Chinese Construction Investments in Africa

The Case of Zambia

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Abstract

This thesis contributes to the empirically and theoretically based understanding of Chinese investments in Africa through a case study of the Zambian construction industry. The thesis finds that a large part of Chinese construction firms in Zambia entered in three "waves" between 1987 and 2000. The state-owned first-wave firms entered Zambia backed by the Chinese government; the similar third-wave firms entered ten years later as more autonomous multinational enterprises; the second-wave firms were privately owned firms that sprung from the first-wave firms. The theoretical analysis employs the Eclectic Paradigm of International Production, the Uppsala Internationalization Process Model, and recent theory developments related to emerging economy-investments. It shows that Chinese investments in Zambia's construction industry is a complex issue that benefits from analysis including several theoretical perspectives. Such an analysis highlights the Chinese government's role in facilitating and initiating investments, the role of individuals and experiential knowledge in furthering the internationalization, and also points out the heterogeneity of Chinese construction investments in Zambia. The analysis further finds that investment drivers for the studied firms were largely consistent with previous research on international contractors. The thesis's main theoretical contribution is the finding that the Uppsala Model can help explain internationalization processes of employee startups.

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Table of Contents

Acknowledgements ..... **i**

Table of Contents ..... **ii**

Figures ..... **vi**

Abbreviations ..... **vii**

1. Introduction **1**

1.1 China in Africa 1
1.2 Chinese Investments in African Construction 3
1.3 The Case of Zambia 5
1.4 Research Questions and Limitations 6
1.5 Thesis Outline 8

2. Methodology **9**

2.1 Methodological Considerations 9
2.2 Research Method 11
2.3 Data Considerations 13

3. Theoretical Framework **14**

3.1 A Brief Introduction to Investment Theory 14
3.2 The Uppsala Internationalization Process Model 16

Model assumptions 16
Core concepts of the Uppsala Model 17
The establishment chain and psychic distance 20
Existing critique 21

3.3 The Eclectic Paradigm of International Production 23

The OLI framework 24
Four types of FDI 24
Existing critique 25

3.4 Previous Findings in Construction Research 26

Previous findings on construction firm internationalization 26
Previous findings on internationalization of CCFs 28

4. Background **29**

4.1 Zambia: An Introduction 30
4.2 The Zambian Construction Industry since Independence 31
Construction in post-independence Zambia 31
Privatization and market reform 32
Copper price-boom 33

4.3 Construction in Zambia Today 34
Tendering and registration 35

4.4 Internationalization and Development of Chinese Construction 36

The pre-reform construction sector 36
Reforms take off 37
Internationalization of the construction sector 38
Means of promoting CCF internationalization 40

4.5 China's Involvement in Zambia 41

5. Enter the Chinese Construction Firms 44

5.1 The First Wave: COVEC and the Jiangxi Giants 45

COVEC 46
Wah Kong 47
China Jiangxi Corporation 49

5.2 The Second Wave: The Employee Startups 50

Yangts Jiang 51
Hua Jiang Investments 52
ZamChin Construction 53

5.3 The Third Wave: State-owned Latecomers 54

CHICO 55
China Gansu 57

5.4 Summary 58

6. Competitive Advantages of CCFs in Zambia 59

6.1 Low Prices 60

Profit margins 60
Material and equipment imports 61

6.2 Efficiency and Management Style 62
6.3 Chinese Workers 63
6.4 Zambian Wages and Working Conditions 65
6.5 Financial Strength and Flexibility 65
6.6 Chinese Institutions 67
6.7 CCF Cooperation 67
6.8 Summary 68

7. CCF Investment in Zambia: A Theoretical Assessment 69

7.1 Investment Drivers and Advantages 69

Ownership advantages 69
Location advantages 71
Internalization advantages 72
Type of investment 74
TWM criticisms 75
Summary 76

7.2 The Internationalization Process 78

Internationalization process of first- and third-wave firms 79
Internationalization process of second-wave firms 81
Summary 85

8. Findings and Conclusions 86

8.1 Findings 87
8.2 Contributions to Previous Research 90
8.3 Perspectives 87
8.4 Conclusions 94
8.5 Suggestions for Future Research 94

9. References 96

Appendix 1. List of Interviewees **..... 107**

Appendix 2. Interview Questions **.....110**

Interview Guide: Chinese Construction Firms.....110
Interview Guide: Competing Construction Firms.....112
Interview Guide: Independent Consultants.....113

Appendix 3. Chinese construction firms in Zambia **.....115**

Appendix 4. CHICO's three tenders 2004-2005. **.....116**

Appendix 5. Recent example tenders supplied by ZNTB **.....117**

Figures

1. The basic mechanisms of internationalization – State and change aspects..... **17**

2. Origin of Zambia's GDP by sector, 2006..... **30**

3. Amount of paid workers in Zambia by sector, 2006..... **30**

4. Road construction funding in Zambia 2006, by source in percentage of total budget..... **34**

5. Registered Chinese investment pledges in Zambia, 1994-2007..... **42**

6. Registered Chinese investment pledges by sector, 2007..... **42**

7. Number of CCFs investing in Zambia per year 1987-2007..... **45**

8. The basic mechanisms of internationalization, revised model..... **85**

Abbreviations

ABCEC – The Association of Building and Civil Engineering Contractors (Zambia)

ACCZ – Association of Chinese Corporations in Zambia

AFP – Agence France Presse

BBC – British Broadcasting Corporation

CCF – Chinese Construction Firm

CCPIDT – Chinese Center for the Promotion of Investment Development and Trade (Zambia)

CCS – Centre for Chinese Studies

CHICO – China Henan International Cooperation Group Corp.

CHINCA – China International Contractor Association

CJC – China Jiangxi Corporation for International Economic and Technical Cooperation

CJCZ – China Jiangxi Corporation Zambia

COMESA – The Common Market for Eastern and Southern Africa Free Trade Area

COVEC – China National Overseas Engineering Group Corporation

CSY – China Statistical Yearbook

ECO – The Economic Councilor's Office of the Embassy of China

EDF – Engineering and Design Firm

ENR – Engineering News Record (Magazine)

FDI – Foreign Direct Investment

FOCAC – Forum on China and Africa Cooperation

GDP – Gross Domestic Product

HIPC – Heavily Indebted Poor Country

ICBC – Industrial and Commercial Bank of China

IECC – International Economic Cooperative Corporation

ILO - International Labor Organization

IMF – International Monetary Fund

JCEC – Jiangxi Construction and Engineering Corporation

LLL – Leverage, Linkages, and Learning

MMD – Movement for Multiparty Democracy

MOFA – Ministry of Foreign Affairs of the People's Republic of China

MOFCOM – Ministry of Commerce of the People's Republic of China

MOFERT – Ministry of Foreign Economic Relations and Trade of the People's Republic of China

NCC – The National Council for Construction (of Zambia)

NEPC – The National Employment Permit Committee of the Ministry of Home Affairs

NFC-A – China Non-Ferrous Company Africa

OLI – Ownership, Location, and Internationalization

PACRO – Patents and Company Registration Organization of Zambia

RDA – Road Development Agency

RMB – Renminbi (official currency of the People's Republic of China)

SADC – The Southern African Development Community

SOCE – State-Owned Construction Enterprise

SOE – State-Owned Enterprise

SSA – Sub-Saharan African

SWB – Summery of World Broadcasts

TAZARA – Tanzania-Zambia Railway

TWM – Third World Multinational

UN – United Nations

UNCTAD – United Nations Conference of Trade and Development

UNDP – United Nations Development Program

UNIP – United National Independence Party

USGS – United States Geological Survey

ZDA – Zambia Development Agency

WTO – World Trade Organization

ZMK – Zambian Kwacha (Official currency of the Republic of Zambia)

ZNTB – The Zambia National Tender Board

1. Introduction

Over the last decade, China's influence in Africa has grown from negligible to decisive. China is today one of the largest and most influential economic actors in Africa, and it is clear that this has fundamental implications for Africa's future (Tull, 2006). However, our current knowledge about the actual nature and effects of China's involvement in Africa is very limited. Few empirically based studies have been made that add to the understanding of the phenomenon. This thesis therefore aims to increase the empirically based knowledge and the theoretical understanding of China's economic involvement in Africa, by studying Chinese foreign direct investment (FDI)[1] in one of the African industries where China has made the largest inroads: the construction industry. The thesis investigates, from a firm-level perspective, how Chinese construction firms have entered and expanded on the Zambian construction market. The findings are related to contemporary investment and internationalization theory and a theoretical assessment of the investments is made.

1.1 China in Africa

China's increased economic engagement in Africa cannot have passed many by. During the past three years, a plethora of newspaper articles, radio broadcasts, TV-documentaries, and academic articles have been produced addressing the issue. At least eight academic books on the topic *China and Africa* have been published since 2006, where none previously existed (Alden, 2007; Alden, Large, & Soares de Oliviera (Eds.), 2008; Guerro & Manji (Eds.), 2008; Broadman, 2007; Manji & Marks (Eds.), 2007; Michel & Beuret, 2008; Rotberg (Ed.), 2008; Taylor, 2006).

The attention is well deserved; two-way trade between China and Africa increased from US$10.5 billion in 2000 to US$55.5 billion in 2006, making China Africa's third largest trade partner after the United States and France (Alden, 2007). 2006 was also the year when the China-Africa relationship truly entered the international spotlight. It was declared China's "Year of Africa," and marked the 50th anniversary of Sino-African relations.

[1] According to IMF (1993), FDI is an investment "*made by a resident entity in one economy with the objective of obtaining a lasting interest in an enterprise resident in an economy other than that of the investor. (…) The lasting interest implies the existence of a long-term relationship between the direct investor and the enterprise and a significant degree of influence by the direct investor on the management of the direct investment enterprise*" (IMF, 1993, p. 86), which in IMF's definition means ownership of 10 percent or more of a company's capital.

The Year of Africa culminated with the Beijing Summit of the Forum on China and Africa Cooperation (FOCAC), which was attended by 48 African delegations and concluded with the Beijing Action Plan that mapped out strongly increased economic interaction between the China and Africa: Chinese official aid to Africa would be doubled by 2009, US$3 billion worth of preferential loans and US$2 billion worth of export credits would be reserved for African countries, a China-Africa Development Fund to support Chinese investors in Africa would be established, and loans owed to China by Heavily Indebted Poor Countries (HIPC) in Africa would be cancelled (Gill, Huang, & Morrison, 2007). A target was also set to increase trade volume to US$100 billion by 2010 (Alden et al., 2008). If anyone suspected that China was not serious about its engagement in Africa, they were forced to reconsider.

It is commonly understood that China's increased engagement in Africa constitutes a *game-changer* for Africa, as well as for most actors with interest in the continent. Africanist scholar Dennis Tull (2006) writes that *"China's vastly increased involvement in Africa over the past decade is one of the most significant recent developments in the region (…)*[and it] *brings significant economic and political consequences."* (Tull, 2006, p. 459)

Among all of the areas covered by the Chinese engagement in Africa, Chinese FDI has drawn particular academic interest. Consensus has lately been reached among scholars that aid alone cannot fill Africa's urgent need for external capital, and the role of FDI in promoting economic development has received much attention (Moran, Graham, & Blomström, 2005; UNCTAD, 2006). It has been argued that FDI, unlike aid, can generate economic development through technology transfers, increased competition, and access to foreign markets. Empirical studies, however, suggest that the effects of FDI are ambiguous and depend both on the host country's absorptive capacity and on the specific properties of the investments (Portelli & Narula, 2006).

One important reason for the academic interest in Chinese FDI is that the properties of these investments have been claimed to differ from those of "traditional" western FDI. A distinctive Chinese *type* or *model* of foreign investment has been discussed and claimed to have particular implications for Africa (Sautman & Hairong, 2007). Although Chinese FDI still constitutes a relatively small share of aggregated FDI in Africa, China has in several African surpassed previous colonial powers in both investment stock and inflows, and is quickly becoming an important investor in Africa. Between 1995 and 2006 the invested Chinese capital stock in Africa grew five-fold from US$260 million to US$1250 million (UNCTAD, 2006).

It is clear that Chinese economic engagement in Africa, and particularly Chinese FDI in Africa, is a relevant study subject. However, despite the great attention given to the subject, our understanding of it is still very limited. A lot of text has been produced, but only a small fraction has actually contributed to the formation of new, empirically based knowledge.

The bulk of the China-Africa literature is made up of either histories of Sino-African relations (Li, 2007; Melber, 2007; Yu, 1988) or broad descriptions of current Chinese involvement in Africa (Kaplinsky McCormick, & Morris, 2006; Tull, 2006; Wang, 2007). The eight above mentioned books include both of these themes.

This literature has served the valuable purpose of providing an overview of the Chinese economic engagement in the African continent, but has done little to deepen and add to the understanding of the phenomenon, as it has mainly built on reproducing already existing data. One of the most prominent China-Africa researchers, Chris Alden, writes: *"(…) empirically based analysis of the content and context of Chinese involvement in Africa is desperately needed."* (Alden, 2007, p. 6)

In addition to the general shortage of empirically based China-Africa studies, most existing studies lack a theoretical foundation. Consequently, they easily fall into the trap of treating China's engagement in Africa as an isolated phenomenon instead of trying to distinguish just how unique the aspects of China's engagement in Africa really are. These studies also miss the opportunity to build on previous research in the studied area. A theoretically grounded study of Chinese FDI in Africa could add, not only to the understanding of the Chinese engagement Africa, but also to the understanding of FDI from emerging economies. This topic has lately come to the fore in the theoretical discourse of investment studies (Mathews, 2006; UNCTAD, 2006), but studies of Chinese FDI in Africa have rarely taken part in this discussion.

1.2 Chinese Investments in African Construction

Four main reasons for China's current interest in Africa have been singled out: its energy dependence, its desire to expand national representations abroad, its concern with western hegemony, and its search for new markets and investment opportunities (Alden, 2005). The first three issues have been frequently addressed in the broad China-Africa literature, and the literature on Chinese FDI in Africa has focused on investments in the extraction of oil and other natural resources (Klare & Volman, 2006; Sautman & Hairong, 2007; Soares de Oliviera, 2008). Although Chinese FDI in Africa is mainly directed to the extractive industry, it today reaches practically all sectors of

African economies (Wang, 2007). Chinese FDI in non-extractive industries has, however, only recently received academic interest.

Among non-extractive industries in Africa, the construction industry has received a particularly large share of Chinese investments. According to Lucy Corkin (2007), construction "*is possibly the sector in which China has made the largest inroads* [in Africa]" (Corkin, 2007, p. 317). Chinese construction firms (CCFs) are today present in almost every African economy and have quickly taken over in market dominance from European and South African companies. In 2007 CCFs had the largest market share, 28.4 percent, among large international contractors in African, increasing from 7 percent in 2000 (Engineering News Record [ENR], 2000, 2007).

From a development perspective, investments in the construction industry are also of particular interest. According to the World Bank, the construction industry plays a key role in promoting growth and capital formation in developing countries, and as a main instrument for implementing investment programs (Henriod, Hogg, Kaden, Rahkonen, Sikorski, & Willoughby, 1984; Kirmani, 1988). Drastic changes in the construction industry can thus be expected to have important implications for a country's development.

Chinese FDI in African construction has been subject to some research. These studies help fill a knowledge gap through mapping Chinese infrastructure financing in Africa (Foster, Chen, & Pushak, 2008); and providing an overview of the scope and characteristics of the Chinese construction presence in SSA (Chen, Chiu, Orr, & Goldstein, 2007) and in specific African countries (Bosten, 2006; Burke, 2007; Corkin & Burke, 2006). None of these studies, however, study the investments on a firm-level or investigate internationalization processes, i.e. *how* firms have entered and expanded on African markets. Such a study could give valuable insights into the nature and mechanisms of these investments and help determine if there really is a unique Chinese *model* of FDI in Africa, and, in that case, what it looks like.

As with the general literature on Chinese FDI in Africa, studies on Chinese construction investments lack a foundation in contemporary investment and internationalization theory. Only two studies have employed a theoretical framework to analyze findings on Chinese investments in African construction industries (Bastholm, 2007; Bosten, 2006). Bosten (2006), however, employs the rather obscure Asian drivers-framework (Schmitz, 2006) and does not relate the findings to other investment studies. Bastholm (2007) focuses on Chinese state intervention in FDI within four sectors in Zambia and

does not analyze the construction sector case separately. Neither of these studies relate their findings to the relatively large literature on construction FDI.

Chinese FDI in the African construction industry in particular, has implications for Africa's development and is therefore a research subject of high importance. Knowledge about these investments is still very limited and previous research on the subject lacks both a firm-level perspective and a theoretical foundation for analyzing the results. This thesis aims to help fill parts of this gap in the China-Africa literature by studying how CCFs have entered Africa and how they have expanded to the dominating position they have today. The thesis will relate the empirical findings to contemporary investment and internationalization theory, and can thereby also add to the theoretical understanding of the subject. No previous research on Chinese investments in Africa has been identified that employs a theoretical approach focusing on internationalization processes. This approach can also contribute to the theoretical understanding of the internationalization of construction firms in general. Zambia has been selected as a suitable case for the study.

1.3 The Case of Zambia

Between 1979 and 2000, a time when a sizeable part of larger CCFs entered Africa, Zambia received the highest share of Chinese FDI on the continent. During this time, Zambia was the 10th largest recipient of Chinese FDI in the world, one of only three African countries among China's top 20 investment destinations (Liu, Buck, & Shu, 2005). Zambia has since then remained an important target for Chinese FDI. In 2006, Zambia had the second largest share of Chinese FDI in Africa, both in terms of investment stock and inflows (MOFCOM, 2007).

Furthermore, from a Zambian perspective Chinese FDI is an important source of external capital. 2006 China became the Zambia's third largest investor after South Africa and Great Britain in terms of investment stock (CCPIDT, 2008), and the largest investor in terms of investment inflows (ZDA, 2008). In contrast to many other SSA economies, where investments are concentrated to the extractive industries, Zambia furthermore receives Chinese FDI in most sectors of the economy (Kragelund, 2007). Besides investments, Zambia is also among the top African recipients of Chinese bilateral support in terms of development assistance, debt relief, and concessional loans; this clearly signals Zambia's importance to China (Davies, Edinger, Tay, & Naidu, 2008).

According to a recent study on Chinese economic engagement in six African countries (Burke, Corkin, & Tay, 2007), "*countries such as Zambia, where a Chinese presence is more established, could provide valuable insights for countries whose relations with China are newly developed*." (Burke et al., 2007: 202)

Regarding FDI in the construction sector, Zambia is a particularly suitable case. Zambia has not attracted the largest number of CCFs in Africa (Chen et al., 2007), but is one of the African markets where CCFs have become most well-established (Corkin & Burke, 2006). English and South African companies that previously dominated the foreign presence in Zambian construction are now almost completely replaced by CCFs, which currently constitute the only major foreign presence on the market. Zambia also has among the highest shares of private-owned CCFs in SSA (Corkin & Burke, 2006). For these reasons Zambia provides a unique opportunity to study a case where Chinese investments in the African construction market have become especially well-established and largely taken over from "traditional FDI," and where different types of CCFs are active in the industry.

Zambia is furthermore one of the African countries where information about Chinese FDI is fairly accessible. In most other large African Chinese FDI recipients like Sudan, Zimbabwe, and Angola, Chinese FDI has been much more controversial, making Chinese firms hesitant to release information to outsiders. A firm-level study would have been very hard to carry out under such conditions.

1.4 Research Questions and Limitations

To serve the purpose of increasing empirically based knowledge and theoretical understanding of Chinese FDI in the African construction industry, this thesis seeks to answer the following two research questions:

1. **How did Chinese construction firms enter and expand on the Zambian market?**

2. **How do Chinese investments in the Zambian construction industry relate to contemporary investment and internationalization theory; and how, if at all, can theory help explain these investments?**

The study examines Chinese investments in the Zambian construction sector. Within this sector, the study is limited to contractors and does not include companies engaging exclusively in design or consultancy, areas where FDI is fairly uncommon.

The study is geographically limited to firms with head offices in Lusaka, the Zambian capital, which is also the center of Zambian construction. This limitation is mainly a product of time constraints and it excludes CCFs working for the mining industry in the Zambian Copper Belt region. Most of these firms, however, are not officially registered in Zambia, and they are usually hired by Chinese mining companies an a short-term project basis (Interviewees 12; 37). The scope of firms in the study is also limited to CCFs that entered Zambia between 1987 and 2000, a time period that saw the entry of most CCFs that are currently dominating Zambian construction. CCFs falling outside the above mentioned limitations will only be discussed briefly in the introduction to chapter 5.

Geographically, the study is furhter limited to CCFs' entry and expansion *in Zambia* and on aspects of their internationalization process related to the Zambian market. Interviews with managers and executives of Zambian branch offices are the study's main sources of information about the CCFs, wherefore knowledge about their internationalization process in other countries has been hard to obtain. The study thus differs from the typical firm-level internationalization study that follows a firm's whole internalization process chronologically. The study will only briefly discuss the CCFs' internationalization preceding and subsequent to their investment in Zambia.

The study covers events, developments, and conditions on the Chinese and Zambian construction markets up to the time of the fieldwork: June-Sept, 2008. This also applies to background chapters. Discussions of Zambian construction "today" or the "current" state of the Chinese construction industry thus refer to conditions as of mid-2008.

The author acknowledges the ambiguities involved in defining Chinese FDI in Zambia. The insight into capital structures of the firms is very restricted and the available registration data for FDI in Zambia is limited. Even if the initial ownership and origin of invested capital could have been determined, it is likely that the information would not have provided an accurate description of the firms, due to common adjustments of *de-jure* ownership structures to circumvent aspects of Zambian legislation (Kragelund, 2008).

Another classification ambiguity regards CCFs that were started in Zambia with capital raised by private persons instead of foreign companies. These CCFs are generally registered in Zambia as Chinese FDI, but it is likely that they are not officially recognized as outward FDI in China, as they differ from "typical FDI" where there is an investing firm based in a foreign country. Due to above mentioned ambiguities, the

study will apply a more pragmatic than technical distinction of Chinese FDI and consider all firms that were found to have been started with capital from China, and to be *de facto* run by Chinese citizens, as Chinese FDI. This is motivated in the study by the fact that these firms have much in common in terms of both properties and background.

As mentioned above, the impact of FDI on the host economy is ambiguous and depends on, among other things, the nature of the investments and the properties of the host economy. The scope of such a study would be too wide to be accommodated within a master's thesis. This thesis will therefore not discuss in detail the possible impact of Chinese construction investments on Zambian construction firms, economic development, or working conditions, despite the heated debate regarding these issues. However, it is the author's aspiration that the study will increase the understanding of CCFs in Africa, and encourage and facilitate further research on the subject.

Another aspect that will not be included in the study is corruption in Zambian construction and its possible role in changing the prerequisites for the entry and expansion of CCFs in Zambia. In developing countries, corrupt practices are often particularly widespread within the construction industry (Kenny, 2007). Research has furthermore shown that this type of corruption is also prevalent in Zambia, especially in the contracting sector, but also in the consultant sector (Sichombo, Muya, Shakantu, & Kaliba, 2009). The possible effects of corruption on Chinese investments in the Zambian construction industry should therefore be acknowledged. This study, however, lacks sufficient information on these aspects to include this in the thesis.

1.5 Thesis Outline

The first research question will be addressed in chapters 4 through 7. The second research question will be addressed mainly in chapter 7, connecting to the theoretical discussion in chapter 3.

Following the introduction chapter, **Chapter 2** introduces the methodological underpinnings that have guided the research. The chapter also explains and motivates the research methods that have been employed during the execution of the study.

Chapter 3 presents and discusses the theoretical framework that will be used to analyze the study's empirical findings. The two main theories introduced are the Uppsala Internationalization Process Model and the Eclectic Paradigm of International Production. The choice of these theories is motivated and relevant criticism and

suggested augmentations to the theories are accounted for. The chapter also presents relevant findings of previous studies on construction FDI.

Chapter 4 provides a background to the Chinese investments in Zambia's construction industry. This is presented in five sections: (1) an introduction to Zambia, (2) a historic overview of the Zambian construction industry leading up to and during the CCF investments, (3) an introduction to important clients, institutions, and practices in the Zambian construction industry, (4) a background of Chinese government involvement and internationalization of CCFs, and (5) an assessment of China's engagement in Zambia.

Chapter 5 presents the study's empirical findings regarding the CCFs' entry and expansion in Zambia. It tells the story of how CCFs entered Zambia in "three waves of investments" between 1987 and 2000 and gradually grew to become large players on the Zambian construction market.

Chapter 6 presents the study's empirical findings relating to the competitive advantages of CCFs in Zambia. A discussion of these advantages is presented, incorporating the views of CCF representatives, competitors, independent consultants, and informants from relevant Chinese and Zambian institutions in Zambia.

Chapter 7 analyzes the empirical findings from chapter 5-6 through the theoretical framework presented in chapter 3, taking into account the context and background presented in chapter 4. The chapter also contrasts the findings to the previous research presented in chapter 3, and discusses the theories' relevance for the understanding of the investments.

Chapter 8 summarizes the empirical and theoretical findings of the thesis, and discusses its generalizability and contributions to previous research. The chapter furthermore makes suggestions for future research.

2. Methodology

2.1 Methodological Considerations

The methodological framework in this thesis draws on a realist philosophy of science. The essence of scientific realism is the assumption that "*the world exists independently of our knowledge of it (…) [and consists] not only of events, but objects, including structures, which have powers and liabilities capable of generating events*" (Sayer, 1992, p. 5). This is expressed in the research design through the use of realist, as

opposed to instrumentalist, research questions. Whereas an instrumentalist approach would opt for research questions regarding what can be directly observed and validated, i.e. the data itself, a realist approach favors research questions regarding the *real* phenomena *behind* the data (Maxwell, 2004). In this study the research problem regards *actual* structures, processes, and events, rather than the informants' *perceptions* of them.

Selecting an appropriate research approach is critical for the study's ability to properly address the research problem. A deductive approach, as defined by Saunders, Lewis, and Thornhill (2007) involves "*the testing of a theoretical proposition by the employment of a research strategy specifically designed for the purpose of its testing*" (Saunders et al., 2007, p. 597). An inductive approach, on the other hand, aims at "*development of a theory as a result of the observation of empirical data*" (Saunders et al., 2007, p. 599).

For this study, neither of these two research approaches fit perfectly; the study employs a theoretical foundation and does compare the findings to their theoretical predictions, but the research design is not a test of theoretical hypotheses.

According to Saunders et al. (2007), a third research approach: abduction, lies between these approaches and combines both induction and deduction. As with an inductive approach, the abductive puts emphasis on empirical findings, but does not ignore theoretical antecedents, which places it close also to the deductive approach. Analysis of empirical findings may be combined with, or preceded by, research of existing theories (Alvesson & Sköldberg, 1994).

This study therefore employs an abductive approach. When the fieldwork was initiated, the author had prior knowledge of the studied problem area, prevailing theories, and recommendations of best practice, which helped guide the fieldwork. This study furthermore uses theory as a framework to analyze and explain the empirical findings. Maxwell (2004) describes this method as using theory "as a spotlight" to draw attention to certain phenomena and shed light on relationships that may otherwise go unnoticed or misunderstood.

The research strategy chosen for the study is the *case study*. Yin (2003) defines the case study as "*an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially; when the boundaries between phenomenon and context are not clearly evident*" (Yin, 2003, p. 13). According to Yin (2003), a case study is suitable as a research strategy when "*a 'how' or 'why' question is being asked*

about a contemporary set of events, over which the investigator has little or no control" (Yin, 2003, p. 9). As opposed to a *history research strategy*, which can also be suitable for answering *how* and *why* questions, a case study encompasses information sources such as direct observation and interviews with people involved in the studied events, and thereby allow researchers to study organizations in a natural setting and obtain insights into complex processes (Yin, 2003).

A case study can include single or multiple cases. According to Yin (2003), multiple-case studies are preferable, as the scope of the study can increase the strength and generalizability of the findings. There are, however, certain conditions under which single-case studies may be preferable. One of these conditions is when the case constitutes what Yin refers to as *unique case*, i.e. a case that provides a rare opportunity to study a specific problem of high scientific interest, but where researchers have not yet been able to establish common patterns.

Zambia provides such a unique case, as Chinese investments in the Zambian construction market have become more well-established than in most African countries and largely taken over from more traditional FDI. It is also one of few countries where the market entry and expansion of both private and state-owned CCFs can be studied. This single-case study is furthermore what Yin (2003) defines as an embedded case study, where the embedded units of analysis are the eight studied CCFs.

2.2 Research Method

As this study is carried out at a firm-level and investigates processes and properties that are hard to quantify, this study uses a qualitative method and mainly qualitative data.

According to Yin (2003) the need to use *data triangulation*, i.e. multiple sources of evidence, in case studies exceeds that of other research strategies. This study triangulates information from interviews and documentation in form of press articles, corporate web pages, and Chinese government publications, i.e. a triangulation of primary and secondary data. Chinese language versions of corporate web pages and Chinese government publications were generally used, as they often contained more information than translated English versions. Primary data were collected in Lusaka, Zambia between June 16 and September 2, 2008. Secondary data were collected during and after this period throughout the thesis work. An extensive literature study was also undertaken before and after the fieldwork to deepen the author's understanding of the issue.

The firm-level approach of the study prompted that interviews with CCF representatives in Zambia dominate the primary data. Interviews were performed with managers or executives of seven CCFs currently operating in Zambia. These firms were identified through lists from the National Council for Construction (NCC) and the Zambian Development Agency (ZDA), as well as through interviews with other CCFs, competitors and consultants. The companies interviewed are: Wah Kong, Yangts Jiang, China Jiangxi Corporation, ZamChin, Hua Jiang, CHICO and China Gansu Engineering Corporation. One additional CCF: COVEC, was after the fieldwork contacted with clarifying questions via email.

The selection of CCFs aimed to include firms that were important actors on the Zambian construction market (identified through interviews), state-owned and private firms (identified through interviews), as well as firms that had invested in Zambia at different times (identified through data from ZDA). The selection was, however, limited to firms where contact information could be obtained, and also limited due to the time constraints of the study. Some of the data used to compile the list of CCFs (Appendix 3) in Zambia were not obtained until the end of the fieldwork. None of the contacted CCFs refused to partake in the study. The amount of time available for interviews, however, varied between firms. Follow-up interviews were held with four of the seven CCFs (See: Appendix 1). It is important to note that the selected CCFs were not a result of a statistical sample aiming to represent CCFs in Zambia, but chosen because they were considered important actors in Zambian construction and able to reveal information on different aspects of Chinese investments in the Zambian construction industry.

In order to triangulate primary data, and to provide a more complete picture of CCFs operating in Zambia, interviews were also held with Managing Directors and executives at seven of the CCFs' main competitors (See: Appendix 1 for a full list), as well as with independent actors with experience in the Zambian construction industry. The latter category was made up of consultants and quantity surveyors at the Buildings Department of the Ministry of Works and Supply, the Road Development Agency (RDA) and three private construction consultancy firms. All of these individuals had been active in the Zambian road construction business for more than 20 years and had experience of overseeing several projects and tender documents by CCFs and other foreign and local construction firms.

Interviews were also held with representatives for other relevant Zambian institutions and ministries, and, in order to better understand the general situation for Chinese

investors in Zambia, with all major Chinese institutions in Zambia (See: Appendix 1). A total of 40 interviews were held that are included in this study.

Semi-structured interviews were used in interviews with CCFs, competitors, and consultants. Questions were prepared following a literature study of the subject and discussions with advisors. They were, however, adjusted and revised throughout the fieldwork. A summary of the questions included in most interviews is included in Appendix 2. Semi-structured, and in some cases open-ended interviews were conducted with the Zambian and Chinese institutions with questions adjusted for each organization. Only one informant requested anonymity, but out of respect for all informants, no actual names will be revealed. Fictitious names are used for the three named entrepreneurs who play a major role in the thesis.

Statistical data regarding CCFs in Zambia were collected from ZDA, NCC, the Patents and Company Registration Organization of Zambia (PACRO), and the Zambian Central Statistical Office (CSO).

2.3 Data Considerations

One challenge encountered during the fieldwork was the access to information, particularly information regarding the number of Chinese citizens working in Zambia, and regarding agreements between the Chinese and Zambian government. These issues are not a central part of the study, but better information access could have clarified interesting aspects of Chinese FDI in Zambia.

Conflicting information was sometimes received, not only regarding the CCFs' advantages described in chapter 6, but also the nature and sequence of the events described in chapter 5. If conflicting information remained even after secondary data triangulation, or if no secondary data were available, judgments regarding the accuracy of statements were made with regard to context, including the informants' involvement in the events and accuracy in describing other events.

The assessment of conflicting information relates to the general risks of using a qualitative method, as this method relies largely on the accuracy and honesty of informants and the skills of the researcher. These risks involve biases in informants' accounts and their interpretation, misconceptions, and influence of the researcher on the data (Yin, 2003). With the awareness of these risks, it has been an aim throughout the study to minimize them through above-mentioned triangulation, interviews with informants holding different perspectives, and seeking to maintain a balanced and un-biased approach both during collection and the assessment of data. Informants have

furthermore been offered to comment on the finished thesis. The risk of biases and concealed or misleading information from informants should, however, be taken into account when assessing their statements and conclusions drawn from them. This relates also to the above-mentioned possibility of corruption having affected the studied investments.

The quality of the data collected from ZDA, PACRO, and CSO, used in *Figure 5* and *Figure 6* and to identify CCFs in Zambia (See: Appendix 3), also has certain flaws that are explained in the sections where the data is used. This data, however, does not play a key part in this study, and the flaws are not likely to affect any major conclusions.

3. Theoretical Framework

This chapter aims to introduce the theoretical framework for this thesis, as well as relevant critique and suggested augmentations of these theories. The two main theoretical models that will be used are the Eclectic Paradigm of International Production and the Uppsala Internationalization Process Model (henceforth referred to as the Uppsala Model). These two models are among the most widely accepted theories explaining FDI, and many studies on internationalizing firms have been carried found evidence supporting their explanatory power and suitability as frameworks for analyzing firm internationalization (Agarwal & Ramiswami, 1992; Barkema, Bell, & Pennings, 1996; Brouthers, Brouthers, & Werner, 1996).

3.1 A Brief Introduction to Investment Theory

Before 1960, the theoretical literature addressing the internationalization of the firm was limited to broad macroeconomic theories of Marxist, and classical and neo-classical economics. The neo-classical theories tried to explain FDI through applying trade models to investment problems. The big conceptual difference between trade and FDI, however, limited their explanatory power, and a theoretical shift begun towards the use of arbitrage theory of portfolio flows to explain FDI. This theory claims, as does Marxist theory, that capital due to diminishing marginal returns to investments will, move from countries where the interest rate is low to those where it is higher. Although useful in explaining the movement of portfolio capital, these theories fail to explain FDI as they neglect transaction costs and do not provide any insight into causal dynamics at the sub-structural level of institutions (Hosseini, 2005).

After 1960, the internationalization of the firm attracted increasing scholarly attention from various fields of research and a vast range of new literature emerged. This

literature can be grouped broadly into two categories. The first group builds on the economics heritage and the idea of market imperfection. It combines theories of monopolistic competition, location, and transaction costs; and focuses on explaining the properties and motives of internationalizing firms. Prominent among these is the Eclectic Paradigm, developed by John Dunning (1988, 1993, 2000).

The other category has its theoretical base in the behavioral theory of the firm (Aharoni, 1966; Cyert & March, 1963) and Penrose's theory of the growth of the firm (1959). These theories seek to explain the firm's internationalizing *process* rather than its *properties* and emphasize the dynamics of the firm's behavior. The most salient theory in this category is the Uppsala Model, developed mainly by Johanson and Wiedersheim-Paul (1975, 1990) and Johanson and Vahlne (1977).

In other words, the first group of literature focuses on answering the questions "*Why* do firms engage in FDI?" and "*Which* kind of firms engage in FDI?" whereas the other group is more interested in answering "*How* do firms expand to foreign markets?"

In a literature review on firm internationalization studies Coviello and McAuley (1999) show that the above-mentioned theoretical areas of internationalization research tend to be examined independently of one another. They thereby compete to explain the concept of internationalization, although they provide complementary rather than distinct views on the internationalization concept. An analysis that aims at a deeper understanding of an internationalization phenomenon would therefore gain from employing more than one theoretical perspective in its analysis. The same conclusions are drawn by Whitelock (2002), and Coviello and Martin (1999), who argue that this particularly applies to studies of the rather complex construction industry.

As this thesis seeks to answer *how* CCFs entered and expanded in Zambia, the Uppsala Model will play a central part in the theoretical analysis. However, insights in firm properties that allowed for the CCFs expansion and the drivers behind the investments are also important to answer this research question, wherefore, in line with the suggestions made by Coviello and McAuley (1999), the analysis will also make use of Dunning's Eclectic Paradigm. The inclusion of two theoretical perspectives in the analysis also benefits the other central part of the thesis: to study how Chinese construction investments in Zambia relate to contemporary investment and internationalization theory. To help answer this question, the analysis will also take into account recent theory developments of these perspectives regarding FDI from developing countries and criticisms regarding their applicability to construction firms.

In addition to the Uppsala Model and the Eclectic Paradigm, there are other mainstream economic theories that explain FDI. Notable among these are Transaction Cost Analysis Model (Coase, 1939), the Network Model (Axelsson & Johanson, 1992; Johanson & Mattsson, 1988), and the theory of product life cycle (Vernon, 1966). These theories emphasize the role of rational transaction cost calculations, business and personal networks, and product development respectively in a firm's internationalization. This thesis will, however, limit the inclusion of theoretical models to the Uppsala Model and the Eclectic Paradigm. These theoretical models capture most important aspects of a firm's internationalization and have, as previously mentioned, found support in several studies (Agarwal & Ramiswami, 1992; Barkema, Bell, & Pennings, 1996; Brouthers, Brouthers, & Werner, 1996). Possible gains from inclusion of additional economic theories would be outweighed by the loss of focus and conciseness of the thesis.

3.2 The Uppsala Internationalization Process Model

The Uppsala Model is based on empirical studies by Johanson and Wiedersheim-Paul (1975) and Hörnell, Vahlne, and Wiedersheim-Paul (1973). The former studied the internationalization of four Swedish Engineering firms and the latter followed the internationalization of the Swedish pharmaceutical firm Pharmacia. These studies both show how firms gradually increase international involvement, engaging in foreign markets over increasing *psychic distance* and further along the *establishment chain*, two concepts that will be introduced and discussed later in this chapter. The Uppsala Model explains this gradual internationalization process through the interplay between the firm's development of knowledge about foreign markets and an increasing commitment of resources to those markets (Johanson & Vahlne, 1977). Central issues of the model are how organizations learn and how their learning affects investment behavior (Forsgren, 2002).

Model assumptions

In order to generalize the model, several assumptions are made regarding the nature of the firm. The model assumes that the firm first develops in the domestic market and that the internationalization is the consequence of a series of incremental decisions. It is furthermore assumed that that the most important obstacles to internationalization are lack of market knowledge and resources (Johanson & Wiedersheim-Paul, 1975).

In the description of the internationalization process, the model makes four additional assumptions. First, the firm strives to increase its long-term profit and growth and is

not driven by short-term strategic goals. Second, the firm strives to keep risk-taking at a low level. Third, efforts to obtain the aims in the first two assumptions are made at all levels of the firm. Fourth, the state of the internationalization affects perceived opportunities and risks, which in turn affect commitment decisions and current activities (Johanson & Vahlne, 1977).

Moreover, the Uppsala Model focuses solely on the firm, which is seen as a loosely-coupled system in which the individuals have the knowledge. They have separate interests in and ideas of how the firm should develop and will consequently see opportunities and risks in the specific market and try to find and promote solutions that will gain themselves (Johanson & Vahlne, 1977). This model assumption leads to the expectation that "*the internationalisation process, once it has started, will tend to proceed regardless of whether strategic decisions in that direction are made or not*." (Johanson & Vahlne, 1990, p. 14.)

Core concepts of the Uppsala Model

The Uppsala Model is based on four core concepts divided into *state aspects* and *change aspects*. The two state aspects are *market commitment* and *market knowledge*. The two change aspects are *current activities* and *commitment decisions*. These four core concepts are closely linked and interrelated in a way that the internationalization process can be seen as casual cycles. The basic mechanisms of the internationalization process are illustrated in *Figure 1* below.

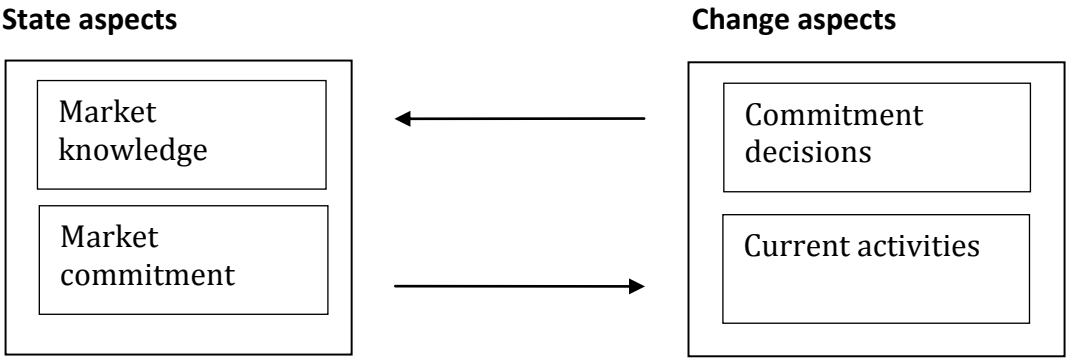

Figure 1. The basic mechanisms of internationalization – State and change aspects. Market knowledge and market commitment are assumed to affect both commitment decisions and the way current activities are performed. These in turn change knowledge and commitment. Source: Johanson & Vahlne (1990), p. 12.

State aspects

The **market commitment** concept is composed of two factors: the amount of resources and the degree of commitment. The amount of resources is described as the

size of the investment, including marketing, organization, and personnel. The degree of commitment is higher the more specialized to a specific market the resources are (Johanson & Vahlne, 1977).

The **market knowledge** concept consists of *general knowledge* and *market-specific knowledge*, which are both required for foreign, market entry. General knowledge concerns marketing methods and common characteristics of certain types of customers, irrespective of their geographical location. Market-specific knowledge, on the other hand, concerns specific characteristics of a market, e.g. its business climate, cultural patterns, market structure, and the characteristics of customer firms (Johanson & Vahlne, 1977).

The model also distinguishes between *objective knowledge* that can be taught and *experiential knowledge* that can only be learned through personal experience (Penrose, 1995). In the Uppsala Model the experiential knowledge is emphasized and it is assumed that this kind of knowledge enables individuals in firms to perceive opportunities, which in turn lead to decisions. It is considered to be highly dependent on individuals and is thereby difficult to transfer to other individuals and contexts.

As experiential knowledge is not as easily acquired as objective knowledge, it is regarded as critical for the internationalization of a firm. For firms undertaking loosely defined activities and activities based on relationships with other individuals, e.g. managerial work and marketing, experiential knowledge is particularly critical (Johanson & Vahlne, 1977). It is an important assumption of the model that market-specific knowledge is acquired primarily through experiential knowledge, which also reduces market uncertainty (Johanson & Vahlne, 1990).

The Uppsala Model suggests a direct relation between market knowledge and market commitment. Knowledge is considered to be a resource and consequently, the more and better knowledge a firm has about a market, the more valuable the resource is and the stronger is the commitment to the market. This is particularly the case for experiential knowledge, which is often strongly specialized and has a limited transferability.

Change aspects

The **current activities** of the firm affect the other concepts of the model in two main ways. First, current business activities are the firm's main source of experience, which, as described above, increases the firm's market knowledge and enables discovery of

opportunities that can lead to market commitment decisions and increase market commitment. Even if the firm can possibly gain experience externally, through advice or by hiring or acquiring, the problem would remain to interpret and integrate the experience with the firm. This problem is accentuated for businesses demanding a high degree of interaction between the activities and the market environment. Thus, the firm usually has to gain experiential knowledge through a long learning process in connection with the current business activities. This is one of the reasons why internationalization is a slow process. Second, there is a lag between most current activities and their consequences, which may not be realized unless the activities are performed continuously over a long time. Consequently, the longer the lag and the more complicated and differentiated the product, the larger the market commitment as a consequence of current activities will come to be (Johanson & Vahlne, 1977).

The second change aspect is **commitment decisions**, which are decisions to commit resources to a market. It is assumed that commitment decisions are made in response to problems and opportunities on the market, and that the discovery of these problems and opportunities depends on the firm's experience. The discoveries will be made principally by individuals operating within sections of the organization close to the market operations or by individuals interacting with these sections, and will lead to a decision to adapt and extend the current activities. The commitment decisions will be related to the firm's environment and will usually lead to an extension of the organization's boundaries and an increase in commitment to the market, as well as to reduced market uncertainty (Johanson & Vahlne, 1977).

Commitment decisions also depend on the existing market risk and the existing market uncertainty, i.e. the decision-maker's inability to estimate the present and future market, as well as market influencing factors. The existing market risk is composed of existing market commitment and existing market uncertainty. The firm will, due to market uncertainty, make incremental commitments to the market until its maximum tolerable risk is reached (Johanson & Vahlne, 1977). Consequently, the more the firm knows about the market, the lower the market uncertainty and market risk will be.

The above explained concepts and relationships construct the Uppsala Model's approach to commitment and show how firms internationalize slowly and incrementally.

The establishment chain and psychic distance

The Uppsala Model explains two patterns of the firm's internationalization, which can be considered operationalizations of the model. The first pattern is that the commitment to engage in foreign market operations increases gradually according to the so-called establishment chain, which is a sequence of stages that are made in incremental steps with a higher degree of commitment for every step. In this establishment chain, Johanson and Wiedersheim-Paul (1975) identified four different stages as stated below.

1. No regular export activities,
2. Export *via* independent representatives (agent),
3. Sales subsidiary, and,
4. Production/manufacturing

The second identified pattern is that firms tend to enter new markets at successively greater psychic distance, and in most cases also at greater geographical distance (Johanson & Vahlne, 1990). Psychic distance is defined as *"the sum of factors preventing the flow of information from and to the market. These include differences in language, education, business practices, culture, and industrial development."* (Johanson & Vahlne, 1977, p. 24)

The less a firm understands a market, the greater is the psychic distance and the perceived uncertainty. Thus, firms enter markets they understand, markets where they can see opportunities and where the perceived uncertainty is low. As stated above, uncertainty is best minimized through experiential knowledge of a market, which also uncovers new opportunities. Firms thereby expand to markets at greater psychic distances from the home country as experiential knowledge is increased and market uncertainty reduced.

Johanson and Vahlne (1990) point out three cases where the Uppsala Model may not be able to predict the internationalization process. First, big firms with large resources might be expected to make larger internationalization steps, as the consequences of their commitments are relatively small. Second, when market conditions are stable and homogenous, market knowledge can be gained in other ways than through experience. Third, for a firm with considerable experience from markets with similar conditions it may be possible to generalize the experience to the specific market.

Existing critique

Learning behavior

According to Forsgren (2002), empirical studies during the last two decades show that experiential learning may play a smaller part of the organizations learning than assumed in the Uppsala Model. Learning through business relationships, imitative learning, information searching, or incorporating external competence into the firm are also common methods. The use of these learning methods would result in a faster internationalization process than predicted by the Uppsala Model (Forsgren, 2002).

Hierarchical decision-making

Forsgren (2002) furthermore comments on two ways that the Uppsala Model neglects the importance and existence of hierarchical structures and top-down decision-making in organizations. First, the assumption of loose-coupling, which emphasizes the role of individuals active in the foreign market operations of the lower levels of the firm, gives a clear bottom-up perspective on the organization. This assumption neglects the hierarchical decision-making that is the reality of many organizations. Decisions are often made by the top-group of the organization rather than the people involved in foreign investments activities. Second, the focus on market-specific knowledge in favor of general knowledge understates top-down decision-making possibilities. Higher levels in the organization can be expected to accumulate general knowledge, which can be used to take the firm in new directions. It is reasonable to expect that foreign investment is sometimes carried out *despite the lack* of market-specific knowledge rather than *thanks to* its existence (Forsgren, 2002).

Omitted factors

The Uppsala Model has furthermore been criticized for omitting several important factors that affect the internationalization process. One of these factors is competition. Vahlne and Nordström (1992) point out that in the globalized world, only competitive firms that are successful with their investments are likely to succeed in their internationalization. In order to be successful, not only experience is of importance, but also human, technical and financial resources. This criticism echoes the ideas in Dunning's Eclectic Paradigm and supports the idea to include it in an analysis of internationalization processes.

Another excluded factor related to competition is the risk of *not* investing abroad. If this risk is perceived larger than the risk of investing, the firm will likely choose to invest (Forsgren, 2002).

Diminished predictive power

Hedlund and Kverneland (1985) argue that part of the model's explanatory and predictive power is lost due to an irreversible *general* internationalization of industries and markets. The world has become increasingly homogenous and psychic distance has as a consequence decreased, leading to faster internationalization (Nordström, 1990). The model's prediction of the establishment chain has also been criticized, as evidence has been found of mixed internationalization approaches, where firms engage in different stages of the establishment chain simultaneously (Turnbull, 1987).

TWM and construction sector applicability

Other criticisms regarding the model's predictive power addresses specifically its applicability to firms originating from emerging economies, so called Third World Multinationals (TWMs), and firms within the service sector. As the firms studied in this thesis belong to both groups, these criticisms are relevant for this study.

The increased pace of internationalization has been argued to particularly apply to TWMs. For these firms, "leapfrogging" into FDI activities without previous export activities is common. These companies also often consider their first foreign foray as an initial step not into one foreign market, but into the world market (Goldstein, 2007; Mathews, 2006).

As the Uppsala Model is based on studies of manufacturing firms, its applicability to service industries has been questioned. The service industry is different from the manufacturing industry in that it is characterized by intangibility of products; inseparability of production and consumption; heterogeneity, i.e. high variability in the performance of services; and perishability, meaning that services cannot be stored (Zeithaml, Parasuraman, & Berry, 1985). Construction is furthermore a rather specific sub-category of the service sector in the respect that goods and services are bundled.

Enderwick (1989a) suggests that slow and gradual internationalization is not possible in service sectors such as construction, where inseparability of production and consumption is strong. Export, defined as selling services where the bulk of value adding takes place in the home country, may not be an option, and firms are therefore likely to move directly to stages later in the establishment chain. This argument has found support in studies concluding that service firms often move from little or no market involvement directly to investing in a foreign country (Buckley, Pass, & Prescott, 1990, 1992). The preference for investment over e.g. licensing is explained by

the desire to keep control of competitive assets, which in service firms are usually linked to the personnel (Buckley et al., 1992).

Other studies have, however, found support for the Uppsala Model's applicability to service firms (Masurel, 2001; Tschoegl, 1982). Boddewyn, Halbfich, and Perry (1986) furthermore, argue that no special FDI or internationalization theories for international service firms are necessary. The existing ones can be readily accommodated through relatively simple elaborations taking into account the properties of the particular sub-sector.

It is also important to note that these criticisms do not address the core concepts of the Uppsala Model, but rather its operationalizations. In a recent article Johanson and Vahlne (2006), the two main researchers behind the model, confront this criticism by downplaying its deterministic implications and stating that it is impossible to predict the exact pattern of internationalization.

> *Having concluded that the establishment chain is not the model, it is easy to claim that we have no definite opinion about the exact shape of the path of internationalization.* (Johanson & Vahlne, 2006, p. 175)

The only prediction that can be made and derived from the model is that if knowledge and market commitment evolves successfully, the internationalization process will increase gradually and incrementally with larger investments and higher levels of control and risk (Johanson & Vahlne, 2006).

3.3 The Eclectic Paradigm of International Production

Dunning's Eclectic Paradigm of International Production is the integration of several internationalization theories. It covers mainstream theories like the Heckscher-Ohlin factor endowment theory and Coase's transaction cost theory (1939), as well as Hymer's monopolistic advantage theory (1960), Buckley and Casson's internalization theory (1976) and Dunning's own theories of location advantage (1958). The Eclectic Paradigm gives a comprehensive explanation of the motives for FDI and is regarded as the representative of classic theories to explain the internationalization activities of multinational enterprises. The paradigm is not a predictive theory of FDI, but provides a framework for analyzing the determinants of international production (Dunning, 2000).

The OLI framework

The core of the Eclectic Paradigm is composed of "three advantages". They are *Ownership specific advantages*, *Location specific advantages,* and *Internalization advantages* (OLI), often referred to as the OLI Framework or the OLI Model.

Ownership specific (O) advantages build on Hymer's (1960) theory of monopolistic advantage, which claims that, under the assumption of market imperfections, multinational enterprises must possess firm-unique advantages in order to overcome the costs of overseas investment, to counteract disadvantages of competing with local firms in the host country, and to ensure the profitability of their overseas investment. The possession of O advantages is thus a key reason for a firm to engage in FDI (Dunning, 1988).

Location specific (L) advantages refer to advantages bound to a certain geographic location, in this context a host country. These advantages explain why a company chooses to invest in a particular country, and can be divided into four groups:

1. Natural resources advantages,
2. Economic environment advantages,
3. Cultural and social advantages, and
4. Political power and legal environment (Dunning, 1993).

Internalization (I) advantages are based on Buckley and Casson's internalization theory (1976), which explains why firms make the choice to invest in a foreign country instead of pursuing trade. The theory states that the greater the perceived costs of transaction market failure, the likelier a firm is to exploit competitive advantages through internalizing the external imperfect market (Dunning, 1988). Transaction market failure costs include search and negotiating costs, moral hazard, information asymmetries, and loss of control of the firm's reputation. Internalization advantages arise from a firm's capability of reducing these costs by investing (Dunning, 1993).

Four types of FDI

Adding to the OLI framework, the Eclectic Paradigm includes tools to classify investments into four different types:

1. *Resource seeking investment* seeks to acquire specific resources at a lower cost than available in the home country. These resources can be physical resources, such as raw materials, as well as labor and knowledge.
2. *Market seeking investment* aims at sustaining existing and exploiting new markets.
3. *Efficiency seeking investment* aims to restructure and rationalize the existing investments in order to achieve an efficient allocation of the firm's international economic activities.
4. *Strategic asset seeking investment* promotes the firm's long-term strategic goals and enhances their international competitiveness by acquiring assets of foreign firms (Dunning, 1993).

Existing critique

TWM and construction sector applicability

The Eclectic Paradigm is one of the theoretical frameworks that has been most frequently used in empirical studies of FDI, but has like the Uppsala Model, received criticism regarding its applicability different types of firms. A large portion of this criticism questions its relevance for TWM studies. This criticism argues that the paradigm represents an ideal-type of an Anglo-Saxon privately owned multinational enterprise with profits maximization as its only goal and that it therefore neglects important drivers of TWM investments (Goldstein, 2007).

John Mathews goes as far as suggesting a new theoretical model for analyzing TWMs, in particular those from Asia and the Pacific rrgion: the LLL Model (Mathews, 2006). This model emphasizes strategic, non-static aspects of the investment decision that are not included in the OLI Model. He argues that TWMs invest in other countries in order to gain competitive advantages through the use of *leverage*, *linkages* and with the objective of *learning*. TWMs often choose to internationalize, not only because of the assets they posses, but because of the assets they seek to gain access to and the possibilities of leveraging their assets. Furthermore, not only firm's own assets drive investments, but also the assets of firms within networks and partnerships. The LLL Model has found some empirical backing. In a literature overview, Aulakh (2007) finds broad agreement that TWMs often invest in order to obtain future advantages. Studies by Cai (1999) and Deng (2004) show that Chinese TWMs mainly internalize in countries where they have networks.

Other critics do not opt for a new model, but argue that the firm's context has to be included in the analysis, as it affects the behavior of the firm, partly through influencing the firms' advantages. Yeung (1998), Yeung and Peck (2003), and Dicken (2001, 2003) claim that the influence of the *nation state* and the home country context is of particular importance. This stands in contrast to the "borderless world" literature (see: Omahe, 1990), which claims that the geopolitics of capitalism have become irrelevant in an increasingly globalized and borderless world.

As developing and transition economies are typically characterized by active government involvement in business through ownership and regulation, TWMs may act in other interests, and behave differently than what is assumed in traditional investment theory (Peng, 2000). This has been argued to apply especially to firms based in China, where the government has gone from controlling FDI to promoting and sponsoring it (Child & Rodrigues, 2005). Most large Chinese multinational enterprises are also government-owned, where the government may influence the firms also as an owner.

The Eclectic Paradigm, which like the Uppsala Model is built on studies of manufacturing firms, has not to the same extent been criticized for poor adaptability to service or construction firms. On the contrary, it has been recommended for this purpose (Abdul Aziz, 1995). The same argument that has been made to criticize the Uppsala Model could also be made regarding the paradigm's I advantages; there may be few alternatives to internalizing for engaging in overseas activities. However, the broad nature of the framework makes it possible for it to accommodate firms from different industries, as their differences will be within the framework, in their OLI advantages. No model augmentations have been suggested.

> ...the eclectic framework provides a comprehensive and flexible method for analysing the international construction industry despite industry specific characteristics. (Seymour, 1987, p. 264)

3.4 Previous Findings in Construction Research

Previous findings on construction firm internationalization

Only one study has been identified that uses the Uppsala Model framework in analyzing internationalizing construction-related firms. This study (Coviello & Martin, 1999) examines the internationalization of four New Zeeland-owned construction consultancy firms and uses a combination of the Uppsala Model, the OLI framework and the

Network Model in the analysis. It finds that the most common first step of internationalization is a temporary foreign market presence through exporting key personnel. The second step for two of the four firms was to enter joint-venture arrangements and one of these firms pursued internationalization further along the establishment chain to open local branch offices. Internal characteristics and firm resources such as the experience of employees, rather than external stimuli, were identified as consistent factors driving their internationalization (Coviello & Martin, 1999). These findings all correspond to the predictions made by the Uppsala Model.

However, the authors also argue that the companies in the study reflect the three exceptions to the Uppsala Model (Johanson & Vahlne, 1990). The firms' market knowledge was often gained externally, consequences of commitment were small relative to available resources, and the firms could generalize similar experiences from other markets. The location choice was furthermore found to be better explained by client-followership than by increasing psychic distances (Coviello & Martin, 1999).

The OLI framework has been more frequently employed in construction investment studies. In a study drawing on sources from several countries, Enderwick (1989b) finds the most important *ownership advantage* for investing contractors to be project-coordinating skills. Other O advantages vary between different types of firms; specialized construction firms perceive technology as a major O advantage, whereas general construction companies attribute much higher importance to reputation and home government support through finance and risk assurance. Advanced countries are consequently stronger in specialized construction, whereas local companies in the host country and TWMs are the most competitive in general construction.

The role of government support as an important O advantage is also emphasized by Seymour (1987), who finds it to be the most stressed factor among interviewed firms. Firms of all nationalities included in the study had benefitted from some kind of government support, including political ties, subsidies, risk insurance, consultancy and negotiation assistance.

Conclusions differ somewhat regarding the advantage of having a home country base. Enderwick (1989b) finds it to be of negligible importance, while Ling and Kwok (2006) in a study on Singapore-owned construction firms deem it a significant advantage along with large financial reserves, as it provides a track record for the firm and is a source of relevant experience. These findings are backed by Hillebrandt, Cannon, and Lansley (1995) who show that the financial sector in UK provides an important O advantage for

British international construction firms over competitors from countries with weaker financial institutions.

Enderwick (1989b) concludes that the most important *location advantages* are market size, low risk, and a high degree of market development for specialized contractors. In a study on internationalizing British construction firms between 1990 and 1996, Crosthwaite (1998) finds that political stability and long-term market growth are the most important, and Ostler (1998) points out that governments can play an important role in the choice of investment location through bilateral agreements and foreign aid.

The most important *internalization advantages*, according to Enderwick (1989b), are the possibilities of better exploiting a large market and facing competition through a permanent market presence. Internalization furthermore provided the best opportunity of exploiting the know-how of the firm's skilled workers. Labor laws and poor labor markets in developing countries were also mentioned as significant I advantages (Enderwick, 1989b). For Singapore-owned construction firms, the major I advantages were protecting firm reputation and managing quality. Joint-venture arrangements were the preferred internalization mode in high-risk markets (Cuervo & Low, 2004).

Previous findings on internationalization of CCFs

The most comprehensive study employing the OLI framework on internationalizing CCFs (Hongbin & Low, 2005) is based on a survey of 31 large multinational CCFs. It shows main O advantages to be technical resources, firm reputation and size, international experience, home government assistance and historical relationship with developing countries, quality and management capability, and the skills of Chinese professionals. L advantages were: competitive markets, availability and cost of local workers and subcontractors; business networks, political and social stability; and tax levels, import controls, and tariffs for machinery. I advantages were: protecting the firm's technical know-how, avoiding breach of contracts, effectively exploiting and controlling resources, host government's policy requirements, closeness to clients, consolidating market position and future growth, and reducing host government interventions (Hongbin & Low, 2005).

As earlier mentioned, research has also been done on CCFs in Africa, although not grounded in either of the two theoretical frameworks. The findings in these studies can, however, be paralleled to these theoretical models, in particular to the OLI framework.

Corkin and Burke (2006) investigate the competitive *edge* of CCFs in Africa, a term close to O advantages. These are found to be: low labor costs, hands-on management style, high degree of organization, general aptitude for hard work, good quality and timely work, willingness to low profit margins, and access to cheap finance. Chen et al. (2007) and Bosten (2006) add political support and access to cheap material and equipment to the list.

Related to L advantages, studies find that CCFs are likely to enter countries endowed with natural resources and countries with a long diplomatic history with China (Chen et al., 2007) (Corkin & Burke, 2006). The reasons for internalizing construction activities in Africa, comparable to I advantages, were shortage of skilled workers in the host country, ambition of long-term commitments to the markets, and the ability to best exploit advantages linked to the Chinese staff (Corkin & Burke, 2006).

Findings that can be related to the Uppsala Model are that CCFs prefer to enter the markets after initial project contracting, by establishing representative offices or branches rather than through alliances, licensing and joint-ventures, but without having a formal strategic plan for the investment (Chen et al., 2007). Most CCFs that enter African markets have first developed and expanded on the domestic market in China (Corkin & Burke, 2006).

This literature review of previous research on internationalizing construction firms shows that the findings on CCF investments are very much in line with the research on internationalizing construction firms in general, particularly in terms of OLI advantages. The only seemingly unique aspects of CCF's OLI advantages are that price-related O advantages play a larger part for CCFs, and that competitive markets and natural resource endowments are considered to be important L advantages. The latter L advantage particularly applies to CCFs in Africa. Regarding Uppsala Model-predictions research, CCFs in Africa seem to have internationalized faster than New Zeeland-owned firms in Coviello and Martin's study, which only opened local subsidiaries after first having engaged in joint-venture arrangements (1999).

4. Background

This chapter provides a historical context to the Chinese investments in Zambia's construction industry, as well as insights into home- and host country aspects that that have influenced the nature and behavior of the CCFs. This chapter furthermore introduces important Chinese and Zambian institutions and practices.

4.1 Zambia: An Introduction

Before gaining independence in October 1964, Zambia was a British protectorate known as Northern Rhodesia. Located in central southern Africa, the country borders eight different countries: Tanzania, Malawi, Mozambique, Zimbabwe, Botswana, Namibia, Angola and the Democratic Republic of Congo. Zambia is sparsely populated with a population just under 12 million, but is inhabited by more than 70 ethnic groups (CIA, 2009). Despite a relatively high degree of political stability, Zambia remains one of the poorest countries in the world, ranking 163 out of 177 countries on UNDP's Human Development Index, and has the world's second shortest life expectancy, amounting to 41.2 years (United Nations [UN], 2008). In 2005, Zambia qualified for debt relief under the HIPC Initiative, consisting of approximately US$6 billion in debt relief (CIA, 2009).

In recent years, Zambia has experienced decent economic growth, with real GDP growing on average by 6 percent annually, 2005-2008. This can be attributed mainly to rising copper prices and foreign investments in the copper sector that have boosted Zambian copper output and exports since 2004 (CIA, 2009). In spite of recent attempts by the Zambian government to diversify the economy, copper remains unthreatened as Zambia's main earner of foreign exchange, compricing 76.9 percent of exports in 2006 (IMF, 2006).

Zambia is a member of the World Trade Organization (WTO), the Common Market for Eastern and Southern Africa Free Trade Area (COMESA), and the Southern African Development Community (SADC) Trade Protocols.

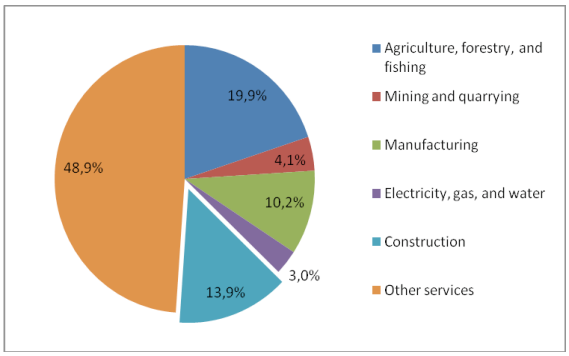

Figure 2. Origin of Zambia's GDP by sector. 2006. Source: IMF (2008)

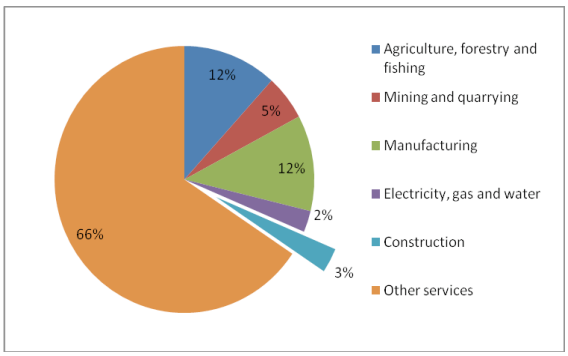

Figure 3. Amount of paid workers in Zambia by sector, 2006. Source: IMF (2008)

Figure 2 and *Figure 3* show how Zambian GDP and total paid employment was divided between sectors of the economy in 2006. As shown in *Figure 2*, the construction industry in 2006 contributed to 13.6 percent of Zambia's GDP. This is a high number, even for developing countries, where the construction industry normally contributes 3-

8 percent of GDP (Henriod et al., 1984), and marks a large increase from 2002, when the number was 6.6 percent (IMF, 2008). Between 2002 and 2006, the industry grew on average by 19 percent annually, making it the highest growth industry in the Zambian economy (IMF, 2008) (People's Daily, 2006).

Figure 3 shows that the construction sector in 2006 employed 3 percent of the country's paid workforce[2] (IMF, 2008). The group "other services" includes transport, trade, finance, and public administration, and employs the largest share of the paid Zambian workforce.

Being a landlocked developing country, a well-functioning construction sector is of particular importance for Zambia, as the country's economic activity is heavily dependent on the state of the road network and other infrastructure.

4.2 The Zambian Construction Industry since Independence

This section aims to provide a historical context of the investment destination of the CCFs. In order to understand how CCFs entered and expanded on the Zambian market, it is important to have some insights in the Zambian investment climate at the time of the CCFs' entry, in terms of e.g. clients, competition, and the political environment.

Construction in post-independence Zambia

By the end of World War II, Northern Rhodesia was one of the world's largest copper producers. On gaining independence in 1964, Zambia had the highest GDP per capita and was among the most industrialized of Africa's new nation-states (Rakner, 2003). However, like most like former colonies, Zambia's infrastructure was mainly connected to the extractive industry and lacked considerably in areas not connected to these activities.

Kenneth Kaunda's United National Independence Party (UNIP) became the first party in power Zambia and turned the country in a socialist direction. Between 1968 and 1971, major parts of the Zambian economy were nationalized. The Zambian government acquired majority shares in a number of key foreign-owned firms and control was taken over by large parastatal conglomerates (Rakner, 2003). Until the early 1990s, these parastatals were practically the only clients for construction projects in Zambia (Interviewees 12; 14; 25).

[2] The IMF employment statistics do not encompass unpaid workers and thereby exclude the great part of the Zambian population working with small-scale farming. According to CSO (2006), agriculture, forestry, and fisheries accounted for 73 percent of total (paid and non-paid) employment in Zambia the same year.

Only a handful construction firms were active in Zambia during this time. They were, with a few exceptions,[3] owned and run by British descendants[4] (Interviewees 20; 25; 39a). The Zambian construction market was furthermore heavily restricted, making it hard for new domestic and foreign companies to break into the market (Interviewee 12).

The first decade of independence, however, saw a boom in construction activity. The high copper prices and income from the parastatals, gave UNIP the economic means to pursue its plans to restructure the country. New hospitals and a university were built, secondary schools were constructed in all major towns, and the roadwork was extended (Interviewee 21a).

Following a drop in world copper prices to an all-time-low in 1974, the oil-price shock of 1979, and losses due to poor management of the parastatals, the Zambian economy took a steep turn for the worse, making the UNIP government increasingly reliant on loans (Rakner, 2003). The Zambian government remained the main client for construction projects, but as Kaunda would not adhere to the donors' liberalization reform demands, loans were handed out more restrictively and the number of construction projects diminished (Interviewee 25). Zambian government-funded construction projects in the 1980s were characterized by delayed and unpredictable payments (Interviewee 14).

The poor market conditions forced many construction companies to file for bankruptcy or leave Zambia for other markets. New foreign and domestic construction investments were hampered, not only by the market, but also by high inflation and prohibitions on importing foreign exchange. The construction firms that survived this period did so largely by diversifying their activities (Interviewees 12; 17). The poor state of the Zambian economy lasted through the 1990s, which was an equally bad, if not worse, period for Zambian construction. In 1990s, the Zambian construction industry was affected by a major change: the election of a new government.

Privatization and market reform

After 27 years of one-party rule, multiparty elections were held in 1991 and won by Frederick Chiluba's Movement for Multiparty Democracy (MMD). Chiluba, pressured by the IMF and the World Bank, quickly initiated major economic liberalization

[3] Yugoslavian-owned ZeCo (building) and Italian-owned Roads and Paving (road construction)

[4] Minestone (building), Apollo (building), Lewis Construction (building), and JJ Lowe (road construction)

reforms. The parastatals were divided and sold off to private investors in 1995, leading to mass-layoffs and skyrocketing interest rates. Parastatal construction contracts disappeared from the market and the new owners were initially hesitant to spend money new construction (Interviewee 39a). One company reported having stayed six months without any contracts in 1996 (Interviewee 14). Lewis Construction, a major actor on the Zambian construction market ever since the colonial era, left the country in 1996 (Interviewee 39a).

The reforms, however, encouraged international donors who provided increasing amounts of construction funding. Private sector spending on construction slowly began to increase. This, along with eased regulations, resulted in many new domestic construction companies opening up in the late 1990s and early 2000s. Foreign presence in the Zambian construction industry also increased, with an influx of investors from South Africa, Italy, and China (Interviewees 16; 20). This greatly increased the competition on the Zambian construction market.

Due to the increased competition, the Zambian construction industry in the early 2000s was characterized by low prices, despite a notable increase in the number of available of contracts. Chinese firms were particularly competitive and came to increasingly dominate the foreign presence as the last western investors left in the mid-2000s and the majority of South African firms allocated capacity back to the home market for the construction boom leading up to the Soccer World Cup in 2010 (Interviewee 17).

Copper price-boom

In 2004, copper prices began rising sharply and hit record levels in 2006 and 2007. This increased the Zambian government's income and, together with the HIPC Initiative debt relief, created budget space for spending on building projects and infrastructure. Adding to this, a new law was taken into effect in 2004, reserving all fuel tax incomes to finance construction and maintenance of roads (Interviewee 20). Levy Mwanawasa, who was elected Zambia's new president in 2001, increased donor goodwill through his anti-corruption efforts, and donor-funded projects as a consequence increased along with those funded by the government.

These factors contributed to a new construction boom in Zambia beginning in 2006 (Interviewee 4a), and this time the increase in available construction projects did not draw a corresponding increase in competition. As a result both bid prices and construction activity has increased, as has the timeliness of Zambian government

payments (Interviewee 4a). However, the last years' increase in bid prices can also be attributed a surge in prices of oil and building material, which have also become more volatile. Bidding low in Zambia has become more risky; sudden material price increases have in some cases forced low-bidding companies out of business (Interviewee 6b).

4.3 Construction in Zambia Today

This section provides an introduction to key elements of the current Zambian construction industry that will be referred to throughout the thesis. These key elements include the most important clients, institutions and practices in the Zambian construction industry today.

There are today three main clients in the Zambian construction market: private sector actors, international donors, and the Zambian government. International donors can be either multilateral donors such as the World Bank, or bilateral donors. Statistics on how construction projects in Zambia are divided in terms of funding have only been found regarding road construction and is illustrated by *Figure 4*. These statistics, however, do not show the private actors' share of construction funding in Zambia.

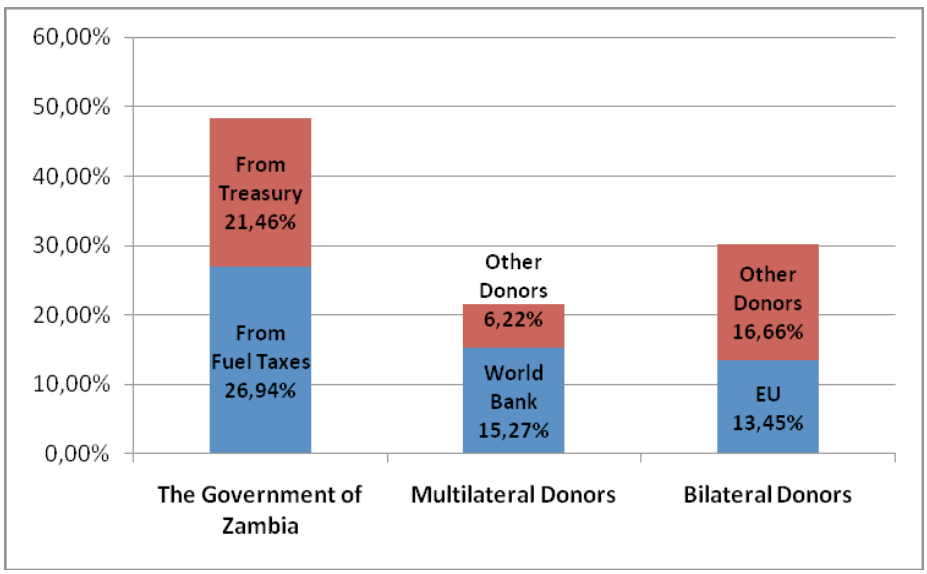

Figure 4. Road construction funding in Zambia 2006, by source in percentage of total budget. Source: RDA (2006).

Bilateral donors have traditionally awarded construction projects mainly to companies of their own nationality or region, but have increasingly opened up tenders to other, mainly local, contractors (Interviewees 21a; 22). In addition to funding specific projects, donors also support Zambian construction through general budget support, where the government itself allocates the funds through its ministries.

For government-funded projects, Zambian contractors are favored through the so called "local preference," which subtracts 7.5 percent of local companies' bid prices for comparison purposes. The contract is then awarded at the full price (Interviewee 38). Local companies are defined broadly as companies with some extent of Zambian ownership, which has the effect that many foreign-owned companies circumvent the rule by altering the *de jure* ownership structure (Kragelund, 2008).

The main clients for government-funded projects are the Ministry of Health, the Ministry of Education, and the Ministry of Works and Supply, which is responsible for the construction and maintenance for all government offices and buildings, and for formulating construction policy. The Road Development Agency (RDA) operates independently under the Ministry of Works and Supply, and the Ministry of Local Government and Housing since 2006. RDA is responsible for the care, maintenance, and construction of all public roads in Zambia.

Tendering and registration

All tenders for government-funded projects above ZMK4 billion (US$1.12 million)[5] are handled by the Zambia National Tender Board (ZNTB), which evaluates tenders and awards the contracts. Tenders below the ZMK4 billion threshold are handled by the respective ministries. ZNTB also handles tenders for projects funded by multilateral donors and some bilateral donors (Interviewee 21a).

All construction firms operating in Zambia are obliged to register with the National Council for construction (NCC), a statutory body established in 2003 to regulate and develop the Zambian construction industry. This registration is, however, mainly enforced for companies tendering through ZNTB. NCC categorizes contractors based on their field of activities, and rates them according to their technical and financial capacity. The technical capacity is determined through studying the companies' experience, quality and extent of equipment and plant, as well as the skill level of the workers. Financial capacity is determined through examination of companies' balance sheets, turnover during the past five years, and access to lines of credit from banks and lending institutions (Interviewee 37).

The grading is six-tiered and determines within which contract value limits a firm can tender. The limits range from unlimited contract value for grade 1 contractors to a

[5] In this example, the currency is converted at the mean value of 2008; in all other cases it is converted at the historic value.

maximum limit of US$125,000 for grade 6 contractors. Contractors can be upgraded and downgraded by following NCC monitoring of projects and capacity (Interviewee 37). As of June 2008, 1683 contractors were registered with NCC. 20 companies were graded 1, among which 8 were Chinese. Other top graded contractors mainly include large Zambian companies, and a few Zimbabwean and South African investors. Most of the top rated Chinese contractors were listed in several categories. The bulk of NCC registered contractors were graded 5 or 6; these are almost all Zambian owned.

Contractors may also register with the Association of Building and Civil Engineering Contractors (ABCEC), an organization that represents contractors operating in Zambia in negotiations with the Zambian government bodies and workers' unions. Foreign investors are encouraged, but not obliged, to register with the Zambia Development Agency (ZDA); a statutory organization founded to promote trade, investment, and increased effectiveness of Zambian companies. All companies resident in Zambia must register with the Patents and Company Registration Office (PACRO).

4.4 Internationalization and Development of Chinese Construction

In order to understand the nature, motives, and behavior of the Chinese construction firms that entered the Zambian market, it is important to understand the political background and the domestic industry that shaped them. Focus will be on how the Chinese government has influenced CCFs and their internationalization through reforms, institutions, and regulations.

The Chinese construction market is currently the largest in the world and has grown on average by 23.8 percent annually since 1991 (China Statistical Yearbook [CSY], 2008; Foster et al., 2008). In 2007, the Chinese construction industry was made up of 62,074 registered firms employing 31.3 million people (CSY, 2008). The Chinese construction industry of today is to a large extent a product of government policies and interventions. It has since the founding of the People's Republic of China in 1949 been subject to close government control. Initially, the Chinese government regarded the construction industry as a tool for growth. Not until 1983 was it officially recognized as a separate industry, producing financial value in itself (Chen, 1997).

The pre-reform construction sector

Until the late 1970s, all CCFs were state-owned, and the government was fully responsible for both their financing, material and equipment supply, and for allocating

construction projects to them. Staff was assigned to the companies, which were then responsible for providing for their life-long social needs. The whole construction market could in fact be viewed as a single enterprise, where the government played the triple role of employer, contractor, and engineer (Chen, 1998).

All international involvement of CCFs prior to the 1970s was politically motivated, mainly carried out as bilateral aid projects with the stated objective of "*liberation and independence of brother countries in the third world*" (Pheng & Hongbin, 2003, p. 591). Aiming to advance its international standing and counteract the international influence of the United States, China reached out to many newly independent former colonies, hoping to create allies at a time when the majority of the developed world community recognized Taiwan as the representative of the Chinese people (Pheng & Hongbin, 2003).

Between 1975 and 1978, China undertook 144 bilateral aid construction projects in 47 countries of which 29 were in Africa. Of China's bilateral aid projects during this time, more than 70 percent were construction related (Eadie & Grizzel, 1979). These projects were agreed upon by the respective governments, without the contracting companies' involvement in the decision-making (Pheng & Hongbin, 2003).

Reforms take off

After the economically devastating Cultural Revolution ended in 1976, the Chinese construction industry was in turmoil and in urgent need of restructuring. Following Chairman Mao's death the same year, Deng Xiaoping resurfaced as a political figure in China, and after two turbulent years he emerged as the country's new *de facto* leader. Being a pragmatist, he introduced the so-called "Socialism with Chinese Characteristics," which reduced the role of ideology in economic decision-making in favor of policies of proven effectiveness, and initiated market-oriented economic reforms.

As a part of these reforms, restructuring of the construction sector began, pushing at an open door policy towards overseas business and embracing free market policies. Contracts were required for large projects, competitive tendering was promoted, and in 1988 the Ministry of Construction was established and was, together with the State Planning Committee, put in charge of the construction industry (Mayo & Liu, 1995).

As competitive tendering grew more common, tender related corruption also increased, to an extent that threatened the construction industry. Competition also went quickly

from non-existent to exceptionally hard. Regulations specifying measures for more effective control of tendering practices were therefore put in place in 1992 and have since then been revised (Lam & Chen, 2004). Since 2000, tendering is required for all publicly funded construction projects. In 2006, virtually all CCFs obtained most of their contracts through competitive bidding. State-owned enterprises (SOEs), however, also obtained many contracts through relationships and government assignment (Wang, Hadavi, & Krizek, 2006).

The transformation of the SOEs has been a priority for the Chinese government. In 1992, SOEs were for the first time allowed to set their own wage structures and to retain larger portions of company profits (Cai, 1999). In 1997, the Corporatization Program was launched, aiming to transform state-owned construction companies into "modern corporate enterprises" with commercial objectives, and to replace full government ownership with shareholding (Wang et al. 2006). The State Asset Supervision and Administration Commission was set up in 2003 with the mandate of turning the country's largest SOEs into efficient and competitive global corporations (Goldstein, 2007).

Another reform of importance to the construction sector was the introduction of a new labor law in 1994, aiming to protect employees from the surging lay-offs. Contract elements such as non-compete clauses were later allowed, but rarely used by Chinese companies. Not until 2008, when the New Labor Contract Law was introduced, were employers legally allowed to restrict an employee who possesses trade secrets from competing with their firm after terminating their employment (Baker & McKenzie, 2009).

Internationalization of the construction sector

1978 the "open-door policy" was introduced with the objective of opening up the Chinese economy to the international market. After a long period of isolationist policies, this marked a major shift for the Chinese economy. However, fearing that outward FDI would not contribute to national development to the extent of domestic investment, the Chinese government only promoted outward FDI where the benefit to the domestic economy was perceived clear.

The priorities for outward FDI revolved around securing access to markets, raw materials, and foreign exchange; acquiring technology, equipment and management skills; and strengthening economic ties with neighbor countries and aid recipients. Outward construction FDI served many of these purposes and was thus promoted

(Zhan, 1995). Furthermore, outward construction investments were seen as a way to ease the competitive pressure on the domestic market and to improve international competitiveness of CCFs (Zhao & Shen, 2008). This view was later reflected in the government-promoted "two resources, two markets-approach," which encouraged Chinese firms to utilize both the domestic and the international markets to strengthen their commercial position (Corkin, 2007). In August 1979, the State Council introduced an Act allowing certain Chinese companies to invest abroad (Pheng & Hongbin, 2003).

All companies wishing to invest abroad needed an *overseas business license* issued by the Ministry of Foreign Economic Relations and Trade (MOFERT), the Chinese government's main organ for regulating and administrating foreign trade and investments. Four types of Chinese contractors were eligible for these licenses: International Economic Cooperative Corporations (IECCs), State-Owned Construction Enterprises (SOCEs), Engineering and Design Firms (EDFs), and Large manufacturers.

Initially only IECCs were given licenses to contract overseas projects. These firms were especially created to undertake contracting projects abroad, but did not have design departments and only limited human resources. They were therefore allowed to partner with EDFs and SOCEs to undertake large-scale overseas projects. Until 1999, common SOCEs were not given licenses for contracting overseas projects but worked as subcontractors to IECCs. Large manufacturers could export equipment for overseas projects (Zhao & Shen, 2008).

Until the mid-1980s, still very few contractors had invested abroad. Aiming to increase outward FDI, the Chinese government therefore tried to link FDI to aid by encouraging recipient governments to use Chinese concessional loans and aid funds to attract Chinese investment and establish joint-ventures with Chinese companies. During the 1990s, aid-related FDI projects increased, particularly in Africa (Cai, 1999). In 1994 alone, China implemented more than 350 aid projects in 77 countries (BBC, 1996).

In 1999 the Chinese government furthermore launched the famous "Going Global-Policy", which encouraged strong Chinese enterprises to increase their overseas investments. As a part of this policy, advanced SOCEs were allowed to independently apply for overseas business licenses (Zhao & Shen, 2008). Chinese outward construction investments as a consequence grew rapidly, the annual contract value increased more than tenfold from 1990 to 2005. In 2005, 90 percent of CCFs' overseas business was allocated to Asia and Africa (Zhao & Shen, 2008). China has now grown to become one of the largest actors on the international construction market. In 2007, 49 Chinese companies were listed on Engineering News Record's (ENR's) list of the

world's 225 largest international contractors, only the United States had more, with 51 listed companies.

Means of promoting CCF internationalization

The Chinese government has applied various methods to encourage and support overseas contracting. The main institutions used to facilitate outward construction investments have been MOFERT and the Ministry of Construction.

At the time of its formation, the Ministry of Construction's responsibilities for international contracting included developing the international construction market and promoting overseas project contracting (Luo & Gale, 2000). In 1998 they were extended to include organizing and coordinating international construction and labor service enterprises. The Ministry of Construction was also made responsible for managing construction related to international economic and technological cooperation and guiding enterprises to penetrate foreign markets (Luo & Gale, 2000). In 2007 the Ministry of Construction was, however, restructured into the Ministry of Housing and Urban-Rural Development, which focuses solely on domestic issues.

As the Chinese government's ambitions to increase outward investments grew, MOFERT was given more capital and a stronger mandate to facilitate FDI. The approval procedures for overseas business licenses were also simplified in a series of regulatory changes between 1985 and 1993, which increased administrative efficiency and decentralized the decision-making. Investments below US$1 million could be approved at a provincial or municipal level. Under the new rules from 2004, applications for investment licenses are accepted via the Internet and are only required for 7 investment destinations (Goldstein, 2007). In 2003 MOFERT took its current form as the Ministry of Commerce (MOFCOM).

The Chinese government has also encouraged outward FDI through other political and economic means, including directives to provincial governments and economic incentives for investing firms. Since the late 1990s, foreign affiliates have been exempt from paying earnings taxes for the first five years after their establishment. Investments in form of electronics, machines and equipment under US$1 million are exempt from paying security deposits (Zhan, 1995). In 2001, Sinosure – China's first wholly state-owned policy insurer – was formed to provide investment insurance covering economic and catastrophic risk to Chinese companies overseas (Goldstein, 2007).

The Chinese government has also assisted the internationalizing CCFs financially. In 2000, the State Council published a document requiring the Ministry of Finance and state-owned banks to adopt measures for assisting international CCFs. Accordingly, the Ministry of Finance appropriated US$30 million to the Bid Bonds and Contingencies Special Funds, which lends to CCFs at discounted interest rates (Zhao & Shen, 2008). The Chinese government has also encouraged commercial banks to provide low-interest finance to CCFs that undertake certain construction projects overseas (Zhao & Shen, 2008; Orr, 2007). A recent survey by the Chinese Ministry of Construction reported that the Chinese Export and Import Bank (Exim Bank) also provide export credits for overseas projects undertaken by CCFs (Shang, Shao & Quan, 2006).

4.5 China's Involvement in Zambia

This section provides an overview of China's economic involvement in Zambia, of which the CCF investments are an important part. China's long relationship with Zambia provided an important foundation for the CCFs' entry in Zambia, wherefore insights in this relationship can facilitate a better understanding of the studied investments.

Zambia established diplomatic relations with China only five days after gaining independence in 1964. China had been assisting Zambia's fight for independence, and Kenneth Kaunda decided to "*recognize China's population of over 400 million people against Taiwan's population of 18 million as a matter of principle*" (Burke, 2007, p. 324). Beijing developed strong political, economic, and military relations with the Zambian government which in return actively supported China's efforts to acquire a permanent seat on the UN Security Council (Burke, 2007).

China's assistance to Zambia has since then continued in the form of low-interest loans, grants and aid-funded construction projects. According to Davies et al. (2008), Zambia's debt to China stood at US$217 million in December 2006, making China the highest non-Paris Club creditor to Zambia. The grants paid out to Zambia amounted to RMB 17.1 million plus US$3.3 million, and 4,500 tons of maize in kind (Davies et al., 2008). A total of 35 large Chinese government-funded aid projects have been carried out in Zambia since diplomatic relations were established (Corkin & Burke, 2006). Among these projects, three are particularly noteworthy: the Tanzania-Zambia Railway (TAZARA), Mulungushi textile mill, and the Government complex in Lusaka. The latter will be discussed more in detail in chapter 5.

TAZARA is one of the largest foreign aid projects China has ever undertaken, financed through a US$500 million interest-free loan from the Chinese government (Corkin &

Burke, 2006). After having been denied assistance from a host of Western donors, Zambia and Tanzania turned to China for assistance in constructing the railway. After an agreement was reached in Beijing in 1967, construction began in 1970, and the project was completed in July 1976. Approximately 50,000 Chinese technicians and workers were involved, and China is still providing interest-free loans and technical assistance for the maintenance of the railway (MOFA, 2000).

The construction of Mulungushi textile mill started in 1978 and was funded by an interest-free Chinese government loan. It was opened in 1983, and reopened in 1995 after a three-year hiatus. The Qingdao Textile Corporation then acquired a 66 percent stake in the firm (People's Daily, 2003). In 2007, the factory was closed again due to large losses, stemming partly from inability to compete with cheap Chinese textile imports (McGreal, 2007).

Today, the Zambia-China relationship has come to focus more on business and trade than ideology. In 1997 Bank of China opened a Zambian office Lusaka and became the first Bank of China office in Sub-Saharan Africa. It was started with the purpose of assisting the increasing amounts of Chinese investors in Zambia (Interviewee 9). As mentioned earlier, China has become Zambia's third largest investor and is only growing in influence over the Zambian economy. *Figure 5* and *Figure 6* show the history of Chinese investment pledges registered by ZDA between 1994 and 2007, and their distribution among industries.[6]

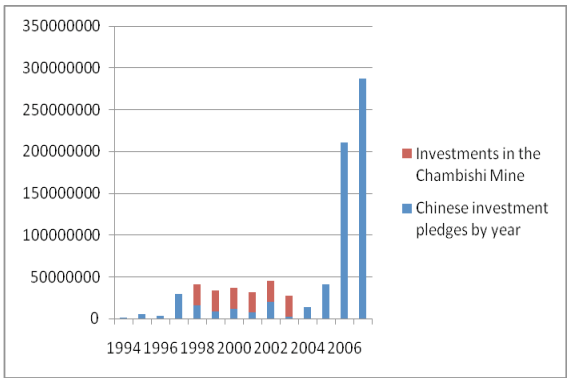

Figure 5. Registered Chinese investment pledges in Zambia, 1994-2007. Source: ZDA (2008).

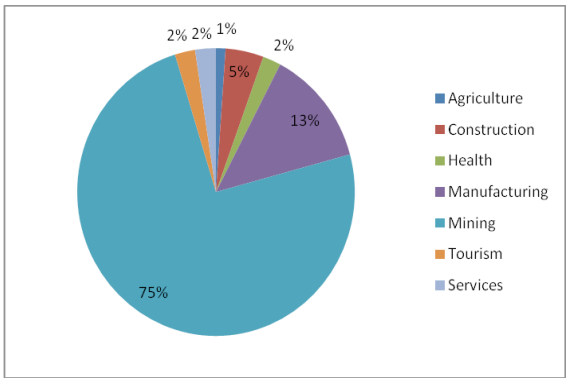

Figure 6. Registered Chinese investment pledges by sector, 2007. Source: ZDA (2008).

[6] This data should be regarded more as an indication than a detailed depiction of Chinese investments in Zambia, as not all investors register with ZDA, and not all registered pledges investments are implemented. Only slightly more than half of the identified CCFs in Zambia had registered with ZDA. The industry classifications are furthermore somewhat misleading. The vast majority of companies registered as manufacturing companies are in fact involved with mining-related activities. These cases have, where identified, been corrected, but it is likely that faults remain.

China is today the world's largest copper consumer (Zhou, 2009), and securing access to this resource has been a priority. The bulk of Chinese investments in Zambia are thus aimed at the mining industry. Apart from investments in mining and the mainly mining related manufacturing industry, the construction industry has received the largest part Chinese investments in Zambia.

The two by far largest investments registered by ZDA are a US$199 million investment by China's Nonferrous Metal Mining and Yunnan Copper Industry in 2006 in the Chambishi Copper Smelter, and a US$220 million investment in 2007 by the Jinchuan Group Mining Corporation in the Munali Nickel Project.

The largest Chinese-owned mine in Zambia is the Chambishi copper mine, which was acquired by large state-owned China Non-Ferrous Company Africa (NFC-A) in 1998, making it China's first overseas non-ferrous mine (Taylor, 2006). Investments at a total of US$150 million were made in the mine between 1998 and 2003 (Bastholm, 2007). These investments were not registered by the ZDA but are, because of their importance included in *Figures 5* and *6*; in *Figure 5* as red bars, distributed evenly over the six-year period.

Following the investment in the Chambishi copper mine, Zambian exports to China rose seventeen-fold between 2002 and 2006 (Carmody, 2009), although the mine in 2004 produced only 14 percent of the total Zambian copper output (calculated from United States Geological Survey [USGS], 2004). In 2006, China was the fourth largest importer of Zambian goods and the sixth largest exporter to Zambia (IMF, 2006).

As indicated by the close economic relationship, the political relationship between the Zambia and China has also remained strong. Seven major state visits have been made by high ranked Chinese officials to Zambia since Vice Premier Zhu Rongji's visit in 1995; most recent was President Hu Jintao's visit in February 2007 (Burke et al., 2007). During this visit, Hu promised an additional US$800 million of investments to Zambia along with more aid projects and scholarships to Zambian students (BBC, 2007). State visits have also been frequent in the opposite direction; Presidents Frederick Chiluba and Levy Mwanawasa have each made two state visits to China, and current president Rupiah Banda has stated his intent on maintaining the relationship (Burke et al., 2007; Times of Zambia, 2009).

Zambia-China relations have, however, not been friction free. Leader of the currently largest opposition party Patriotic Front, Michael Sata played much on anti-Chinese sentiment in Zambia running up to the 2006 Zambian election, threatening to throw

Chinese investors out of Zambia and to recognize Taiwan as a sovereign state. Sata long had a big lead in the polls and gained large support in urban areas. The public anti-Chinese sentiment stemmed largely from allegations of poor working conditions at Chinese firms in Zambia and hard competition from small Chinese traders at local markets. An explosion at a Chinese subsidiary to NFC-A in 2005 that caused the death of 50 Zambian workers, added to the friction. Leading up to the 2006 elections, the Chinese government went as far as claiming that China would cut diplomatic ties with Zambia if Patriotic Front won the election (AFP, 2006). Patriotic Front lost the 2006 election to MMD, but came even closer to win in 2008, where the party lost by a mere 2 percent margin. Sata's anti-Chinese rhetoric has, however, been toned down considerably since 2006 (Berger, 2008).

5. Enter the Chinese Construction Firms

This study has identified 28 CCFs that are registered in Zambia, as of July 2008 (See: Appendix 3). 16 of these firms were members of NCC. All of them entered between 1987 and 2007. At least 10 of the 28 companies are private (Corkin & Burke, 2006), and 13 were identified as state-owned. China is today the only major foreign presence in Zambian construction and, according to Burke (2007), CCFs hold a 30 percent market share in Zambia, a share that is only expanding.

Most of the CCFs that are currently large players on the Zambian construction market, including all CCFs holding a 1 rating from NCC, entered Zambia between 1987 and 2000. A total of 17 CCFs entered during this period.

This study furthermore identified a particular entry pattern for these firms. Some CCFs were found to share similar backgrounds and traits, and had entered the Zambian market during the same time period. This study groups these firms into three "waves" of investments. These three waves include the great majority of CCFs that entered Zambia between 1987 and 2000.[7] The first and the third wave were both mad up of state-owned CCFs, whereas the second wave was made up of private firms. Further common aspects of firms within the different waves will be described throughout this chapter. *Figure 7* shows the number of private and state-owed CCFs, and those of

[7] Five of the 17 CCFs that entered Zambia between 1987-2000 are not included in the waves, mainly because their ownership and background could not be determined. One of these firms is, however, a subsidiary started by a firm included in the first wave. None of these firms are, however, current major actors on the Zambian construction market.

unknown ownership, that entered Zambia each year during this time period. It also marks where the three waves start and finish.

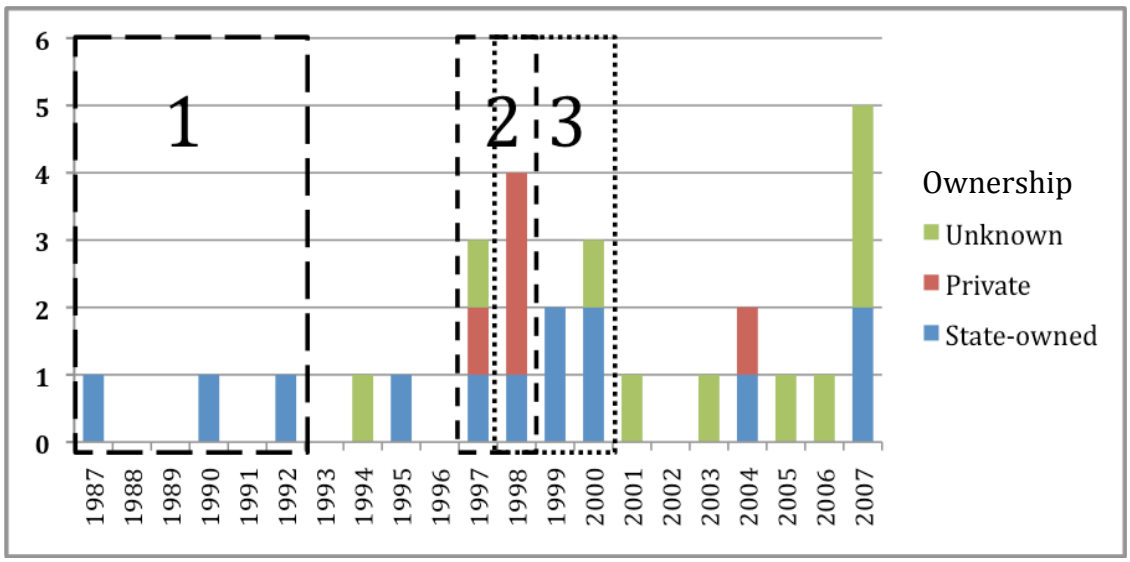

Figure 7. Number of CCFs investing in Zambia per year 1987-2007. Compiled from lists and data from ZDA, the Chinese embassy in Zambia, NCC, PACRO and CSO (2008).

This chapter describes how eight of these CCFs entered Zambia in three waves between 1987 and 2000, and how they expanded on the Zambian construction market.

5.1 The First Wave: COVEC and the Jiangxi Giants

The first wave of Chinese construction investments entered Zambia between 1987 and 1992. Zambian investment records only date back to 1993, wherefore these firms have been identified though interviews. The three CCFs that opened permanent offices in Zambia during this time are today among the largest and most well-established actors on the Zambian construction market. They have all been rated 1 by NCC, meaning that they are able to tender for any size construction project in Zambia. The study has not found indications of any other CCFs investing in Zambia during or prior to this time period.

One large construction project marks the point when CCFs became serious actors on the Zambian construction market, rather than occasional guests carrying out aid projects. This was the construction of the Government Complex on Independence Avenue in central Lusaka, initiated in 1986. This big office-building complex now houses the majority of the Zambian ministries and is one of the most recognizable buildings in inner city Lusaka. Like the TAZARA project, this project was funded mainly by Chinese government grants. Design was made by Chinese architects, and equipment and manpower was brought in from China (Corkin & Burke, 2006;

Interviewee 3b). The tender was handled by the Chinese government, which itself awarded the contracts (Interviewees 4a; 22).

The project was halted in 1991 following MMD winning the elections. The new government took the issue of the Government Complex to court with the outcome that the ownership of the project was ceded to the Zambian government, which would pay for the material, while Chinese grants would funding design and work. MMD, however, failed to raise sufficient funds to cover material expenses and applied for additional Chinese assistance. In 2002 the Chinese government approved an additional grant for the completion of the project and the construction was handed over from China National Overseas Engineering Group Corporation (COVEC) to the Shanghai Construction Company (Interviewee 10a).

COVEC

COVEC was an IECC operating directly under MOFERT. The company was founded in the 1950s with the aim of engaging in overseas contracting. Chinese government-funded aid projects and international project contracting are still among the company's core activities (COVEC, 2009). Through its close ties with MOFERT, COVEC was the first Chinese enterprise to engage in international contracting, foreign industrial investment, and overseas labor services (COVEC, 2009; Interviewee 4b).

COVEC is now, although still wholly state-owned, self-governing and run by the same principles as a private company. The company is today part of the large conglomerate China Railway Engineering Corporation. Since the mid-1990's, COVEC has been listed in ENR as one of the 225 top international contractors, and the company undertaken more than 1,000 overseas construction projects, mainly in Africa, Southeast Asia, and the South Pacific. COVEC's website lists foreign offices in 17 countries, 9 of which are in Africa (COVEC, 2009).

As COVEC lacked the capacity to carry out the Government Complex project alone, MOFERT allowed COVEC to form a construction team together with a group of mainly provincially based SOCEs (Interviewees 4b; 10b). Among them were China Jiangxi Corporation for International Economic and Technical Cooperation (CJC), Jiangxi Construction and Engineering Corporation (JCEC), Ningxia Construction group, and the construction branch of Beijing Yanshan Petrochemical Company.

In 1987, one year after the Government Complex project was initiated; COVEC opened a Zambian subsidiary in Lusaka and thereby became the first CCF to open a permanent office in Zambia (Interviewees 4b, 10a).

Having obtained some experience of the Zambian construction market through the Government Complex project, COVEC's next step in Zambia was to engage in competitive bidding. In the late 1980s the Zambian government lacked means for spending on construction and most large companies were still state-owned and forced to hold back on expenditure. The few donor-funded construction projects on the market usually restricted tendering eligibility to contractors of certain nationalities. One exception from this, however, was projects funded by the World Bank, which invited contractors of all nationalities to bid under the same conditions (Interviewee 22).

Soon after opening its office in Zambia, COVEC tendered for and won a World Bank contract to build UNDP's new office building on Alick Nkhata Road in Lusaka. The main reason COVEC won the tender was the low bid price (Interviewee 21a).[8] Some of the subcontractors from the Government Complex project followed and formed a new construction team for the UNDP office project; among them was CJC. Construction of the UNDP office was initiated in 1988 and finished two years later (Interviewee 10a).

Wah Kong

Following their involvement in the COVEC led projects, a few other companies from the construction teams also decided to open permanent Zambian offices and began bidding for contracts on their own. Jiangxi Construction and Engineering Corporation (JCEC) was the first CCF after COVEC to do so and opened a Zambian subsidiary under the name Wah Kong in 1990 (Interviewee 3b).

JCEC is an SOCE, wholly owned by the Jiangxi provincial government. The company was started in the late 1960s with the approval of the Ministry of Construction and was given the permission to engage in foreign economic and technical cooperation by MOFERT. The company is divided into 15 running units, of which the overseas engineering corporation is one. JCEC's overseas engineering corporation works mainly with labor service supply, material and equipment exports, and with establishing overseas enterprises. Today JCEC globally employs 131,860 workers (JCEC, 2009).

[8] Due to a fire in 2006 in ZNTB's archive building and a collapse of a ZNTB database server in 2008, I was not able to consult the actual tender report for exact figures.

JCEC has engaged in construction projects linked to Chinese foreign aid since 1970. Notable among these projects was the construction of TAZARA (Interviewees 2; 3b). According to Wah Kong's current Managing Director, Wah Kong today has permanent African offices in South Africa, Ethiopia and Malawi (Interviewee 3a). Of the 16 major overseas projects mentioned on JCEC's website, seven were carried out in Zambia (JCEC, 2009).

JCEC was only active in the initial stages in the construction of the Government Complex and had not won any contracts in Zambia by the time Wah Kong was started. Instead, Wah Kong was started on the directive from the Jiangxi provincial government with the aim of penetrating the Zambian construction market and to start competing for regular Zambian construction contracts (Interviewees 3b; 9).

As a part of China's efforts to encourage outward FDI, the central Chinese government had specifically encouraged the Jiangxi province to internationalize its construction sector, which was perceived to be relatively well-developed and competitive (Interviewee 9). According to Wah Kong's current Managing Director, the Jiangxi province had furthermore been encouraged to invest in Zambia specifically due to its links with the country dating back to the TAZARA project (Interviewee 3b). Wah Kong was one of the first foreign direct investments made by the Jiangxi provincial government, which provided the company with some startup capital (Interviewees 3b; 9). According to a previous manager at Wah Kong, the startup capital amounted to roughly US$20,000 (Interviewee 4b). The task of establishing a branch office in Zambia was assigned to one of JCEC's managers, who in this thesis will be referred to as "Mr. Wang."

Wang had first come to Zambia for the Government Complex project as one of JCEC's project managers. His work effort was appreciated and he quickly rose through the ranks in the company. When the Wah Kong investment had been decided upon, Wang was the obvious choice for the task (Interviewee 9).

When asked about the decision to invest in Zambia, Wang emphasized how the history of cooperation between China and Zambia and the good relationship between the countries provided an important foundation for the investment. According to Wang, Chinese investments outside the construction sector also helped build this foundation (Interviewee 2).

Regarding the timing of the entry, Wah Kong's current Managing Director remarked that although this was a bad time for the Zambian construction market, it still offered

better opportunities than the market in China (Interviewee 3b). Several informants pointed out that the dire conditions of the Zambian construction market in the early 1990s in fact facilitated the Chinese market entry (Interviewees 21a; 22; 25). Clients were very price-sensitive and this benefitted the CCFs, for which low prices was the main means to compete against Western and Zambian firms with long track records in Zambia (Interviewees 21a; 22; 25). Furthermore, the competitive situation favored the CCFs; a large share of the competition had either left Zambia or been forced out of business. Many private sector clients approached Wah Kong directly with requests (Interviewee 4b).

Wah Kong first engaged in small private sector projects, but after some time began tendering for projects funded by multilateral donors, which became more common after Chiluba's economic reforms. Wah Kong's first World Bank-funded project was a school construction project. Despite untimely payments, Wah Kong also began tendering for Zambian government-funded projects (Interviewee 4b).

Except contracts for donor-funded projects, most tenders in Zambia did not require bonds until the early 2000s, so Wah Kong avoided external lending and borrowed at favorable rates from the JCEC head office (Interviewee 3a). Other than the startup capital provided by the government, funding and equipment was supplied by the JCEC head office. According to Wah Kong's Managing Director, Wah Kong today wins all their contracts through competitive tendering with no other help from China than what the head office provides (Interviewee 3a).

As Wang had trouble finding skilled Zambian workers, most of Wah Kong's workers were first brought in from China (Interviewee 4b). Wah Kong today employs roughly 330 workers of which 26 are Chinese (Interviewee 3a).

China Jiangxi Corporation

The third CCF to start a subsidiary in Zambia was China Jiangxi Corporation for International Economic and Technical Cooperation (CJC). China Jiangxi Corporation Zambia (CJCZ) was started in 1992, two years after the company's work on the UNDP office was completed (Interviewee 1).

CJC was established in 1983 by the Jiangxi provincial government to undertake international contracting. The Government Complex project was one of the company's first overseas ventures (CJC, 2009). Today CJC is found on ENR's list of the world's 225 largest international construction companies and has registered 14 overseas

companies in 13 countries of which 8 are in Africa. Zambia is the only country where CJC has registered more than one company. The Zambian subsidiaries are, other than CJCZ, the Chinese Center for Promotion of Investment Development and Trade (CCPIDT), Three C Zambia, and JX International Engineering Zambia (Interviewee 1).

CCPIDT was opened on December 1, 2004 upon the request of MOFCOM and functions similarly to a trade council, with the main task of providing practical support and assistance to Chinese investors aiming to start up a business in Zambia. This support consists of accommodation, transport, introductory information on business in Zambia, as well as assistance in dealing with Zambian authorities. According to the Managing Director of CJCZ, who is also the Director for CCPIDT, almost all Chinese investors that have opened businesses in Zambia after 2004 have gone through CCPIDT, unless they have friends or relatives in Zambia to assist them (Interviewee 27). Although opened on the Chinese government's initiative, CCPIDT is effectively run by CJCZ (CJC, 2009).

Initially CJCZ mainly undertook Chinese government-funded construction projects in Zambia, but the company successively moved to bid for projects funded by the Zambian government (Interviewee 1). According to the Manager for CJCZ's buildings department, CJCZ now considers the Zambian Government as its main client. Other important clients are the large multilateral donors (Interviewee 1). He also claimed that the Zambian construction market has been much more profitable than the Chinese, where competition is harder and contracting conditions are worse (Interviewee 1).

CJCZ is today one of the largest and most established foreign contractors in Zambia, employing around 700 workers, of which roughly 100 are Chinese (Interviewee 1). CJCZ has a buildings department, a road construction department, and a civil works and engineering department. According to Bastholm (2007), CJCZ has since 1995 invested US$6 million in the Zambian construction sector.

5.2 The Second Wave: The Employee Startups

"*We're all ex colleagues*." (Interviewee 3b)

Around half of the CCFs operating in Zambia today are privately owned (Corkin & Burke, 2006). The majority of these companies have one thing in common: they have all sprung from the first-wave firms.[9] These companies were started between 1996 and

[9] During the fieldwork in Zambia, I came in contact with five privately owned CCFs. The founders of these companies all had a background as managers for either CJCZ or Wah Kong, or both. These companies are Yangts Jiang, Hua Jiang Investments, ZamChin Construction, Cheerio Construction, and African Brothers. Yangts Jiang was founded by above-mentioned Mr. Wang, the founder of Wah Kong. The founders of Cheerio Construction and African Brothers had both worked as managers for CJCZ, ZamChin Construction's founder had a background at Wah Kong, and the

1998 and make up the second wave of Chinese investments in Zambia's construction industry. This section will introduce the three largest of the privately owned CCFs in Zambia: Yangts Jiang, Hua Jiang Investments, and ZamChin Construction.[10]

Yangts Jiang

After working for six years as the general manager of Wah Kong, Wang decided to start up a business of his own. Having obtained knowledge of the Zambian market and a vast network within the Zambian construction industry, he realized that he could more profitably work for himself (Interviewee 2). In 1996 he therefore started a side business from Wah Kong, taking on some smaller projects outside of Wah Kong's activities (Interviewee 4b). This business was started under the name Yangts Jiang.

According to Yangts Jiang's Assisting Managing Director, Wang's decision to leave Wah Kong and start up a competing business did not come without objection. JCEC's head office and the Jiangxi provincial government both tried to stop him from leaving the company. There were, however, no major legal obstructions to hinder him. Wang was offered better working conditions, a higher salary, and a more influential position in the company, but he would not be persuaded (Interviewee 9). In 1998 he left Wah Kong to dedicate his time fully to Yangts Jiang (Interviewee 3).

The relationship between Wah Kong and Yangts Jiang was tense at first but has improved. This also applies to the relationship between Wah Kong and Hua Jiang, another company that sprung from Wah Kong. According to informants at both Yangts Jiang and Wah Kong, these three companies today cooperate and do not compete for contracts. This cooperation is however not extended to other CCFs, which Yangts Jiang considers to be its main competitors (Interviewees 3b; 9).

Yangts Jiang's main client today is the Zambian government. In 2007 Yangts Jiang was awarded a large Zambian government contract to build border infrastructure at the Katima Mulilo border to Namibia, valued to ZMK15.9 billion (US$4 million). This project has drawn much attention and was used as an example of Yangts Jiang's high

founder of Hua Jiang Investments had been working for both of these firms. Cheerio Construction was not opened until 2004, and is thus not strictly a part of the second wave of investments, but it helps illustrate the common nature of this phenomenon among private CCFs in Zambia.

[10] These firms are largest in terms of turnover 2006 and 2007 (CSO, 2008).

quality work.[11] Yangts Jiang also contracts for the private sector and international donors (Interviewee 2).

All informants at Yangts Jiang claimed that the firm has not received any type of financial Chinese government assistance. Nor has Yangts Jiang carried out any Chinese government-funded projects. According to Wang, the reason for this is that Yangts Jiang has not been in need of any assistance (Interviewee 2). According to the Assisting Managing Director, the reason is instead that these loans and projects are usually reserved for state-owned CCFs. However, he also pointed out that Chinese government assistance is indirectly the reason why Yangts Jiang exists today (Interviewee 9).

Today Yangts Jiang has a strong standing on the Zambian construction market and has been given a 1 rating by NCC. Yangts Jiang has even outgrown Wah Kong, which is today somewhat smaller than when Wang left the company in 1998 (CSO, 2008; Interviewee 4b). Yangts Jiang today employs around 300 workers, among which between 40 and 60 are Chinese citizens (Interviewees 2;9).

Hua Jiang Investments

"Mr. Li" came to Zambia in 1991 as a project manager for CJCZ. He made a successful career in the company and was given increasingly big responsibilities; in 1996 he was managing one of CJCZ's biggest road construction projects. Later the same year, Li was offered a managing position at Wah Kong, which he accepted (Interviewee 4a). When Mr. Wang left Wah Kong, Li replaced him as the firm's Managing Director. However, after two years he followed the same road as Wang and left Wah Kong in 1998 to start up a private company: Hua Jiang Investments (Interviewee 9).

After eight years of managing construction projects in Zambia, Li had, like Wang, built up a large network in the Zambian construction industry. He had acquired a good reputation through the many projects he had led, and he knew the market well. The possibility of starting a company his own seemed both feasible and attractive (Interviewee 4b).

"When you know the market, it's very easy to make money here." (Interviewee 4b)

[11] The "Katima Mulilo project" was awarded Yangts Jiang after a Zambian company failed to finish the project within the specified budget and time. In a report by the Zambian Public Accounts Committee (Parliament of Zambia, 2006), Yangts Jiang had been recommended by the Ministerial Tender Committee as the contractor for the project. ZNTB, however, did not follow these recommendations, but awarded the contract to the lowest bidder. After the contract period ended, a site inspection found that only earth works had been done; construction had not been initiated. In addition to the slow progress, it was noted that, despite a total payment of ZMK3.055 billion, the value of the works only amounted to ZMK0.951 billion. The contract with the Zambian contractor was terminated and the contract was instead awarded Yangts Jiang, which finished the project within the specified time frame.

According to Li, starting up a construction company of his own in China would have been hard, due to the fierce competition and the dominance of state-owned firms. Although he considered the Zambian standard of living lower than the Chinese, the business opportunities made Zambia the more attractive alternative (Interviewee 4b).

Li raised funds through contacts with a Chinese privately owned construction company based in Jiangxi. This company was sometimes in interviews referred to as the "head office," although Li today owns a majority share of Hua Jiang Investments and runs the company independently. This "head office" assists Hua Jiang with low-interest loans and workforce. Hua Jiang has been self-reliant when it comes to equity, and built it up successively (Interviewee 4b).

Hua Jiang uses the Zambian branch of Bank of China, which requires large collateral in order to issue bid bonds and insure the company (Interviewee 4a). As a result, Hua Jiang could initially only bid for contracts without bond requirements, which ruled out most donor-funded projects and large projects for the private sector. As Hua Jiang grew and accumulated sufficient capital to obtain bonds, the firm could bid for larger, and donor-funded projects (Interviewee 4b).

The Zambian government is today Hua Jiang's main client (Interviewee 4a). Hua Jiang is currently building the new governmental Central Statistical Office, described by Li as the largest buildings project in Zambia since the Government Complex project. Hua Jiang today employs more than 600 workers of which 25 are Chinese (Interviewee 4a), and is rated 2 by NCC.

ZamChin Construction

ZamChin Construction was started in 1998 by "Mr. Ming" who came to Zambia in the early 1990s as a manager for Wah Kong (Interviewee 3b). Ming left Wah Kong in the end of 1996 to start up ZamChin Investments, a business comprising a poultry farm and a wheat plantation. At the time, the Zambian government promoted FDI in the agriculture sector, and the investment conditions were favorable. Ming raised funds for the investment through friends and family in China. A year later, he branched out to construction, Ming's actual professional field, and started a contracting business: ZamChin Construction (Interviewee 6a).

The current Managing Director of ZamChin Construction came to Zambia in 1990 as a volunteer for Chinese government-funded construction project (Interviewee 6a). Having studied engineering together with Ming in China, he joined ZamChin

Construction as a manager and when Ming passed away in 2003, he took over the company (Interviewee 9).

ZamChin's current Managing Director gave three main reasons why Zambia provided a good investment location for a construction company. First, Zambia, being in the early stages of economic development, had a high demand for new buildings and infrastructure. The construction work demanded was furthermore on an technological level appropriate for CCFs, which often lacked the advanced technology necessary to compete in developed countries. Second, competition on the Zambian construction market was low at the time of the investment; and third, the warm Zambian climate appealed to Chinese businessmen as it made moving to or staying in Zambia a tolerable alternative despite the otherwise low standard of living (Interviewee 6b). It seems, however, that the first two reasons were or greater importance for the investments than the Zambian climate, which is shared by most neighboring countries.

The hardest competition during the first years was provided by other CCFs, and ZamChin Construction also kept low bid prices. ZamChin Construction mainly tenders for government-funded projects, as they are generally larger than private sector projects. The Zambian Ministry of Education is the biggest client. ZamChin has not taken on any projects funded by the Chinese government, as these projects, according to ZamChin's Managing Director are usually given to Chinese SOCEs, IECCs, and large private multinationals based in China (Interviewee 6b).

ZamChin currently s has three registered companies: ZamChin Investments; ZamChin Steel and Foundry, registered in 2000; and ZamChin Construction. ZamChin Construction employs around 300 workers among which 30 are Chinese. The company has been given a 3 rating from NCC.

5.3 The Third Wave: State-owned Latecomers

The third wave of Chinese investments in the Zambian construction industry is composed of state-owned CCFs (SOCEs and IECCs) that entered Zambia between 1998 and 2000. They were, like JCEC and CJC, mainly large provincially based corporations and entered both the buildings sector and the road construction sector. Compared to the first-wave firms, however, these firms entered Zambia at later stage in the Chinese SOE restructuring-process, and had thus reached a higher level of corporate autonomy at the time of their entry into Zambia. They had also invested in other African countries prior to expanding their business to Zambia, investments mostly linked to Chinese aid projects.

This study has identified five state-owned CCFs that constitute this category,[12] and this section will focus on two of these companies: China Henan International Cooperation Group Corporation (CHICO), and China Gansu Engineering Corporation (henceforth referred to as China Gansu).

CHICO

CHICO is an IECC, established upon the approval of the Chinese State Council to engage in economic and technical cooperation. The company is owned by the Henan provincial government and its main activities include international contracting, Chinese aid projects, trade, mining, and labor services (CHICO, 2009). In Zambia, CHICO is mainly involved in road construction. CHICO has conducted more than 200 international contracting projects in around 60 countries and regions, and has permanent offices in more than 20 countries (CHICO, 2009). According to the Deputy Managing Director of CHICO Zambia, the majority of CHICO's foreign subsidiaries are situated in Africa (Interviewee 8), which on the company's website is described as CHICO's "main battle field" (CHICO, 2009). CHICO has been on ENR's list of the world's 225 largest international contractors since 2003 (CHICO, 2009).

CHICO first came to Africa in 1983 for the construction of a sports stadium in Senegal, a project funded by a Chinese government grant (Interviewee 8). Three years later, in 1986, CHICO received a MOFERT permit to open up a Senegalese subsidiary (Yong, 2006). According to Henan Daily (2007), CHICO thereby became the first CCF to open up a subsidiary in Africa. The first years of operating in Africa, CHICO was mainly involved in Chinese foreign aid projects, but successively engaged in competitive bidding abroad (Interviewee 8).

"*We [CHICO] later developed into other fields. We cannot survive only on grants.*" (Interviewee 8)

According to CHICO Zambia's Deputy Managing Director, the company has not been involved in any Chinese government-funded project in Zambia (Interviewee 8).[13] CHICO entered Zambia in 1999 instead to directly start tendering for regular construction projects, and became the first CCF to enter the Zambian road construction market (Interviewee 8).

[12] These firms are China Hainan Corporation (entered Zambia in 1998), China Jiangsu (1999), CHICO (1999), China Gansu (2000), and China Geo-Engineering Corporation (2000).

[13] The Chinese Exim Bank supplied a loan for road construction in Zambia in 2007, but it is unclear which contractor carried out the project (Centre for Chinese Studies [CCS], 2007)

At the time of CHICO's entry, two Scandinavian companies[14] dominated the Zambian road construction market together with a handful Zambian firms, and the scarcity of construction contracts made it hard for CHICO to penetrate the market (Interviewees 8; 21a). CHICO did not win any major contracts until 2004, but then their market entry was big. In 2004 and 2005, CHICO Zambia won all three of the large road construction contracts awarded by the RDA during those years. They were the biggest road construction contracts in Zambia since the 1990s, the total contract sum amounting to roughly ZMK200 billion (US$44 million).

The projects were funded by the World Bank, which had advised ZNTB to open the tenders to CCFs (Interviewee 22). Five Zambian and four foreign contractors, including China Geo-Engineering Corporation (China Geo), participated in the tender. CHICO made the lowest bids for all three contracts, on average 40 percent lower than the mean bid price and 22 percent lower than the second lowest bidder (See: Appendix 4).

In 2006, CHICO won yet a major contract to construct Zambia's largest Power Plant, The Lumwana station. The successful contract bidding in Zambia resulted in CHICO winning MOFCOM's "2006 Rising star Enterprise Award" (Yong, 2006).

However, CHICO winning all three road projects at once met worried reactions at RDA.

> "*We were worried that they [CHICO] took on too much work, more than they could handle (…) [and] that the personnel and the finance would not be enough.*" (Interviewee 22)

CHICO's Zambian subsidiary was still small, so the company used the name and resources of the mother company in the tendering documents. Bank of China granted guarantees and bonds (Interviewee 3b). After winning the contracts, CHICO brought in equipment and manpower from China (Interviewee 22).

Two out of the three road projects were finished on time; one was delayed due to late payments (Interviewee 22). According to two of the interviewed consultants, the quality and speed of CHICO's Zambia's work was initially somewhat sub-standard, but has since then improved considerably (Interviewees 21a; 22). According to CHICO Zambia's Deputy Managing Director, low prices have been the most important factor for winning contracts in Zambia. Today, however, CHICO Zambia relies more on its reputation (Interviewee 8).

[14] Danish Phønix Construction and Norwegian Noremco. Their operations in Zambia were closely linked to Scandinavian aid; they mainly undertook projects funded by Scandinavian donor countries.

Winning all major road construction tenders in 2004 and 2005, gave CHICO a dominating position on the Zambian road construction market (Interviewee 21a), which it came to share with China Geo. Competing companies claimed that up to eight years after the CCFs entered the Zambian construction market, it was practically impossible to win any major road construction contracts (Interviewees 18; 20).

CHICO Zambia and China Geo have maintained their position as major actors on the Zambian road construction market. In 2007, CHICO's and China Geo's combined turnover reached ZMK103.45 billion, compared to their three main competitors' total of ZMK85.47 billion (CSO, 2008). CHICO today employs around 2500 Zambian general workers and 90 Chinese managers and engineers (Interviewee 8).

China Gansu

Gansu Geological Engineering Company (China Gansu) was founded in 1986 as a construction and mineral exploration company under the Gansu provincial government. The company specializes in civil engineering projects and foreign contracting within the buildings sector (China Gansu, 2009).

China Gansu has four branches in China and the overseas activities are concentrated to Africa with subsidiaries in five African countries (China Gansu, 2009). China Gansu's first foreign office was opened in Zimbabwe in 1993 (Interviewee 7), following the Chinese government-funded construction of a sports stadium in Harare, for which a sister Gansu based SOCE was the main contractor (MOFCOM, 2009). China Gansu has undertaken Chinese aid projects in each of the African countries where they are now active, with one possible exception.[15] It is unclear, however, whether these projects were undertaken before or after China Gansu opened permanent offices in the countries (China Gansu, 2009).

China Gansu opened its office in Lusaka in 1998. In Zambia, China Gansu has been engaged in several water supply projects co-funded by the Chinese government. According to China Gansu Zambia's Deputy Managing Director, the Chinese government usually awards these contracts to large private or state owned CCFs. Chinese aid projects are today, however, a small part of China Gansu's activities; China Gansu wins the bulk its projects through competitive tendering (Interviewee 7). In the early 2000s, competition was fierce on the Zambian construction market and China

[15] No information on Chinese government-funded projects Carried out by China Gansu's branch in the Central African Republic was found on the company's website.

Gansu bid low in tenders. However, the Zambian construction market was still more profitable than the Chinese. Although projects are larger in China, profit margins are generally much lower (Interviewee 7).

Although still state-owned, China Gansu today operates autonomously, without any government assistance. According to China Gansu Zambia's Deputy Managing Director, state-owned CCFs can today only access low-interest rate loans internally from their head offices, just as most larger private companies. China Gansu's head office also supplies equipment and manpower (Interviewee 7).

As for most other CCFs in Zambia, China Gansu's main client is the Zambian government. China Gansu is growing and has lately begun branching out to small-scale road construction. Today China Gansu employs around 200 workers, 20 of which are Chinese (Interviewee 7).

5.4 Summary

This chapter has described how the first, and largest CCFs in Zambia, entered the country between 1987 and 2000 in three *waves* of investments. Each of these waves was composed of a group of CCFs that entered Zambia during the same time period, sharing similar backgrounds and traits. For each of the three waves, Chinese government-funded aid projects have played a central role for their overseas investments. The chapter also described how multilateral donors and the Zambian government have become the CCFs' main clients in Zambia.

The first wave consisted of large state-owned CCFs that came to Zambia in 1986 for the construction of the Government Complex in Lusaka. Between 1987 and 1992, three companies: COVEC, CJC, and JCEC, opened Zambian subsidiaries in order to bid for contracts. The firms initially won contracts to undertake smaller private-sector projects and projects funded by multilateral donors, which allowed them to enter the Zambian construction market. Later, as the availability of Zambian government-funded projects increased, the Zambian government became an important client. These companies have since their entry grown and are now among the most well-established companies on the Zambian construction market. The largest among them today is CJCZ, which also runs CCPIDT, an institution started on MOFCOM's request to assist new Chinese investors in Zambia.

The second-wave firms were started between 1997 and 1998 by managers previously employed by Wah Kong and CJC. After having worked at these companies for six to eight years, they left to start up private businesses. No Chinese contract laws or non-

compete clauses had yet been introduced that prevented this. Funding was raised through family and business networks in China, and Chinese engineers and managers were brought in. Keeping low prices, they initially won smaller private sector- and Zambian government contracts that did not require bid bonds. As they accumulated capital they could expand and bid for larger contracts. Today they are large and well-established firms in Zambia, and have in some cases outgrown the first-wave firms. None of the second-wave firms had themselves undertaken Chinese government-funded projects, but they all had a background in the Government Complex project.

The third wave included large state-owned CCFs that had previously invested in other African countries. As with the first-wave firms' Zambian investments, these investments were in generally linked to Chinese government-funded construction projects. In Zambia, however, these firms opened offices mainly to engage in competitive tendering. When they entered, between 1998 and 2000, they had developed into relatively autonomous and market-oriented firms. Notable among these firms is the road construction firm CHICO that, after entering Zambia, gained a dominant role on the road construction market by winning all major road construction contracts between 2004 and 2005. These contracts were won through low bid prices.

6. Competitive Advantages of CCFs in Zambia

The previous chapter told the story of how a large group of CCFs entered Zambia, won their first contracts, and expanded their business activities on the Zambian market. This chapter will discuss which competitive advantages of CCFs in Zambia made it possible for them to win contracts and expand in Zambia.

Although many of the CCFs in Zambia have somewhat different traits and backgrounds, and work within different fields of construction, the study found that they have very similar competitive advantages compared to Zambian and other foreign firms. The competitive advantages will therefore be addressed regarding CCFs in general, although it will be pointed out when notable differences were found. This chapter will also, drawing on interviews with representatives for CCFs, competing firms, and external consultants, account for different perspectives on what these advantages are. It does not, however, attempt to test or prove different perceived CCF advantages, for that purpose the data are too limited. Instead it aims to provide possible explanations and point to which advantages seem more important and likely than others.

6.1 Low Prices

The previous section described how CCFs over the first years after their market entry, won contracts by bidding much lower than their competitors. Their lack of both advanced technology and a track record in the country made low prices their main means of competing. The price-sensitive climate in Zambia also made low-bidding contractors very attractive.

There was a unanimous understanding among CCF competitors, consultants, as well as others with insights and experience of construction in Zambia, that the entry of the CCFs provided a *game-changer* for the Zambian construction industry. The low prices set by the CCFs could not be matched by the competitors, which in some cases even stopped tendering for projects where CCFs were involved (Interviewee 11). Only recently have they been able to compete against the CCFs.

> *"In 2007 was the first time we won a tender where the Chinese were bidding."* (Interviewee 13)

The implementation of NCC and the rating system that rates firms according to technical and financial capacity has, together with increased funding for construction, contributed to shifted priorities in tender evaluations from low prices to firm reputation, and technical and financial capacity, at least for contracts administered by ZNTB. Bid prices have risen and, what is worth noting, CCFs are no longer always the lowest bidders (See: Appendix 5 for examples).

Profit margins

Despite recent developments, it is clear that low bid prices were crucial for the CCFs' successful market entry. Their price-advantage can to some extent be explained by low profit margins. The difference between CCFs' and their competitors' stated profit margins was significant. Where the CCFs' margins were stated to have been as low as 5 and 7 percent (Interviewees 6b; 8), the lowest margin reported by a competitor was 12 percent (Interviewee 17). For Zambian firms, margins over 20 percent were more common, and the prevalence of risk was one of the main reasons mentioned.

> For the Chinese parastatals, even 10 percent was a good profit. We, on the other hand, have to build up capacity and can't afford margins that low. If we would put a 10 percent margin, we could easily slide into negative profits. (Interviewee 14)

It is important, however, to see these profit margins in relation to those on the CCFs' home market. The Chinese construction market reforms in the early 1980s, making competitive tendering mandatory, led to fierce competition on the Chinese construction market. CCFs had to fight for their survival and profit margins rarely exceeded 7 percent (Interviewee 7). The strong competitive pressure on the Chinese construction market was one of the reasons why the Chinese government encouraged CCFs to expand abroad (Zhao & Shen, 2008), and it may have made the CCFs in Zambia willing to endure low profits abroad in order to penetrate the market. The Economic Councilor of the Chinese Embassy in Zambia explained this as a common attitude among Chinese businessmen:

> As long as a construction project yields a little money, it's good. Instead of aiming for high profits, they try to take on many projects. (Interviewee 29)

The fact that state-owned firms generally have softer budget constraints can also be part of the explanation for state-owned CCFs. There was however a unanimous understanding among CCFs, competitors, and consultants that profit margins cannot fully explain the price difference.

Material and equipment imports

Several CCFs and competing firms mentioned imported material and equipment from China as another explanation for the low prices. A majority of CCFs also claimed to have imported most of their equipment from China, often through their head offices. The imported equipment was perceived as both cheaper and of higher quality than what was available in Zambia. As described in chapter 4.4, these imports were furthermore exempt from Chinese security deposit payments. Regarding material, however, some CCFs found buying from Zambia and the SADEC region to be cheaper than importing from China. This was attributed to an appreciating Chinese currency and rising fuel prices (Interviewees 6b; 7). One Zambian building material supplier also claimed that many of their customers were CCFs (Interviewee 12).

The advantage of imported Chinese building material was also downplayed by consultants with experience in evaluating projects and tender documents. In their experience there were no major differences in budgeted material costs between the CCFs' tender documents and those of other companies. The difference was instead found mainly in the preliminary and general items (Interviewees 21b; 22; 23; 24; 25).

These cost items includes costs related to the organization of construction sites.[16] Most tender documents, however, lacked considerably in detail; costs were often given in lump sums for the entire projects, and it is uncertain how rigorously the specified costs are actually evaluated. Cheap Chinese material imports may, however, have been a bigger and more common advantage in the early 1990s, when a trade embargo prohibited imports from then apartheid South Africa (Interviewee 24).

6.2 Efficiency and Management Style

As mentioned earlier, the quality and work pace of CCFs in Zambia has improved over the years. This was pointed out by many consultants. "*It used to be that they wanted to get something done; now they want to get something good done*." (Interviewee 25) Many external informants also claimed that the CCFs provided higher quality works than most local competitors, often referring to the above-mentioned Yangts Jiang-Katima Mulilo project case as an example (See: Footnote 11).

> There is no denying, they [the CCFs] are here to stay. And right now they are the best answer we have for getting the jobs done. (Interviewee 39a)

Most CCFs perceived this as their currently biggest competitive advantage, and as noted above, this advantage was also stressed by external informants. The high quality was usually addressed to the workmanship and management style of the CCFs.

The CCFs employ an effective management style that lowers their management overhead costs and increases efficiency. The firms use small management teams that work closely with the projects. Each person in the team has several responsibilities and positions; even Managing Directors engage in anything from engineering to purchasing material. The administrative staff is sharply reduced if not altogether eliminated. This makes the decision-making quicker and the work process more efficient (Interviewees 2; 3a; 6b). Decision-making efficiency was particularly emphasized by managers at private CCF who claimed that this was a competitive advantage they had over other state-owned CCFs (Interviewees 4a; 6b).

The Chinese managers' and employees' way of living has also brought down costs. These are costs that would be included in preliminary and general items. CCF employees generally live together in dormitories, eat all meals together, and sleep on the site for projects outside of Lusaka (Interviewee 4a). This furthermore gives CCFs a

[16] The preliminary and general items include, but are not limited to costs for transport, power, offices, site organization and supervision, offices, storerooms, water, temporary power, fences, program for works, safety, communications, and clerk of works.

cost-advantage when bringing in expatriate workers. Expatriates from other countries usually bring their families with them and expect to be provided with a car and private living facilities (Interviewees 2; 4a; 28).

6.3 Chinese Workers

Efficiency was also attributed to the Chinese workers employed by CCFs. As touched upon in the previous chapter, roughly 10 percent of the CCFs' workforce were Chinese. These workers are mainly skilled labor, employed as engineers, managers, and quantity surveyors. Zambians were mainly employed as general workers by CCFs, and were a minority within these job descriptions. The skilled Chinese labor was by several competitors and consultants considered to be the CCFs' major competitive advantage. The severe shortage of skilled Zambian workers made skilled expatriates particularly valuable and the Chinese workers were furthermore considered to be particularly efficient, and to work during weekends and during public holidays, something that Zambian workers generally refused (Interviewees 12; 20). Their one disadvantage was their often poor English skills (Interviewee 1).

Notable regarding the Chinese workers are also the low wages. The salaries of Chinese workers were often half of what would have been paid to a Zambian with the same work description, but still higher than in China (Interviewees 2; 7). According to the Secretary of ABCEC, one Zambian company had tried to hire Chinese engineers, but failed in the wage negotiations (Interviewee 39a).

According to ABCECs secretary, CCFs', in addition to having unique access to cheap skilled labor, can quickly bring in skilled workers for shorter periods (Interviewee 39b). This makes them more flexible and allows them to tender for large projects without having to keep large volumes of skilled workers on the payroll during times of little construction activity. As accounted for in the previous chapter, most CCFs have head offices or recruitment bases in form of business networks that can supply them with skilled labor when needed. The Zambian workforce can also be adjusted through hiring casual workers on a project basis, a method also commonly practiced by CCF competitors.

Other than the low costs of hiring Chinese expatriates compared to Western or African expatriates, and the CCFs' unique access to Chinese labor supply networks, one additional explanation for the CCFs advantage of skilled workforce-flexibility prevailed among competitors and other external informants. This explanation related to the CCFs' ability to receive employment permits.

Employment permits to foreigners are administered by the National Employment Permit Committee of the Ministry of Home Affairs (NEPC), and are not given for jobs that could be undertaken by a Zambian. Many of the CCFs' competitors claimed that receiving employment permits was very hard and that this was one of the reasons why they rarely hired expatriate workers. It was commonly understood that permits were only given for specialized workers and not for work specifications such as engineers and quantity surveyors (Interviewees 12; 17; 20). Most of the interviewed CCFs, however, did not express having difficulties to receive employment permits for their Chinese employees. The suspicion was therefore widespread among competitors and other external informants that a bilateral agreement between China and Zambia allowed China more employment permits than other countries.

This study has, however, not found any evidence that can support this. It was strongly denied by the Chinese Embassy (Interviewees 29; 30), Zambian officials (Interviewees 32; 33; 34), as well as a board member of the NEPC (Interviewee 40). There are furthermore no official statistics documenting how many Chinese citizens hold employment permits in Zambia, so that the amount can be compared to other nationalities. The number of Chinese residents in Zambia is also uncertain and has been stated to amount to anything from 2,224 in the whole of Zambia[17] to 30,000 in Lusaka alone (Kaplinsky et al., 2006).

The interviewed NEPC board member, however, indicated that Chinese firms disputed NEPC's decisions more often than other companies, but did not comment on whether this led to more approvals for the Chinese companies. A Chinese official at the Economic Councilor's Office of the Embassy of China (ECO) also stated that ECO, like most other embassies, often assists their citizens in negotiations with Zambian authorities, although they encourage the companies to employ as many Zambians as possible (Interviewee 30). Based only on these observations, however, no other conclusions can be drawn than that Chinese expatriate workers provide a considerable competitive advantage for CCFs in Zambia.

6.4 Zambian Wages and Working Conditions

A common perception of CCFs in Zambia is that they have deficiently low safety standards and pay Zambian employees under the regulated minimum wage. This has been reflected in the widespread anti-Chinese sentiment in Zambia (Dixon, 2006; Edinger, 2007). The argument was made by some informants that this had contributed

[17] A parliamentary statement by Home Affairs Deputy Minister, Chrispin Musosha to parliament in response to a question on the population of Chinese in Zambia in January 2007

to the CCFs' ability to keep lower prices than their competitors; costs related to construction site safety are usually included in the preliminary and general cost items (Interviewees 18; 23). Other informants, including external consultants, however, rejected this allegation as hearsay and claimed that possible poor working conditions and lower wages could not to any greater extent affect the CCFs bid prices (Interviewees 25; 39a). This study, however, lacks the scope and the detailed information necessary to investigate this issue further.

Two academic studies have been identified that investigate labor conditions at CCFs and other Chinese firms in Africa (ILO, 2005; Muneku & Koyi, 2007). They both find some support for this perception, but lack the scope and the academic rigor to motivate inferences to CCFs in Zambia.

6.5 Financial Strength and Flexibility

Throughout this and the previous chapter it has been discussed how focus in tenders has shifted from low prices to other aspects, including financial capacity. The Zambian government no longer provides advance payments for contractors, and in order to tender for large projects funded by donors or the Zambian government, a high NCC-rating is required. As described earlier, this rating weighs in the firms' access to credit. This advantage is also acknowledged by China International Contractor Association (CHINCA) in an introduction to the Zambian construction market:

> Some of the Zambian government's contracting projects require firms to solve the funding by themselves. Therefore, if a company is able to solve its funding problems itself, it can be very beneficial in terms of market competition. (CHINCA, 2009)

Chapter 4.4 described how the Chinese government, aiming to encourage outwards construction FDI, assisted investing CCFs financially through e.g. the Bid Bonds and Contingencies Special Funds and the Exim Bank, which lend money at discounted interest rates. All CCFs and Chinese officials interviewed in this study, however, denied having received any current or recent Chinese government assistance, including low-interest loans. Only the first-wave firms claimed that they may have received government assistance during their time in Zambia, but that was only before the early 1990s. Some managers at the privately owned second-wave firms expressed that only state-owned CCFs had access to these loans and government funds, and that they could, unlike private CCFs, borrow large sums without having to provide collateral (Interviewee 6b). The second-wave firm managers had, however, not had much insight into the SOEs' finances since they left the first-wave firms in the late 1990s. Foster et al.

(2008) identified two Exim Bank-funded projects in Zambia carried out after 2002. None of these were however carried out by CCFs with Zambian subsidiaries.

In chapter 4.4, it was also described how the Chinese government encouraged commercial banks to provide low-interest finance to overseas CCFs. A common perception in Zambia was that CCFs received concessional loans from Bank of China (Interviewees 11; 13; 14; 24). This was strongly denied by the Managing Director of Bank of China's Zambian office, who claimed that the bank was popular among Chinese businessmen mainly due to familiarity and the common language (Interviewee 26). This was confirmed by all CCFs that were or had been using Bank of China's services (Interviewees 3a; 4a; 8). Some CCFs even criticized Bank of China for having stricter procedures than African banks (Interviewee 6b).

Only one CCF, CHICO, confirmed having access to loans from Chinese commercial banks, where the interest and conditions were more favorable than from banks in Zambia. These banks were based in China, such as the Industrial and Commercial Bank of China and the Chinese Development Bank (Interviewee 8). The example tenders in Appendix 5 show that many CCFs use Chinese banks for bid bonds, but South African, British, and Zambian banks are also commonly used.

Whereas access to financial assistance from the Chinese government was denied by most CCFs, access to low-interest finance from Chinese head offices was emphasized by all state-owned CCFs in Zambia and one of the private firms. When in need of a loan, they would contact their head office, which would quickly transfer funds at a low interest rates. This was a particularly important advantage in the 1990s and early 2000s, when Zambian government contract payments were often delayed. The CCFs were thereby less affected by the Zambian government's decision in the late 2000s to seize advance payments than other firms, and could handle payment delays without failing to keep the construction work on schedule (Interviewee 20).

Whether the studied CCFs' finances were supplied by Chinese government related lending institutions, or by the companies' head offices, it cannot be ignored that access to finance has constituted an important advantage for CCFs in Zambia, particularly for state-owned firms and firms with close relations to head offices in China. It was also argued by competitors and other external informants that the CCFs' financial advantage was not only related to their access to cheap loans, but to their financial flexibility (Interviewee 39a). Through their head offices, state-owned CCFs were able to receive bonds and insurances to tender for major contracts without having to keep large collateral through times of low business activity.

6.6 Chinese Institutions

Chinese government support has also been pointed out to take the form of Chinese institutions in Zambia (Kragelund & Bastholm, 2007). Other than Bank of China, these include the Chinese Embassy (most importantly ECO), the Association of Chinese Corporations in Zambia (ACCZ), and the previously mentioned CCPIDT.

The ECO was the only one of these organizations that the interviewed CCFs stated to be in continuous contact with. ECO is in charge of approving all Chinese government grants and all Chinese investors that invest in Zambia, and sees to that they are aware of and abide by Zambian law. ECO is furthermore assigned by the Chinese government to see to the safety of the Chinese citizens and investments in Zambia (Interviewees 29; 30).

As all of the CCFs interviewed entered Zambia before 2001, they had not used the facilities of CCPIDT, which was opened in 2004. They were, however, all members of ACCZ, which was established by ECO in 2005 and functions as a Chinese chamber of commerce (Interviewee 28). ACCZ, however, seemed to fill a mainly social function and arranged semi-monthly meetings and social activities (Interviewees 1; 8). ACCZ was neither perceived to by the CCFs to be very well organized and most CCFs were not active members of the organization (Interviewees 3b; 6b; 7).

Wah Kong and China Gansu, both with branches in Malawi, further argued that there was little difference between doing business in Zambia and in Malawi, where no Chinese institutions were present until January, 2008 (Interviewees 3a; 7).

6.7 CCF Cooperation

Another common claim was that the CCFs cooperate in tendering and do not engage in fair competition between themselves (Interviewees 19; 20; 39a). Whereas this practice was confirmed to occur between Wah Kong, Hua Jiang, and Yangts Jiang, it seems unlikely that this practice is widespread for CCFs. Most of the interviewed company representatives regarded other CCFs as their main competitors, complaining that a price fight between them drove down prices considerably in the 1990s and early 2000s (Interviewee 1; 4b; 7: 9). The following passage in CHINCA's online introduction of the Zambian market supports this notion:

> On the Zambian contracting market, there is fierce competition between the Chinese companies themselves. Chinese companies need to coordinate their relations between themselves to maintain a positive and constructive competition. (CHINCA, 2009)

6.8 Summary

This chapter has provided a discussion regarding which competitive advantages have been important for CCFs' ability to win contracts in Zambia and expand on the market to the dominating market position they hold today.

As touched upon in previous chapters, the CCFs' competitive advantages have changed since their entry into the Zambian market. In this chapter, this was discussed more in detail. Initially low prices were the main competitive advantage. The low prices could be explained by the CCFs' ability to accept low profit margins, cost effective management and cheap living conditions, low wages for Chinese and possibly Zambian workers, high efficiency of Chinese workers, and initially, access to cheap material and equipment from China. Another factor likely to have affected prices is the access to cheap loans, mainly though large head offices, but also possibly through large Chinese banks. It was unclear whether direct financial assistance from the Chinese has played a role for CCFs in Zambia. It is however, more likely to have been an important factor for the first-wave firms than for those entering Zambia after the mid-1990s.

As price sensitivity of Zambian clients decreased and focus in tenders shifted towards technical and financial capacity through e.g. the NCC rating system, the CCFs' financial strength has also become a more important competitive advantage in itself, along with their reputation of high quality and reliability. Financial assistance from head offices played a big role for CCFs' financial strength and the quality of Chinese works was mainly attributed to the effective Chinese management style and the Chinese expatriate workers, which were a particularly valuable resource in a country where scarcity of skilled workers is a problem for many of their competitors. Flexibility in manpower and finances has also made it possible for CCFs to win and take on many large contracts when the market is booming, and to adjust when projects are fewer.

This chapter has drawn on interviews with representatives from CCFs, competing firms, and external consultants. The author acknowledges that the informants' responses must be interpreted in relation to possible biases. The chapter has therefore not attempted to prove or test any of the mentioned advantages, but to provide a discussion around CCFs' competitive advantages in Zambia as perceived from different perspectives.

7. CCF Investment in Zambia: A Theoretical Assessment

In this section the empirical findings presented in the previous two chapters are analyzed trough the theoretical framework provided in chapter 3. The background described in chapter 4 is also taken into account. The first section of the analysis will, using Dunning's Eclectic Paradigm, analyze the ownership-, location-, and internalization advantages of the CCFs in Zambia. It will also try to classify CCFs according to investment type, and discuss how the empirical findings relate to the criticisms of TWM applicability. The findings will be compared to previous research on construction FDI. The second section will focus on the internationalization process of CCFs in Zambia as related to the Uppsala Internationalization Process Model.

7.1 Investment Drivers and Advantages

This section primarily analyzes investment drivers and properties of CCFs in general. However, in cases where noteworthy differences are found among CCFs, they will be pointed out. The analysis will take into account the observation that the competitive advantages of the CCFs in Zambia have changed over time. It should be pointed out, however, that the OLI framework puts emphasis on the advantages at the time of the investment (or at the time of the investment decision), as these are related to the drivers of the investments. Already established firms may well continue to operate even though their original competitive advantages diminish, as they create new competencies and advantages over time.

Ownership advantages

The Eclectic Paradigm assumes that firms investing in foreign countries must possess firm-unique advantages, or ownership (O) advantages, in order to overcome the costs of oversea investment, counteract the disadvantages of competing with local firms in the host country, and to ensure the profitability of their oversea investment.

Chapter 6 discussed CCFs' competitive advantages and described how they developed over time. These competitive advantages were very similar to O advantages that drive the investments, as they are unique to the studied firms, allowed them to compete with local firms, and ensured that the firms' profit from investing exceeded associated cost.

At the time when CCFs invested in Zambia, their O advantages related mainly to their ability to keep low prices. These advantages were, as previously stated: ability to accept

low margins; cost-effective management and cheap living conditions; low wages and high efficiency of Chinese expatriate workers; and access to cheap Chinese material, equipment, and finance.

The first of these, the ability to accept low margins, can be explained by long-sightedness; the competitive Chinese market, which was the main alternative market; as well as the financial safety net provided by head offices that minimized the risk keeping margins low, a risk that was a big issue for Zambian firms. The latter explanations, however, apply less to private CCFs without head offices in China.

Cost-effective management organizations, and high efficiency and low wages of Chinese workers are crosscutting advantages for all three waves of CCFs in Zambia. The same applies to the advantage of access to material, equipment and finance. The access to finance can, however, be considered larger for state-owned CCFs, and firms with close relationships to Chinese head offices.

These price-related O advantages are consistent with previous research on CCFs (Bosten, 2006; Chen et al., 2007; Corkin & Burke, 2006; Hongbin & Low, 2005). As pointed out in chapter 3.4, the importance of price-related O advantages for CCFs was the main aspect of O advantages that stood out for CCFs in comparison to construction firms of other nationalities.

As price sensitivity on the Zambian construction market diminished and focus in Zambian tender evaluation changed, the CCFs' main O advantages shifted to revolve mainly around firm reputation, financial strength, and flexibility of manpower and finances. The advantage of flexibility of finance and workforce was important in Zambia, where contract availability has been volatile and it is costly to keep many employees and large collateral in times when contracts are scarce.

The reputation of high quality and reliability that most CCFs had gained was attributed mainly to an efficient management style and Chinese expatriate workers. Support from head offices and, in some instances, privileged access to funds from Chinese banks, was crucial for their financial strength and flexibility. These observations are consistent with previous research on international contractors, which emphasized project coordinating skills and the firm's personnel and reputation as important O advantages (Enderwick, 1989b). They are also in line with Ling & Kwok's (2006) and Hillebrandt et al.'s (1995) findings that a large home country base and a strong home country financial sector provide important O advantages.

Although some CCFs in Zambia engage in specialized construction, including road construction and civil engineering projects, advanced technology was rarely emphasized as a competitive advantage by either competitors or CCFs. This stands in contrast to Enderwick's (1989b) Hongbin and Low's (2005) findings that technology was a main O advantage for specialized contractors, but it can be explained by the limited need for advanced construction technology in Zambia, something that was claimed to have benefitted the CCFs (Interviewee 6b). To the extent that technology was an advantage for the CCFs, it was mainly attributed to affordability; CCFs had good access to cheap equipment, whereas many small and medium sized Zambian contractors could not afford the equipment necessary to build a corresponding technical capacity.

Enderwick (1989b) and Seymour (1987) pointed out government support as a generally important O advantage for construction companies, particularly for those engaging in general construction. Government assistance had also been found by Bosten (2006), Chen et al. (2007), and Hongbin & Low (2005) to influence O advantages for CCFs. In the case of CCFs in Zambia, certain effects of government assistance have been hard to document, such as possible bilateral agreements between Zambia and China, and the extent of financial support from Chinese banks. However, many instances were found where Chinese government support had added to CCFs' O advantages. Examples of these are favorable conditions for equipment imports, and assistance from ECO in negotiating with Zambian authorities. A close relationship with the Chinese government also proved to be an important O advantage in a country where the host government had a close relationship to China, and was the main client. This O advantage gave the first-wave firms their first project in Zambia.

Location advantages

Location (L) advantages are advantages of investing that are bound to a certain geographic location. These advantages connect to drivers for investing in a specific country.

The L advantage most stressed by CCFs was the good possibilities to make money in Zambia, particularly compared to the Chinese home market. The demand for new construction in Zambia was high and on a technical level appropriate for the CCFs' capacity, and the political environment was stable and welcoming for Chinese investors. This was frequently pointed out as important reasons behind the decision to invest in Zambia. These L advantages are consistent with previous research on international construction firms (Crosthwaite, 1998; Enderwick, 1989b).

The competitive situation was also emphasized as an advantage of investing in Zambia. The strongest competition from large contractors had been reduced during the construction contract draught of the 1980s and 1990s, but price sensitivity prevailed and allowed CCFs to compete. The third wave invested in the early 2000s when competition was very hard. The advantage of a market with low competition by Chinese standards, but with relatively high competition by international standards, was also pointed out by Hongbin & Low (2005) as an important L advantage for CCFs.

As mentioned earlier, the first-wave firms' decision to invest was closely linked to their involvement in Chinese government-funded Government Complex project. The same thing can be argued for the second-wave firms: the experience gained through this project, and other projects carried out within the first-wave firms were among the main reasons why the second-wave firms chose Zambia for their investments. This corresponds to Ostler's (1998) findings regarding aid and bilateral agreements between home and host country governments as important L advantages for construction firms. The third-wave firms are likely to have seen the more general above-mentioned L advantages of investing in Zambia.

Earlier research on CCFs in Africa has found that diplomatic history and resource endowments are important location factors, something that also corresponds to the Zambian case. It could be argued that Zambia's copper resources, which have attracted substantial Chinese investment, are also a driving factor behind Chinese investments in other sectors of the Zambian economy, such as construction. The rich Zambian copper endowments are certainly a major reason for China's interest in the country. However, whereas this state-level interest is likely to have played a role for the China-Zambia relationship, natural resource abundance can only be considered an indirect advantage for the CCFs, as it may have affected the Chinese government's decision to fund the construction of the Government Complex and improved the political climate for Chinese investors. None of the studied CCFs were found to have direct involvement with the mining industry.

One L advantage that seem to have played a smaller part in the present case than what could be expected, drawing on previous research on CCFs, was the availability of subcontractors (Hongbin & Low, 2005), whose quality was often questioned in Zambia.

Internalization advantages

Internalization (I) advantages arise from a firm's capability of reducing transaction costs through investing (Dunning, 1993). Asking the question of which a firm's

internalization advantages are is much the same as asking why a firm chooses to invest in a country instead of pursuing trade.

All CCFs in this study entered the Zambian market through internalizing fully in the Zambian market and opened wholly owned subsidiaries. According to Corkin and Burke (2006), there has only been one example of a successful Chinese-Zambian joint-venture in the construction sector.

The analysis of O advantages above showed that many of the CCFs' O advantages were related to the skilled Chinese workers and the Chinese management system of which they were a crucial part. The shortage of skilled workers in Zambia made this advantage even more important. A main I advantage for the CCFs was therefore the fact that full internalization on the Zambian market provided the best opportunity exploit the skills of the Chinese workers. Other alternatives such as licensing, and joint-ventures did not provide the same opportunities to fully exploit the advantages linked to the Chinese workers and the efficient Chinese management system. This is consistent with previous research on both CCFs (Corkin & Burke, 2006; Hongbin & Low, 2005) and other international contractors (Endewick, 1989b). It is also linked to what Enderwick (1989b) refers to as the advantage of being able to protect the firm's quality and reputation.

In chapter 5 the CCFs' ability to bring in expatriate workers was discussed. It was shown that CCFs bring in most of their skilled manpower from China and that they faced no pertinent obstacles in receiving employment permits from NEPC. The study could not find evidence that Chinese firms were treated differently than other investors in this aspect, but it can be concluded that the Zambian immigration laws, as they are currently implemented, have facilitated CCFs possibilities to use their I advantages.

Another I advantage of the CCFs was the advantage of best consolidating the firm's market position and fully exploiting the Zambian market through a permanent presence. Most CCFs invested in Zambia with a long investment horizon, wherefore this can be considered an important advantage. This advantage has been pointed out in previous studies on CCFs as well as other international contractors (Corkin & Burke, 2006; Enderwich, 1989b; Hongbin & Low, 2005). The only I advantage that was not as important for CCFs in Zambia as previous research suggested was the advantage of reducing host government interventions (Hongbin & Low, 2005). The fact that internalizing in Zambia instead of e.g. licensing projects to a Zambian partner reduced the influence of the Zambian government, may have been an advantage, but was greatly outweighed by the other I advantages.

The analysis of O and L advantages showed how the Chinese government had influenced these advantages for CCFs and thereby increased their drivers to invest. This pattern is consistent also for I advantages. Chapter 4.4 described how the Chinese government wanted to increase outward FDI in construction by encouraging CCFs that were engaging in overseas construction activities, to internalize and establish a permanent presence in the in these countries. The Chinese government therefore enhanced CCFs' advantages of investing over exporting construction by simplifying and decentralizing investment administration, allocating funds to and reducing equipment export restrictions and income taxes for investing firms, and by supplying grants to foreign governments for financing investments by CCFs. It is reasonable to assume that these advantages played a role for the studied CCFs.

Type of investment

When classifying Chinese investments in Zambia's construction industry as one of Dunning's four types of investments, it is easy to draw the conclusion that they fall in the *market seeking* category. As shown above, the firms' major assets were connected to the home country, and it may therefore seem farfetched to label the investments as resource-, efficiency-, or strategic asset seeking. Local management or other Zambian resources did not seem particularly attractive for the CCFs. None of the studied CCFs were engaged in mining-related activities in Zambia and they did not seek access to natural resources. The main reason for investing in Zambia seems instead to have been the potential of the Zambian construction market.

However, when taking the political context in China into account, it is possible to draw different conclusions. At a political level in China, the foreign investments of construction companies were encouraged and seen as a way for the firms to gain international experience, management skills, and to become internationally competitive. Investments that seek to acquire specific resources, such as skills and knowledge, can be defined as r*esource seeking investments*.

The "two resources, two markets"-approach was also propagated by the Chinese government, aiming to encourage CCFs to allocate their resources both on the domestic and the international market in order to increase their efficiency and competitiveness. This aspect of the investments has a lot in common with what Dunning (1993) defined as *efficiency seeking investments*.

This illustrates that taking the political context into account can reveal other aspects of the investments than the most evident ones. This point was made by researchers

Dicken (2001, 2003) and Yeung (1998), who especially emphasized the importance of including the nation state context when analyzing TWM investments.

TWM criticisms

The conclusions above relate to the reasoning behind Mathews's LLL Model (2006). The OLI analysis showed that CCFs in Zambia had notable advantages that to some extent can explain the drivers behind the investments. According to Mathews (2006), however, the Eclectic Paradigm fails to explain the more dynamic aspects of TWMs' investment drivers, as they often invest to gain new advantages, to leverage their current advantages, and through using the advantages of other firms in business networks.

When the background of the investment decisions in China is taken into account, learning and leverage seem to have played an important role in driving the investments. The existence of a Chinese network in Zambia may also have been of importance for the third-wave firms, by making information about the Zambian market and the experiences of other CCFs more accessible. None of the interviewed third-wave firms, however, mentioned this as having influenced their investment in Zambia. With the recent institutionalization of Chinese business networks in Zambia through organizations such as ACCZ and CCPIDT, it is however likely that networks today play a more important role for CCF investments in Zambia. Bringing the LLL Model into the analysis sheds light on the strategic and more dynamic aspects of CCF investment motives, it would however not be enough to explain the investments without the OLI framework or a model also incorporating the firms' existing advantages.

The role of the government in the CCF investments has been revisited several times in this chapter; the OLI analysis showed, in accordance with previous research, how the government enhanced CCFs OLI advantages through fiscal-, industrial-, and foreign policy. The Eclectic Paradigm has, however, been criticized for neglecting certain investment drivers that are important particularly for TWM (Goldstein, 2007). For TWMs, the nation state may not only affect the firms' OLI advantages, but cause them to act in other interests than what is assumed in traditional investment theory (Peng, 2000). This has been argued to especially apply to for Chinese TWMs, where the state has influenced firms also through ownership (Child & Rodrigues, 2005). Although the state-ownership in China is not always as straight-forward and uniform as in other countries, it is clear that the Chinese government has influenced these firms.

Chapter 4.4 showed how economic reforms and regulatory changes have made state-owned CCFs more autonomous and how Chinese government influence over them has decreased. This fact was also emphasized by most of the interviewed CCFs. However, the *corporatization* of SOEs did not come to effect until the late 1990s. For the first-wave firms' entry in Zambia, around 10 years before the Chinese Corporatization Program was implemented, the Chinese government's influence over firms' investment decisions cannot be disregarded.

JCEC and CJC were both owned by the Jiangxi government that had been specifically encouraged by the central government to internationalize their construction sector, even specifically to invest in Zambia. COVEC operated right under MOFERT, one of the institutions responsible for increasing outward construction investments. The fact that CCPIDT, the equivalent of a Chinese trade council in Zambia, operates under CJCZ, also highlights the close ties between the Chinese government and the first-wave firms' presence in Zambia.

Summary

The Eclectic Paradigm, or the OLI Model, is a framework for analyzing *why* firms invest in other countries. According to the paradigm, investing firms have ownership (O) advantages, location (L) advantages, and internalization (I) advantages that drive the investments. An OLI analysis showed that the CCFs in Zambia all possessed notable OLI advantages that could help explain the drivers of the investments. It also showed that these advantages were largely consistent with previous research on both CCFs and international contractors in general, with only a few differences.

The CCFs' initial O advantages, which were likely a part of the drivers of their investments, were closely related to the firms' ability to keep low bid prices, something that was found to be particularly important in studies of CCFs. These O advantages primarily included the ability to accept low profit margins, cost-effective management organizations and cheap living conditions, low wages and high efficiency of Chinese expatriate workers, and access to cheap finance, material and equipment from China. Such advantages are helpful particularly in price-sensitive investment climates. The analysis also showed that the competitive market provided an L advantage for CCFs in Zambia, as it allowed them to use these O advantages to compete. This was consistant with previous studies on CCFs.

As price sensitivity diminished and focus in tender evaluation shifted to financial and technical capacity, less price-related O advantages became more important and the

CCFs' O advantages were more consistent with previous findings on international contractors. These O advantages included high quality and reliability of services, and financial strength. Flexibility of finance and skilled manpower were also important in Zambia, where the availability of contracts has been volatile. This was the only O advantage that had not been identified in previous studies of Chinese or international contractors.

Other L advantages indentified were the high demand for new construction at a suitable technological level for CCFs, low competition, experience in the country, political stability, and a good relationship between the host- and the home country governments.

The CCFs' main internalization advantages were the advantage of best exploiting the firm's main asset: the skilled Chinese workers. This was especially important due to the shortage of skilled workers in Zambia. Another important I advantage was the advantage of consolidating the market position and exploiting a market through a permanent presence.

The OLI analysis further showed how the Chinese government had affected the CCFs' investment drivers by increasing their OLI advantages. O advantages were increased e.g. through privileged access to cheap equipment imports and assistance from ECO in negotiating with Zambian authorities. L advantages that were added by the Chinese government include the good China-Zambia relationship, but more importantly the provision of the Government complex project that gave the first- and second-wave firms experience at the location, which increased the advantage of investing there. I advantages were increased by simplifying investment administration; allocating funds to, and relaxing tax and export regulations for investing firms; and by supplying grants to foreign governments for financing investments. The CCFs could not have gained these advantages through pursuing trade and would not have existed without Chinese government intervention.

Although it was shown that CCFs all had important OLI advantages that could help explain their investment drivers, the analysis above also found that OLI advantages could not fully explain the investments. As argued by Dicken (2001, 2003) and Yeung (1998), government involvement often goes beyond influencing OLI advantages. In the case of the first-wave firms, the Chinese government had through ownership and directives not only driven, but actually *initiated* the investments.

Mathews's (2006) LLL Model that emphasized the dynamic aspects of investments was also touched upon in the analysis. Helping CCFs to gain international experience, competitiveness, and market skills was an important motive behind the Chinese government's effort to internationalize the Chinese construction industry. The investments were thus not only driven by advantages they possessed, but also by advantages they wanted the CCFs to gain. This insight further led to the conclusion that Chinese investment in Zambian construction can be seen both as market seeking and resource- or efficiency seeking.

This section of the theoretical assessment of CCFs in Zambia, has helped us understand better the nature and drivers of Chinese construction investment in Zambia. To analyze the *process* of internationalization, however, we need to employ another framework: the Uppsala Model.

7.2 The Internationalization Process

This section will discuss how the findings of CCFs' entry and expansion on the Zambian construction market relate to the Uppsala Model. The discussion will take into account the predictions of the model, the model's core concepts and functions, as well as its basic assumptions.

As the Uppsala Model describes internationalization at the firm level over time, it is important to again point out the limitations of this study. The interviews, which are the main sources of information for this study, were conducted with managers of local Zambian offices, and consequently the information about the CCFs' complete internationalization process is limited. This makes a traditional analysis of the firms' internationalization entire process hard to perform. The analysis will therefore focus on the CCFs entry and expansion *in Zambia*.

As in the previous section, generalizations have to be made in order to analyze a phenomenon that stretches over a long time period and involves eight different firms. Chapter 5 showed that the first- and third-wave firms share similar stories of internationalization, whereas the internationalization process for the second-wave firms was radically different. In the latter case, no distinct step from domestic business activity towards internationalization was made, as these firms were started independently by entrepreneurs already active in the foreign market. Hua Jiang Investments, where a Chinese firm did make an investment in the start-up firm, can be argued to constitute a possible exception to this. However, the driving force of the start-up lay outside the investing firm and was driven by Mr. Li. This section of the analysis

will therefore first cover the internationalization of the first- and third-wave firms and then discuss the how the Uppsala Model relates to the special case of the second-wave firms.

Internationalization process of first- and third-wave firms

The Uppsala Model predicts that internationalization will occur over increasing psychic distance and along the establishment chain. These predictions do not correspond very well to the observed Chinese investments in the Zambian construction industry. The only aspect of psychic distance where China and Africa are somewhat close is the level of industrial development. This similarity is, however, outweighed by the large differences in culture, language and business practices.

In contrast to the pattern predicted by the establishment chain, the third-wave firms opened up wholly owned subsidiaries in Zambia directly, without any previous engagement in the country in terms of exports, licensing, or other incremental steps towards internalizing.

The first-wave firms' mode of internationalization was somewhat closer to the Uppsala Model's predictions, at least when taking into account the revisions made by Johanson & Vahlne (2006), which downplayed the operationalizations of the model and reduced them to *gradual and incremental internationalization*. These firms opened subsidiaries after initial involvement in Zambian construction projects, which can be seen as a project-by-project export of personnel. This gradual internationalization, however, occurred much faster than the slow and incremental process predicted by the Uppsala Model; as mentioned above, none of the interviewed companies opened joint-ventures or entered into other arrangements in Zambia before the subsidiaries were opened. This also contrasts to the work of Coviello and Martin (1999), which found support for firms engaging in joint-venture arrangements before taking the step to fully internalize on the foreign market.

The discrepancies between the model predictions and the empirical observations can be better understood if we study the model's basic assumptions and take into account the suggested exceptions and criticisms of the model.

The third-wave firms fit well under two of the exceptions from the Uppsala Model as stated by Johanson and Vahlne (1990). The first exception that applies to the third-wave firms is that big firms with large resources can make larger internationalization steps, as the consequences of their commitments are relatively small. The third-wave

firms had grown large before investing in Zambia and could thus be expected to internationalize quicker than predicted by the model. The second exception regarded firms with significant experience from investing in similar markets. For these firms it could be possible to generalize this experience to the specific market and thereby speed up the internationalization process. This exception also corresponds well to the third-wave firms.

These two exceptions can partly explain the third-wave firms' quick internationalization in Zambia. They also correspond to Mathews's (2006) and Goldstein's (2007) observations of *leapfrogging* TWMs that expand quickly after their first entry into the world market.

Whereas Johanson and Vahlne's (1990) exception for big firms with large resources can apply also to the first-wave firms, their rapid internationalization seems to be better explained by other criticisms of the Uppsala Model. These are the criticisms of the model's assumptions of loose-coupling, and the fact that it neglects the risk of *not* investing (Forsgren, 2002).

This study found no strong indications that the internationalization of the first wave-firms' was, as the model assumes, driven by individuals at the lower levels of the firms' foreign market operations. Instead, the decision makers seem to have been at the higher strategic levels of the firms, and the individuals on these levels were furthermore heavily influenced by external directions from the Chinese government. This aspect is not accommodated within the Uppsala Model, which focuses solely on the firm. The model's bottom-up perspective on the driving forces of the internationalization process is thus not applicable to these firms.

It should also be noted that the assumption that an internationalizing firm first grows big on the domestic market does not hold for many of the CCFs. Many of the first- and third-wave firms were explicitly created to invest abroad and did not start off as successful companies domestically. Firms in this category include COVEC, CJC, CHICO and China Geo. This illustrates the most important aspect of the problem with fitting these firms' internationalization with the Uppsala Model: the high degree of state intervention and strategic top-down decision-making.

Taking this into account, much the same conclusions can be drawn as from the LLL-analysis above. The Chinese government encouraged the investments in order for the CCFs to acquire international exposure and gain in competitiveness. It thus becomes clear that the risk of *not* internationalizing was a major issue for the Chinese

government, as this would leave the Chinese construction industry at a competitive disadvantage as the Chinese economy opened up.

However, to some extent the core functions of the Uppsala Model still apply to the first-wave firms, if not so much as drivers, than as enablers. The experiential knowledge that the first-wave firms gained through the Government Complex project, and the individuals holding that knowledge, were essential for their *ability* to invest in Zambia. These individuals, such as Mr. Wang, may not have been involved in the investment decisions, but their market experience enabled the firms to invest. It can thereby be seen that the firms' initial activities, namely the Government Complex project, led to increasing market commitment to the Zambian construction market in the form of market-specific knowledge and construction equipment that was transferred to the Zambian market. This reduced market uncertainty and made opening a subsidiary a smaller step for the decision makers.

Experiential learning thus played a bigger part for enabling the internationalization of the first-wave firms than as a driving force. It is likely that this reasoning also holds for the third-wave firms' earlier steps of internationalization, but it is not as applicable to their entry on the Zambian market. As mentioned above, the third-wave firms invested Zambia without any previous market involvement that could have gained them experiential market-specific knowledge.

Internationalization process of second-wave firms

At first glance, the Uppsala Model's internationalization process predictions do not seem to correspond very well to the observations of the second-wave firms. First, it is uncertain whether an internationalization process, in the concept's traditional sense, actually took place; the second-wave firms' Zambian market entry cannot readily be described as an investment from a Chinese firm into a foreign country to where it expanded its activities.[18] Second, their entry into the Zambian market was made in one step; they fully internalized at once in the host country, without previous exports, licensing, or similar gradual internationalization steps undertaken by a head office in China. Third, the observations above regarding psychic distance between Zambia and China also apply to the second-wave firms.

[18] This applies especially to the cases of Yangts Jiang and ZamChin Construction, as it is somewhat unclear what role was played by Hua Jiang Investment's "head office" in the investment and start-up of the firm.

However, taking a closer look at the second-wave firms and acknowledging the driving entrepreneurs' imperative role in the investments and their background in the first-wave firms, another conclusion can be drawn. It can then be seen that the Uppsala Model's predictions of incremental market entry, its emphasis on experiential knowledge, and the role it attributes to the personnel in the foreign market operations fit remarkably well with these firms. In fact, the second-wave firms, where no internationalization in the traditional sense occurred, may be the firms in this study whose process of entry and expansion in Zambia is *best* explained by the Uppsala Model.

One reason for this is that the second-wave firms cannot be classified under any of the model's exception categories (Johanson & Vahlne, 1990). They were not particularly big, not already established in countries similar to Zambia, and they did not gain a large part of their market knowledge about Zambia by other means than through experience. Instead, these firms fit fairly well with all of the model's basic assumptions except the assumption that firms first develop in the home market.

In accordance with the assumptions of the Uppsala Model, the second-wave firms invested with the aim of long-term profits rather than for strategic reasons. The investments were driven by individuals active in overseas market operations who discovered and reacted to opportunities, rather than by the government or a head office in the home country. Whereas it can be argued that the first-wave firms were driven partly by the perceived cost of not investing, this is not likely to have influenced the second-wave firms to any notable degree. These firms were instead driven mainly by the discovery of market opportunities.

The Uppsala Model also assumes that the most important obstacles for internationalization are market knowledge and resources, and that as a part of the market-specific knowledge, experiential knowledge is *critical*. This especially regards firms with loosely defined activities and activities based on relationships with other individuals.

The market knowledge gained by the driving entrepreneurs as managers in the first-wave firms and their success in raising funds though friends, family, and business networks were crucial elements for the investments. Experiential knowledge was also *critical* for the firms' market entry and expansion, mainly due to the varying nature of the construction activities and the importance of relationships such as client and supplier networks. As managers for the overseas market operations, the driving

entrepreneurs had unique opportunities to gain such critical knowledge, which is hard to transfer to other parts of the firm.

Although the properties of the second-wave firms correspond well to those described by the Uppsala Model, the analysis encounters a major problem when focus is shifted to the internationalization *process* of the firms, the most central part of the Uppsala Model. This problem regards the question of where to draw the line between different units of analysis.

The Uppsala Model draws a clear line around "the firm" as a separate entity in the internationalization process. However, applying this separation to the second-wave firms and starting the analysis at the time of their formation is problematic. As mentioned above, if the first-wave firms are excluded from the analysis, there is no actual internationalization process taking place. The firm is already internationalized at day one, and lacks a base in the home country from where this process begins.

One way around this problem is to include both the first- and second-wave firms in the analysis. Their investments in Zambia are so closely related that it can be argued that the internationalization of the second-wave firms was actually initiated in the first-wave firms. Such an analysis would make it possible to focus on the role of the driving actors in the market entry and expansion of the second-wave firms: the entrepreneurs.

The market-specific experiential knowledge gained by Wang (Yangts Jiang), Ming (ZamChin) and Li (Hua Jiang) in the current activities of the first-wave firms was a form of market commitment, and led to commitment decisions by these entrepreneurs working in the lower ends of the firm. They had been involved in most of the firms' activities and gained experiential knowledge; not only of management operations, which was shown above to be a major CCF O advantage; but also of client preferences, the Zambian law, competitive tendering, and supplier networks.

This experiential knowledge led to increasing market commitments, incremental steps towards expansions, and a higher degree of involvement in the market. However, the process did not take place all within the boundaries of the firm, but led instead to a small exodus of these individuals who instead started up new companies, so-called employee startups. This phenomenon is by no means unique to the case CCFs in Zambia, but quite common in the world of business (Gompers, Lerner, & Scharfstein, 2005; Klepper, 2001).

The Uppsala Model, however, clearly disregards the possibility of incremental decisions moving in a direction away from the entity of the firm. In the model,

internationalization is driven by individuals within the market operations who discover problems and opportunities, and consequently promote solutions that benefit themselves. This description fits well with the case of the first- and second-wave firms. However, the model further assumes that the self-interest of these individuals will be in line with the interest of the firm and that the adaptation and extension of the firm's *present operations* will be the natural reaction to problems and opportunities identified by the personnel. They will serve their self-interest by serving the interests of the firm and vice versa.

In the light of the observations of the second-wave firms, this assumption can be questioned. When there are no major legal or structural obstructions for an employee to leave a firm and start a new business, the internationalization may well progress outside of the firm's boundaries if individuals can gain more through responding to an opportunity by acting outside of these boundaries than inside them. They may act independently through starting a new company, or by joining a competing one. As the Uppsala Model is based on the Penrosean idea that the firm is made up of individuals acting in self-interest, this conclusion is in line with theoretical underpinnings of the model, and does not violate the main reasoning behind it.

The phenomenon of the second-wave firms is related to the failure of the first-wave firms to retain the internationalization process and those driving it within the boundaries of the firm. The fact that leaving these firms to start a competing business was the most attractive alternative for the entrepreneurs indicates structural shortcomings of the state-owned first-wave firms. A discussion of these possible shortcomings cannot, however, be accommodated within this thesis.

The above described scenario can be argued to be particularly likely in businesses where experiential knowledge and assets closely linked to individuals are important to the firm, as opposed to tangible and capital-bound assets that cannot as easily be moved out of the firm boundaries. The construction industry, particularly labor-intensive construction, can be considered such a business. The OLI analysis above also pointed out that many of the CCFs' ownership advantages were closely linked to their personnel.

A revised Uppsala Model that explains the case of the first and second-wave firms, and where the assumption that the internationalization process will be kept within the firm is removed, can be illustrated as in *Figure 8* below. This model shows the relations between state aspects and change aspects that cause the incremental internationalization process, earlier illustrated in *Figure 1*. The difference is that this

figure shows how market knowledge gained through current activities in one firm can lead to commitment decisions resulting in market commitments outside the firm's boundaries.

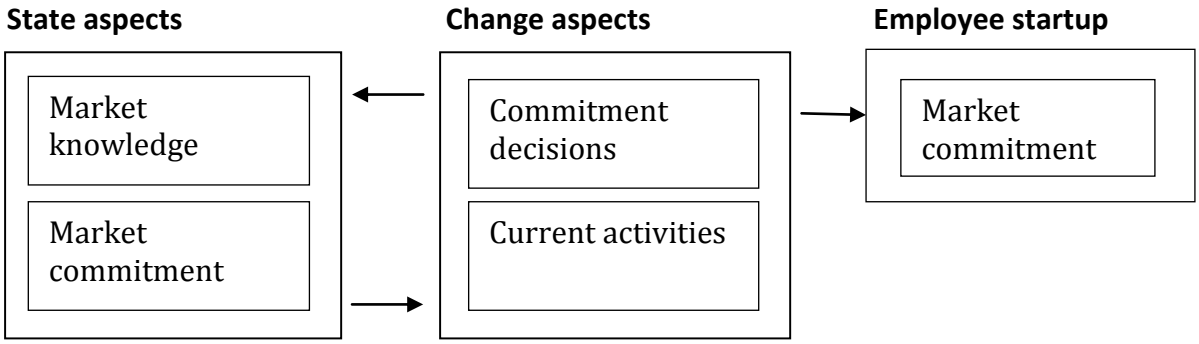

Figure 8. The basic mechanisms of internationalization, revised model. When the assumption that incremental steps towards internationalization automatically take place inside the boundaries of the firm is removed, market knowledge gained through the current activities of the firm may lead affect commitment decisions leading to market commitments outside the boundaries of the firm. An employee startup-firm will spring from the old firm as a further step towards internationalization.

Dicken and Malmberg (2001) argue that there is a danger when analyzing internationalization phenomena to employ "false dichotomies" that divide and categorize firms without taking the context into regard. The analysis above shows that this warning applies in several ways. First, selecting a too narrow unit of analysis, can inhibit a proper analysis and the possibility to obtain a good understanding of a phenomenon, such as the internationalization of firms. Second, as Dicken (2003) has also argued, the role of the nation state has to be considered in the analysis. If not, the understanding of the phenomenon will be incomplete.

The Chinese government played a crucial role for the internationalization process of the first-wave firms through actively initiating it by providing contracts for the Government Complex project and encouraging the firms to invest. The Chinese government thereby speeded up the internationalization process of the firms, which would probably have looked different in a firm with bottom-up decision-making.

Summary

The main contributions by the Uppsala Model-based analysis to the understanding of the CCFs' internationalization in Zambia, is the emphasis it puts on the role of experiential knowledge and the individuals in the firm.

The analysis shows that the experiential knowledge gained in the construction of the Government Complex was an important enabler for the investments by the first-wave firms. The experiential knowledge gained by the entrepreneurs who started the second-

wave firms after having worked at the first-wave firms, was furthermore a driving force behind the second wave of Chinese construction investments in Zambia. The Uppsala Model proved less suitable for explaining the third-wave firms' entry into Zambia, as these firms corresponded to two of the three suggested exceptions of the model, and entered Zambia in one step without previous market involvement.

The analysis further showed that, although the Uppsala Model only has limited explanatory power for the first- and third-wave firms, it can remarkably well explain the second-wave firms if the background in the first-wave firms is included in the analysis. A suggestion for theory development was therefore made regarding the model's assumption that individuals in the firm who act in self-interest will find problem solutions and opportunities that are in line with the firm's interest and that will therefore lead to the adaptation and extension of the present operations. If this assumption is removed, the model can serve well in explaining the internationalization of a firm through the creation of an employee startup that springs from the firm's current activities.

Taking into account theory developments regarding TWMs, presented in chapter 3, we can also see how the Chinese government assisted the internationalization of the first-wave firms, not only through enhancing OLI advantages, as argued earlier, but also through shortening the conventionally gradual internationalization process.

8. Findings and Conclusions

China has over the last decade become one of the largest and most influential actors in Africa. The Chinese economic involvement in Africa today covers a wide range of areas including aid, loans, trade, diplomatic relations, and foreign direct investment (FDI). Chinese FDI in Africa has received particular interest, as FDI has been argued to have important implications for African economic development, and Chinese FDI has been perceived to differ from more traditional western FDI.

There is, however, a severe shortage of empirically based studies that add to the understanding of these investments and their implications. Existing studies on Chinese FDI in Africa furthermore focus mainly on investments in the extractive industry and lack a theoretical foundation for analyzing their findings and placing them in the context of previous research.

The purpose of this thesis has thus been to increase the empirically based knowledge and the theoretical understanding of China's investments in Africa, by studying Chinese

FDI the African construction industry, which is of particular importance for economic development and also one of the industries where China has made the largest inroads in Africa. Zambia was selected as a case for the study. The study was carried out at a firm-level and focused on the internationalization process of the investing firms.

8.1 Findings

The research purpose was operationalized into two research questions that have guided the thesis. This section will restate these questions and account for the findings made by the study that help answer these questions.

1. **How did Chinese construction firms enter and expand on the Zambian market?**

This study showed that a large part of the CCFs operating in Zambia today entered Zambia in three *waves of investments* between 1987 and 2000. Each wave was composed of a group of CCFs that entered Zambia during the same time period and shared similar backgrounds and traits. For all three waves, Chinese aid-funded construction projects played a central role in their internationalization.

The first wave comprised three large state-owned corporations that entered Zambia in the late 1980s for a Chinese government-funded construction project in Lusaka. Soon after this, they invested in Zambia by opening wholly owned subsidiaries. At this time, the Zambian construction market was very price-sensitive, which facilitated the market entry of these price-competitive firms.

The second wave later sprung from the first-wave firms, when managers of these firms started their own private companies with capital raised from family and business-networks in China.

The third wave was made up of large state-owned corporations, much like the first-wave firms. These firms, however, entered Zambia around ten years after the first wave, at a time when they had attained greater autonomy from Chinese state involvement. They had also invested in other African countries before they entered Zambia. These investments were, as in the case of the first-wave firms, closely linked to Chinese government-funded construction projects. In Zambia the third-wave firms entered the market by directly opening wholly owned subsidiaries, without first undertaking projects, licensing, or exporting personnel.

The entry of the CCFs provided a *game-changer* for the Zambian construction industry. They were competitive and expanded on the market, which they eventually came to

dominate. The CCFs had considerable competitive advantages, mainly linked to their personnel, management style, and access to finance, but also their ability to keep low bid prices. The latter advantage was particularly important at the time when the CCFs entered Zambia.

The first large contracts won by the state-owned CCFs in Zambia were funded by multilateral donors, which allowed construction firms of all nationalities to tender. The private CCFs initially undertook smaller private sector and Zambian government-funded projects until they had accumulated large enough assets to access bid bonds and tender for larger projects. The Zambian government, which has recently been spending a lot on construction, has become the main client for most CCFs.

One important factor behind the CCFs' entry in Zambia was the Chinese government's ambition to increase outward construction FDI in order to internationalize the Chinese construction industry and make the CCFs internationally competitive. This promoted by linking investments to foreign aid projects, providing benefits for investing firms, and through directives to provincial governments. State involvement, however, cannot explain all aspects of the studied investments. The second-wave firms' investments were in some cases discouraged by the Chinese government and driven more by identified business opportunities in Zambia.

2. **How do Chinese investments in the Zambian construction industry relate to contemporary investment and internationalization theory; and how, if at all, can theory help explain these investments?**

The study found that contemporary investment theory helps to explain the studied investments by highlighting different aspects of the investments, and by describing relationships important for the understanding of the subject. The theoretical analysis further showed that Chinese investments in Zambian construction is a complex subject that benefits from analysis employing *several* theoretical perspectives. In order to obtain a good understanding of these investments, a theoretical analysis needs to take into account both the context and the content of the investing firms, and should also include dynamic aspects of the investments. Employing a too static perspective, or using too narrowly defined units of analysis, is likely to result in an analysis that overlooks important aspects of the investments. The analysis in this thesis employed the Eclectic Paradigm of International Production, the Uppsala International Process Model, as well as new theory developments regarding analysis of FDI from emerging economies.

The Eclectic Paradigm explains *why* firms invest in other countries. According to the paradigm, ownership (O) advantages, location (L) advantages, and internalization (I) drive firms to invest abroad. The OLI analysis showed that the CCFs in Zambia all possessed notable OLI advantages that could help explain the drivers of the investments. Most of the CCFs' OLI advantages furthermore corresponded well to those of international contractors in general, with two main differences. The CCFs' initial O advantages, which likely helped drive their investments, were closely related to their ability to keep low bid prices, something that the thesis's literature study found to be particularly important for CCFs. The analysis also showed that competitive construction markets provided an L advantage for CCFs, as it allowed them to compete on price. Other L advantages related mainly to the potential of the Zambian construction market.

The analysis, however, also showed that CCFs' O advantages changed as the Zambian market became less price-sensitive, and focus shifted to financial and technical capacity. The new O advantages were more similar to those of non-Chinese contractors documented in previous studies. One O advantage identified in the analysis that has not been pointed out in previous studies was the advantage of financial and workforce flexibility, which proved important on the Zambian market, where availability of contracts has been volatile.

The firms' internalization advantages were mainly related to the CCFs' possibilities to exploit the skills of the Chinese staff and their opportunities to increase market share and competitiveness through a permanent market presence. The analysis also showed how the Chinese government increased the CCFs' OLI advantages, and thereby increased their drivers to invest.

This was, however, not the only way in which the Chinese government affected the investments. An inclusion of theory developments regarding FDI from emerging economies (TWM investments) (Dicken, 2001, 2003; Mathews, 2006; Yeung, 1998; Yeung & Peck, 2003), pointed out the role of the government as an active initiator of the investments, and the fact that TWMs may act in other interests, and behave differently than what is assumed in traditional investment theory. For the first-wave firm, the Chinese government not only indirectly promoted their investments, but also initiated them through ownership of the firms and government directives to invest.

The TWM investment theory developments also pointed out the strategic motives behind the investments as perceived by the Chinese state. A main motive behind the Chinese government's effort to internationalize the Chinese construction industry and help CCFs to gain international experience, competitiveness, and market skills. The

investments were thus not only driven by advantages that the firms possessed, but also by advantages the government wanted the CCFs to gain. This insight further led to the conclusion that Chinese investment in Zambian construction can be seen as market seeking, as well as resource- or efficiency seeking.

The Uppsala Model analysis pointed out other important aspects of the investments. By emphasizing the role of experiential knowledge in driving internationalization and focusing on the individual possessing that knowledge, it put focus on the entrepreneurs in the second-wave firms and their important role in the firms' internationalization. Although the model failed to adequately explain the third-wave firms' internationalization in Zambia; and could only partly explain the internationalization of the first-wave firms, where experiential knowledge enabled their internationalization; it could surprisingly well explain the entry and expansion of the second-wave firms, a case where no internationalization in the term's traditional sense took place.

The Uppsala Model's ability to explain the second-wave firms, however, depended on the relaxation of the assumption that that individuals in the firm who act in self-interest will find opportunities that are in line with the firm's interest, which will lead to the extension of the present operations, i.e. increased market involvement within the boundaries of the firm. If this assumption is removed, the Uppsala Model can be useful in explaining internationalization processes that extend over firm boundaries through employee startups.

8.2 Contributions to Previous Research

This study has contributed to both the empirical knowledge and the theoretical understanding of the Chinese investments in the African construction industry, and has helped fill some parts of the currently large knowledge gap of Chinese economic engagement in Africa.

The choice of a firm-level perspective enabled a study of the investments that focused on the internationalization *process*, while taking the context of the firms into account. Through employing such a perspective, the study could reveal how the firms were linked to each other. It could thereby also identify differences between the CCFs in Africa, which are often lumped together as a homogenous group. Studies in the China-Africa literature focusing on the Chinese firms, rather than government-government relations and macroeconomic variables, have been particularly rare, as have studies investigating processes rather than static conditions. This study shows the benefits of such an approach.

Through grounding the research in a framework of contemporary investment theory, the study could also contribute to the theoretical understanding of Chinese investments in Africa. Using investment theory as a spotlight, the study was able to shed light on aspects of the internationalization process that are otherwise often overlooked, such as the role of entrepreneurs and experiential knowledge in Chinese investments in Africa. The theoretical analysis also highlighted important relationships in the investments, and analyzed e.g. the *mechanisms* by which the Chinese government has promoted FDI, rather than only stating that such a promotion existed.

By placing the study in the context of previous research, it was also shown that there are many similarities between CCFs in Africa and other internationalizing construction companies. Without a theoretical foundation and a relation to previous research, there is a risk that Chinese investments in Africa are habitually treated as a unique phenomenon, at the same time as it is hard to determine these possibly unique aspects.

Two main contributions were made to contemporary investment and internationalization theory. First, the findings of the study support the claims by Coviello and McAuley (1999), and Coviello and Martin (1999) that investment studies benefit from employing more than one theoretical perspective in the analysis. Second, the study showed how the Uppsala Model can explain firms that internationalize outside their boundaries and spring new firms if one of the model's assumptions is removed.

The study also confirmed many findings on FDI from emerging economies, findings that have pointed out notable differences between this type of FDI and traditional western FDI. This subject that has recently gained much attention in investment theory (Dicken, 2001, 2003; Mathews, 2006; UNCTAD, 2006; Yeung, 1998; Yeung & Peck, 2003) and the study showed that Chinese investments in Africa is a subject that belongs to this discourse. Although the study has not explicitly discussed or suggested a Chinese *model* of FDI (Sautman & Hairong, 2007), it has added to the knowledge about these investments and can hopefully contribute to research studying the larger picture of Chinese outward FDI.

8.3 Perspectives

Chinese influence in African construction markets has increased drastically since the late 1990s and the expansion shows no sign of slowing down. This issue is therefore likely to only increase in importance for both China and Africa.

Zambia is one of the African countries where the Chinese presence in the construction has become the most well-established. As claimed by Burke et al. (2007), Zambia could thereby provide valuable insights for countries where Chinese involvement is more recent. It is, however, hard to determine to what extent findings from the Zambian case can be generalized to other parts of Africa. The CCFs' entry and expansion in Zambia was affected and facilitated by many circumstances specific to Zambia, as described in chapters 4 and 5. Particularly important was the nature of the Zambian construction market at the time of the CCFs entry, and the regulatory, economic, and political background in China.

Some aspects of Chinese investments in Zambian construction, such as the entry of the first- and third-wave firms, seem to correspond well to the experience of other African countries. Linking outward construction FDI to aid projects in Africa was an important part of the Chinese government's strategy to internationalize the Chinese construction industry, and these types of investments have been documented for many African countries (Cai, 1999; Corkin & Burke, 2006; Foster et al., 2008). This study also showed how the third-wave firms' investments in other African countries was connected to Chinese government-funded aid projects, and how the first-wave firms went on to invest in many other African countries after having established a business in Zambia.

It is, however, less certain that other aspects of CCF investments in Zambia correspond to other African countries. In Tanzania, which in many aspects is similar to Zambia and has a similar history with China, no counterpart to the second-wave firms has been identified (Corkin & Burke, 2006). Burke (2007) attributes this to the hard competition from state-owned CCFs in Tanzania, and it is likely that other country- and time specific circumstances also have been influential. The case of Zambia is nonetheless an important part of the story of Chinese investments in the African construction industry.

The question of generalizability should also be taken into account regarding CCFs in Zambia. It is possible that CCFs that were not included in the study contain other stories of entering and expanding in Zambia. However, among the 17 CCFs that are documented to have entered Zambia between 1987 and 2000, only four could not be included the three waves of investments. These firms were furthermore not among the larger actors in Zambia. Thus, it is reasonable to conclude that the findings of this study apply at least to a large and important share of Chinese investments in Zambian construction.

Chapter 2 touched upon the risks of using a qualitative method. These risks involve biases, and concealed, faulty, or misleading information in informants' statements, as well as biases and misconceptions during the collection and interpretation of these statements. With awareness of these risks, I have throughout the thesis work, tried to counter-act the risks related to the researcher by avoiding biases, weighing information closely, and through data triangulation. The risk related to the study's informants should, however, be taken into account when assessing their statements and conclusions drawn from them. This relates also to the possibility of corruption having affected the studied investments, a possibility that was not addressed by informants to any larger extent, and that has been excluded from the study.

The study's foundation in a realist, rather than instrumentalist philosophy of research, has also led to problem formulations where these risks are hard to avoid. Assuming that research can reveal information about *reality*, the thesis chose to study *real* objects, structures, and relationships, rather than perceptions of them. An instrumentalist philosophy of research may have led to a choice of research questions regarding e.g. people's opinions of CCF investments in Zambia. Findings related to such research questions would have been easier to "prove," but would not have allowed the study to reveal anything of the properties of the studied investments.

8.4 Conclusions

The findings of this thesis points towards four main conclusions regarding Chinese investments in Africa.

First, this thesis has shown that, in accordance with arguments made by Dicken and Malmberg (2001) and Yeung (1998), Chinese FDI in Africa cannot be properly studied without including the nation state in the analysis. The Chinese government has influenced outward direct investments both directly and indirectly in numerous ways, wherefore ignoring its role in this issue would likely result in a faulty or limited understanding of these investments. This conclusion stands in contrast to the "borderless world"-literature (See: Omahe, 1990), which claims that the geopolitics of capitalism have become irrelevant in an increasingly globalized and borderless world.

Second, Chinese investments in Africa is a very complex issue that benefits from an analysis that incorporates several theoretical perspectives and includes both the content and the context of the studied investments.

Third, this thesis has shown that Chinese investments, although distinct in certain areas, may have a lot in common with other foreign investments in the same industry. Placing studies of Chinese FDI in Africa in the context of previous research on investments from other countries can both reveal similarities and distinguish differences and between Chinese and other foreign investments in Africa.

Fourth, although the role of the Chinese government should be acknowledged, the thesis has shown that there are notable differences among Chinese investments in Africa in terms of drivers, ownership, and degree of government support. It is easy to treat Chinese FDI in Africa as a homogeneous group of government led firms, sharing similar strategic interests. This thesis, however, found that even for firms within the same sector, there are notable differences between Chinese firms operating in Africa.

8.5 Suggestions for Future Research

To increase the knowledge of Chinese investments in Africa, there is a vast need for more empirical studies on the subject. The case study approach grounded in a theoretical framework has proven well suited for this study subject, as such a study can incorporate the many factors that affect and influence this complex phenomenon, and also build on previous research in the studied area.

From a theoretical perspective, more research is also needed regarding the application of the Uppsala Model to analyze employee startups that spring from other firms and thereby internationalize and expand outside the investing firm's boundaries. Additional studies analyzing this type of firms through the framework of the Uppsala Model could contribute to a more complete understanding of this phenomenon.

Furthermore, although it was found that the Uppsala Model can relatively well explain the mechanisms driving the entry and expansion of the second-wave firms, this is a subject that also lies relatively close to another academic discipline, namely the field of international migration studies (Portes & Sensenbrenner, 1993). Especially the "human capital approach" (Hunt & Kau, 1985) within this academic discipline could tell us more about the driving forces for the individuals who in turn drive these investments. This approach considers migrants as rational actors who make assessments of costs and benefits of migrating to a new country (Massey & Taylor, 2004). Research on Chinese investments in Africa with an international migration perspective could study these investments at an individual level and add to the understanding of the phenomenon.

Another academic discipline that could add insights to the study of Chinese investments in Africa is the so-called "relational approach" (Yeung, 2002), which has one foot in economic geography and the other in behavioral research. This perspective could also shed well-needed light on the home country dynamics that steer the internationalization process of Chinese firms, through focusing on the relationships between entrepreneurs and government institutions. The interview material gathered for this study has unfortunately lacked the scope and depth required for such an analysis. In the words of Child and Rodrigues (2005):

> It is likely that the interaction between the institutional legacies of developing economies and the dynamic capabilities of their corporate entrepreneurs will be crucial for understanding the internationalization strategies that the latter pursue. (Child & Rodrigues, 2005, p. 405)

There are also several other aspects of Chinese investments in African construction that could not be encompassed within this study, but that hold many possibilities for future research. Among them is the possible effect of corruption in the construction industry on the investments. Another issue is the role of Chinese financial assistance to CCFs through such means as the Bid Bonds and Contingencies Special Funds for overseas contractors. It was hard to find concise information on these aspects of Chinese government assistance, which was not acknowledged by the Chinese contractors, but which has been claimed to be a part of China's official strategy to internationalize CCFs (Zhao & Shen, 2008). A third issue that would benefit from more studies is the nature of possible government-government agreements between China and African countries regarding such areas as immigration and work permits. These topics are not easy to research, but any new insights in these matters would add a lot to the understanding of Chinese presence in Africa.

As mentioned in the introduction, a next step in the attempts to increase the understanding of Chinese investments in the construction industry would be to research their effects of CCFs on the local economy. This could be done e.g. in studies on labor aspects, competition implications, and studies on spillovers and technology transfer.

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Appendix 1. List of Interviewees

Chinese Construction Firm Representatives

Interviewee 1.	Manager of CJC Buildings Dept. Interviewed July 19 2008 in Lusaka.
Interviewee 2.	"Mr. Wang," General Manager of Yangts Jiang, Former Managing Director of Wah Kong Zambia. Interviewed July 23 208 in Chelstone, Lusaka.
Interviewee 3a.	Managing Director of Wah Kong Zambia, previous Managing Director of Wah Kong Malawi. Interviewed July 24 2008 in Chelstone, Lusaka.
Interviewee 3b.	Managing Director of Wah Kong Zambia, previous Managing Director of Wah Kong Malawi. Interviewed September 1 2008 in Chelstone, Lusaka.
Interviewee 4a.	"Mr. Li," Managing Director of Hua Jiang Investments, previous Manager of CJC and Wah Kong. Interviewed July 31 2008 in Chelstone, Lusaka.
Interviewee 4b.	"Mr. Li," Managing Director of Hua Jiang Investments, previous Manager of CJC and Wah Kong. Interviewed September 1 2008 in Chelstone, Lusaka.
Interviewee 5.	Managing Director of Cheerio Construction. Interviewed August 3 2008 in Lusaka
Interviewee 6a.	Managing Director of ZamChin Construction. Interviewed August 5 2008 in Makeni, Lusaka.
Interviewee 6b.	Managing Director of ZamChin Construction. Interviewed August 7 2008 in Makeni, Lusaka.
Interviewee 7.	Deputy Managing Director of China Gansu. Interviewed August 5 2008 in Lusaka.
Interviewee 8.	Deputy Managing Director of CHICO Zambia. Interviewed August 9 2008 in Lusaka.
Interviewee 9.	Assisting Managing Director of Yangts Jiang. Interviewed August 16 2008 in Lusaka.
Interviewee 10a.	Manager for COVEC Zambia. Email correspondence February 13, 2009.
Interviewee 10b.	Manager for COVEC Zambia. Email correspondence February 16, 2009.

Representatives of CCF Competitors

Interviewee 11.	Quantity Surveyor at Velos Construction (general construction). Interviewed August 6 2008 in Lusaka.
Interviewee 12.	Managing Director of Scirocco (general construction and civil works). Interviewed August 7 2008 in Makeni, Lusaka.
Interviewee 13.	Managing Director of Nemerit (building). Interviewed August 12 in Lusaka.
Interviewee 14.	Managing Director of Fair Face Construction (building and road construction). Interviewed August 12 2008 in Lusaka.

Interviewee 15.	Quantity Surveyor at Met-Weld Fabrication (building). Interviewed August 12 in Lusaka.
Interviewee 16.	Managing Director of Met-Weld Fabrication (building). Interviewed August 13 in Lusaka.
Interviewee 17.	Contracts Manager of Sable Transport (general construction and civil works). Interviewed August 14 2008 in Makeni, Lusaka.
Interviewee 18.	Managing Director of Sable Transport (general construction and civil works). Interviewed August 14 2008 in Makeni, Lusaka.
Interviewee 19.	Managing Director of Raubex Construction (road construction). Interviewed August 15 2008 in Lusaka.
Interviewee 20.	Managing Director of Roads and Paving (road construction). Interviewed August 18, 2008 in Lusaka.

Independent Consultants

Interviewee 21a.	Senior Quantity Surveyor at Ministry of Works and Supply, Buildings Dept. Interviewed August 1 2008 in Lusaka.
Interviewee 21b.	Senior Quantity Surveyor at Ministry of Works and Supply, Buildings Dept. Interviewed August 28 2008 in Lusaka.
Interviewee 22.	Chief Engineer of RDA. Interviewed August 5 2008 in Lusaka.
Interviewee 23.	Senior Consultant at Peter Richards and Partners Consultants Interviewed August 28 2008 in Lusaka.
Interviewee 24.	Managing Director of H. B. Chalwa Associates. Interviewed August 28 2008 in Lusaka.
Interviewee 25.	Senior consultant at Adam Hood Quantity Surveyors. Interviewed September 1 2008 in Lusaka.

Representatives for Chinese Institutions

Interviewee 26.	Assisting Managing Director of Bank of China's branch in Zambia. Interviewed July 31 2008 in Lusaka.
Interviewee 27.	Director of CCPIDT. Interviewed July 18 2008 in Lusaka.
Interviewee 28.	Acting President of ACCZ and Chairman of the Zambian Branch of the One China Organization. Interviewed July 29 2008 in Lusaka.
Interviewee 29.	Economic Councilor of the Embassy of China. Interviewed August 6 2008 in Lusaka.
Interviewee 30.	Third Secretary at the Economic Councilor's Office of the Embassy of China. Interviewed August 28 2008 in Lusaka.

Representatives for Zambian Institutions

Interviewee 31.	Policy and Planning Manager of ZDA. Interviewed June 23 2008 in Lusaka.
Interviewee 32.	Chief Economist of the Ministry of Finance and Central Planning. Interviewed July 14 2008 in Lusaka.
Interviewee 33.	Senior Economist of the Ministry of Commerce, Trade, and Industry. Interviewed July 14 2008 in Lusaka.

Interviewee 34.	Chief Economist of the Ministry of Commerce, Trade, and Industry. Interviewed July 15 2008 in Lusaka.
Interviewee 35.	Deputy Manager of Tender Inspections at ZNTB. Interviewed July 29 2008 in Lusaka.
Interviewee 36.	Principal Procurement Officer, ZNTB. Interviewed July 29 2008 in Lusaka.
Interviewee 37.	Quantity Surveyor and Inspector at NCC. Interviewed July 30 2008 in Lusaka.
Interviewee 38.	Deputy Director of Purchasing Works at Zambia National Tender Board. Interviewed August 6, 2008 in Lusaka.
Interviewee 39a.	Secretary of ABCEC. Interviewed August 11 2008 in Lusaka.
Interviewee 39b.	Secretary of ABCEC. Follow up email correspondence May 04, 2009.
Interviewee 40.	Board member of NEPC. Interviewed August 20 2008 in Lusaka.

Appendix 2. Interview Questions

Interview Guide: Chinese Construction Firms

1. Introduction

a) What is your name?

b) What is your professional title in this firm?

c) How long have you been working in Zambia?

d) How long have you been working for this company?

2. Company profile

a) What is the formal name of your company?

b) Can you describe the ownership-structure of the firm?

i) Is the firm state- or privately owned?

c) Can you describe the Zambian branch's relationship with a possible head-office in China?

i) Has this changed since the investment?

ii) If yes; How has this changed?

d) Which is the firm's main line of business?

e) Has the firm invested or opened branches in other foreign countries?

i) Which countries?

ii) Was this prior to, or after the investment in Zambia?

f) Has the firm invested or opened branches in other African countries?

i) Which countries?

ii) Was this prior to, or after the investment in Zambia?

3. Nature of investment in Zambia

a) When was this firm started in Zambia?

b) How did the firm first enter the Zambian construction market?

i) Which was the first construction project the firm undertook in Zambia? Has your firm been involved in any joint-venture in Zambia?

c) How much has the firm invested in Zambia since you arrived?

d) Can you tell me about the aims and investment horizon when the investment was made?

i) Has this changed since the initial investment?

ii) If yes; how has this changed?

4. Background of the investment.

a) Why did the firm decide to invest abroad?

b) Which were the main reasons behind the decision to invest/start the company in Zambia?

c) Why did the firm choose to invest in Zambia as opposed to other African, or neighboring countries?

d) Can you tell me about the background of the firm and the investment made in Zambia?

e) On what level within the company was the investment decision made?

f) Was the Chinese or the Zambian government on some level involved in the investment or the investment decision?

i) If yes; how were they involved?

g) How was the investment climate in Zambia at the time of the initial investment?

i) How, in your opinion, has the Zambian construction market developed since the firm entered the country?

h) How would you describe the business climate in China at the time of the initial investment?

5. Current operations.

a) Which do you consider to be the firm's main clients?

i) Has this changed since the initial investment?

ii) If yes; how has this changed?

iii) Can you give some examples of construction projects that the firm is currently engaged in?

b) Which firms do you consider to be the firm's main competitors?

i) Has this changed since the initial investment?

ii) If yes; how has this changed?

c) Does your firm sub-contract to any Chinese, Zambian, or other firm?

6. Competitive advantages.

a) What do you consider to be the firm's main competitive advantages?/What do you consider to be the main reasons for the firm's success and ability to win contracts?

i) Has this changed since the initial investment?

ii) If yes; how has this changed?

b) Do you consider your firm to have much in common with other Chinese firms in terms of competitive advantages?

i) If there is any difference, do the local and other competitors have any advantages over Chinese firms?

c) Which is the level of the firm's profit margins?

i) Have they changed since the firm entered Zambia?

d) From where does the firm buy equipment and material?

e) Which banks and lending institutions does the firm use for loans, bonds, and securities?

f) Has the firm benefitted from any Chinese government financial assistance, or beneficial loans from Chinese banks or lending institutions?

g) Does your firm, or has it previously, undertake construction projects funded by the Chinese government?

h) Does your firm have any significant cooperation with any other firms, Chinese or other?

i) Does the company cooperate with, receive assistance from or have continuous contact with any of the Chinese institutions (Embassy, ECO, CCPIDT, ACCZ) present in Zambia?

i) If yes; how do these institutions, if at all, benefit the firm?

7. Labor.

a) How many expatriate and Zambian workers does the firm employ?

b) Has your firm had any trouble receiving employment permits for expatriate workers?

i) How has this affected the firm's choice of employing expatriate workers?

b) How many workers does the firm employ as casual workers or on short-term contracts?

c) How long is a typical contract for an expatriate or a local worker?

d) What benefits and allowances are local and expatriate employees of the firm entitled to?

e) Relating to the controversies the last years and allegations made e.g. by Michael Sata, is there in your perception any difference between wages and labor conditions at Chinese and other construction firms?

i) If yes; which are these differences?

ii) Why do you think these perceptions exist?

Interview Guide: CCF Competitors

1. Introduction.

a) What is your name?

b) What is your professional title in this firm?

c) How long have you been working in Zambia within this field of work?

d) How long have you been working for your company?

2. Company profile.

a) What is the formal name of your company?

b) Which is the firm's main line of business?

c) Can you describe the ownership-structure of the firm?

d) Is the firm to some extent owned by a foreign company? If yes;

i) Can you describe the Zambian branch's relationship with a possible head-office abroad?

ii) Has the firm invested or opened branches in other foreign countries?

iii) If yes, which countries, and was this prior to, or after the investment in Zambia?

3. Company start-up.

a) When was this firm started?

b) How did the firm first enter the Zambian construction market?

i) Which was the first construction project the firm undertook in Zambia?

c) Which were the main reasons behind the decision to invest/start the company?

d) Who made the decision to start the company?

e) Did you receive any governmental assistance when starting the company?

f) How was the investment climate in Zambia at the time of the initial investment?

i) How, in your opinion, has the Zambian construction market developed since the firm entered the country?

5. Current operations and competitive advantages.

a) Which do you consider to be the firm's main clients?

i) Has this changed since the company was started?

ii) If yes; how has this changed?

iii) Can you give some examples of construction projects that the firm is currently engaged in?

b) Which firms do you consider to be the firm's main competitors?

i) Has this changed since company was started?

ii) If yes; how has this changed?

c) What do you consider to be the firm's main competitive advantages?

i) Has this changed since the initial investment?

ii) If yes; how has this changed?

d) Which is the level of the firm's profit margins?

i) Have they changed since the firm entered Zambia?

e) From where does the firm buy equipment and material?

f) Which banks and lending institutions does the firm use for loans, bonds, and securities?

g) Does your firm sub-contract?

6. Relation to and perceptions of Chinese construction firms.

a) How would you describe the Zambian construction market at the time of the Chinese construction firms' market entry?

b) In your perception, did the Chinese firms' entry in Zambia affect the construction market to any notable extent?

i) If yes; how did they affect the market?

ii) Did the entry of the Chinese construction firms affect the business situation of your firm to any notable extent?

iii) How, if in any way, have the Chinese construction firms benefitted the Zambian construction industry?

c) Which, in your opinion, are the main competitive advantages of the Chinese construction firms?

i) Do you consider these advantages to similarly attribute to most Chinese firms, or do you think there are noteworthy differences between the Chinese firms? In that case, which are the differences?

ii) Do you consider these advantages to be different from those of local and/or other foreign construction firms?

iii) In your opinion, have these advantages changed since the Chinese firms fist entered the Zambian market?

d) Have you had any cooperation with any of the Chinese construction firms?

i) If yes; what was the nature of this cooperation?

7. Labor.

a) How many expatriate and local workers does the firm employ?

b) Has your firm had any trouble receiving employment permits for expatriate workers?

i) How has this affected the firm's choice of employing expatriate workers?

c) How many workers does the firm employ as casual workers or on short-term contracts?

d) How long is a typical contract for an expatriate or a local worker?

e) What benefits and allowances are local and expatriate employees of the firm entitled to?

f) Is there in your perception any difference between the wages and labor conditions at Chinese and other construction firms?

i) If yes; what has led you to this perception?

Interview Guide: Independent Consultants

1. Introduction.

a) What is your name?

b) What is your professional title in this firm/organization?

c) How long have you been working in Zambia within this field of work?

d) How long have you been working for this firm/organization?

2. Introduction to firm/organization.

a) Can you describe the work your firm does and possible government mandates?

b) What is your role within this organization?

3. Chinese construction history.

a) Can you describe briefly how the Zambian construction industry in your experience has developed from Zambian independence until today?

b) Which were, according to you, the most important events during this time?

c) How has foreign presence in Zambian construction developed from Zambian independence until today?

d) How would you describe the Zambian construction market at the time of the Chinese construction firms' market entry?

e) Can you describe how and when the different Chinese construction firms entered Zambia?

f) In your perception, did the Chinese firms' entry in Zambia affect the construction market to any notable extent?

i) If yes; how did they affect the market?

ii) In your opinion, how, if in anyway, have the Chinese construction firms harmed or benefitted the Zambian construction industry and/or the Zambian economy?

4. Chinese construction firms.

a) Can you explain the nature of your contact with or work with Chinese construction firms?

b) Which, in your opinion, are the main competitive advantages of the Chinese construction firms?

i) Do you consider these advantages to similarly attribute to most Chinese firms, or do you think there are noteworthy differences between the Chinese firms? In that case, which are the differences?

ii) Do you consider these advantages to be different from those of local and/or other foreign construction firms?

iii) In your opinion, have these advantages changed since the Chinese firms fist entered the Zambian market?

c) Which, in your opinion, are the main competitive disadvantages of the Chinese construction firms?

d) Are there in your opinion any major differences in bid-prices between Chinese and other construction firms? If yes;

i) Have they changed since the Chinese construction firms first entered Zambia?

ii) Judging from studies of bidding documents and visits to construction sights, what are the major explanations for these lower bid-prices?

e) Are there in your opinion any differences in quality of work between Chinese and other construction firms? If yes;

i) Has this changed since the Chinese construction firms first entered Zambia?

f) Are there in your opinion any differences in the wages and labor conditions at Chinese and other construction firms?

i) If yes; which are these differences?

Appendix 3. Chinese Construction Firms in Zambia

No.	Company name	Investment year	State owned (s) Private (p)
1	COVEC	1987	s
2	Wah Kong	1990	s
3	China Jiangxi Corp. for Internatoinal Cooperation	1992	s
4	Hua Cheng Corporation *	1994	-
5	Three-C (Zambia) Ltd *	1995	s
6	Yangts Jiang Enterprises Ltd	1997	p
7	Datong	1997	-
8	Jizan Construction Co. Ltd *	1997	s
9	ZamChin Company Ltd	1998	p
10	Hua Jiang Investments Ltd	1998	p
11	African Brothers	1998	p
12	China Hainan Corporation	1998	s
13	China Jiangsu International	1999	s
14	CHICO Zambia Ltd	1999	s
15	CGC (Zambia) Ltd	2000	s
16	CHINA GANSU CORP Ltd	2000	s
17	Sietco Zambia Ltd *	2000	-
18	New Era (Z) Limited	2001	-
19	Hua Chang Infrastructure E/H C Industry and trading Ltd.	2003	-
20	Cherio	2004	p
21	China Railway Construction Engineering *	2004	s
22	Mango Tree Construction Co. *	2006	-
23	China Civil Engineering Construction Corporation *	2007	s
24	Youngze Investments Ltd	2007	-
25	Global Development and Gen. Services Ltd.	2007	-
26	Fifteen MCC Construction	2007	-
27	CRCEG Zambia Engineering Cororation *	2007	s
28	Fengwei Contractors Limited	-	-

The list has been compiled through comparing records from the Patents and Company Registration Organization of Zambia (PACRO) company registry; The Zambia Development Agency (ZDA) investment data; The Embassy of China in Zambia contact lists; The National Council for Construction's member registry; and the Zambian Central Statistical Office's records of turnover for the years 2006 and 2007. A company was regarded as *existing* if it could be found on more than two of these lists, or if there was other proof (found in interviews and internet searches) of recent tendering or construction activity in Zambia. The list was furthermore confirmed the Secretary of ABCEC (Interviewee 39b). In case of conflicting information regarding year of entry, the figures from ZDA were used, since they proved more reliable than PACRO data.

An asterisk indicates that it was hard to prove that the company is still active, but there were signs that the company existed. Grey marked companies were listed in the National Council for Construction's member registry of April 2008. Ownership was hard to determine for many companies. It is however likely that most of them are privately owned (Corking & Burke, 2006) (Interviewee 4a).

Appendix 4. CHICO's three tenders 2004-2005.

Chingola - Kasumbalesa Rd., Nov 12 2004	
Bidder	Bid Price (ZMK)
CHICO Ltd.	53 943 430 802,00
Sable Transport	59 728 009 489,00
CGC	63 474 352 250,87
Shimizu Corporation	65 591 161 454,00
Raubex Construction (Z)	69 126 000 000,00
G M Int'l (Z) & SR J.V.	91 108 327 165,60
Grinaker LTA Construction (Z)	135 031 913 743,00
Average bid price:	76 857 599 272,07

Kafulafuta – Luanshya Rd., Apr 1 2005	
Bidder	Bid Price (ZMK)
CHICO Ltd.	32454080226,00
Raubex Construction Zambia	37770026800,00
Sable Transport Ltd	47875280290,00
Stefanutti & Bressan (Z) & Pty JV	52760365637,00
G M Int'l (Z) & SR J.V.	61744149400,00
Average bid price:	46 520 780 470,60

Lusaka - Chirundu Rd., Apr 13, 2005	
Bidder	Bid Price (ZMK)
CHICO Ltd.	110631440204,00
Concor Holdings (Pty) Ltd.	153141995373,62
Shimizu Corporation	156796065005,00
Raubex Construction (Z)	174702781560,00
Average bid price:	148 818 070 535,66

Appendix 5. Recent example tenders supplied by ZNTB

Tender for Construction of UNZA Dorms, Min. of Works & Supply. Sep 2006.			
BIDDER	**BID SUM (ZMK)**	**BID SECURITY(ZMK)**	**COMPLETION PERIOD**
Mercury Lines Ltd	**23,543,308,844.00**	**470,900,000.00 (Goldman Insurance)**	**72 weeks**
Mercury Lines Ltd	24,541,209,864.00	Not submitted	72 weeks
China Jiangsu Ltd	*39,251,754,784.00*	*800,000,000.00 (Bank of China)*	*78 weeks*
Hua Jiang Inv. Ltd	*47,441,597,900.00*	*1,000,000,000.00 (Cavmont Capital Ins.)*	*130 weeks*

Tender for Maintenance of Isoka to Nakonde Rd., RDA. Jun 2007			
BIDDER	**BID SUM (ZMK)**	**BID SECURITY(ZMK)**	**COMPLETION PERIOD**
Wavizana Enterprises Limited	7,526,486,000.00	150,529,720.00 (Goldman Insurance)	8 months
CGC	***10,248,213,112.05***	***357,390,000.00 (ICBC)***	***8 months***
Sable Transport Ltd	13,994,361,508.00	300,000,000.00 (Prof Insurance Corp)	8 months
A. Argente and Company Limited	15,656,440,250.00	313,130,000.00 (Goldman Insurance)	16 weeks
Raubex Construction Zambia Limited	19,991,743,750.00	420,000,000.00 (NedBank Corporate)	8 months

Tender for Maintenace of Kitwe–Kalulushi–Lufwanyama Rd., RDA. Dec 2007			
BIDDER	**BID SUM (ZMK)**	**BID SECURITY (ZMK)**	**COMPLETION PERIOD**
China Jiangxi Corp.	***2,702,825,475.00***	***60,000,000.00 (Bank of China)***	***6 months***
Landmark Construction Zambia Limited	3,265,464,014.00	53,210,000.00 (ZIGI Insurance)	6 months
Roads Contractors Company Ltd	16,084,658,884.79	2,808,000,000.00 (Citibank Zambia)	6 months

CCFs are in italics and winning bids are marked grey.