtime remuneration at a rate of 1.5 times the base rate (E66). ¹³¹ Chinese subcontractors had roughly the same schedule, with workdays extending through the whole week (seven days/week), over twelve working hours per day, and no holiday. In response to Chinese labour practices, Ethiopian workers became skilled at confronting their Chinese superior and managing to drive up wage levels, improve employment conditions, and get financial rewards. This happened through several strategies—from acts of defiance and labour mobility, to organised actions through strikes.

Acts of defiance include sabotage or inappropriate behaviours through transgression of company rules (slowing down the pace of work, taking long breaks from work, drinking and chatting during working hours, leaving the construction site without authorisation, and absenteeism). Using labour mobility, or what Smith (2006) calls *mobility power*, was strategical to renegotiate employment arrangements and to increase competition between subcontractors. As a Chinese firm representative said: "They are really reluctant to work sometimes. That's the truth. They are lazy. Sometimes you ask them to finish some work by the day because of deadlines, but this doesn't happen because they take long breaks, or they start chatting between each other Sometimes they don't show up. This happens mainly after the payday, when they get their salary" (E39). 132

Acts of defiance were just one part of the story. Workers also used concerted actions such as strikes to achieve their objectives. As one Ethiopian manager working on the project recalled:

It was Chinese New Year holiday, so Chinese planned to stop the work for three days. I [the Ethiopian manager] tried to reason with the Chinese, saying that if we hold the work for three days workers will be in a problem if they are not paid, so instead of doing that lets pay them half the wage for the three days. The Chinese didn't agree, and the workers, who had already heard what I propose to the Chinese, started a strike saying '[the Ethiopian manager's name] promised us that we will be paid!'. . . . Finally, the Chinese agreed to pay them their three days' full wage (E66). 133

The case of the Dire Dawa Dewelle asphalt/concrete road was not isolated. My findings are in line with Schaefer and Oya (2019), who study employment patterns and conditions in Ethiopia's

¹³³ Interview with Ethiopian manager, Addis Ababa, October 2018.

¹³⁰ Interview with ERA official, Addis Ababa, October 2018.

¹³¹ Interview with Ethiopian manager of Chinese company, Addis Ababa, October 2018.

¹³² Interview with Chinese manager, Addis Ababa, October 2018.

construction sector. They find that in a sample of six Chinese construction companies working in the road industry, 14 percent of workers witnessed a strike action while working for the company (ibid., 47).

Similarly, Driessen (2019) in her research on the Chinese-built Alamata Mehone Hewane Road Project shows that Ethiopian construction workers undertook several individual and collective actions and proved to be successful in altering power relations with the Chinese managers and winning concessions from employers. Driessen finds that Ethiopian workers were also able to exercise agency through filing lawsuits against Chinese employers in response to Chinese managers' widespread use of "arbitrary layoffs" (ibid., 86).

Employment rights, which are included in the Ethiopian labour proclamation, provide opportunities to advance workers' interests via the legal system through several official mechanisms such as the woreda courts.¹³⁴ In several labour cases in which Chinese firms were involved, the juridical framework and the government officials' interpretation of the law have shown a tendency to go against the Chinese managers and to favour local employees. As Driessen (2019, 150) concludes, "Both the accessibility of woreda courts and the speed with which they dealt with civil and labour cases contributed to their growing role as a channel for negotiating and gradually improving employment conditions. In the absence of active trade unions and other institutions to support the workers' case, the woreda courts became de facto mediators in relations between the Chinese employers and Ethiopian laborers" (2019, 150).

In such cases, Chinese responses range from punishment to tolerance and compromise. Chinese managers punished workers for unmet targets and low productivity with disciplinary actions such as wage deductions and in some cases dismissal. However, the most common response was silence. As Driessen aptly describes (2019, 130), the "Chinese lacked the authority or the support of local authorities to intervene, which meant the that best solution from their perspective was simply to swallow their anger and remain silent. At least this way they could save face, safeguard credibility or prevent more harm from befalling their reputation".

¹³⁴ Ethiopia possesses a dual judicial system constituted by two separate court structures: the federal- and the state-level courts. "The constitution defines the creation of three levels of state courts: the state supreme court, high courts, and first instance courts (or woreda courts) State supreme courts sit in the capital cities and have final judicial authority over matters of state law and jurisdiction... Some states have established social courts (kebele courts) that handle small claims and minor disputes, [although they are not referenced in the constitution]. These social courts are created and recognized under state law, are part of the official judicial system, and operate at the kebele level". (World Bank 2004, 14).

The cases presented signified further proof that China-Ethiopia relations in the infrastructure projects entail constellations of actors who pursue their perceived interests in different ways. In some cases, such as the Dire Dawa Dewelle toll road and the Alamata Mehone Hewane Road Project, Ethiopian workers have resisted Chinese conditions with individual acts of defiance, strikes, and court actions. However unsystematic, these actions show that workers are able to turn structural elements of the Ethiopian sector to their own advantage. Precariousness becomes a way to destabilise Chinese employers. At strategic moments in the implementation of infrastructure projects, the absence of strong unions has given workers the room to engage with their Chinese employers in oftenunexpected negotiations. These observations complicate further the picture of agency distribution in China-Ethiopia relations within the infrastructure sector. Despite benefitting from the political support of the federal government, Chinese-financed projects are facing an increasingly aware workforce, which, in some cases, has been able to force a renegotiation of working conditions.

It is important to notice that across all Ethiopian state and nonstate actors in the construction industry, there are important variations in how their expression of agency impacts negotiations before, during, and after Chinese-financed, Chinese-built infrastructure projects. In the macro context, since 2005, when China-Ethiopia relations began to intensify, as table 8 sums up, state officials have been able to pursue their perceived interest of ensuring state actors have space to implement their political agenda while regional bureaucrats have pursued their perceived interest of maximising the benefits for their local communities and therefore strengthening their role as representatives of regional/ethnic demands, on many occasions forcing their Chinese counterparts to rethink terms and conditions. We might say that, compared with other Ethiopian actors, their agency in China-Ethiopia relations was strong (they have been able to pursue their perceived interest).

The same cannot be said for private firms interacting indirectly with their Chinese counterparts in the meso context. Compared with other actors, their agency in China-Ethiopia relations was weaker (they have pursued their perceived interests, but the results have been modest). Given a largely unfavourable economic, legal, and political environment, these actors have tried to adapt to the situation and to take the most from their interactions with Chinese stakeholders and federal officials. As for private firms, a strategy of cooperation has marked a significant shift in their capacity to exercise agency with more possibilities of impacting the decision-making process. The case of workers is different. My case study confirms the result of other works in the field. Ethiopian workers have been able to pursue their perceived self-interest with significant results during direct confrontations with Chinese managers on the construction site. However, this perceived interest tends to be very localised and dependent on the specific working conditions implemented by Chinese firms. Workers remain unprotected, with insufficient rights and without strong unions. For this reason,

negotiations can occur only in the implementation phase, when Chinese counterparts may be forced to ensure better conditions in order to respect deadlines. In this particular situation we must study labour agency on a case-by-case analysis. Sometime workers exercise their agency. Sometimes they do not.

Table 9. Findings: agency in Ethiopia-China encounters in the infrastructure sector

Actors	Perceived self-	Object of	Arenas of	Modalities	Leverage	Outcomes of
	interest	negotiation	negotiations			negotiations
Federal	Ensuring state	Debt	Formal	Agency through	China's	Agency:
government	actors have	renegotiation		noncompliance:	nonconditional	strong
	space to			Noncompliance	funding and	
Prime	implement			with the	patient capital	Chinese
minister	their political			contracts' terms		government:
	agenda					mediation
Elites				Renegotiation		
				of loan		
MoFEC				restructuring		
Regional	Strengthening	Maximising	Formal	Agency through	Ability to	Agency:
government	their role as	project		noncompliance:	delay/impede	strong
	representatives	benefits for		delaying	the project	
Governors	of	local		approval for		Chinese-
	regional/ethnic	community		contract		contractor
Elites	demands					reaction:
						reception of
Courts						discontent and
						mediation
Local	Regulating	Competition	Formal and	Agency through	Political	Agency:
private	Chinese		informal	cooperation:	leverage	weak
sector	penetration in	Enhanced		lobbying		
	the	capacity				
Business	infrastructure			Collective		Ethiopian
associations:	sector to			action		government:
AECOC	preserve their					policy and
CCAE	interest					regulatory
						changes
Local	Obtaining	Wage rise	Informal	Agency through	Ability to	Agency:
workers	better		and formal	opposition:	inflict financial	medium
	conditions in	Overtime		individual acts	loss	
	the workplace			of defiance		

Respect for		Mobility	Chinese
national	Strike	power	contractor/
holidays			Chinese
	Court action		subcontractor:
			punishment,
			tolerance, and
			compromise

Source: Author's elaboration.

6.6 Conclusion

By bringing new evidence on the infrastructure sector in Ethiopia, this chapter contributes to the literature on African agency within the context of China-Africa relations. Specifically, I have unpacked the idea of Ethiopia as a single actor, mapped all actors in the infrastructure sector, and explained agency distribution before, during, and after the implementation of infrastructure projects. I have identified four classes of actor and three types of agency: agency through noncompliance (federal and regional bureaucrats), agency through cooperation (private firms), and agency through opposition (workers). Over the years, all Ethiopian actors have pursued their perceived interests and adapted or responded to an increasing Chinese presence in the country.

As Gadzala describes, African agency in Africa's relations with China is "convoluted, it occurs in a myriad of locations and with multiple determinants and effects. African agency is shaped not only by the distinctive contexts of African state and sub-state agents but also by the contexts of the Chinese agents with which they interact" (Gadzala 2015, xxv). This chapter confirms that different actors can shape China-Africa relations by pursuing their perceived interest. It also shows that the picture is even more complex than the one offered by the literature on African agency. African agency should not be read as either/or, as if all African actors were always active or passive. They are not always passive. They are not always active. And, when they are active, they may exercise agency that impacts China-Africa relations with different degree of intensity.

CHAPTER SEVEN—CHINESE INFRASTRUCTURES AND THE ETHIOPIAN DEVELOPMENT CONUNDRUM

7.1 Introduction

Are Chinese infrastructure projects in Ethiopia examples of secured enclaves? To what extent do Chinese infrastructure projects enhance linkages with the local economy and support broader development outcomes? In the literature on China-Africa relations, the integration of Chinese projects into local economies is one of the most contentious issues. Evidence from other African countries shows that often, Chinese companies, and Chinese SOEs in particular, fail to integrate their activities into host societies. Scholars argue that Chinese firms concentrate in enclaves with no or very limited economic benefits for the local economy (Ferguson 2005; Corkin 2013; Wethal 2017a). ¹³⁵ Since Chinese supply chains and procurement strategies in African countries tend to vertically integrate (labour, management, project design, technology, and materials arrive from China), scholars observe that Chinese ownership over such processes may limit the development of local linkages in the partner country (Taylor 2014; Bergesen 2008).

This chapter's original contribution lies in debunking this line of thinking. Already-available evidence on the Ethiopian construction sector counters this narrative (Schafer and Oya 2019; Wolf and Cheng 2018). Schafer and Oya (2019, 4) demonstrate that "Chinese companies have substantially contributed to job creation in the construction sector". Wolf and Cheng (2018) show how Chinese companies have been instrumental to the development of the Ethiopian manufacturing sector by spurring the production of building materials and contributing to economic diversification. My fieldwork evidence, which is the result of firm-level surveys, interviews, observations, and direct access to contracts and financial agreements, shows, in line with the above works' findings, that often, despite Chinese companies' vertical integration, the presence of those companies has contributed to technological transfer, to the development of the manufacturing sector, and to the creation of new employment opportunities. Yet, contra a homogenised understating of Chinese firms' effect on the industry, I find that Chinese companies' behaviour is fluid with diverse effects. On the one hand, the size of Chinese companies, their ownership type, their industry, and their length of operation in the country have proven to be important determinants. On the other hand, the Ethiopian policy environment, local industrial capabilities, the capacity of the local labour force, and the ability of

¹³⁵ Exception to this argument exist and include recent studies by Agbebi (2018), Li (2016), and Schaefer and Oya (2019).

local officials to supervise and monitor projects can amplify or dampen the strengths and limits of the Ethiopia-China partnership.

By allowing us to focus on firms as crucial actors shaping China-Africa relations, the GIN can capture how the Chinese presence in Ethiopia influences Ethiopia's development not only at the macro and meso levels but also at the micro level—the level affecting local firms and workers. It allows us to consider such impacts by taking into account the specific features of the Ethiopian infrastructure industry (namely, the Ethiopian policy environment, domestic capacity) and of the Chinese infrastructure companies operating within it (namely, ownership, size, sector, and length of operation in the host country).

In sum, this chapter provides an in-depth analysis of the effect of Chinese-financed, Chinese-built projects on the development of local linkages. It looks in particular at level of localisation (section 2), partnerships and subcontracting with domestic firms (section 3), technological and skills transfer to local actors (section 4), and linkages with the manufacturing sector (section 5). I put my findings on Chinese firms in perspective by including data on other transnational foreign firms operating in the country, and I pay particular attention to the characteristics of Chinese firms and the structural barriers to the formation of economic linkages at the local level as relevant factors for understanding variations in outcomes. Based on these observations, I speculate on the factors that strengthen or constrain the development of economic linkages in Ethiopia. In section 6, I sum up my key findings and offer some observations on the impacts of Chinese-financed, Chinese-built infrastructure projects in Ethiopia.

7.2 Employment and labour issues

The potential of Chinese-led infrastructure projects to contribute to human development and add value to African industry has often been questioned. Related to this, the seemingly minor involvement of the local workforce has been widely criticised by several authors, who argue that Chinese companies tend to bring in their own workforce instead of hiring local people (Gadzala 2010; Lee 2009), contributing to the belief that China is "flooding" Africa with Chinese migrant workers (French 2014; Shelton and Kabemba 2012; Alden 2005; Rotberg 2015; Kamwanga and Koyi 2009) or with prison labour (Schmizt 2014; Plummer 2019). Moreover, a few studies argue that, compared with Western enterprises, Chinese companies tend to deploy more expatriate workers for

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¹³⁶https://www.nytimes.com/1991/05/11/opinion/l-china-has-used-prison-labor-in-africa-540291.html, Accessed 2 November 2019.

managerial jobs, operational jobs, and semiskilled and low-skilled jobs (Cooke, 2014; Chen et al. 2009; Wegenast and Schneider 2017).

Fieldwork evidence falsifies the belief that in Ethiopia, Chinese companies in the infrastructure sector rely predominantly on expatriate labour. According to the vast majority of interviewees, Chinese companies hire mostly local staff. As table 10 illustrates, as measured by the ratio of foreign to Ethiopian jobs, out of the eighteen Chinese firms surveyed, 55 percent have a localisation rate above 90 percent, 33 percent have a rate between 80 and 90 percent, and 88 percent have a rate above 80 percent. Other foreign firms show comparable levels of localisation.

Table 10. Ratio of foreign to Ethiopian labour

		Chinese firms $n = 18$		Foreign firms (non-Chinese) $n = 5$	
Ratio of fo	reign to				
Ethiopian	labour	SOEs	Private	Private	
(%)					
Above 90		6	4 (22%)	2 (40%)	
Above 70		(28%)	T (22/0)	2 (4070)	
80–90		3	3 (17%)	2 (40%)	
00 70		(17%)	3 (1770)	2 (30/0)	
70–80		0	0	1 (20%)	
60–70		1 (6%)	0	0	
Below 60		0	1 (6%)	0	

Source: Author's calculations based on data from firm surveys.

My evidence does not show significant variation between Chinese public and private companies or between different firm sizes. Things change when we look at the length of operation in Ethiopia. Workforce localisation increases proportionally to that figure.

In particular, the survey finds that firms that have been in the country for more than ten years hire more local workers. Companies that localised in Ethiopia in the last ten years report that team building and the search for new business strategies motivated their localisation. The findings are in line with Tang (2010, 2016): Chinese companies tend to bring more Chinese workers at the beginning of their

operations as they are more familiar with the companies' organisation and processes and can speed up the project implementation. After the first projects, companies become more familiar with the Ethiopian business environment and use local workers more and more extensively.

If we look at the different subsectors, there is less workforce localisation in the telecommunication and energy industries. The ratio of Chinese to Ethiopian workers in these companies is between 60 and 70 percent in energy and below 60 percent in telecommunications.

The rate of employment of Ethiopians is not the same among unskilled, semiskilled, and high-skilled workers. The vast majority of local labour employed by the Chinese companies is unskilled, with only two firms filling more than 10 percent of managerial positions with Ethiopian labourers. Here again, the telecommunication industry employs semiskilled labourers at a higher rate—20 to 25 percent versus below 10 percent. While the ratio of Chinese to Ethiopian labour is higher in that subsector, Chinese companies in that subsector employ a higher proportion of Ethiopian medium-and high-skill employees compared to firms working in other subsectors, because of the higher degree of specialisation of the required work (for example, technicians and managerial staff). Anecdotally, among the people I interviewed working for Chinese companies, there were a logistics manager, two human resource managers, one project manager, and one legal manager of Ethiopian origin.

All Chinese managers expressed their determination to keep increasing the rate of localisation. The most important reason for localisation is cost minimisation. The salary of a Chinese expatriate working in an unskilled position, a Chinese manager reported, is between five and ten times higher than that of an Ethiopian low-skilled worker and her compensation includes several fringe benefits, such as a daily allowance, accommodations, meals, and round-trip tickets to China once a year (E39)¹³⁷. According to a Chinese manager: "It does not make economic sense for us to bring manual labour from China. Chinese unskilled workers are paid six, seven times more than the locals. If we talk of skilled labour the gap is even higher. At the beginning it made sense to work with more Chinese because we needed people that were able to work with the machineries and knew how to do the job, but now we have trained a good amount of people and our localisation efforts are being repaid in terms of economic savings"¹³⁸ (E41).

Besides lower wage bills (the motivation of 30 percent of Chinese companies), perceived advantages of more localisation include improving relations with the Ethiopian government (24 percent),

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¹³⁷ Interview with Chinese manager, Addis Ababa, October 2018.

¹³⁸ Interview with Chinese manager, Addis Ababa, October 2018.

facilitating compliance with local regulations (20 percent), decreasing competition with rival firms (by hiring and retaining local workers) (16 percent), and improving the image of the company and gaining local acceptance among the Ethiopian population (10 percent) (figure 13).

16%

20%

24%

Improved relations with the government

Compliance with local regulations

Decrasing competition with rival firms

Improving the image of the company

Figure 13. Chinese companies' motivations for localising

Source: Author's calculations based on data from firm surveys.

Conversely, interviews show that the most frequently cited impediment to hiring Ethiopian labourers is their weak specialisation, especially reflected in their inability to use the machinery, which slows the pace of work compared to Chinese labourers (E28; E40). Furthermore, barriers to hiring more Ethiopians for managerial positions are also related to Ethiopia's education system and its "ecosystem of skill formation" (Schaefer and Oya 2019). As a representative of a Chinese telecom said:

Our localisation ratio might be less than other Chinese companies, but you have to consider that many of our Ethiopian employees here are not unskilled labour. We hire and train many Ethiopian engineers, human resources and admin people, and also people in managerial positions. So, it's also a different kind of localisation. We'd like to hire even more, but the problem here is the capacity of the local labour force. It's not an issue of school titles but of technical skills; they lack on this aspect. We need to bridge a big gap, and that will require time. (E27)¹³⁹

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¹³⁹ Interview with Chinese manager, Addis Ababa, October 2018.

A manager of a dam-building firm expressed an analogous concern: "We want to hire as many engineers as possible, but sometimes we don't find them or sometimes they can't just meet our standards. If we hire only Chinese engineers, we have two problems: the cost is much higher, and the Ethiopian government is not happy. That's why we are collaborating with the government and local universities to enhance capacity. It's a win-win solution" (E28). 140

This is in line with the findings of Oya (2019), who suggests that "Ethiopia's skill gap remains substantial considering the needs of a fast-expanding industrial sector. Comparatively, the quality of Ethiopia's labour supply on average appears lower than many other African countries both in terms of nutrition indicators and in terms of education level, despite vast improvements in the last twenty years" (ibid., 678). In this respect, the Ethiopian government faces a double test: the first "is transforming an overwhelmingly rural workforce with little education and no relevant experience . . . in a highly productive labour force"; the second "is producing the required talent and experience for middle management and technical skilled workers" by making sure that graduates have six to twelve months of on-the-job training or by linking Technical and Vocational Education and Training (TVET) programmes with professional on-the-job experience (Oya 2019, 679).

Low-quality education is not the only factor disincentivising companies from localising. For the Ethiopian government, localised Chinese companies are a priority. Yet, unlike Angola¹⁴¹ and Ghana,¹⁴² where foreign companies have legal obligations to localise, Ethiopia does not have a national regulation imposing a hiring quota on foreign companies.

Labour market protectionism is exercised by Ethiopian government only through work permit regulations. Ethiopian law heavily restricts the issuing of work visas to foreign staff; it allows companies to hire expatriates only if skilled local manpower is lacking. Furthermore, Article 37/1 of the Investment Proclamation No. 280/2002 demands companies to replace expatriate staff with Ethiopian staff within a certain timeframe by supplying the necessary training to Ethiopian nationals. This is enforced by limiting the duration of expatriates' work permits—normally an initial period of three years, after which they need to be renewed every year (Labour Proclamation No. 377/2003, 174 [1], [2], and [3]). The proclamation further states that employers need to demonstrate that they have

¹⁴¹ According to Corkin (2012), in Angola, contractually, more than 50 percent of the workforce has to be local.

¹⁴⁰ Interview with Chinese manager, Addis Ababa, October 2018.

¹⁴² The Ghana Investment Act includes a requirement that for foreign companies to establish a business in the country it must hire at least 10 percent local labour.

hired a local employee as a replacement by the time the permit expires. Yet, by Ethiopian Ministry of Labour and Social Affairs officials' own admission, this is rarely enforced (E30).¹⁴³

Between 2012 and 2018, a total of 49,269 work permits were granted to Chinese workers (MoLSA 2018). In the same period, according to EIC data, Chinese companies hired a total of 152,524 permanent employees and 76,747 temporary employees, with 97,057 permanent and 54,960 temporary in the infrastructure sector alone (EIC 2018). According to data from the Ethiopian National Planning Commission, jobs in the construction industry tripled, from 229,000 to 825,000, between 2005 and 2013 (NPC 2018). These data, however, do not include casual labour, which represents a large portion of the workers engaged.

Working conditions and patterns of social interaction

As Ching Kwan Lee (2017) observes, "Construction is a case of casual labour and footloose capital" (ibid., 25). Casualisation in the infrastructure sector is the norm in Ethiopia. The footloose nature of construction is a common feature of the infrastructure sector, independently of firms' characteristics, origins, and size. Often, workers are hired for short-term projects (especially in the road subsector) and paid daily wages (E46; E55; E62). L45 Contracts are rarely used for manual labour. Middle-level labourers (supervisors, technicians) tend to have short-term contracts, lasting six months to three years depending on the project (E30). L46 As widely discussed in chapter 6, unionisation is generally low among workers employed in both local and foreign firms. Local workers are often harmed by abusive labour practices and unfair working conditions such as lack of contracts, low wages, or arbitrary dismissals.

Safety is another crucial concern. All Chinese and other foreign companies surveyed reported the use of safety gear such as work pants, steel-toed boots, hard hats, and reflective vests. However, in the course of my field visits my experience was different. During my visit to the Modjo-Hawassa Highway Project, the majority of Ethiopian workers were not wearing any protective gear; all Chinese staff, on the other hand, were diligently using it. The safety conditions at the construction site of the Aysha II Wind Farm Project, under construction by Dongfang Electric Int. Co., were slightly better, with more local workers wearing protective gear. Notably, working conditions were often unsafe at construction sites managed by local companies, which operated similarly to their Chinese

¹⁴³ Interview with Ethiopian official at MoLSA, Addis Ababa, August 2018.

¹⁴⁴ There is no arrangement to facilitate this kind of data sharing in MoLSA. Such data were collected and transcribed manually from the ministry's book repository.

¹⁴⁵ Interview with different firms' managers in Addis Ababa, September–October 2018.

¹⁴⁶ Interview with senior staff, Ethiopian Ministry of Labour and Social Affairs, October 2018.

competitors. Especially in the capital, most construction sites used eucalyptus scaffolding and the vast majority of workers were without safety gear.

Much has been said about the cultural clash between Chinese workers and the local population. In my experience, Ethiopians' perception of Chinese migrant workers in the infrastructure sector was neither wholly positive nor wholly negative. Negative perceptions are often linked with the increasing influx of Chinese expatriates. The extensive presence of Chinese people, from petty traders, to shopkeeper and restaurant owner was evident from the way the local called all foreigners "China" or "China ferengi" (China foreigner), irrespective of the foreigners' nationality. Informal conversations with the local population (drivers, shop owners, and students) revealed a certain dissatisfaction with the perceived rudeness of Chinese migrants vis-à-vis other foreign expatriates; locals also frequently referred to the low quality of Chinese work or to the poor quality of Chinese goods that are sold in the local market. As one young student pointed out, "If they make the roads as they make their products, then we are in trouble, they won't last more than a year!". 147

Despite these widespread criticisms, Ethiopians I talked with frequently appreciated the renewed infrastructure landscape¹⁴⁸ and the new jobs created in the country thanks to the wave of Chinese projects. Furthermore, Ethiopian workers recognised the work ethic of Chinese, mentioning their long working hours ("ten hours, seven days per week") and their "spirit of sacrifice"¹⁴⁹. All this should be seen also from the perspective of Chinese workers who moved to Ethiopia. They are often embedded in the so-called "Chinese work culture of enduring hardship", or what they label "eating bitterness" ($ch\bar{\iota}ku$). From top managers to semiskilled workers, all the Chinese workers I approached told me that they were used to working in very humble conditions. As one Chinese site manager summed up: "Beside working, eating and sleeping there is not much we can do around here, sometimes we allow ourselves a dinner out to the Chinese restaurant near Edna Mall, they have excellent food"¹⁵⁰ (E40).

The Chinese people's self-isolation and self-segregation is often mentioned as an attribute of Chinese ethnocentrism (Yan et al. 2019). Observations and interviews with Chinese expatriates working in the infrastructure sector confirmed that they are often isolated by collective residences, language barriers, or security problems. Contract labourers generally live in low-income compounds near the construction site in conditions similar to those of their Ethiopian colleagues. Managers live in secluded residential quarters reserved for the Chinese personnel, often in the same compound where

¹⁴⁷ Informal conversation with a young Ethiopian.

¹⁴⁸ They were often referring to the newly increased number of roads, the new soccer stadium in the capital, and the Addis-Djibouti railways.

¹⁴⁹ Informal conversation with locals.

¹⁵⁰ Interview with Chinese manager, Addis Ababa, October 2018.

the country headquarters is located. According to an Ethiopian engineer working for a Chinese firm, Chinese workers frequently remain on site, citing cultural or language barriers as the main reasons. This kind of ghettoisation is also related to and exacerbated by a perceived threat, especially in the case of Chinese workers living in hot spots such as the state of Oromia. There, Chinese migrants are frequently victims of armed robbery and assault. As one Chinese manager noted: "We have many projects here and we are concerned about security standards. Last night two of my workers were robbed in the street, and this is happening more and more frequently. I feel that since Dr Abiy came to power the situation has even deteriorated, especially in Oromia. Local people often go to our managers and ask for money. They say, 'If you don't pay us, we create trouble'. That's why we are investing more and more in security, but the government should do something about it as well" (E28).¹⁵¹

Patterns of social interaction, however, are not very dissimilar between Chinese workers and other foreign companies' expatriates operating in Ethiopia. Foreign workers tend to live in complexes with other fellow expats and rarely socialise with locals outside work. Western expats tend to live in upscale areas in secluded villas, featuring many comforts, such as drivers, security guards, and housekeepers.

7.3 Outsourcing and local firms' integration into the value chain

Localisation does not only concern employment; it also relates to the choice of suppliers and subcontractors. Chinese companies have been repeatedly criticised for not involving local companies in their operations (Gadzala 2010; Corkin 2013; Wethal 2018). As seen in chapter 6, a large segment of the Ethiopian construction industry has growing concerns about unfair Chinese competition and lack of local procurement opportunities.

Survey data confirms poor integration of domestic firms into the value chain of Chinese-led construction projects, suggesting that partnerships and subcontracting between Chinese and local domestic companies are still limited in Ethiopia. As table 11 shows, the percentage of firms subcontracting jobs out of total firms is low (it does not exceed 30 percent), while only a marginal share of Chinese contractors engages in joint ventures (9 percent), indicating limited effects on domestic competition through cooperation (table 11). Moreover, interviewed companies report that

¹⁵¹ Interview with Chinese manager, Addis Ababa, October 2018.

subcontracting opportunities were often clustered around low-value-added activities, such as drilling, excavating, earth moving, paving, and surfacing (E52; E53; E55; E58). 152

Table 11. Percentage of companies subcontracting to domestic companies

	Chinese firms $n = 18$		Foreign firms (non-Chinese) $n = 5$
Percentage subcontracting to a local company	SOEs 10	Private 8	SOEs
Below 20	4 (35%)	7(33%)	1(33%)
20–30	6 (76%)	1(33%)	3 (33%)
30–40	0	0	1 (66%)
40–50	0	0	0

Source: Author's calculations based on data from firm surveys.

However, the percentage of Chinese firms subcontracting jobs to local firms is similar to the percentage of other foreign companies, which outsourced between 20 and 40 percent of productive activities and services to domestic firms. Survey data indicate that Chinese firms' subcontracting does not vary according to industry, size, or length of operation in the country. Yet, outsourcing by small private Chinese companies is virtually absent as their role is predominantly as subcontractor to Chinese, other foreign, and domestic firms.

Moreover, fieldwork evidence shows that Chinese companies' subcontracts have increasingly been captured by small private Chinese companies. Chinese SOEs and big private companies often prefer subcontracting to private Chinese companies because of their pre-existing relationship, because Chinese subcontractors operating in Ethiopia are seen as getting the job done faster, or because big Chinese firms want to avoid problems concerning language or culture (E41; E45). When I asked an Ethiopian manager at a private Chinese company about its subcontracting procedure, she replied:

153 Interview with several Chinese companies' managers, Addis Ababa, October 2018.

¹⁵² Interview with local companies' managers, Addis Ababa, October 2018.

They don't give all the work to one subcontractor. For example, if the main contractor is CCCC, CCCC subcontract to like ten different subcontractors for different kinds of work: electricity, building, different things. So, among them there can be some local companies, but the majority will be Chinese. For example, if you have ten subcontractors, maybe three will be local, seven will be Chinese. You know the behaviour of Chinese, they really focus on work quality and work efficiency. Their habits on work is really different from us. Most of them know each other. For example, our company after eleven years is very well known. They really prefer to work with one another. (E63)¹⁵⁴

While subcontracting is marginal in the infrastructure sector, my analysis shows that such fact is not only linked to Chinese companies' modus operandi but depends on limitations of the local industry and weak institutional support. As figure 14 shows, together with inadequate finance, inadequate access to foreign currency and a weak regulatory and governing framework are some of the major constraints hindering local firms from becoming competitive. Moreover, several local firms reported a lack of qualified personnel for indigenous companies at various levels—manual workers, technicians, and managers—as an additional limitation on the volume of subcontracting. Notably, according to Oqubay and Tesfachew (2019), "Relaxation of the requirements for engineers establishing consulting firms and construction companies now resulted in an explosion in the number of construction companies in the country. More than 150 consulting firms and 2500 small contractors were established" (ibid., 292).

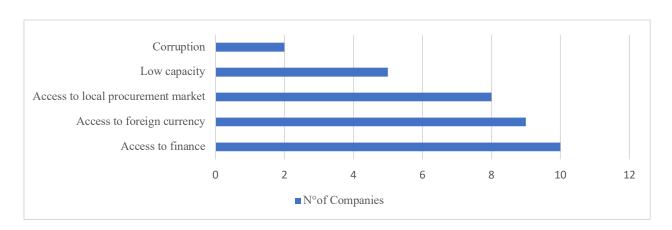


Figure 14. Main constraints facing domestic companies

Note: The bars represent the number of surveyed firms that faced the constraint.

Source: Author's calculations based on data from firm surveys.

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¹⁵⁴ Interview with Chinese manager, Addis Ababa, October 2018.

According to my survey, the single biggest constraint facing domestic companies is the difficulty in securing financing. The 2016/2017 annual report from NBE indicates that the amount of loans distributed in the new year was 109 billion birrs. About 23 percent of the total loans went to the industrial sector (mining and quarrying, electricity, water, and construction). Yet none was allocated to domestic contractors working on public projects.

High fixed costs, including regulation and prequalification costs, are other important constraints that prevent Ethiopian firms from accessing the local procurement market. In theory, domestic companies should benefit from 7.5 percent price preference in international competitive bidding. 155 In reality, according to the president of CCAE, very few contracts have been awarded to local contractors as a result of the price preference (E62). 156 The strict prequalifying conditions established for projects financed by both the Ethiopian government and multilateral banks (such as the World Bank or AfDB) are often beyond the financial capacity of local actors.

The low capacity of Ethiopian construction firms is another major issue. Deficits in engineering capability and equipment pose critical constraints on project design, project development, and project implementation. Such limitations automatically exclude the majority of domestic actors from participating in large public tenders when the use of advanced and highly specialised technology is required (for example, the telecommunication, energy, and railway subsectors). This also applies to subcontracting jobs. Limited availability of infrastructure subcontracting means that well-established companies sweep up the limited market opportunities.

Yet domestic companies reported that being exposed to new technologies and work practices in the construction industry, which were brought into the country by more established Chinese construction companies, was instrumental for learning new technologies and managerial and business practices. Half of the Ethiopian firms surveyed, claimed that the market entry of Chinese firms was beneficial in improving their innovation practices (50 percent) and competitiveness (40 percent). According to several respondents, the competitive pressure had a positive effect on domestic companies' competitiveness by causing them to upgrade existing technology or acquire new technology (60 percent), improve market strategies and management (30 percent), or diversify their businesses in nearby countries (20 percent) (Table 12). According to a local firm's manager, this competition has helped his company to take new steps towards innovating and upgrading technology: "Chinese presence has been beneficial for our business for what is concerned with innovation. Clearly the

¹⁵⁵ Article 16.20 of the Ethiopian Public Procurement Directive, June 2010.

competition increased, and we understood that in order to be able to grow we needed to innovate. So we acquired new machineries and we also got a new management software" (E52).¹⁵⁷

When local firms were asked how they were planning to cope with Chinese competition, their strategies were often similar. As one Ethiopian manager observed: "We have two plans. The first is by influencing the government to increase the threshold for national competitive bidding. Secondly, we are arranging our company with a new structure to be more competitive. We are also planning to expand our business abroad in other African countries" (E55). Another respondent said: "We are building our capacity in terms of machinery technologies, providing training to our employees, and by delivering quality works" (E60). 159

Table 12. Survey responses of local construction companies (GC1)

Do you see the entry of Chinese infrastructure companies in your sector as positive, negative, or neutral for your business?

	Positive	Negative	Neutral
Local companies	5(50%)	2(20%)	3(30%)

Impact of Chinese firms' presence on your company

	Improving	Deteriorating	No change	
Technology and	8 (80%)	0	2(20%)	
innovation	0 (0070)	Ü	2(2070)	
Managerial and				
business	6 (60%)	0	4(40%)	
practices				
Cost of	8(80%)	1(10%)	1 (10%)	
production	0(00/0)	1(10/0)	1 (1070)	

¹⁵⁸ Interview with Ethiopian manager, Addis Ababa, October 2018.

159 Interview with Ethiopian manager, Addis Ababa, October 2018.

¹⁵⁷ Interview with Ethiopian manager, Addis Ababa, October 2018.

How did your company cope with the increasing competition in the construction sector?

	Yes	No
Improve/acquire	8 (80%)	2 (20%)
new technology	0 (0070)	2 (2070)
Improve	6(60%)	4(40%)
management	0(0070)	1(1070)
Diversified to	3(50%)	7(70%)
other industry	3(3070)	7(7070)
Diversified to	2(20%)	8(80%)
other market	2(2070)	0(0070)

Source: Author's calculations based on data from firm surveys.

Weak institutional support and weak institutional commitment to local firms were often cited as fundamentally structural and a factor that exacerbates their lack of competitiveness vis-à-vis Chinese companies. The Ethiopian government could develop linkages by introducing measures, such as ownership requirements and local-content requirements, that would force foreign firms to connect with local companies. Yet, so far, as seen in chapter 6, institutional efforts to promote linkages between the local sector and foreign companies have been fragmented. Crucially, Ethiopian local-content policies do not include any quota system for subcontracting.

Moreover, the problems are exacerbated by the government's weak execution of its newly implemented policy framework on procurement and on joint ventures. Lack of effective regulations may be the result of a strategic choice of the Ethiopian government to continue luring foreign firms that can provide the country with infrastructure. Obviously, the long-term cost to the development of a solid Ethiopian construction sector may be very high. At the moment, however, "getting things done" is the priority of the Ethiopian government. Even so, lobbying and local firms' collective mobilisation have pushed the government to commit to design regulations on local procurement and subcontracting (chapter 6). But policy gaps and poor enforcement affect the outcomes of new legislations. As a result, a respondent confirmed, the local private sector sees the non-adherence to the content of the policies as harming the local industry and therefore leaving an increasing number of local construction firms further behind (E51). 160

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 $^{^{160}}$ Interview with Ethiopian manager, Addis Ababa, October 2018.

7.4 Technological transfer and skill building

Scholars also argue that Chinese engagement generates very limited opportunities for local training, skill development, and technological transfer (Kamwanga and Koyi 2009). Yet the impact of Chinese infrastructure projects on broader Ethiopian development outcomes is connected to the extent to which Ethiopia can benefit from building technological and local capabilities. In this section, I focus on technological and skills transfer to local companies, training of local workers, and human-capital formation through cooperation in higher education as proxies to evaluate the effects of the Chinese presence on the development of human capital.

The potential for skills and technology transfer from Chinese companies to local firms can work through different channels. Knowledge and skills can spread to local firms through capital goods and equipment, demonstration effects, competition, and movement of skilled personnel. First, supply chains are considered an important vehicle for technology and knowledge transfer. On this view, transmission of goods and equipment leads local firms to learn by applying, adapting, and assimilating the technologies these goods and equipment embody (UNCTAD 2014).

The demonstration effect is a second way local firms and local suppliers can upgrade. For instance, trained employees can move from Chinese to local firms in order to earn higher incomes or gain senior positions, thereby helping to diffuse knowledge. In Africa, this kind of mobility is very limited. African firms cannot afford to pay higher than those offered by their foreign competitors (Tugendhat 2020). It is more common to find Chinese workers starting their own companies. Fieldwork shows that this is increasingly common in Ethiopia, especially among former workers of Chinese SOEs who want to profit from their networks.

Although Chinese firms train subcontractors, most local firms only marginally benefit from technology spillovers, as most Chinese companies seek to prevent core technologies and skills from leaking for fear of competition. Without market regulations, deep technology transfer is undermined by commercial incentives. As Chen (2018, 9) argues: "Chinese SOEs may support knowledge transfer and skills training in some aspects of rail projects, for example, but—like other profit-seeking bodies—they have little to gain from handing over the underlying technology to local firms or industries. The evidence demonstrates that Chinese companies tend to devote more resources to their subsidiaries than to local companies through joint ventures. Moreover, greater technological sophistication might hinder knowledge diffusion to local firms as they lack local capacities".

The third component of skill building and technological transfer relates to transferring skills via training employees. Training local workers can be accomplished through both formal and informal interactions. In general, we can identify two forms of training: formal and on the job. The most common method is on-the-job training, which is offered to employees through "learning by doing". On-the-job training, which provides more-practical experience to local workers and technicians, is widely used in both public and private Chinese companies of large and small sizes. This interactive learning takes place at the project site, where local workers observe their supervisors and do their job under the direct guidance of a Chinese expert. Table 13 presents firms' responses about the provision of formal and informal training. Based on the survey, the majority (90 percent) of Chinese companies provide on-the-job training. While smaller private companies are mostly focused on on-the-job training, formal training is generally common among Chinese SOEs and bigger private companies. Eighty-five percent of SOEs and big private companies have in-house training programmes in place, whereas only 80 percent of other international and 40 percent of local firms invest in such programmes.

Table 13. Total number of firms providing formal and informal training to their employees (Chinese, domestic, and other foreign firms)

			Foreign		
	Chinese		firms (non-	Ethiopian	firms
	n = 18		Chinese)	n = 10	
			n = 5		
Training	SOEs	Private			
	10	8			
On-the-job training	9 (90%)	8 (80%)	3 (60%)	10 (10%)	
Formal training	9 (90%)	3 (30%)	4 (80%)	6 (60%)	

Source: Author's calculations based on data from surveys of firms.

While most Chinese companies offer some level of training to their local personnel, the training varies across industry and company size. In particular, it varies between low-tech (road construction and water drilling) and high-tech (energy, railways, telecommunication) industries. Chinese companies

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¹⁶¹ A policy of learning by doing has always been present in Chinese culture.

that use complex technologies are more inclined to provide professional training to their employees (Te Velde 2002; Agbebi 2018). Larger companies offer more training because they have better financing capabilities, more international exposure, and more experience.

Building local skills is also crucial for the long-term sustainability of large infrastructure projects. In Ethiopia's ICT industry, the need of trained professionals has urged ZTE and Huawei to train local employees in various forms. After winning its first contract, ZTE announced a plan to hire one thousand engineers from what was then called Ethiopia Telecom Corporation (now Ethio Telecom) and offer training focused on telecommunication engineering. This was seen by the company as necessary to handle ZTE equipment and to install and maintain a telecom spine connecting the whole country (King 2013). As the company's strategy report reads:

"Considering the large requirement for training and weak knowledge background of ETC (Ethiopia Telecom Corporation), ZTE provided progressive training services, from basic theories to product knowledge, practice with equipment and onsite practice, to the key technical personnel for ultimately improving the comprehensive skills of trainees. At the same time, ZTE has set up a training centre in Addis Ababa, the capital of Ethiopia, with a gross floor area of 700 sqm. The training centre can allow the study of 150 trainees in classrooms and practice of 60 trainees with equipment." (ZTE 2019)¹⁶³

Fei (2020) finds that from 2017 onward, ZTE's Ethiopian branch has implemented a "key staff motivation" programme under which twenty-five local employees were selected as future leaders of the company and provided with individualised professional-development plans and extra training provisions and opportunities to diversify their activities and learn new skills by working on different projects. According to Fei's findings, the slots were updated on a quarterly basis to promote local employees' loyalty and decrease turnover.

Similarly, as part of the construction of the Addis Ababa-Djibouti railways, CREC and CCECC have been awarded contracts to operate the railways for the six years following project completion and have committed to training local personnel in order to manage, operate, and maintain the project in the long run, without reliance on Chinese expertise (E48).¹⁶⁴ For this purpose, the two contractors

deutschland.de/pub/en/cases/services/knowledge_services/201002/t20100203_180117.html

¹⁶² The training centre is able to provide practice with equipment for CDMA-BSSB, CDMA-3GCN, PDSS, GOTA, GSM-BSS, GSM-MSS, SDH/BWDM, IP equipment, NGN, access network, UP10, SMS, MMS, personalized ring tones, OCS, WAP, and other value-added services to improve the hands-on skills of trainees. ¹⁶³ Retrieved from http://zte-

Accessed 19 December 2019. 164 Interview with senior staff at ERC, Addis Ababa, October 2018.

implemented a programme that aimed to send more than three hundred employees of the ERC to universities and technical schools in Beijing, Tianjin, and Chengdu in order to create a competent labour force to operate the rail line and in order to advance their knowledge of railway engineering, train driving, and track maintenance (E48). Additionally, the ERC signed a US\$ 60 million grant agreement with the Chinese government in early 2018 to construct the nation's first-ever railway academy in the town of Bishoftu, 45 km southeast of Addis Ababa. While the academy is still in the initial stages of implementation, it plans to provide training on everything from construction to operation of the railway system; it has enrolment capacity of over nine hundred trainees per year. ¹⁶⁶

Human-capital formation through cooperation in higher education represents an additional way China's presence has played a role in supporting the work done by Ethiopia's central government. In order to tackle the problem of an insufficient skilled labour force and to boost the country's human capital, the Ethiopian government has launched several initiatives, such as the Engineering Capacity Building Programme and the University Capacity Building Programme, the latter focused on the infrastructure sector (E23).¹⁶⁷ Through establishing thirteen universities in Ethiopia with a total capacity of 150,000 students, the programme has focused on developing institutional capacity with the aim of increasing the capabilities of the local construction sector. Scholarships for university studies in China have been a traditional component of China's education assistance to Ethiopia. According to a report by MOFCOM, by the end of 2019 over 8,300 Ethiopian will have studied and received training in China under the China-aid framework. The training encompasses more than twenty fields, ¹⁶⁸ and the programme makes China among the top destinations for Ethiopian students. Three main scholarships for Ethiopian students can be identified: Chinese government scholarships, firms' scholarships, and Confucius scholarships. In 2018 alone, the Chinese government provided more than 1,500 scholarship opportunities to Ethiopians, including 1,232 for short-term training. That year 900 students were admitted for postgraduate programmes in Chinese higher education institutions (E24).¹⁶⁹

In a similar fashion, an increasing number of Ethiopian students are taking Chinese-language courses as they are aware of the crucial cultural value that this can add to their CVs. Since the launch of the first Confucius Language Institute in Addis Ababa in 2011, Chinese-language studies are provided in four public universities across Ethiopia other than the federal TVET Institute, including the country's

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¹⁶⁵ Interview with senior staff at ERC, Addis Ababa, October 2018.

¹⁶⁶ https://addisfortune.com/delayed-rail-academy-begins-to-fall-into-place/. Accessed December 2019.

¹⁶⁷ Interview with senior staff at MoLSA, Addis Ababa, September 2018.

¹⁶⁸ Including education, health, and medical services; the agriculture, tourism, and manufacturing industries; public administration; business management; and urban development.

¹⁶⁹ Interview with senior staff at MoLSA, Addis Ababa, September 2018.

largest, Addis Ababa University, in the capital; Bahir Dar University, in Ethiopia's northwestern state of Amhara; Mekelle University in northern Ethiopia; and Arsi University, in Ethiopia's largest state, Oromia. Li Yaohui, director of Confucius Institutes in Ethiopia, said more Confucius Institutes will be set up in Ethiopian higher education institutions because of young Ethiopians' ever-increasing demand to learn the language.¹⁷⁰

Firms' scholarships have also played an important role in human-capital formation. As part of its corporate-social-responsibility campaign, Huawei stresses the importance of training and cultivating local talents through courses, scholarships, and cooperation with local universities and technical centres. In January 2017 Huawei engaged with the Ethiopian Ministry of Education and signed a memorandum of understanding to promote Huawei Authorized Information and Network Academies, an ICT education programme that authorises universities, colleges, and schools to deliver Huawei certification courses to their students (E23).¹⁷¹

It is too early to evaluate the impact of these programmes. At the moment, language barriers remain a problem. Moreover, very few Chinese migrants speak English (even many managers who have been living in the country for over ten years do not), and only a few of them of them have even rudimentary knowledge of the local language. Weak supervision is the main constraint on effective technological transfer. There is no formal regulation to assess the quantity and quality of training. For example, when I asked a director of operations at the Ethiopian Electric Corporation (EEC) about such practices, he replied:

There is still no official procedure to evaluate if training or technological transfer happening between foreign firms and local personnel is beneficial. However here at EEC we are taking steps in that direction. For example, there has been a wind turbine installation for a project done by a Chinese company a few months ago. What we asked to the company was to let the local team install four turbines by themselves right after the training. If they did it properly, we were going to let them engage by themselves. That was the approach we took to see if they could work properly without supervision. This is helpful especially for the maintenance. Now we are planning to do this on a more regular base.¹⁷²

Indeed, as the discussion above shows, technological transfer has been an important feature of Chinese-financed, Chinese-built infrastructure projects. More than altruistic aims, Chinese

http://www.xinhuanet.com/english/2019-01/21/c 137763023.htm. Accessed October 2019.

¹⁷¹ Interview with senior staff at MoLSA, Addis Ababa, September 2018.

¹⁷² Interview with ERA official, Addis Ababa, October 2018.

companies' focus on training is the result of business strategies in which they see investment in training as crucial for finalising their projects or expanding markets and increasing profits. Yet the positive technological spillovers remain limited for local companies, which largely remain outside of this virtuous circle.

7.5 Supply chain and linkage formation with the manufacturing sector

One of the most contentious issues surrounding the spillover effects of Chinese involvement in the infrastructure sector concerns linkage formation between the construction and manufacturing sectors. On China's resource-backed infrastructure loans in Angola, Corkin (2011) argues that "it is feasible that [Angola] will become a site for Chinese construction companies to further 'localise' (at least in the geographic sense) their supply chains. While the relocation of various inputs from China to Angola is an encouraging trend, of concern however is the fact that those parts of the value chain that have been localised geographically are still controlled by the Chinese contractors, with very little local labour input. Unless such enterprises incorporate local labour or ownership, these developments may have limited impact on stimulating the local economy" (Corkin 2012, 182).

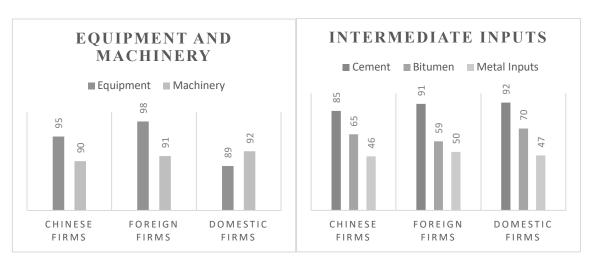
The role of the infrastructure sector in linking suppliers of materials, machinery, equipment, and service in the value chain is widely recognised (Hirschman 1958; Wolf and Cheng 2018). According to Zhang and Gutman (2015, 5), "The development and expansion of a country's construction industry is a key component of its early industrialization experience". Infrastructure companies in all subsectors (transportation, telecom, energy, and water facilities) have good reasons to create close relationships with local suppliers by reducing transport costs and waiting time. As Morris et al. (2012) argue, "In the first instance, the lead firms will typically search for the lowest cost suppliers globally But, once the lead-firm has made the decision in principle to outsource non-core activities and searched for the lowest cost global suppliers, the logic is wherever possible to have these suppliers on their doorstep rather than located abroad" (ibid., 20).

The construction industry creates demands for a pool of industrial products, from raw materials such as rock, sand, and wood; to intermediate inputs such as cement, bricks, and steel; to building components such as hydraulic and electrical materials and equipment and finishing parts, paints, and varnishes (Maugeri et al. 2015). Alongside the construction-materials sector are important economic clusters that develop over time such as brokerage services and maintenance (ibid.). According to COMTRADE data, equipment and machinery imports to Ethiopia have increased substantially since the beginning of the new millennium, from 4.5 percent to 8.7 percent (between 2000 and 2016)

because of the construction boom. China remains the largest source of imports of advanced inputs such as machinery (concrete mixers, hand truck, cranes, other heavy construction machinery), equipment, and spare parts. This has meant a shift in the technology used in the Ethiopian infrastructure industry. According to Oqubay (2019), Western European manufacturers dominated the industry in the twentieth century. Today, not only the Chinese contractors but also the majority of local players use technologies from China.

The greater utilisation of Chinese equipment and machinery is not surprising, given their lower prices (for example, Chinese excavators and bulldozers are 20 to 60 percent cheaper than their Western counterparts) (E51; E52; E55). Moreover, purchase of Chinese inputs and machinery is often one of the conditions of infrastructure loans. Figure 15 shows that the use of foreign equipment and machinery is very widespread in Chinese firms, in non-Chinese foreign firms (which import these inputs mainly from their respective countries), and in domestic companies (which utilise mainly Chinese technology). While inputs such as equipment and machines are imported, data show that Chinese, (non-Chinese) foreign, and domestic firms source a range of inputs from domestic firms—in particular, cement, bitumen, and metal products.

Figure 15. Procurement of equipment, machinery, and intermediate inputs from Chinese firms, non-Chinese foreign firms, and domestic firms



Note: The bars represent the average percentage of equipment and machinery sourced from abroad and the average percentage of construction material sourced locally by Chinese, (non-Chinese) foreign, and domestic firms.

Source: Author's calculations based on data from surveys of firms.

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¹⁷³ Interview with Ethiopian managers. Addis Ababa, September/October 2018.

The expansion of public infrastructures and the related increase in demand for building materials have been instrumental to the creation of linkages with the local manufacturing sector, especially in the cement-and-building-materials industry (steel, metal inputs, and finishing materials), which has shifted in industrial structure. Thanks to the expansion of public infrastructure investment, value added in the construction sector increased from 11.1 percent in 2010/2011 to 27.7 percent in 2014/2015 and then slightly dipped to 22.85 percent in 2015/16 and 2016/17. Data retrieved from the Ethiopian Statistical Agency show an increase in the gross value of production, the value added, and the number of persons employed by the manufacturers of nonmetallic mineral products between 2002 and 2017 (figure 16).¹⁷⁴

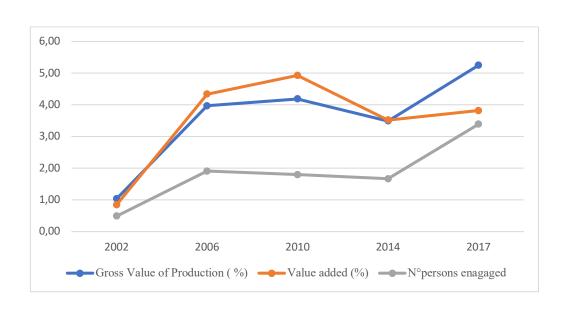


Figure 16. Manufacture of nonmetallic mineral products (2002–17)

Source: Ethiopian Statistical Agency. Author's own elaboration. Unpublished data. Accessed August 2018.

The Ethiopian cement industry is a case in point. Since the beginning of the 2000s, the Ethiopian cement industry has recorded significant growth and become a strategic domestic industry. Installed industry capacity increased from 800,000 tonnes in 1999 to 10 million tonnes in 2012 and 16.7 million

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¹⁷⁴ Based on the International Standard Industrial Classification (ISIC) Revision 3.1, "other non-metallic mineral products" include manufacture of: "glass and glass products, non-metallic mineral products, non-structural non-refractory ceramic ware, refractory ceramic products, non-refractory clay and ceramic products, cement, lime and plaster, articles of concrete, cement and plaster, cutting shaping and finishing of stone".

tonnes in 2017 (Oqubay 2015, 2018). Cement production reached an average annual growth rate twice as large as that of other African countries, placing Ethiopia among the top three cement-producing countries in Africa. Four of the largest companies account for two-thirds of total installed capacity (Mugher, Derba, Messebo and Dangotecement factories) (Oqubay 2018). Contrary to other African countries, where the big-five multinational firms prevail, local cement companies are dominant in Ethiopia, with 55 percent of installed capacity, while foreign firms and joint ventures account for 35 and 10 percent respectively (CSA 2016).

Since the early 2000s, Ethiopia has pursued an active industrial policy to enhance structural transformation and catch up to developed nations faster. First, the government has boosted investment through fiscal and financial incentives. The main fiscal incentives provided by the Ethiopian government in the building-materials industries include the following: "i) 100% exemption from payment of custom duties and other taxes levied on all imported capital goods; ii) all spare parts worth up to 15 per cent of the total value of capital goods are exempted from payment of custom duties; (iii) tax holidays of up to 3 years; (iv) exemption from payment of income taxes" (Oqubay 2018). Moreover, the government, having identified the industry as a priority sector for foreign exchange allocation, subsidises interest rates and arranges various form of financing through the Development Bank of Ethiopia, the Commercial Bank of Ethiopia, the Industrial Development Fund. In 2012 the Ethiopian government passed a new law reserving investment in cement production for domestic investors and launched a cement-industry development strategy (Ministry of Industry 2015). In April 2017, the country hosted the second annual East African cement, concrete, and energy summit (Wolf and Cheng 2018).

Metal inputs are also a new addition in the procurement chain production. They have registered steady growth over the last two decades. As GTP II posits, "Import substitution in the metal and engineering industry was undertaken both by the private sector and public enterprises with encouraging results both in terms of substituting imported goods and building technological and industrial capabilities" (GTP II, 31). In particular, reinforcement-bar-manufacturing 175 companies in Ethiopia have increased both in number and in installed capacity. In the late 1990s, there was only one factory, the Ethiopian Iron and Steel Foundry, located in the subcity of Akaki-Kality. It had a total capacity of twelve thousand tonnes per annum. Today, there are about ten factories, with a total installed production capacity of more than two million tonnes per annum (Fitea 2017). However, only 30–40 percent of this potential production capacity is still being utilised (Solomon and Alula 2018).

¹⁷⁵ Reinforcement bars (rebar, or reinforcement steel) are structural steel elements used to strengthen and hold concrete during the construction process (MIDI 2016).

While metal products are not explicitly targeted in the country's industrial-development strategy, the basic-metal and engineering industries (BMEI) have been targeted by the Ethiopian government as one of the priorities for import substitution. Several documents were then drafted for creating a BMEI policy framework in the course of formulating the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) II. This includes a BMEI Development Strategy and Action Plan drafted by MPDC/MOTI in 2008 and a five-year development plan for the metal-and-engineering-industries subsector, 2003–7, prepared by MPDC/MOTI (Solomon and Alula 2018). Further, in June 2010, the government of Ethiopia issued Regulation No. 182/2010, which established the Metals Industry Development Institute. This institute aims to facilitate the development and transfer of metals- and engineering-industries technologies and to enable the industries to become competitive and develop rapidly. Besides tangible inputs, such as machines, equipment, and intermediate inputs, the infrastructure sector requires a range of services on an ongoing basis. The construction-rental industry is another industry that is gaining importance thanks to the demand of the construction industry, with more companies investing in the hiring and supply of new and used construction equipment (E62).¹⁷⁶

7.6 Conclusion

In this chapter, I have evaluated to what extent do Chinese infrastructure projects enhance linkages with the local economy and support broader development outcomes. Interviews and original survey data show that in that sector, the majority of Chinese firms are at least partially integrated into the local economy. The chapter, therefore, confirms that the Chinese presence has not entailed the development of enclave-like projects. To my knowledge, this chapter is the first work to examine variations in development outcomes while taking into consideration the characteristics of firms, the Ethiopian institutional environment, and the capacities of local firms and labour. At this point, I compare and contrast my findings with some of the main claims about Chinese integration in African infrastructure sector.

Chinese companies bring in their own workforce instead of hiring local people.

Evidence shows that in the Ethiopian infrastructure sector, the Chinese presence has brought significant job creation. Employment represents the strongest backward linkage created by Chinese companies. Localisation is high and certainly comparable with the levels of other foreign firms working in the infrastructure sector. Evidence also shows variation from one company to another.

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¹⁷⁶ Interview with president of CCAE, Addis Ababa, October 2018.

Specifically, labour localisation and working conditions vary according to firms' characteristics, and localisation rates tend to increase over time. Comparison by firm ownership and origin reveals that Chinese companies tend to localise more after developing and accumulating business networks, knowledge, and human capital in Ethiopia. Across subsectors, my analysis suggests that in the energy and telecommunication subsectors, Chinese firms have a lower rate of labour localisation but a higher percentage of medium- and high-skilled employment of local labour. The resulting asymmetries in work localisation are due not only to firms' characteristics but to gaps in the local policy framework—specifically, the absence of local-content requirements for foreign firms—and a lack of locally available appropriately skilled labour. While wages are similar among companies, working conditions at all construction sites I visited were poor, regardless of firm ownership.

Chinese companies fail to integrate indigenous firms into the infrastructure value chain.

My evidence confirms that Chinese companies are still reluctant to integrate Ethiopian firms. The prevalence of turnkey projects narrows subcontracting opportunities for Ethiopian local companies. Across firms, both Chinese and non-Chinese, evidence shows joint ventures are rare while subcontracting to local firms does not exceed 30 percent of firms. Despite the large pool of available domestic firms, the skill and technological gaps remain substantial. The Ethiopian government has committed to designing and implementing support policies. However, representatives of Ethiopian firms complain about poor enforcement and monitoring. On a more positive note, as several respondents admitted, the very presence of Chinese competitors has pushed local firms to be more productive and acquire new technology.

Skills transfer and technology transfer is limited in Chinese-led projects.

This chapter has shown that Chinese companies transfer skills and know-how to local employers. The Chinese presence in the infrastructure sector has contributed to (and triggered) capacity-building processes. Such processes include training activities, courses, language courses, and forms of higher education cooperation. Despite considerable efforts at transferring know-how from companies to labour, technology transfer from Chinese companies, which want to protect their market advantage, to Ethiopian companies is limited.

Chinese companies import all inputs from China, including raw materials and intermediate inputs.

There is evidence of a positive synergy between the infrastructure sector and increasing demand for local building materials. Chinese firms' operations have led to the diversification of the local

production structure and the expansion of the local building-materials manufacturing industry. Concrete production, cement production, steel production, and construction services such as consultancy and machine rental are growing significantly in Ethiopia.

Chinese companies perform worse than their foreign competitors.

In many areas, this chapter has found no significant difference between Chinese companies and other transnational companies operating in the infrastructure sector. My findings demonstrate that the potential for development linkages is not related to a firm's ownership, but rather to its subsector, size, and length of operation in the country. Taken together, my findings suggest that Chinese companies that operate in the sector are more integrated than the literature on Africa-China relations tends to claim.

Yet, I do not want to claim that the picture is entirely positive. Evidence suggests that development linkages are highly dependent on the characteristics of Chinese firms working in the sector and contingent on developing the capacity of the local industry and on implementing tailored policy instruments. Given the number of foreign firms in the infrastructure sector, it is increasingly urgent for the Ethiopian government to create a policy environment that can make the most of the presence of Chinese and non-Chinese firms.

CHAPTER EIGHT—CONCLUSION

8.1 Contribution of the thesis

This thesis opened with a puzzle of two countries, named A and B, in a scenario in which country A (Ethiopia) is expanding and developing its infrastructure with the hope of unlocking its development potential and country B (China) is increasingly engaging in the infrastructure sector of country A through a large pool of financing, inputs, and technically advanced construction companies. Then I posed the central research question: to what extent does Chinese penetration in the Ethiopian infrastructure sector contribute to positive development synergies? I followed that question with three related sub-questions: What are the drivers of Chinese firms' engagement in the Ethiopian infrastructure sector? How do Ethiopian actors express their agency in Chinese-financed, Chinese-built infrastructure projects? To what extent do Chinese infrastructure projects enhance linkages with the local economy and support broader development outcomes?

The purpose of this concluding chapter is to review the answers provided through the thesis, to draw implications for Ethiopia's development, and to reflect on their applicability beyond Ethiopia to the broader African context. My exploration has led me to draw several broad conclusions, often at odds with the conventional wisdom that informs China-Africa scholarship.

The GIN as a theoretical tool

This study contributes to ongoing attempts (Fei 2020; Wethal 2017, Corkin 2012, Foster and Graham 2017) to apply the GPN to the infrastructure sector. To do so, I presented an application of the GPN to the infrastructure sector and brought in linkage theory and a conceptualisation of agency. The result of this combination is the GIN framework.

The GIN framework offers insights to rethink the widespread belief that infrastructure projects are distinctly local phenomena. By integrating them into a broad relational framework where actors are at the centre, it is possible to see construction projects as outcomes of different economic and political interactions that, from negotiation and conception to construction and maintenance, occur at different macro (national level and beyond), meso (infrastructure sector), micro (infrastructure firms) levels. In order to develop a more fine-grained conceptualisation of what agents are capable of doing, I added a definition of agency to the standard framework. Further, I combined these insights with linkages

theory, providing guidance in exploring the potential of Chinese finance, Chinese-built infrastructure projects beyond economic growth into development outcomes linked to localisation, technological and know-how transfer and linkages with the manufacturing sector.

This analytical framework can thus account for the various actors, formal and informal institutions, and norms involved in the daily interaction between Chinese actors and Ethiopian actors inside and outside Ethiopia, making sense of the social, economic, and political processes involved at every geographical level. Such an approach helps us also to identify actors' perceived self-interest and to understand both how they negotiate and rethink that interest and where, when, and how they exercise their agency. Finally, it addresses the central actors—namely, firms—and their potential to develop positive economic linkages to host economies, given certain local preconditions. This framework, thus, encourages a multifaceted and nuanced exploration of the ways international actors playing in the infrastructure sector impact the particular political economy of a host country.

In an industry marked by close economic cooperation between China and Ethiopia, it is important to understand how state actors on both sides contribute to the strengthening and stability of economic cooperation. But it is also imperative to grasp whether nonstate actors, on both the Chinese and Ethiopian sides, behave autonomously or align with broader government strategies. The available frameworks, which tend to emphasise either activism of Chinese firms or the control of states over development processes and forms of economic cooperation, do not acknowledge the involvement of Ethiopian state and nonstate actors in shaping the operations of Chinese companies in the country and in influencing development outcomes. It is against this backdrop that my reinterpretation of the GPN framework can help one get a better picture of Chinese engagement in the Ethiopian infrastructure sector. It helps one to understand to what extent and in what ways Chinese firms are connected with their home base. Meanwhile, with Chinese companies performing a dominant role in the market, the GIN framework can capture how local firms and workers actively work to entertain relationships with Chinese counterparts and to push the Ethiopian state to work to regulate foreign activities. Moreover, in a country such as Ethiopia, where the federal government controls key national projects, the GIN framework can identify discrepancies between the different levels of governance and determine how consistency or divergences between the actions of different state actors operating at different levels can impact the implementation of infrastructure projects.

The GIN framework shows that infrastructure projects are also the results of negotiations with host-country state and nonstate actors. The GIN provides a conceptual account of the interconnected negotiations around the design, implementation, and management of an infrastructure project, and it conceptualises the limited range of possibilities within which host-country state and nonstate actors

can construct and negotiate their perceived self-interest. By doing so, the GIN framework can also provide a more accurate evaluation of the development outcomes of infrastructure projects. The GIN framework deconstructs infrastructure projects into several negotiations between state actors, between nonstate actors, and between state and nonstate actors. In this way, it provides a conceptual approach to describe which factors shape the impact of the Chinese presence at the macroeconomic level, but it also provides a conceptual framework to study which factors influence micro-level interactions between local firms and Chinese firms, to study the interactions between Chinese firms and local workers, and to study how these interactions connect with the result of negotiations at higher levels of decision making.

Chinese firms' internationalisation in Ethiopia: who, how, and why?

Chapter 4 explored the drivers of the growing engagement of Chinese firms in the Ethiopian construction market. In this chapter, I problematised the notion of China as a coherent and assertive monolith and the idea of an overarching foreign policy interest linked to China's political, strategic, and security concerns. To do this, I began by analysing the factors behind the substantial increase in China's market share of Ethiopian infrastructure development and found that the expansion of large, medium, and small companies in the Ethiopian infrastructure sector can be understood in three interconnected ways. First, the Chinese economy's readjustment has been characterised by domestic market saturation, escalating competition, and overcapacity. Faced with these pressing challenges, the Chinese government, through its ministries and banks, has incentivised Chinese companies to internationalise with the principal aim of supporting the types of companies and sectors that fit strategically with Beijing's vision of modernisation. Chinese banks and state actors have created normative and financial conditions to support the expansion of Chinese firms, thereby lowering the costs of working in risky settings, facilitating market access, and ensuring integration in the production network. Through such contributions, Chinese companies have found a fast lane into the country, thanks in part to their competitive advantage and their link to capital, technology, and skills.

However, China's success in the Ethiopian infrastructure sector cannot be explained solely from a state-centred perspective. The attractiveness of a stable political environment and of a recipient country commitment to invest heavily in the country's infrastructure as part of its development strategy played an important role. After several years in business in Ethiopia, Chinese firms have sought to expand market share and increase profits. They are following their commercial objective, winning contractors from other financing institutions, and harshly competing among themselves and with their foreign competitors, often beyond Beijing's control.

The residual control of the central government over Chinese firms in Ethiopia is further expressed by the strong presence of a large set of SMEs and individual entrepreneurs that operate beyond the Chinese government's control and follow self-interested commercial objectives. Against the idea of a highly coordinated strategy, the Ethiopian case demonstrates that Chinese firms' engagement in the infrastructure sector is increasingly diverse and diffuse: from centrally and provincially owned SOEs, to private firms of every size, to the growing number of individual entrepreneurs, each of them seeking different opportunities. The capacity of the Chinese government to control these firms' actions is limited, and the emerging fracture between the commercial objective of the companies and the political objectives of Beijing is likely to widen in the years to come.

Ethiopian agency: noncompliance, cooperation, and contestation

In chapter 6, I studied the negotiations between Ethiopian actors and Chinese actors in a context, the infrastructure sector, in which the Chinese actors seem to have an advantage and strong bargaining power. The chapter examined how Ethiopian government elites, regional bureaucrats, local firms, and workers respond to the increasingly large presence of Chinese stakeholders in the country. In seeking to understand the role Ethiopian actors play in relation to Chinese actors, I countered the argument of a one-way domination of a monolithic China over a passive Africa. I demonstrated that a plethora of Ethiopian actors can influence their relations with their Chinese counterparts before, during, and after the implementation of infrastructure projects; this prove that the agency Ethiopian actors express in their negotiations with Chinese counterparts is critical and deserves to be taken into account. These observations echo the growing literature on African agency. Scholars have demonstrated that in other countries, local actors influence Chinese internationalisation strategies. However, my study shows that African agency should not be taken to be black-or-white and that it is incorrect to measure agency by the immediate results that each agent is able to obtain. The ability of Ethiopian actors to obtain immediate and expected results depends on their position in the network and by the presence or absence of appropriate political and economic structures. For this reason, it is important to stress that Ethiopian actors express their agency and that such expressions of agency are critical to create positive development patterns and dynamics.

It is also important to remember that Ethiopian actors do not express agency without constraints. Therefore, when we speak of African agency, we must be sensitive to the context in which the different agents operate. Federal officials have been able to keep their ownership of infrastructure projects and to prioritise the repayment of loans from other lenders while regularly delaying repayment of Chinese loans in order to extract concessions from China. By vetoing and delaying otherwise-agreed projects, regional officials have been able to defend the interests of local

communities. Meanwhile, workers, who remain very unprotected and have insufficient rights and weak unions, are able to ensure better workplace conditions by negotiating with their Chinese counterparts on the construction site. My study demonstrated that among Ethiopian actors (officials, regional bureaucrats, private firms, and workers), private firms have tried to cooperate with one another in order to pressure Ethiopian institutions, despite the very unfavourable economic, legal, and political environment.

Development linkages in the infrastructure sector: are Chinese firms so bad?

Chapter 7 examined the extent to which Chinese entry into the Ethiopian infrastructure sector has contributed to positive development synergies. In doing this, I challenged the assumption in the China-Africa scholarship that frames the Chinese infrastructure projects as secured enclaves. In the Ethiopian case, that assumption is not accurate, given the diversity of Chinese construction firms operating in the country. As a result, I argue, it is important to identify the characteristics of such firms as well as the circumstances in which they operate. Despite the widespread adoption of vertical integration, the lack of regulations supporting local firms and workers, and weak local capabilities, several Chinese companies in the Ethiopian infrastructure sector are increasingly integrated with the local economy. Such group of companies are contributing to the creation of new employment opportunities, to the acceleration of know-how and technology transfer, and to economic diversification through linkages with the manufacturing sector.

In particular, the claim about limited job creation is unfounded as the ratio of Chinese labour to Ethiopian labour has decreased over time and as the ratio for Chinese companies is similar to that for other transnational companies working in the sector. While Chinese firms are keeping control of their intellectual property, they have transferred technology and know-how. Moreover, linkage formation with the manufacturing sector has helped diversify the economy. The tendency to privilege turnkey projects and the style of Chinese management have created limited subcontracting opportunities for Ethiopian local companies. However, China's mere presence has put pressure on competing domestic firms to learn and be more productive. Overall, despite some peculiarities, Chinese companies align significantly with other transnational companies operating in the sector; they share interests, agendas, and modi operandi. Yet, to fully understand China-Ethiopia relations and China-Africa relations more generally, we must look at the way local government actors respond to the presence of Chinese companies in their country. In an environment with very few policy instruments to regulate the operations of foreign firms, such synergies are not structural or consistent across all firms or projects.

8.2 Final thoughts and implications of research findings

The findings of my research support broader conclusions on drivers, modalities and local development linkages within the context of China-Africa relations. Future research on infrastructure deals between African and Chinese stakeholders could benefit from the GIN framework. While available conceptual instruments are often focused on single aspects of China-Africa relations, my theoretical framework can map actors, power relations, negotiations and impacts. In this way, it is easier to detect key junctures and actors in the process leading to the implementation of infrastructure projects.

My findings also contribute to the study of African agency with new evidence. A focus on African agency is crucial because it demonstrates how different local actors are able to shape the outcomes of their encounter with donors and non-African powers. In the Ethiopian infrastructure sector, I have identified four classes of actors and three types of agency: agency through noncompliance (officials and regional bureaucrats), agency through cooperation (private firms), and agency through opposition (workers). Over the years, all Ethiopian state and nonstate actors have progressively pursued their perceived interests and adapted or responded to an increasing Chinese presence. A common feature across Ethiopian actors is that they have been able to identify critical junctures at which their agency can be more effective.

Furthermore, my study of modalities offers a term of comparison that can help scholars to study infrastructure deals in other African countries. As the Ethiopian case demonstrates, development linkages also depend on the capacity and willingness of African legislators to create adequate conditions for the parallel development of local businesses and to establish a system of rights that can empower workers in their negotiations with foreign companies. However, in order to keep up the pace of its development agenda, the Ethiopian government has not focused on a strategy that includes all actors. As a result, the benefits and burdens of China's presence have been unequally distributed. Yet, while the China option is not the silver bullet to resolve all African problems, it has helped to reduce the infrastructure gap, and it has contributed to positive local development outcomes. Whether or not Chinese financial backing will be sustainable in the long run remains an open question. Whether or not the construction of infrastructure projects will bring prosperity to the masses is also an open question. In responding to this challenge, what matters the most is the proactiveness of African governments to balance between the opportunities China can provide and the need to ensure a sustainable and inclusive development.

Annex I. List of interviews

Code	Place	Date	Position	Language
C1	Beijing, China	August 2017	Senior Staff,	English
			World Bank	
			Manager Transport and	
			ICT	
C2	Beijing, China	August 2017	Senior Fellow,	English
			Brooking Institute	
			Thorton China Center	
C3	Beijing, China	August 2017	Head Economic Unit,	English
			Asian Development	
			Bank	
C4	Beijing, China	August 2017	Professor,	English
			Peking University	
C5	Beijing, China	August 2017	Professor,	English
			Tsinghua University	
C6	Beijing, China	August 2017	Professor,	English
			Remin University	
C7	Beijing, China	August 2017	Head of Political Press	English
			and Information	
			Section,	
			Asian Development	
			Bank	
C8	Beijing, China	September	Professor,	English
		2017	Chinese Academy of	
			Social Sciences	
С9	Beijing, China	September	Deputy Head of	English
		2017	Mission,	
			Embassy of Ethiopia in	
			China	
E1	Addis Ababa,	July 2018	Manager,	English
	Ethiopia		Eastern Industrial Zone	

E2	Addis Ababa,		Assistant Manager,	English
	Ethiopia	July 2018	Eastern Industrial Zone	
E3	Addis Ababa,		Director,	English
	Ethiopia	July 2018	Ethiopia Ministry of	
			Construction	
E4	Addis Ababa,		Journalist,	English
	Ethiopia	July 2018	Chinese Newspaper	
E5	Addis Ababa,		Professor,	English
	Ethiopia	August 2018	Addis Ababa University	
E6	Addis Ababa,		Professor,	English
	Ethiopia	August 2018	Addis Ababa University	
E7	Addis Ababa,	September	Professor,	English
	Ethiopia	2018	Addis Ababa	
			University	
E8	Addis Ababa,	September	Director,	English
	Ethiopia	2018	(MoFEC)	
			Multilateral	
			Organization	
			Department	
E9	Addis Ababa,	September	Director,	English
	Ethiopia	2018	(MoFEC)	
			Debt Management	
			Directorate	
E10	Addis Ababa,	September	Deputy Director	English
	Ethiopia	2018	POWERCHINA	
E11	Addis Ababa,	September	Advisor,	English
	Ethiopia	2018	Ethiopian Ministry of	
			Culture and Tourism	
E12	Addis Ababa,	September	Legal Consultant for	English
	Ethiopia	2018	Chinese companies in	
			Ethiopia	
E13	Addis Ababa,	September	Director,	English
	Ethiopia	2018	UNECA	
			Capacity Development	
			Division	

E14	Addis Ababa,	September	Consultant,	English
	Ethiopia	2018	China-Ethiopia relations	
E15	Addis Ababa,	September	Expert,	English
	Ethiopia	2018	European Union	
E16	Addis Ababa,	September	Analyst,	English
	Ethiopia	2018	Ethiopian Investment	
			Commission	
E17	Addis Ababa,	September	Director,	English
	Ethiopia	2018	Ethio Telecom	
E18	Addis Ababa,	September	Expert,	English
	Ethiopia	2018	ILO	
E19	Addis Ababa,	September	Director,	English
	Ethiopia	2018	(MoFEC)	
			China-Ethiopia	
			Department	
E20	Addis Ababa,	September	Expert,	English
	Ethiopia	2018	Ethiopian State	
			Ministry of Foreign	
			Affairs	
E21	Addis Ababa,	September	Director,	English
	Ethiopia	2018	Ethiopian Electric	
			Utility	
E22	Addis Ababa,	September	Infrastructure Expert,	English
	Ethiopia	2018	World Bank	
E23	Addis Ababa,	September	Director,	English
	Ethiopia	2018	Ministry of Labour and	
			social affairs	
			(Employment service	
			promotion directorate)	
E24	Addis Ababa,	September	Director,	English
	Ethiopia	2018	Ministry of Labour and	
			social affairs	
			(Expatriate service	
			promotion team leader)	

E25	Addis Ababa, Ethiopia	September 2018	Director, Ministry of Foreign Affairs (Asia and Oceania)	English
E26	Addis Ababa, Ethiopia	September 2018	Programme Manager, Ethio telecom Strategy and Programme/Project Management	English
E27	Addis Ababa, Ethiopia	September 2018	Account Manager, Huawei Technology Ethiopia	English
E28	Addis Ababa, Ethiopia	September 2018	Deputy Managing Director, East Africa CGCOC Group Co.	Chinese
E29	Addis Ababa, Ethiopia	September 2018	Marketing Supervisor, CGCOC Group Co.	Chinese
E30	Addis Ababa, Ethiopia	September 2018	Senior staff, Ministry of Labour and social affairs (Expatriate service promotion team leader)	English
E31	Addis Ababa, Ethiopia	September 2018	Director General, MoFEC Public Private Partnership Department	English
E32	Addis Ababa, Ethiopia	September 2018	Deputy General Manager, CCECC Ethiopia Construction PLC	English
E33	Addis Ababa, Ethiopia	September 2018	Senior staff, Chinese Embassy in Ethiopia	English
E34	Addis Ababa, Ethiopia	October 2018	Expert,	English

			Industrialization and Infrastructure Section	
			UNECA	
E35	Addis Ababa,	October 2018	Deputy Director	English
	Ethiopia		general,	
			Ethiopian Roads	
			Authority Planning and	
			ICT Department	
E36	Addis Ababa,	October 2018	Team Leader,	English
	Ethiopia		Monitoring and	
			evaluation	
			Ethiopian Roads	
			Authority	
E37	Addis Ababa,	October 2018	Senior Staff,	English
	Ethiopia		Plan & Programme	
			Directorate	
			Ethiopian Roads	
			Authority	
E38	Addis Ababa,	October 2018	Regional Trade	English
	Ethiopia		Advisor, African Union	
E39	Addis Ababa,	October 2018	General Manager,	English
	Ethiopia		State Grid Co. Ethiopia	
			Brunch	
E40	Addis Ababa,	October 2018	Business Manager,	English
	Ethiopia		State Grid Co. Ethiopia	
			Brunch	
E41	Addis Ababa,	October 2018	Country Manager,	English
	Ethiopia		China Communications	
			Construction Company	
			Ltd.	
E42	Addis Ababa,	October 2018	Marketing Manager,	English
	Ethiopia		China Gezhouba Group	
			Co,. Ltd. Ethiopia	
			Branch	

E43	Addis Ababa, Ethiopia	October 2018	Human Resources Manager, China Gezhouba Group Co., LTD. Ethiopia Branch	Ethiopian
E44	Addis Ababa, Ethiopia	October 2018	Chief Executive Officer, ZTE Limited Ethiopian Branch	English
E45	Addis Ababa, Ethiopia	October 2018	Public Relations Manager, ZTE Limited Ethiopian Branch	English
E46	Addis Ababa, Ethiopia	October 2018	General Manager. SWS Construction	Chinese
E47	Addis Ababa, Ethiopia	October 2018	Executive Officer, Transmission, substantial operation and maintenance Ethiopia Electric Power	English
E48	Addis Ababa, Ethiopia	October 2018	Deputy CEO, Ethiopian Railways Corporation	English
E49	Addis Ababa, Ethiopia	October 2018	Manager, Salini Impregilo Ethiopia	English
E50	Addis Ababa, Ethiopia	October 2018	Economist, IMF	English
E51	Addis Ababa, Ethiopia	October 2018	CEO, Flinston Engineering	English
E52	Addis Ababa, Ethiopia	October 2018	Deputy General Manager, Midroc Techn. Ethiopia	English
E53	Addis Ababa, Ethiopia	October 2018	Manager, Planning & monitoring Department	English

			Rama Construction	
E54	Addis Ababa,	October 2018	CFO,	English
	Ethiopia		Sur corporation	
E55	Addis Ababa,	October 2018	Deputy General	English
	Ethiopia		Manager,	
			Yotek construction PLC	
E56	Addis Ababa,	October 2018	General manager,	English
	Ethiopia		Sunshine construction	
			Group	
E57	Addis Ababa,	October 2018	General manager,	English
	Ethiopia		Afro-Tsion	
			Construction Plc.	
E58	Addis Ababa,	October 2018	Chief Managing	English
	Ethiopia		Director,	
			Tekleberhan Amabaye	
			construction PLC	
E59	Addis Ababa,	October 2018	General Manager	English
	Ethiopia		Bright Construction	
E60	Addis Ababa,	October 2018	Senior Manager,	English
	Ethiopia		Satcon Construction	
			PLC	
E61	Addis Ababa,	October 2018	General Manager,	English
	Ethiopia		Jiangxi Zhongmei.co	
			Ltd	
E62	Addis Ababa,	October 2018	President,	English
	Ethiopia		Construction	
			Contractors	
			Associations of	
			Ethiopia	
E63	Addis Ababa,	October 2018	Human Resources	English
	Ethiopia		Manager,	
			CCECC	
E64	Addis Ababa,	October 2018	Human Resources	English
	Ethiopia		Manager,	

			Dongfang Electric	
			Corporation Limited	
E65	Addis Ababa,	October 2018	Human Resources	English
	Ethiopia		Manager,	
			Salini Impregilo	
			Ethiopia	
E66	Addis Ababa,	October 2018	Senior Manager,	Ethiopian
	Ethiopia		CGCOC Road	
E67	Addis Ababa,	October 2018	Senior Staff,	Ethiopian
	Ethiopia		Yapi merkezi	
E68	Addis Ababa,	October 2018	Financial Manager,	Ethiopian
	Ethiopia		Grid solutions SAS	
E69	Addis Ababa,	October 2018	Finance Manager,	Ethiopian
	Ethiopia		Xinjiang Power	
			Transmission and	
			Transformation Co.	
E70	Addis Ababa,	October 2018	Legal Advisor,	Ethiopian
	Ethiopia		China Electric Power	
			Equipment and	
			Technology Co., Ltd.	
E71	Addis Ababa,	October 2018	Logistic Manager,	Ethiopian
	Ethiopia		NCC17 Construction	
			Co.	
E72	Addis Ababa,	October 2018	Project Manager,	Ethiopian
	Ethiopia		Chinese Company	
			CGCOC - Water	
E73	Addis Ababa,	October 2018	Senior Staff,	English
	Ethiopia		Siemens	
E74	Addis Ababa,	October 2018	Senior Staff,	English
	Ethiopia		Ericsson	
E75	Addis Ababa,	October 2018	Senior Official,	English
	Ethiopia		MoFEC China-Ethiopia	
			Department	
E76	Addis Ababa,	October 2018	Data Management	English
	Ethiopia		Expert,	

			Ethiopian Investment	
			Commission	
E77	Addis Ababa,	October 2018	Senior Official,	English
	Ethiopia		Oromia Regional	
			government	
E78	Addis Ababa,	October 2018	Assistant Manager,	English
	Ethiopia		Jiangsu Baoli	
			International	
			Construction	
		August 2018	China-Ethiopia Expert,	English
S1	Skype		Adelaide University	
		August 2018	Telecommunication	English
S2	Skype		Specialist,	
			Kent University	
S3		September	Researcher,	English
	Skype	2018	Overseas Development	
			Institute (ODI)	
S4	Skype	October 2018	Expert	English
			Environment and	
			infrastructure,	
			European Union	

Annex II. List of cooperation agreements between China and Ethiopia

Evidence shows that approximatively sixty bilateral cooperation agreements have been signed between China and Ethiopia. Some of the most important are listed below:

Sino-Ethiopian Agreement for Economic and Technological Cooperation (1971, 1988 and 2002);

Sino-Ethiopian Trade Agreement (1971, 1976);

Sino-Ethiopian Trade Protocol (1984, 1986, 1988);

Sino-Ethiopian Agreement for Mutual Promotion and Protection of Investment (1988);

Sino-Ethiopian Agreement for Trade, Economic and Technological Cooperation (1996);

Agreement for Investment Protection and Promotion (1998);

Agreement for Economic and Technological Cooperation (2002);

Agreement for Information Release (2003);

Agreement to eliminate double taxation and others (May 2009):

The Memorandum of Understanding signed between the Communist Party and the EPRDF (2010);

The agreement to provide Chinese-language teaching centres for Addis Ababa, Hawassa and Mekelle Universities (2011);

Investment Expansion and Protection Tax Agreement (2013);

Air service agreement (2013);

A Joint Visa Removal Agreement for Travelers with a Diplomatic and Services Passport (2014);

Approved Destination Status Agreement, under which Chinese citizens can travel in organised group tours to countries the government has approved (2014);

The 16th Economic Development Agreements (2015);

The Memorandum of Understanding signed between the two Ministry of Defense (2016);

Agreement to strengthen the Cooperation between the EPRDF and the Chinese Communist Party (2016);

Agreement on bilateral economic cooperation, technology and human resources development (2017).

Source: Chinese Embassy in Ethiopia.

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