The London School of Economics and Political Science

The Tiger and the Dragon: A Neoclassical Realist perspective of India and China in the oil industry in West Africa

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Declaration

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it).

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I declare that my thesis consists of **98,338** words.

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To the indomitable spirit of a human being

Abstract

Can and does neoclassical realism explain the difference in how India and China mobilise oil (a key resource) externally to meet their respective goals and objectives. The thesis illustrates how political economy (political economy as employed in the thesis examines the structure of the economic system, not the foreign policy executive) is incorporated as the intervening variable into neoclassical realism to explain the acquisition of oil blocks by Indian and Chinese oil corporations in West Africa. Consequently, the thesis transcends the existing or prevalent theories of neoclassical realism which either elucidate structural outcomes like polarity or balancing, or deviations from neorealism like under balancing or over balancing. The thesis postulates that the independent or the exogenous variable i.e. the difference in the relative power of India and China elucidates the ability of Chinese oil companies to outbid their Indian competitors and/or be preferred as partners by international oil companies (IOCs) and/or have better quality oil blocks as well as China's widespread outreach in 11 countries in West Africa compared to India's presence in two counties namely Nigeria and Gabon. The intervening variable or the difference in the political economy of India and China explicates why China is represented by state owned enterprises (SOEs) in the oil industry in West Africa where as India is represented by SOEs and/or private enterprises. For case study analysis, the thesis uses a pattern-matching logic in 11 countries in West Africa and employs Angola, Nigeria and Gabon for in depth case studies. The thesis examines not only the bids that Chinese and Indian oil corporations place for the oil blocks but tries to explicate the reason why they are able to place those bids. It examines the rate of return on capital/investment, rate of interest on loans and the ease of availability of loans or finance, the difference in the level of technology and ability to acquire technology, project management skills, risk aversion, valuation of the asset and the difference in the economic, political and diplomatic support received by the Chinese and Indian oil companies from their respective governments. It also discusses the reasons why the Chinese national oil companies (NOCs) are preferred as partners by African oil companies and IOCs. Thus, the thesis provides a more comprehensive explanation for the ability of the Chinese oil companies to mobilise oil in the oil industry in West Africa relative to their Indian counterparts, and makes an empirical contribution to the existing literature on India and China in the oil industry in West Africa.

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Selected Acronyms

ADB	Asian Development Bank
AP	Addax Petroleum
APCC	Addax Petroleum Cameroon Company
API	American Petroleum Industry Standard
APRM	African Peer Review Mechanism
AU	African Union
BASIC	Brazil, South Africa, India, China
bcm	billion cubic metre
boe	barrels of oil equivalent
BMI	Business Monitor International
BP	British Petroleum
BP	Bharat Petroleum Corporation Limited
Bpd	barrels per day
BRICS	Brazil, Russia, India, China, South Africa
BS	Burmah-Shell
CBM	Coal Bed Methane
CCCPI	China Chamber of Commerce for the Petroleum Industry
CCEA	Cabinet Committee on Economic Affairs
CCECC	China Civil Engineering Construction Company
CCP	Chinese Community Party
CIC	Chinese Investment Corporation
CII	Confederation of Indian Industries
CIIS	Chinese Institute of International Studies
CPC	China Petroleum Corporation
CPCL	Chennai Petroleum Corporation Limited
DAC	Development Assistance Committee

E&P	Exploration and Production
ECOWAS	The Economic Community of West African States
EOR	Enhanced Oil Reserves
EPGCL	Express Petroleum & Gas Company Ltd
ETI	Extractive Transparency International
EU	European Union
EXIM Bank	Export Import Bank
FDI	Foreign Direct Investment
FERA	Foreign Exchange Regulation Act
FICCI	Federation of Indian Chambers of Commerce and Industry
FIE	Foreign Invested Enterprises
FIPB	Foreign Investment Promotion Board
FLN	National Liberation Front
FOCAC	Forum on China Africa Cooperation
FY	Financial Year
GDP	Gross Domestic Product
GOI	Government of India
GNY	Gross National Income
GNP	Gross National Product
GNPC	Ghana National Petroleum Corporation
GP	Great Power
GRD	Global Depository Receipts
GUPC	Great United Petroleum Company
HDI	Human Development Index
HPCL	Hindustan Petroleum Corporation Limited
IBSA	India, Brazil, South Africa
IDRA	Industries Development and Regulation Act
IDSA	Institute for Defence Studies and Analysis

IMF	International Monetary Fund
INR	Indian Rupee
IOC	International Oil Corporation
IOCL	Indian Oil Corporation Limited
IOR	Improved Oil Reserves
IPO	Initial Public Offering
IPR	Industrial Policy Resolution
IR	International Relations
ITEC	Indian Technical and Economic Cooperation
JDA	Joint Development Authority
JDZ	Joint Development Zone
KG	Krishna Godavari
LPG	Liquefied Petroleum Gas
mbpd	million barrels per day
MDG	Millennium Development Goals
MEND	Movement for the Emancipation of Niger Delta
MEL	Mittal Energy Limited
MNC	Multinational Corporation
MoU	Memorandum of Understanding
MP	Middle Power
MPI	Ministry of Petroleum Industry
MPLA	Movimento Popular de Libertacao de Angola
MRTP	Monopoly and Restrictive Trade Practices
NELP	New Exploration Licensing Policy
NEPAD	New Partnership for African Development
NGL	Natural Gas Liquefied
NNPC	Nigeria National Petroleum Corporation
NOC	National Oil Company

ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
OIL	Oil India Limited
ONGC	Oil and Natural Gas Commission
OMEL	ONGC Mittal Energy Limited
ONL	ONGC Narmada Limited
OPEC	Organisation of Petroleum Exporting Countries
ORF	Observer Research Foundation
OSP	Official Selling Price
OVL	ONGC Videsh Limited
PCC	Petroleum Cameroon Company
PCY	Per Capita Income
PDG	Partie Democratique Gabonaise
PIB	Petroleum Industry Bill
PLA	Peoples Liberation Army
PNRC	Pioneer Natural Resources Company
PPP	Purchasing Power Parity
PRC	Peoples Republic of China
PSC	Production Sharing Contract
PWC	Price Waterhouse Coopers
R/P	Reserve to Production Ratio
RCA	Radio Corporation of America
REU	Reliance Eagleford Midstream LLC
ROC	Republic of China
RFR	Right to First Refusal
SAARC	South Asian Association for Regional Cooperation
SAP	South Atlantic Petroleum
S&P	Standard and Poor

SAIIA	South African Institute of International Affairs
SASAC	State Owned Assets Supervision and Administration Commission
SBI	State Bank of India
SEZ	Special Economic Zone
SIIS	Shanghai Institute for International Studies
SIPC	Sinopec International Petroleum Exploration and Production Corporation
SNEL	Starcrest Nigeria Energy Limited
SNEPCO	Shell Nigeria Exploration and Production Company Limited
SOE	State Owned Enterprises
SP	Small Power
SPA	Simplified Purchase Agreement
SPDC	Shell Petroleum Development Company of Nigeria Limited
SPV	Special Purpose Vehicle
SWF	Sovereign Wealth Fund
tbpd	thousand barrels per day
tcm	trillion cubic meters
tpa	tonnes per annum
TVE	Township and Village Enterprises
UN	United Nations
UNPKO	UN Peace Keeping Operations
UNSC	UN Security Council
VVIP	Very Very Important Person
WB	World Bank
WHO	World Health Organisation
2P	Proven and Probable Reserves

Chapter 1

Introduction

Oil or black gold is one of the key sources of energy in the world. There is no perfect substitute for oil. It does have theoretical substitutes like coal or solar energy but they cannot be used to operate majority of the means of public and private transport. However, none of these substitutes are promising enough to merit development in the future. Oil has been the lifeblood for the global economic system for more than a century and will remain so in the distant future. Almost all the countries in the world are heavily dependent on oil for it is an engine of growth.

A rise in the price of oil can have an adverse impact not only on an individual country per se but the international system - politically, economically and strategically - as was witnessed by the rise in the price of oil in the two oil shocks in 1973-74 and 1979-80, during the first Gulf War in 1991and during 1999-2000. However, the economic gain from a fall in the price of oil is substantially less intense than the loss from the rise in the price of oil. There are various factors which affect the price of oil like demand and supply side factors, speculation and commodity trading, and geopolitical instability especially in the Middle East.

The presence or absence of significant oil reserves in a country causes a quandary. Countries which do not have it, suffer from energy insecurity like India and China. Such countries have to take extensive measures to ensure and secure their energy security. On the other hand, countries which have significant reserves of oil may also suffer from the resource curse, the 'Dutch Disease'. This is evidenced in countries in Africa especially West Arica which have significant but not substantial oil reserves relative to countries in the Persian Gulf. Most of the oil producing countries in Africa especially West Africa suffer from 'Dutch Disease'. Over reliance on the oil industry and the failure to use the proceeds from the oil revenue to diversify into different sectors has been the bane for the majority of the oil producing countries in West Africa.

Background Debate

India and China

India and China[1] are emerging market economies and rising powers. China, despite being an economic superpower and a permanent member of the United Nations Security Council (UNSC), and India are still developing countries. Both these countries need oil to meet their energy security, to fuel their

[1] In the thesis, Peoples Republic of China (PRC) and China have been used interchangeably. Similarly, Taiwan, Chinese Taipei and Republic of China (ROC) have been used interchangeably.

industrialisation process, improve the living standards and quality of life of their citizens, and catch up with the West and sit on the high table in global affairs. India and more so China have both played an important role in the rise in the price of commodities in general and oil in particular since the beginning of the new century.

The rising turmoil and political instability in the Middle East has increased India's and China's energy insecurity. The two countries have turned to Africa especially West Africa to diversify their energy sources and alleviate their energy insecurity. Africa especially West Africa has regained importance as a significant player in the global oil industry since the beginning of the new millennium. This is due to its oil and natural gas reserves and its quality, and commercial advantages that it offers to IOCs. In the process, the African continent especially West Africa as a region and the countries in the region will be impacted economically, diplomatically and politically. The importance of the oil industry in West Africa is discussed in detail in Chapter 2.

Neoclassical Realism

Neoclassical realism was coined by Gideon Rose in the pioneering article in the journal 'World Politics' in 1998. It is a theoretical paradigm which explains foreign policy outcomes of states. It provides a theoretically-inspired framework which strives to explicate the foreign policies of different states facing similar external restraints or the foreign policy of the same state over time. Thus neoclassical realism provides a comparative perceptive across time and space. It puts forward a well-defined causal chain comprising of three steps: first, the independent or the exogenous variable or a country's relative material power in the anarchical international system. Second is the intervening or the endogenous variable or the domestic level 'transmission belt' which sieves systemic forces. Third is the foreign policy outcome or the dependent variable (Juneau, 2010). Proponents of neoclassical realism argue that a country's relative power i.e. political, economic and military power or hard power influences and constraints its position in the anarchical international system. There is disagreement among neoclassical realists whether it is a natural extension of neorealism or whether it explains foreign policy muddles or it is a theory of foreign policy or theories of foreign policy.

There has been a rapid surge in literature on neoclassical realism since the late 1990's across time and space, and it is gaining momentum as a theoretical paradigm. International Relations (IR) scholars and PhD students in top ranked universities are using neoclassical realism as a theoretical paradigm. Despite the recent spurt, neoclassical realism is still in an embryonic stage.

There is paucity of literature on the role of political economy as a domestic or intervening variable in neoclassical realism. Most of the existing literature explains or seeks to explain a contradiction in neorealism like over balancing or under balancing or to explain a structural phenomenon like polarity. This is done by exploring internal mobilisation and extraction of resources to achieve foreign policy outcomes. Neoclassical

realism as a theoretical construct and the role of political economy (political economy as employed in the thesis examines the structure of the economic system and not the FP executive) as an intervening variable in neoclassical realism is discussed in detail in Chapter 3.

Research question

The argument and contribution to the existing literature

The thesis aims to answer the following question: *'Can and does neoclassical realism explain the difference in how India and China mobilise[2] oil in the oil industry in West Africa?'*

In the process, it makes a contribution to the existing literature on neoclassical realism by extending its research design. It also makes an empirical contribution by providing a more comprehensive study of Indian and Chinese oil companies in 11 countries in West Africa. The theoretical contribution to the existing literature answers the first part of the research question 'Can neoclassical realism explain the difference in how India and China mobilise oil in the oil industry in West Africa?' The empirical contribution answers the second part of the question 'Does neoclassical realism explain the difference in how India and China mobilise oil in the oil industry in West Africa?'

The thesis uses the difference in the relative power of India and China in an anarchical international system as the independent or the exogenous variable and the difference in the political economy as the intervening variable in neoclassical realism to explain the difference in the ability of India and China to mobilise oil in the oil industry in West Africa. In the process, the thesis extends neoclassical realism's research design because in the past, political economy has been used as an intervening variable in neoclassical realism to explicate either a contradiction in neorealism like under balancing or to explain a structural phenomenon like polarity. This is discussed in detail in Chapters 3 and 8.

The thesis asserts that there are three differences in the interaction of Indian and Chinese oil companies in the oil industry in West Africa. First, China is represented by the SOEs in the oil industry in West Africa where as India is represented by SOEs and/or private enterprises. Second, Chinese NOCs are spread throughout West Africa relative to India which indulges in niche diplomacy and has a limited presence in the region. Third, Chinese NOCs are able to outbid Indian SOEs and private sector enterprises if and when they directly compete for the same oil blocks and/or are preferred as partners by international oil companies and/or have better quality oil blocks.

[2] Mobilisation and extraction can lead to confusion in the context of the oil industry. The two words have different meanings. In the oil industry, the term 'Exploration and Production (E&P)' is used to explain extraction of oil. This is discussed in detail in Chapter 5. Mobilisation used colloquially means to acquire resources.

The thesis postulates that the difference in how India and China mobilise oil in the oil industry in West Africa is explained by two factors: first, the independent variable i.e. the difference in their material power i.e. economic and political power. Since China has greater economic power and political clout than India, it's behaviour and role is different vis-à-vis India in the oil industry in West Africa. This elucidates the ability of Chinese oil companies to outbid their Indian competitors and/or be preferred as partners by international oil companies and/or have better quality oil blocks as well as China's widespread outreach in Africa compared with India's discreetly selective approach. The thesis examines not only the bids that Chinese and Indian oil corporations place for the oil blocks but tries to explain the reason why they are able to place those bids. The thesis examines the rate of return on capital, rate of interest on loans and the ease of availability of loans or finance, the difference in the level of technology and ability to acquire technology, project management skills, risk aversion, valuation of the asset and the difference in the economic, political and diplomatic support received by the Chinese and Indian oil companies from their respective governments. It also mentions the reasons why the Chinese NOCs are preferred as partners by African oil companies and IOCs. Thus, the thesis provides a more comprehensive explanation for the ability of the Chinese oil companies to outbid their Indian counterparts and makes an empirical contribution to the existing literature on India and China in the oil industry in West Africa. The empirical contribution to the existing literature discussed in Chapter 2 and illustrated in Chapters 5, 6 and 7.

The thesis contends that the intervening variable or the difference in the political economy of India and China explains why China is represented by SOEs in the oil industry in West Africa and India is represented by the SOEs and/or private sector enterprises. The thesis argues that the difference in the intervening variable or the difference in the political economy of India and China translates into divergence in the composition of the economy especially the non-agricultural sector. This explains the diversity in reforms introduced in the two countries and why the Chinese economy is dominated by large scale and mostly subsidised SOEs, and why the private sector has been stifled. India on the other hand is characterised by a mixed economy constituting SOEs as well as a vibrant private sector with 'global brand names' which acts as the torch bearer. The difference in the political economy explains why the oil industry in China is almost totally dominated by the SOEs whereas the oil industry in India is represented by SOEs and the private sector, and the latter play an important role in the oil industry. In the process, the thesis extends neoclassical realism's research design and makes a theoretical contribution to the existing literature. This is discussed in detail in Chapters 3, 4, and 5.

Neoclassical Realism, Research Methodology, Analytical Framework and Research Design

This section discusses the research methodology adopted by neoclassical realism. It discusses the analytical framework and the research design adopted to illustrate the difference in how India and China mobilise oil in the oil industry in West Africa. It also discusses the analytical framework adopted to prove that Chinese oil

companies outbid Indian oil companies and/or are preferred as partners and/or have better quality oil blocks, and China has greater outreach relative to India in the oil industry in West Africa.

Neoclassical Realism and Research Methodology

Neoclassical realism employs three different types of methodologies: case study analysis, process tracing and analytical narratives. It does not use quantitative techniques. According to George and Bennett (2004:5), case studies offer "detailed examination of an aspect of a historical episode to develop or test historical explanations that may be generalizable." The case study approach is particularly well suited for neoclassical realism. Case study methodology's strengths like the ability to "examine the proposed causal mechanism in great detail, to accommodate complex causal relations, and to achieve high levels of conceptual validity and clarity" (Juneau, 2010:13) fit aptly into the neoclassical realist mould.

According to George and Bennett (2004:6), process tracing "attempts to trace the links between possible causes and observed outcomes. It does so by focusing on "sequential processes" (ibid.: 13). George and McKeown assert that the primary objective of process tracing is "intended to investigate and explain the decision process by which various initial conditions are translated into outcomes." Process tracing according to Bennett and Elman (2007) can involve either inductive or deductive approach. They further assert that neoclassical realism employs the deductive approach where in theory suggests "which intervening events should have occurred within a case if the theory is an accurate explanation" (ibid.: 183). Successful process tracing requires the use of a plethora of sources (ibid.).

Stone (1981:74) defines analytical narrative as the "organization of material in a chronologically sequential order, and the focusing of the content into a single coherent story, albeit with subplots." According to Juneau (2010), the primary objective of analytical narrative is to create a theoretically cognisant and provisional account of a foreign policy of a state based on the prevailing circumstances. Juneau asserts that "the development of analytical narratives by neoclassical realist research is a logical result of its use of process-tracing and case study methodologies" (ibid.: 14).

Analytical Framework and Research Design

The thesis employs both deductive and inductive approaches. In deductive research, a conceptual and theoretical structure is developed and then tested by empirical observation. In inductive research, theory is developed from the observation of empirical reality. The thesis combined inductive and deductive methods. The inductive approach was used in the analysis to inform and expand on the theory. The deductive approach was suitable to establish and develop research questions and a theoretical framework which was used sequentially to form the foundation of how to perform the analysis.

The researcher began with the inductive approach. The researcher observed that Chinese NOCs operate in the oil industry in West Africa and India is represented by both NOCs and private sector enterprises. Empirical evidence also highlighted that Chinese NOCs were operating in more countries in West Africa relative to Indian oil companies and the former outbid the latter if and when they directly bid for the same oil block. After studying and analysing the empirical evidence, the researcher decided to formalise a theoretical framework and decided to employ neoclassical realist analysis to explain the outcomes. The researcher reached the conclusion that a neoclassical realist analysis explicates the difference in the way the two countries mobilise oil in the oil industry in West Africa by employing the difference in the political economy of the India and China as the domestic or the intervening variable, and the difference in their relative economic and political power as the independent variable. However, neoclassical realism as a theoretical construct had been used by scholars to expound anomalies from neorealism like under balancing or to explain a structural phenomenon like polarity. The researcher realised that by employing political economy as the domestic or intervening variable, the thesis makes a theoretical contribution to the existing literature and expand its research design. The theoretical contribution to the existing literature is discussed in detail in Chapter 3. The researcher also realised that the thesis could make an empirical contribution to the existing literature on India and China in the oil industry in Africa by considering West Africa as a region and comparing and contrasting the operations of Indian and Chinese oil companies in the upstream sector in the oil industry in West African countries. This is discussed in Chapter 2 and illustrated in Chapters 5, 6 and 7.

The researcher adopted a two pronged strategy to prove that that Chinese oil companies outbid Indian oil companies and China has greater outreach relative to India in the oil industry in West Africa.

I Chinese SOEs outbid Indian companies. This highlights the difference in the relative power between India and China and is explained by the systemic variable.

This is divided into four cases or scenarios:

Case I: Examine the oil blocks that Chinese oil companies have in countries in West Africa. Investigate if Indian oil companies bid for those blocks or not. If Chinese companies bid more than India, Chinese companies outbid Indian companies.

Case II: Examine the blocks that were not acquired by the Chinese oil companies. Investigate who won the bid for oil blocks. Further investigate if Chinese oil companies bid more than Indian oil companies for the oil blocks. If Chinese companies bid more than Indian companies, then the former outbid the latter.

Case III: Examine the oil blocks that Indian oil companies acquired in countries in West Africa. Investigate if Chinese oil companies bid for those oil blocks. If China did not bid for the blocks, explore the reasons why they did not. If Chinese companies bid for the contracts but did not win the oil blocks, it contradicts the assertion that Chinese oil companies outbid Indian oil companies.

Case IV: Examine the oil blocks that neither India nor Chinese oil companies acquired in West African

countries. Investigate if Chinese and Indian companies bid for the oil blocks. If yes, did China bid more than India? If yes, it confirms the assertion. If no, it contradicts the assertion.

II China is spread throughout West Africa relative to India: This highlights the difference in the relative power between India and China and is explained by the systemic variable.

Case I: If Chinese oil companies bid for oil blocks in West African countries and Indian oil companies did not bid for the same oil blocks, it confirms the assertion that China has greater outreach relative to India.

In this case, it is not important that China should get the contract. What is important is that China made a bid and India did not. This shows that China has greater power relative to India.

Case II: If Chinese oil companies bid for more oil blocks in individual West African countries or in West Africa as a region relative to India, then Chinese oil companies have greater outreach in the region relative to India. This conforms to the assertion.

Case III: If Chinese oil companies have acquired more oil blocks in individual West African countries or in West Africa as a region relative to India, then Chinese oil companies have greater outreach in the region relative to India. This is in line with the assertion.

A case might also arise where the second difference i.e. China is spread throughout West Africa relative to India is reinforced by the first difference i.e. Chinese oil companies outbid Indian oil companies. This case is a subset of Case III (second difference) discussed above.

Where Indian and Chinese oil companies did not enter into direct competitive bidding to acquire oil blocks, two proxies are used to gauge the difference in their relative material power. First is the preference as a partner in the E&P process in West Africa. Second is the quality of the oil block. Since China is economically and politically more powerful than India, ceteris paribus, oil companies especially African NOCs should prefer to have Chinese oil companies as partners. This may also explain why China is spread more in the oil industry in West Africa relative to India.

Second proxy or dummy variable is the quality of the oil block. The premise is that if China is economically and politically more powerful than India, then the quality of the oil blocks that China has acquired would be better than the oil blocks acquired by India. The assertion is predicated on human consumer behaviour and spending power. Thus, if an individual has more income and/or wealth or in simple words is richer than another individual, ceteris paribus, he or she will have a greater propensity to spend. Thus, a richer individual based on his or her income and/or wealth may be able to afford a Ferrari where as a relatively poor person may have to contend with a Fiat or an Audi as the case might be.

The third parameter is the ability to take risk. The difference in wealth also affects the propensity to take risk. A rich individual, ceteris paribus, is less risk averse as compared to an individual with relatively lower

income and wealth, or in other words a poorer individual is more risk averse than a richer individual. Because a rich individual is less risk averse, he or she is not only able to spend more money, but also is less concerned about the returns on the investment. A richer individual is able to sustain and absorb a longer gestation period compared to a poorer individual. Thus China being economically and politically more powerful than India should spend more money i.e. it places a higher bid for an oil block compared to India and also bids for more oil blocks relative to India in West Africa. Moreover, unlike India, China should not be concerned about the rate of return on investment in the short term because it has extremely deep pockets.

Data Collection, Hypothesis and Research Methodology

This section discusses the data the researcher was able to gather, the sources used and the manner in which the data was gathered. It discusses the research methodology adopted to prove the hypothesis. It also discusses the problems that the researcher faced while trying to gather data, and the ethical problems that the researcher encountered and overcame while undertaking research.

Avoiding Potential Ethical Problems

A plethora of ethical problems may arise while conducting research. As far as interviews are concerned, the researcher kept in mind that it is important to build an element of trust between the participant and the researcher. When dealing with delicate and important issues such as state security and diplomacy, participants might feel at risk because of issue of privacy. It leads to an inherent conflict of interest, between the demands of confidentiality or anonymity on the one hand and the demand of professionalism and legality on the other (Bryman, 2012). To overcome these hindrances, the researcher ensured that the respondent's answers are confidential and anonymous, and kept the respondent's identity preserved according to the participant's request.

The researcher ensured to retain objectivity when analysing data. As suggested by (Bryman, 2012), the researcher bore in mind that research should be viewed as a multi-stage process. It begins with defining the facets to be examined and culminates with the analysis of the results. Moreover, the researcher ensured that primary and secondary sources especially interviews were not manipulated and results were not overstated or exaggerated by adding his own comments to the situation.

Data Collection

To prove the differences mentioned above, the researcher aimed to obtain primary data from the following:

(1) Indian oil companies: ONGC Videsh Limited (OVL) where ONGC is an acronym for Oil and Natural Gas Corporation Limited, Oil India Limited (OIL), Indian Oil Corporation Limited (IOCL) and Essar Oil.

(2) Chinese Oil companies: China National Petroleum Corporation (CNPC), China National Petrochemical Corporation (Sinopec), Petro China and China National Offshore Oil Corporation (CNOOC).

(3) International Oil Companies (IOCs): Exxon Mobil, Chevron Texaco, Total, Royal Dutch Shell (Shell), British Petroleum (BP), Eni.

(4) NOCs or Ministry of Oil and Natural Gas in West African countries

The researcher employed primary and secondary sources to gather data. The researcher studied the websites of the oil companies mentioned above and the websites of the ministry of oil and gas and other ministries in India, China and oil producing countries in West Africa. The researcher also conducted semi-structured elite interviews with employees/executives from Indian NOCs,[3] industry experts, analysts and government officials. The researcher wanted to interview employees/executives from the Chinese NOCs, IOCs and government officials from China and West African countries but was unable to do so. With respect to Chinese SOEs, the researcher was only able to access primary and secondary data available in the public domain. The researcher had a similar experience with IOCs, West African NOCs and government officials, and was referred to the websites of the IOCs, African NOCs and oil and gas ministries in West African countries. The researcher was able to interview one executive from a US IOC.

Secondary sources were employed by the researcher to gather data especially the World Wide Web, reports, briefings and diplomatic pouches published by various think-tanks like the Chatham House, Centre for Strategic and International Studies (CISS), South African Institute of International Affairs (SAIIA), the Heritage Foundation, Council on Foreign Relations, the Rand Corporation, the Brookings Institute and others. The researcher also used conference reports and presentations, PhD thesis submitted in universities, online newspapers, articles and reports in journals dealing with the oil and gas industry, and news articles from electronic journals. Books and chapters in edited books were also used by the researcher to gather information on the subject matter. The data from the secondary literature highlights important aspects of the oil deal(s) like the price for the share of the oil block and/or if any infrastructure projects like construction of refineries, rail lines, roads etc. are required as a part of the deal(s), and/or any loans have been provided which facilitated the agreement.

The researcher studied the secondary literature to get a good comprehension of the oil and gas industry in India, China and the countries in West Africa. Thereafter, the researcher undertook semi-structured elite interviews of industry experts based in the UK. This added to the researcher's knowledge on the subject matter. The researcher then studied the secondary literature as advised by the experts and decided to undertake a field trip to India. The researcher conducted 2 field trips to gather primary data from interviews.

[3] Table 4.1 lists people interviewed and with whom discussions were held. The executives from the Indian NOCs, Essar Oil and the US IOC want to remain anonymous.

The first trip was to India in August-September 2012. The second field trip was to India and China in February-March 2013.

During the field trips to India, the researcher conducted six semi-structured elite interviews with employees/executives from Indian NOCs. The researcher recorded two interviews and took notes during the other four. The researcher was able to get a better comprehension of the global oil and gas industry, oil and gas industry in India and China, the competition between India and China in the upstream sector of the oil industry and the operations of Indian and Chinese oil companies in West African countries. The researcher was able to collect information on parameters like the rate of return on capital, rate of interest on loans and the ease of availability of loans or finance, the difference in the level of technology and ability to acquire technology, project management skills, risk aversion, valuation of the asset and the difference in the economic, political and diplomatic support received by the Indian and Chinese oil companies from their respective governments. The researcher wanted to compare and contrast the bids placed by Indian and Chinese oil companies for the individual oil blocks in West African countries to gauge/test the parameters mentioned above. However, due to reasons of commercial confidentiality and national security, the Indian NOCs were not willing to provide detailed documentary information on the bids placed. They were also unwilling to provide sensitive information like details of the bids placed for oil blocks and/or 'farm in' offer during the interviews. The researcher was asked to refer to the website of the NOCs for details. Websites of the oil companies provided information on the oil blocks acquired - the price bid for the block and the share in the oil block, the year of acquisition, details of upstream activity like drilling of oil fields, conduction of 2D and 3D seismic surveys, production of oil and/or gas from the block etc. which was helpful in proving the hypothesis. The interviews with executives from the above mentioned three Indian NOCs corroborated information from primary and secondary sources available in the public domain.

The researcher used the Right to Information Act, 2005, Government of India (GOI) to access the detailed documentary bids but was unsuccessful due to commercial confidentiality and national security. The researcher was able to get some data from the three Indian SOEs: OVL, IOCL and OIL using Right to Information Act, 2005, GOI. The information revealed the African countries in which Indian NOCs had bid for and/or acquired oil blocks.

The researcher also conducted semi-structured interviews with analysts, industry experts and specialists in think-tanks in India. The interviews provided new insights and information. It helped to triangulate the information provided by the executives from the Indian NOCs, and from other primary and secondary sources.

Thereafter, the researcher conducted semi-structured interviews in London with industry experts, an executive from Essar Oil and an executive from a US IOC and had a discussion with a journalist who covers the oil and gas industry in China. The researcher took notes during the interview with the executive from Essar Oil who was also not willing to provide detailed information on the bids placed for oil blocks in West Africa due to commercial confidentiality, and asked the researcher to refer to the company's website. The

researcher was able to triangulate information from the interview and other sources available in the public domain. The researcher took notes during the interview with the executive from the US IOC and was able to only confirm the information available in the public domain.

The researcher also conducted a field trip to China in February-March 2013. The researcher conducted semi-structured elite interviews with analysts, academics, specialists in think-tanks and an official from the Ministry of Commerce, PRC. The interviews provided new insights and information. The researcher was able to triangulate the new information from other interviewees and also from other primary and secondary sources available in the public domain. However, the researcher was unable to access detailed documentary information on the bids placed by Chinese NOCs for oil blocks in West African countries. The researcher studied the websites of the Chinese NOCs and different ministries and organisations of the Chinese government. As in the Indian case, the study provided information on the price bid for the block and the share in the oil block, the year of acquisition, details of upstream activity like drilling of oil fields, conduction of 2D and 3D seismic surveys, production of oil and/or gas from the block etc. which was helpful in proving the hypothesis.

The data gathered by the researcher from primary and secondary sources helped to prove the hypothesis. The executives from the Indian oil companies and industry experts provided information which was available in the public domain which helped in triangulating information from other primary and secondary sources. However, there is lack of richness in the analysis of oil blocks where India and China entered into direct competitive bidding because the researcher was unable to access detailed documentary information on the bids placed by Indian and Chinese oil companies, and the limitations in the richness of analysis cannot be ascertained.

Semi-structured interviews were also undertaken to substantiate the difference in the economic, political and military power of India and China. Interviews were conducted with academia, think tanks or strategic community, retired defence personnel and retired personnel from the Indian Foreign Service, experts from the UK, Nigeria and other countries which helped in triangulating information. The researcher wanted to employ the permanent membership of the UNSC as a proxy variable to gauge the difference in the political power of India and China. The interviewees agreed that the permanent membership of the UNSC can be used as a dummy variable to measure the relative political power of India and China. Majority of the interviews were recorded by the researcher with due consent of the interviewee. The researcher took notes where interviews were not recorded. This is discussed in more detail in Chapter 4.

Empirical evidence in the form of tables has been used extensively in the thesis to substantiate the argument. The tables have been compiled using primary as well as secondary sources. In some tables, only one source (primary or secondary) has been used, and in others more than one source (primary and/or secondary) has been employed to compile the table. Empirical data has also been analysed to substantiate the argument and prove the hypothesis.

Hypothesis

The researcher used the following to test the hypothesis that China has greater outreach in West Africa relative to India, and Chinese oil companies outbid Indian companies to acquire oil blocks in West Africa:

Null Hypothesis: H_o

(1) The independent or the exogenous variable i.e. the difference in the relative power of India and China in an anarchical international system explains (a) why Chinese oil companies are spread more relative to Indian oil companies in countries in West Africa; (b) the ability of the Chinese oil companies to outbid Indian oil companies if and when they bid for the same block, and/or (c) why Chinese oil companies are chosen as the preferred partner over Indian oil companies by other oil companies while entering into joint ventures to bid for oil blocks, and/or (d) why Chinese oil companies have better quality oil blocks relative to Indian oil companies.

If Chinese oil companies have more oil blocks in one country and are operating in more countries than their Indian counterparts, then the hypothesis is accepted. Similarly, if the former outbid the latter for oil blocks, and/or are chosen as the preferred partner for a joint venture to bid for oil blocks in West African countries and/or have better quality oil blocks, the hypothesis is accepted. Otherwise the hypothesis is rejected.

(2) The intervening or the domestic variable i.e. the difference in the political economy of India and China explains why China is represented by SOEs in the oil industry in West African countries, and India is represented by SOEs and/or private enterprises.

If China is represented by SOEs in the oil industry in West African countries, and India is represented by SOEs and/or private enterprises, then the hypothesis is accepted. Otherwise the hypothesis is rejected.

Alternative Hypothesis: H_a: not H_o

Case study analysis, Process tracing and Analytical narrative

Adhering to neoclassical realism's research methodology, the thesis employs case study analysis, process tracing and analytical narrative to prove the hypothesis. The thesis undertakes a comparative study of the oil blocks bid for and acquired by Indian and Chinese oil companies in 11 oil producing countries in West Africa.

Geopolitically, according to the UN, West Africa includes 17 countries. The thesis excludes Saint Helena and includes Angola, Equatorial Guinea and Cameroon in West Africa. The 11 countries examined are Angola, Ghana, Chad, Equatorial Guinea, Cameroon, Liberia, Niger, Mauritania, Nigeria, Gabon and Nigeria-São Tomé & Principe Joint Development Zone (JDZ). Although both Nigeria and São Tomé &

Principe have jurisdiction over the JDZ, the thesis includes and discusses JDZ with Nigeria because São Tomé & Principe is an extremely minor player in the oil industry in West Africa.

The 11 countries are different from each other in almost all aspects: political economic and social among others. The common factor in the 11 countries is that they have oil reserves and are oil producing countries. This conforms to the least similar case design. However, they differ in the extent of the oil reserves and the quantity of oil they produce which is discussed in detail in Chapter 2.

Similarly, India and China which are emerging economies and rising powers have different economic and political systems, and different economic structures. Nonetheless, they both are heavily dependent on oil imports which is discussed in greater detail in Chapter 2. This also conforms to the least similar case design.

For case study analysis, the thesis uses a pattern-matching logic. According to Trochim (1999), 'pattern-matching logic compares an empirically based pattern with a recited pattern' (cited in Yin, 2009:136). For instance, as discussed above, various scholars have stated that India is represented by SOEs and/or private sector oil companies in West Africa and China by SOEs. Moreover, Chinese NOCs are widespread in West Africa relative to India and the former outbid the latter in direct bidding for oil blocks, and/or preferred as partners, and/or have better quality oil blocks. Following the null hypothesis H_o, the thesis pattern matches a predicted pattern mentioned above with an empirical one in 11 countries in West Africa. The thesis also undertakes in depth case study analysis of Angola, Nigeria and Gabon. In Angola and Nigeria, Indian and Chinese companies directly bid for oil blocks. In Gabon, Indian oil companies acquired an oil block but did not bid for it. This is discussed in detail in Chapters 6 and 7.

The thesis uses process tracing to illustrate how the independent variable i.e. the difference in the relative power of India and China and the intervening variable or the difference in the political economy of India and China explains the difference in how India and China mobilise oil externally in the oil industry in countries in West Africa. This leads to an analytical narrative of the political economy of India and China, and the oil industry in India and China.

The narrative begins with the political and economic structure that prevailed in India and China at the time of their independence. It discusses in a chronological and a sequential order the political economy of the two countries since independence, and the different economic and political reforms undertaken which led to divergent economies and composition of the industrial structure (See Chapter 4). It also provides an analytical narrative of the oil industry in India and China. The different political economies of India and China are reflected in the oil sector in the respective countries. In the post reform period, the oil industry in India is characterised by dominant SOEs, a vibrant and fast emerging private sector and joint ventures between the SOEs, private enterprises and IOCs. China on the other hand has an oil industry represented by the SOEs with joint ventures formed with IOCs (See Chapter 5).

Thesis Organisation

The contents of the thesis are divided into eight chapters. The thesis has an introduction, two chapters on conceptual framework and two background chapters on the difference in the relative power and political economy of India and China and how it is reflected in the oil industry in India and China. It has two chapters which test the hypothesis. The chapters employ case study pattern matching - one chapter with two in depth case studies and the other chapter with case study pattern matching of eight countries- which test the hypothesis, and a conclusion.

Chapter 2 and Chapter 3 are conceptual chapters and generate the hypothesis. They answer the first part of the research question 'Can neoclassical realism explain the difference in how India and China mobilise oil in the oil industry in West Africa?' Chapter 2 provides a review of the existing literature on India and China. The purpose of the chapter is to highlight the gap in the existing literature with respect to India and China in the oil industry in West Africa. It compares and contrasts India and China, and discusses the importance of India and China in the global arena. It also discusses the rationale for India's and China's engagement with Africa. It states that energy security has been the driving force for India and China turning to Africa especially West Africa. The second section examines why West Africa has become an important player in the global oil industry in recent years. Section three discusses the prevalent literature on India and China in Africa. It outlines the prevalent discourse on China in Africa followed by India in Africa. It also highlights the comparative aspects of India and China in Africa in the existing literature. It then looks at India and China respectively in West Africa, in the oil industry in West Africa and compares and contrasts India and China in the oil industry in West Africa. In the end, it mentions the gap in the existing literature and provides a rationale for undertaking the research. This chapter makes an empirical contribution to the existing literature on India and China in the oil industry in West Africa.

Chapter 3 is the theory chapter. The focus of the chapter is to highlight the gap in the existing literature with respect to neoclassical realism and political economy. In the process, it extends neoclassical realism's research design. The introduction discusses the progression of realism from classical realism to neoclassical realism. The first section discusses neoclassical realism as a theoretical paradigm. It asserts that contrary to neorealism which is a theory of international politics, neoclassical realism explicates foreign policy outcomes. It highlights the three variables in neoclassical realism: the independent or the exogenous variable or the difference in the relative power in an anarchical international system, the intervening or the domestic or the endogenous variable and the dependent variable or the foreign policy outcome. It further argues that rather than being a theory of foreign policy, neoclassical realism is theories of foreign policy'. The second section show cases the interplay between political economy and neoclassical realism. It discusses the existing literature with respect to neoclassical realism and political economy and highlights the existing gap in literature. It also illustrates how political economy is incorporated into neoclassical realism to explain the research question 'Can and does neoclassical realism explain the difference in the way India and China

mobilise oil, a key resource externally in the oil industry in West Africa. The last section explains why it is desirable to use neoclassical realism rather than foreign policy analysis to explain the research question. In the process, it highlights the difference between foreign policy analysis and neoclassical realism, and the significance of the independent variable in neoclassical realism.

Chapter 4 and Chapter 5 are background chapters which provide the base for the hypothesis. Chapter 4 discusses the independent or the exogenous variable i.e. the difference in the relative power of India and China and the domestic or the intervening variable i.e. the difference in the political economy of India and China. These two variables explain the dependent variable i.e. the difference in how India and China mobilise oil in the oil industry in countries in West Africa. It provides a background of the relations between India and China and discusses the difference in their relative economic, political and military power. It does so by conducting interviews with analysts and experts and using secondary data. It also discusses the difference in the political economy of India and China, and examines the political economy in the pre reform and post reform period in the two countries.

Chapter 5 follows from the previous chapter. It is an extension of Chapter 4. It highlights that the difference in the relative economic and political power and the difference in the political economy of India and China is mirrored in the oil industry in the two countries. It illustrates that the oil industry in China is almost totally dominated by SOEs. On the other hand, both SOEs and private enterprises are active in the oil industry in India and the latter are important players in the industry. It also proves that Chinese oil companies have greater economic power relative to Indian oil companies. Additionally, it highlights the fact that the Chinese NOCs receive more diplomatic and political support from the Chinese state which the GOI cannot match. It does so by examining the oil industry in India and China and discussing the most important oil companies in the two countries. In addition to using secondary data, it also employs primary data i.e. interviews from analysts, industry experts and executives from Indian oil companies.

Chapter 6 and Chapter 7 test the hypothesis generated in Chapters 2 and 3. The chapters provide an answer to the second part of the research question 'Does neoclassical realism explain the difference in how India and China mobilise oil in the oil industry in West Africa?' The chapters test whether the difference in the relative power of India and China, and the difference in their political economy are able to explain the divergence in how India and China mobilise oil in the oil industry in West Africa. Chapter 6 employs case study 'pattern matching' of India and China in eight West African countries to test the hypothesis. It discusses the oil reserves and production, and the oil blocks bid for and acquired by India and China in the eight countries respectively. It also undertakes a case study analysis of Angola where India and China directly bid against each other for oil blocks/assets.

Chapter 7 tests the hypothesis in two countries namely Nigeria[4] and Gabon, in which both India and China have oil blocks. The chapter utilises 'pattern matching' of Indian and Chinese oil companies in the oil industry in Nigeria and Gabon. It undertakes an in depth case study analysis in Nigeria and Gabon. The

[4] In the thesis, Nigeria and São Tomé & Principe Joint Development Zone (JDZ) is included in Nigeria.

chapter discusses the oil reserves and production, and the oil blocks bid for and acquired by India and China in the Nigeria and Gabon.

Chapter 8 concludes the study by reflecting on findings and the analytical model itself. It also provides a short analysis of Indian and Chinese rivalry in the oil industry in West Africa. It consolidates our understanding of how the difference in the relative economic and political power and the difference in the political economy of India and China explain the difference in how India and China mobilise oil, a key resource, in the oil industry in West Africa. It concludes by suggesting some potential directions for future research.

Chapter 2

Introduction

The thesis aims to provide an explanation for the difference in how India and China mobilise oil in the oil industry in West Africa. The study uses neoclassical realism as the theoretical construct to explain that despite similar interests, India and China engage differently in the oil industry in West Africa.

The chapter is divided into five sections. Section I compares and contrasts India and China, and discusses the importance of India and China in the global arena. It also discusses the rationale for India's and China's engagement with Africa. Section II discusses the importance of the oil industry in West Africa. It illustrates that despite the fact that West African reserves are "Lilliputian relative to reserves in the Persian Gulf states" (Verma, 2012a), West Africa has become a significant player in the global oil industry. Section III discusses the prevalent literature on India and China in Africa. It outlines the prevalent discourse on China in Africa followed by India in Africa. It also highlights the comparative aspects of India and China in Africa in the existing literature. It then looks at India and China respectively in West Africa, in the oil industry in West Africa and compares and contrasts India and China in the oil industry in West Africa. In the end, it discusses the gap in the existing literature and provides a rationale for undertaking the research.

Section I

India and China with their phenomenal growth rates are surging ahead as world economic powers. While China has been growing at an incredible growth rate of approximately ten per cent for the last three decades, India has lagged behind. India has been growing at an average of six per cent from 1991-2000 and eight per cent since from 2001-2011. Both India and China are emerging and rising powers in the global arena. Both are members of BRICS - an acronym for emerging economies, and according to the prestigious financial house Goldman Sachs - ceteris paribus are projected to be major superpowers by 2030. India and China are also members of the G20 - the Group of twenty Finance Ministers and Governors of Central Bank from 20 major economies: 19 countries plus the European Union (EU). Additionally, India and China are members of BASIC group of countries (BRICS sans Russia), a group of four large developing countries. They are also the two most populated countries in the world, sharing a long and respected history of early civilisations and a colonial past that became independent around the same time: India in 1947 and China in 1949. In the 1950's, they were in the forefront of the Non-Aligned Movement (NAM) and proposed the five principles of

peaceful coexistence or 'Panchsheel'. These five principles are the cornerstone of India's and China's foreign policy.

The 'Asian Drivers' have turned to Africa and Africa's economy stands to be impacted in various ways due to the increasing interaction between the 'Asian Giants' and Africa (Broadman, 2006; Goldstein et al., 2006). India and China have ventured into Africa to meet their energy security by diversifying their sources of energy due to increasing political instability in the Middle East.[5] Both countries have turned to Africa to quench their thirst for natural resources especially oil to fuel their industrialisation process and catch up with the West (Rocha, 2007), new markets and commercial opportunities and for political and economic influence in Africa (Brookes, 2007; Lake et al., 2006). The importance of the oil industry in West Africa is discussed in the next section.

Tables 2.1, 2.2 and 2.3 depict the production, consumption and proven oil reserves of India and China respectively from 2000-2011. Tables 2.1 and 2.2 show that although oil production in India and China has increased over the time period 2001-2011, consumption has increased at a much faster pace. The shortfall in production had led to an increase in oil imports in both India and China. India is the world's fifth largest consumer of oil (Business Monitor International (BMI), 2012a) and imports approximately 70 per cent-75 per cent of its oil consumption. China on the other hand, is the second largest consumer of oil after the US (BMI, 2012b) and imports approximately 50 per cent-60 per cent of its oil consumption. Moreover, according to Table 2.3, the proven oil reserves of India and China have declined since 1991. The reserves to production ratio (R/P) illustrate that if India and China keep producing at the present rate, they will exhaust their oil reserves in approximately 18 years and 10 years respectively. However, demand is forecast to keep growing in India and China till at least 2021 (BMI, 2012a; BMI, 2012b). Both India and China rely heavily on the Middle–East for oil. The growing turmoil and political instability in the Middle-East has necessitated that India and China look for alternative sources of oil in other parts of the world especially West Africa.

Table 2.1: Oil production in India and China from 2001-2011

	Year (Thousand Barrels Daily)												
Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	% change in 2011 over 2010	2011 share of total (%)
India	727	753	756	773	738	762	769	767	756	827	858	3.9	1.0
China	3310	3351	3406	3486	3642	3711	3742	3814	3805	4077	4090	0.3	5.1
World	74767	74493	76860	80358	81391	81687	81729	82335	80732	82480	83576	1.3	100

Source: BP Statistical Review of World Energy 2012, pg. 8

[5] Both India and China are following a strategy of acquiring equity oil blocks globally and in West Africa to enhance their energy security. Indian and Chinese oil companies sell 90 per cent of their equity oil (from their global assets) in the international market. This is because of two reasons. First is technical. Indian and Chinese oil companies are unable to refine the oil and have to sell it in the international market. Second, because the domestic oil industry is subsidised. This implies that Indian and Chinese oil companies incur a loss when they sell oil in the domestic market. The oil companies also swap their equity oil in the international market for oil that they can refine. The companies bring the swapped oil to their respective country, refine it and sell it in the domestic market. It is debateable whether selling oil in the international market enhances energy security. The opinion is divided. Some experts suggest that it allows the oil companies to get valuable foreign exchange. It also saves precious foreign exchange because it reduces the amount that the governments have to spend on buying oil. Others are of the opinion that the equity oil strategy does not enhance energy security. On the other hand, it creates political risks. Moreover, this policy is not feasible and will fail in the long term.

Table 2.2: Oil consumption in India and China from 2001-2011

	Year (Thousand Barrels Daily)												
Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	% change in 2011 over 2010	2011 share of total (%)
India	2288	2376	2420	2574	2567	2571	2835	3068	3267	3332	3473	3.9	4.0
China	4859	5262	5771	6738	6944	7437	7817	7937	8212	9251	9758	5.5	11.4
World	77245	78187	79686	82746	83925	84873	86321	85768	84631	87439	88034	0.7	100

Source: BP Statistical Review of World Energy 2012, pg. 9

Table 2.3: Proven oil reserves of India and China from 1991-2011

Country	At the end of 1991 (Thousand million barrels)	At the end of 2001 (Thousand million barrels)	At the end of 2010 (Thousand million barrels)	At the end of 2011 (Thousand million barrels)	Share of Total reserves (%)	Reserves to Production (R/P) ratio
China	15.5	15.4	14.8	14.7	0.9	9.9
India	6.1	5.5	5.8	5.7	0.3	18.2
World	1032.7	1267.4	1622.1	1652.6	100	54.2

Source: BP Statistical Review of World Energy 2012, pg. 6

India and China both vie for political influence in Africa albeit for different reasons. Both seek the support of African countries in their pursuit of a multipolar world, in their fight against US hegemony (Volman, 2009). Africa's 53 nations make up more than one-fourth of the 192 UN member states and the African Union (AU) is an emerging important player in the international arena. The continent is the largest single regional grouping of states which have a propensity for 'bloc voting' in multilateral institutions like the UN and its multifarious agencies. African states have extended support for China's multilateral diplomacy. For instance, China is against Japan becoming a permanent member of the UNSC. In 2005, China was able to prevent Japan from becoming a permanent member of the UNSC using AU's support. During the election of new Director General for the World Health Organisation (WHO) in 2006, nine African countries among the 34 countries on the WHO Executive Board voted in favour of Dr Margaret Chan, a Chinese national and Dr Chan was elected as the Director General of the WHO (Zhang, 2011).

However, India and China also differ in certain respects. India aspires to become a permanent member of the UNSC and sit on the high table as a major global power. China on the other hand seeks political support of African countries to shield itself against Western criticism of its human rights record (Lyman, 2005; Cheng and Shi, 2009). During the past decade, African states that hold 15 of the 53 seats at the UN Commission on Human Rights have played a prominent role in frustrating efforts by some Western countries to bring about a formal condemnation of China's human rights record in the Commission 11 times (Zhang, 2011). It also seeks the support of African countries for equal status as a major power and to promote its status as a key player in world affairs (Xu, 2008; Cheng and Shi, 2009).

Section II

Africa has regained significance since the beginning of the new millennium because of its increasingly important role as a global supplier of oil, gas, and non-fuel minerals, and nations vying for economic and political influence to access these resources (Rocha, 2007). The region has regained significance in the last decade not only because of oil and natural gas reserves but the quality and commercial advantages that it offers to international oil companies (Frynas and Paulo, 2007; Downs, 2007).

According to Table 2.4, the Persian Gulf countries contain approximately 48 per cent of the proven global oil reserves i.e. approximately 795 billion barrels of oil. Africa on the other hand constitutes 8 per cent of proven global oil reserves or around 132 billion barrels, and West Africa has around 60 billion barrels or approximately 50 per cent of total African reserves. While oil reserves in Persian Gulf states eclipse the reserves in African states, the proven oil reserves of Libya (47.1 billion) and Nigeria (37.2 billion barrels) are larger than those of the US (30.9 billion), China (14.7 billion), Brazil (15.1 billion) and India (5.7 billion), and dwarf those of the UK (2.8 billion) and many important petro-states such as Mexico (11.4 billion) and Azerbaijan (7 billion).[6]

Another reason for Africa's importance is that proven oil reserves have expanded at a higher rate relative to the rest of the world and especially countries in the Middle East. Table 2.4 illustrates that proven reserves in Africa have increased from 60.4 billion barrels in 1990 to 96.8 billion barrels in 2000 and to 132.4 billion barrels in 2011. This represents a 57 per cent increase from 1990-2000 and approximately 37 per cent increase from 2000-2011. In contrast, the world proven reserves have increased at a very slow rate from 1032.7 billion barrels in 1990 to 1267.4 billion barrels in 2000 to 1652.6 billion barrels in 2011. This represents a 22 per cent increase from 1990-2000 and a 23.3 per cent increase from 2000-2011. The rate of growth of proven reserves is even slower in the Middle East countries with reserves growing at 10 per cent from 1990-2000 and at 13.3 per cent from 2000-2011. Analysts assert that it is possible that there might exist significant undiscovered oil reserves in Africa. According to Goldwyn (2009) and Hanson (2008), oil production in Africa can increase significantly in the next twenty years if the continent is able to fully realise its potential. Thus Africa can be a major global provider of oil and enhance energy security by diversifying sources of energy supply (Verma, 2012a).

According to Verma (2012a), "Even though approximately 48.1 per cent of the world's proven oil supplies are located in the Middle East, access to the nationalized oil resources in Saudi Arabia (264.5 billion barrels-Table 2.4) has been restricted for decades and a large chunk of the proven reserves are likely to remain underexploited for some time to come." Consequently, approximately 75 per cent of the world's oil reserves are closed to foreign equity investment. Additionally, countries with major oil reserves like Russia and Venezuela have also limited the opportunities for foreign investors to invest in their country's oil industry

[6] BP Statistical Review of World Energy 2012, pg.6

Table 2.4: Proven Oil Reserves from 1991-2011 in Billion Barrels

	Proven Oil Reserves				
Country	**At end of 1991**	**At end of 2001**	**At end of 2010**	**At end of 2011**	**Share of Total (%)**
US	32.1	30.4	30.9	30.9	1.9
Mexico	50.9	18.8	11.7	11.4	0.7
Brazil	4.8	8.5	14.2	15.1	0.9
Azerbaijan	N/A	1.2	7.0	7.0	0.4
Russia	N/A	73.0	86.6	88.2	5.3
Venezuela	62.6	77.7	296.5	296.5	17.9
UK	4.2	4.5	2.8	2.8	0.2
China	15.5	15.4	14.8	14.7	0.9
India	6.1	5.5	5.8	5.7	0.3
Iran	92.9	99.1	151.2	151.2	9.1
Iraq	100.0	115.0	115.0	143.5	8.7
Kuwait	96.5	96.5	101.5	101.5	6.1
Oman	4.3	5.9	5.5	5.5	0.3
Qatar	3.0	16.8	24.7	24.7	1.5
Saudi Arabia	260.9	262.7	264.5	265.4	16.1
Syria	3.0	2.3	2.5	2.5	0.2
UAE	98.1	97.8	97.8	97.8	5.9
Yemen	2.0	2.4	2.7	2.7	0.2
Other Middle East	0.1	0.1	0.3	0.7	-
Total Middle East	**660.8**	**698.7**	**765.6**	**795.0**	**48.1**
Algeria	9.2	11.3	12.2	12.2	0.7
Angola	1.4	6.5	13.5	13.5	0.8
Chad	-	0.9	1.5	1.5	0.1
Congo (Brazzaville)	0.7	1.6	1.9	1.9	0.1
Egypt	3.5	3.7	4.5	4.3	0.3
Equatorial Guinea	0.3	1.1	1.7	1.7	0.1
Gabon	0.9	2.4	3.7	3.7	0.2
Libya	22.8	36.0	47.1	47.1	2.9
Nigeria	20.0	31.5	37.2	37.2	2.3
Sudan & South Sudan	0.3	0.7	6.7	6.7	0.4
Tunisia	0.4	0.5	0.4	0.4	-
Other Africa	0.8	0.6	2.3	2.3	0.1
Total Africa	**60.4**	**96.8**	**132.7**	**132.4**	**8.0**
Total World	**1032.7**	**1267.4**	**1622.1**	**1652.6**	**100.0**

Source: BP Statistical Review of World Energy 2012, pg.6

(Downs, 2007). Verma (2012a) asserts that "In contrast, African states especially countries in West Africa like Nigeria, Angola, Gabon, Ghana, Equatorial Guinea, Chad and others have been keen on developing oil production at a fast speed and have allowed multinational firms to enter, which is demonstrated by the projected increases in African oil production."

According to an estimate provided by the US Department of Energy, during 2002-2025, oil production in Africa is to increase from 8.6 to 16.4 million barrels per day (mbpd) i.e. an increase of approximately 91 per cent. "While the world oil production capacity is predicted to grow by 53 per cent between 2002 and 2025, from 80 to 122.2 mbpd" (cited in Klare and Volman, 2006a: 611), oil production in Africa will be growing faster relative to the rest of the world.

Table 2.5 illustrates that oil production globally has risen by approximately ten per cent. It has increased to approximately to 83 mbpd in 2010 from 75 mbpd in 2001. On the other hand, oil production in Africa increased by approximately 22 per cent from 7.9 mbpd to 10 mbpd. With respect to West African countries, oil production has increased at a much faster pace. In Angola, oil production has increased from 746,000 bpd

Table 2.5: Oil production from 2000-2011 in Million Barrels per day

	Year											
Country	**2000**[a]	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
US	7.733	7.669	7.626	7.400	7.228	6.895	6.841	6.847	6.734	7.270	7.555	7.841
Mexico	3.450	3.568	3.593	3.795	3.830	3.766	3.689	3.479	3.165	2.978	2.958	2.938
Brazil	1.268	1.337	1.499	1.555	1.542	1.716	1.809	1.833	1.899	2.029	2.037	2.193
Azerbaijan	0.282	0.301	0.311	0.313	0.315	0.452	0.654	0.869	0.915	1.033	1.036	0.931
Russia	6.536	6.989	7.622	8.460	9.190	9.443	9.656	9.869	9.784	9.927	10.150	10.280
Venezuela	3.239	3.142	2.895	2.554	2.817	3.003	2.940	2.960	2.985	2.914	2.775	2.720
UK	2.667	2.476	2.463	2.257	2.028	1.809	1.636	1.638	1.526	1.452	1.339	1.100
China	3.252	3.310	3.351	3.406	3.486	3.642	3.711	3.742	3.814	3.805	4.077	4.090
India	0.726	0.727	0.753	0.756	0.773	0.738	0.762	0.769	0.767	0.756	0.827	0.858
Iran	3.855	3.825	3.580	4.002	4.201	4.184	4.260	4.303	4.396	4.249	4.338	4.321
Iraq	2.614	2.523	2.116	1.344	2.030	1.833	1.999	2.143	2.428	2.447	2.480	2.798
Kuwait	2.206	2.181	2027	2362	2510	2654	2726	2647	2761	2477	2518	2865
Oman	0.959	0.960	0.904	0.824	0.786	0.778	0.742	0.715	0.754	0.813	0.865	0.891
Qatar	0.757	0.754	0.764	0.879	0.992	1.028	1.110	1.197	1.378	1.345	1.569	1.723
Saudi Arabia	9.491	9.158	8.877	10.107	10.564	11.033	10.775	10.371	10.769	9.809	9.955	11.161
Syria	0.548	0.581	548	527	495	450	435	415	398	401	385	332
UAE	2.620	2.551	2.390	2.695	2.847	2.983	3.149	3.053	3.088	2.750	2.867	3.322
Yemen	0.450	0.455	0.457	0.448	0.420	0.416	0.380	0.341	0.315	0.306	0.301	0.228
Other Middle East	0.048	0.047	0.048	0.048	0.048	0.034	0.032	0.035	0.033	0.037	0.037	0.048
Total Middle East	**23.547**	**23.05**	**21.710**	**23.236**	**24.895**	**25.392**	**25.608**	**25.219**	**26.230**	**24.633**	**25.314**	**27.690**
Algeria	1.578	1.562	1.680	1.852	1.946	2.015	2.003	2.016	1.993	1.816	1.762	1.729
Angola	0.746	0.742	0.905	0.870	1.103	1.405	1.421	1.684	1.901	1.824	1.883	1.746
Chad	-	-	-	0.024	0.168	0.173	0.153	0.144	0.127	0.118	0.122	0.114
Congo (Brazzaville)	0.254	0.234	0.238	0.217	0.223	0.245	0.278	0.224	0.237	0.276	0.293	0.295
Egypt	0.781	0.758	0.751	0.749	0.721	0.696	0.697	0.710	0.723	0.736	0.730	0.735
Equatorial Guinea	0.0091	0.177	0.230	0.266	0.351	0.358	0.342	0.350	0.347	0.307	0.274	0.252
Gabon	0.327	0.301	0.295	0.240	0.235	0.234	0.235	0.230	0.235	0.230	0.150	0.245
Libya	1.475	1.427	1.375	1.485	1.623	1.745	1.815	1.820	1.820	1.652	1.659	0.479
Nigeria	2.155	2.274	2.103	2.263	2.472	2.551	2.468	2.354	2.170	2.120	2.453	2.457
Sudan & South Sudan	0.0174	0.217	0.241	0.265	0.301	0.305	0.331	0.468	0.480	0.475	0.465	0.453
Tunisia	0.0078	0.071	0.074	0.068	0.071	0.073	0.070	0.097	0.089	0.083	0.080	0.078
Other Africa	0.0144	0.134	0.135	0.138	0.164	0.154	0.153	0.166	0.162	0.155	0.144	0.221
Total Africa	**7.804**	**7.897**	**8.028**	**8.436**	**9.377**	**9.954**	**9.966**	**10.263**	**10.284**	**9.792**	**10.114**	**8.804**
Total World	**47.893**	**74.767**	**74.493**	**76.860**	**80.358**	**81.391**	**81.687**	**81.729**	**82.335**	**80.732**	**82.480**	**83.576**

Source: BP Statistical Review of World Energy 2012, pg. 8
a BP Statistical Review of World Energy 2011, pg. 8

to 1.85 mbpd, an rise of nearly 147 per cent, and in Equatorial Guinea from 91,000 bpd to 274,000 bpd, an increase of more than 200 per cent. In Chad, oil production has increased by approximately 400 per cent, jumping from 24,000 barrels to 122,000 barrels.

Verma (2012a) avers that "The predominance of new offshore discoveries in West and Central Africa has also made these regions attractive. Deep water drilling is exorbitantly expensive and risky, restricting development to a handful of companies with the technology and wherewithal to manage the exploration risks. Offshore drilling also partly mitigates political risk especially in conflict ridden Africa, by enabling the operator to conduct business miles away from the host country's mainland. In Nigeria, all new discoveries and production are offshore and Angola's oil and gas reserves are offshore."

According to Goldwyn (2009), it is estimated that off-shore oil production will account for the overall oil production in Sub-Saharan Africa, and Nigeria's and Angola's contribution will be approximately 85 per cent. Oil companies are likely to invest approximately $485 billion in E&P during 2005 to 2030. It is estimated that West Africa will account for nearly 45 per cent of the gross capital expenditures for deep water oil development worldwide. "Gross deep-water capital expenditure in West Africa between 2008 - 2015 will exceed that spent in Latin America, the Gulf of Mexico, the North Atlantic, and the Asia-Pacific" (Goldwyn, 2009: 70).

Another reason why West African oil is attractive is the absence of Organization of the Petroleum Exporting Countries (OPEC) quotas. Gabon, Equatorial Guinea, Chad and other countries are not OPEC members. Consequently, IOCs can sell any amount of crude they want as stipulated in the agreement with the government in the host country (Goldwyn and Morrison, 2004).

Section III

This section discusses the key literature on China and India in Africa. It discusses the existing literature on China in Africa, India in Africa, China in West Africa and India in West Africa. It also discusses India and China in Africa and in West Africa in a comparative perceptive. It states the limitations in the existing literature with respect to India's and China's role in the oil industry in West Africa. Thus it provides a rationale for undertaking the research and the empirical contribution that the thesis makes to the existing literature.

China in Africa

Tomes of literature and scholarly work are attributed to China's presence in Africa and little attention has been given to India's interaction in Africa or it has simply been bypassed in the wake of the Chinese juggernaut. There are myriad books, journal articles and reports from think-tanks on China in Africa. In the past, scholarly work on China and Africa has focussed on the role played by China and its support in championing the cause of freedom struggles, liberation movements and fight against imperialism in Africa, to promote China's multipolar world view, defending PRCs positions in the international forum such as the UN, and its stance against US global dominance. Scholarly work also discussed the Chinese aid and large scale projects undertaken by China as a mark of China-African solidarity as members of 'Third World'.[7] It also dealt with the Sino-Soviet rivalry in Africa and attempts by China to isolate Taiwan diplomatically in Africa under the aegis of 'Dollar Diplomacy'.

7 The 'Three World theory' was postulated by Mao Zedong. The theory had a three world configuration: the first world comprised of the two super powers the US and the Soviet Union, the second world consisting of Australia, Canada, Europe and Japan, and the third world or the "new" south comprising, Asia (except Japan), Africa and Latin America.

Since the beginning of the new century, a vast literature on China in Africa focuses on the developmental impact of China in Africa, whether it is a colonizer, partner or a competitor. The emphasis has been on China's interaction with African countries in the resource extractive sector mainly oil, minerals and timber. Scholars, policy makers, commentators and journalists have debated and denounced China's callous destruction of the environment and exploitation of natural resources especially oil and minerals (Farooki, 2011; Zhang, 2011; Brautigam, 2009; Manji and Marks (eds.) 2007, Naidu and Davies, 2006). Yet for centuries such practices had been the norm for the US and Western colonial and imperialist powers (Marks, 2007; Chan-Fischel, 2007; Taylor 2009; Taylor and Xiao, 2009; Brautigam, 2010). Taylor (2006a), Wild and Mepham (eds.) (2006), Lee and Melber (2007), Kitissou (eds.) 2007, Le Pere (ed.) (2007), Gupta, Carey and Jacoby (2007), Ampiah and Naidu (2008), Morrison, Cooke and Campos (2008), Alden, Large and de Oliviera (eds.) (2008), Strauss and Saavedra (eds.) (2009), Raine (2009), Taylor (2009), Michel, Beuret and Woods (2009) and Meng and Barton (2011) discuss the impact and costs and benefits of China's interaction on development and human rights in African countries in general and in different sectors in Africa, and West's response to China's engagement in Africa. Alden (2007) investigates the expanding relationship between China and Africa and assesses the content and the nature of China's foreign policy in the continent - whether China is a partner, colonizer or a competitor. It also examines the response of African countries and society to Chinese presence and foreign policy, and the impact of Chinese activism in Africa on commercial and normative Western concerns. Alden contends that the three are not incommensurable and IR contains elements of both self and mutual interest.

Scholars, policy makers, journalists and the intelligentsia have chastised China for political and economic support for regimes responsible for crimes against humanity and for human right violations, for instance, Darfur in Sudan and in Angola, and dictatorial regimes like Zimbabwe. Taylor (2006b) provides a comprehensive assessment of relations between China and Southern African countries. He avers that as China's demand for energy sources soars, a number of countries in Africa want a partner that does not want to or tries to impose political conditions on economic relations, and is not greatly affected by demands of transparency and democracy. Holslag (2011) argues that China did not perceive the five coups in Africa from 2003-2010 threatening its interests. However, Beijing accepted that instability was a part and parcel of doing business in Africa. China remains sceptical of Western liberal democracy as a panacea for instability and was extremely suspicious of efforts by the West to promote liberal political standards. It seems that China is guided by the strategy of accepting political realities and adapting itself rather than trying to change them.

Brautigam and Tang (2011) discuss Chinese efforts to construct economic cooperation zones in Africa and the rationale and background for their construction. Employing Egypt as a case study, the paper asserts that this provides a distinctive model of economic cooperation in Africa. Despite the fact that there are serious economic, social and political challenges, the unique cooperation may sow seeds for sustainable industrial growth. Rotberg (2008) (ed.) explores China's overall strategy in Africa and China's interest in military and security relations, energy, aid and human rights concerns. The book has a pessimistic outlook. It elucidates that China's growing presence could be parasitic such that it might further augment China's economic power

and exacerbate poverty and instability in Africa. Guerrero and Manji (eds.) (2008) provides a perspective on the social, economic and environmental impact of China's expanding role in Africa. It also provides diverse views on the concomitant challenges faced by Africa as a result of China's rise as a global economic power. It explores and states that aid, trade and investments from China present both opportunities and threats for both Africa and the 'global south'. Van Dijk (ed.) (2009) discusses China's expanding sphere of activities in Africa especially in sub-Saharan Africa, and discusses China's development aid, investments and trade policy in oil-producing countries such as Angola, Nigeria and Sudan, mineral rich countries like Zambia compared to Europe and the US. Foster et.al (2009) examine and compare China's growing role in financing infrastructure with Organisation for Economic Cooperation and Development (OECD) in sub-Saharan Africa. They discuss the distribution of resources geographically, the different types of infrastructure employed, the size and the terms of finance for the projects, and the various methods through which the finance is procured. Sautman and Yang (2007) argue that whether it is the 'Beijing Consensus' or aid and migration, China's engagement with Africa makes China seem like a lesser evil compared to the West regarding the formers support for Africa's development and respect for African countries. They contend that unlike the West, China is not obstructing development in the poor countries in Africa. Mol (2011) evaluates the present behaviour of myriad arms of the Chinese government and Chinese enterprises in sub-Saharan Africa by employing the World-Systems Theory idea of 'environmentally unequal exchange' between rising global powers and marginal economies. Mol reaches the conclusion that the theory is only able to provide an incomplete explanation. Although environmental norms condition and guide the behaviour of Chinese government authorities and enterprises, it is too early for China to become the 'green' exemplar globally.

Literature on China in Africa also focuses on Chinese aid in Africa, and whether it is malign or benign in its intent, implementation and political and economic consequences. Wang (2007) in an International Monetary Fund (IMF) working paper provides an assessment of China's economic engagement in Africa and identifies the factors responsible for the burgeoning China-Africa relationship. The paper concludes that commercial ties between China and Africa trump Chinese aid because the volume of trade and investment has gained significance in volume terms relative to aid. Brautigam (2010) undertakes a novel study of Chinese aid to Africa. She is sanguine regarding China's aid and postulates that although China's aid programme is large and growing, it is not enormous and still dwarfed by traditional Western donors. She contends that China's definition of foreign aid does not meet the paradigms of Official Development Assistance (ODA) set by the Development Assistance Committee (DAC) of the OECD. China's lack of transparency about its aid and export credits raises suspicions and concerns in the West but this is no different to the Western banks and corporations that have long maintained secrecy about their deals with African leaders. Dent (ed.) (2011) provides an overview of the evolution of the relationship between China and Africa and explicates whether it offers a new paradigm of development relations in the international system. Nordtveit (2011) analyses China's novel approaches of aid to Africa in the education sector through a case study of Cameroon and notes: first, a strong shift from political engagement to more economic engagement by both countries since the Forum on China-Africa Cooperation (FOCAC) in 2000. Second, China's aid has increased significantly

and it is becoming a substantial donor in the education sector in Cameroon but there are particular problems and weaknesses related to rapid growth in China's aid. Third, China seeks to enhance cooperation with other aid agencies and education donors in Cameroon like the DAC. It is willing to participate in information sharing, co-financing projects and coordinating with multilateral and bilateral initiatives. However, this is not the case in all African countries. In Kenya, China had a different discourse relative to other donors - a discourse of non-interference in internal affairs and mutual gain, and it was not interested in synchronising its procedures with other donors (King, 2010). According to King, only time will tell whether there is alignment in China's actions and vocabulary with the established donors or will China be able to maintain a divergent vocabulary. Samy (2010) examines Chinese foreign aid to Africa and explicates whether it provides opportunities and challenges for Africa, China and the international community. He argues that in order to make China's aid affective for an ordinary African, the best option would be to engage China constructively and enter into a partnership rather than adopting an antagonistic position.

Many scholars have also written on China-Africa relationship with respect to China's own developmental experience and internal contradictions. Jiang (2009) asserts that China's own modernisation experience since 1978 is the guiding force behind individual entrepreneurs, Chinese companies and Chinese government actions in Africa. Thus, Chinese interactions with different African actors are reflective of China's contradictions during its development, and the disparate Chinese actors have multifarious incentives and objectives which affects their respective behaviour in Africa. Alden and Hughes (2009) expound the challenges faced by China in managing its convoluted relations with Africa especially the structural factors that present disharmony and boost concord. The paper asserts that unlike traditional donors or investing countries which are influenced by NGOs and International NGOs, the leadership in China is unable to draw on the expertise of the NGOs and pressure groups because of the absence of a strong civil society. This explicates the inability of the leadership in China to find solutions to adverse criticisms of Chinese actions and engagement from the political opposition and civil society in Africa.

Harneit-Sievers, Marks and Naidu (eds.) (2010) assess China's engagement in Africa through myriad lenses and examine patterns of aid, trade and commerce, labour migration, peace, security and stability, response from the AU, perceived regulatory interventions and legal cooperation, environmental effects and enhancing dialogue between civil society in Africa and China in the future. It examines the engagement between non state actors from China and Africa, and asserts that in order to have a sustainable and meaningful relationship, and a robust and viable engagement, the discourse between these actors should be taken into account.

Jakobson (2009) points out that in Africa, there is a conflict between China's policy of no-intervention and its goal to be recognised as a responsible international stakeholder, and in the future, China will find it extremely difficult to reconcile the two. Thus, it is impossible for China to pursue a set of foreign policy goals that take into account all of its national interests in Africa. However, China's leadership is aware that its foreign policy is evolving and it is thinking of ways to overcome the non-interference conundrum.

Literature on China in Africa also discusses China-Taiwan battle for diplomatic recognition in Africa. Ever since the formation of China and Taiwan, the two have been divided by a fundamental and irreconcilable sovereignty dispute. An important objective of China's engagement with Africa was to isolate Taiwan diplomatically. Beijing aimed to achieve this through a diplomatic war and ending Taiwan's state to state relations with African countries (Zhu, 2010). This has been the underpinning of China's policy since 1963-64 when Premier Zhou Enlai's toured Africa (Alden, 1998).

The Chinese government's aim to deny space to Taiwan has been successful. The 'Dollar Diplomacy' employed by ROC that entailed financial support for friendly governments and modest aid and development programmes was dwarfed by China's willingness to use resources at its disposal to win the diplomatic war (Chao and Hsu, 2006). Since 2006, only 4 countries in Africa – Burkina Faso, Swaziland, the Gambia and Sao Tomé and Príncipe - officially recognize Taiwan.

According to Taylor (2009), Alden, Large and Oliviera (2008), Tull (2008) and Beri (2007), the competition for international competition between Taiwan and Africa, although important in the past, has receded in significance for Beijing. According to Yu (2010) and Zhu (2010), since the diplomatic truce proposed by President Ma in 2008 and accepted by President Hu Jintao in 2009, the overt competition between China and Taiwan for international competition has ceased.

Another element of China in Africa focuses on how China may affect Western interests particularly of the US. Some scholars aver that China's burgeoning economic and political engagement in Africa affects US economic and strategic interests (Lake et al., 2006; Brookes 2007; Gill et al., 2006; Campbell, 2008; Huang, C. 2008; Morrison, Cooke and Campos, 2008; Cooke, 2009). This has translated into concerns in the US about China's rise and Africa providing a new playing field where China and the US are vying for economic, political and military supremacy.

However, some scholars argue that in Africa and in the oil industry in Africa especially West Africa, the phrase 'Sino-US' rivalry is misleading. It is hyperbole, a misnomer and should be used with caution. This is because; first China and the US are not competing with each other politically and militarily in Africa and in the oil industry in Africa. Second, China does not have the intention and it is not in China's interests to compete politically and militarily with the US. Third, even if China was competing with the US politically and militarily or had the intention to do so, it is no match for the US. China has a lot of catching up to do in Africa and in the oil industry in Africa especially West Africa.

Cooke (2009) asserts that not only are the aims and objectives of the US and China in Africa (and in oil producing African countries) different but also the strategies to achieve those aims and objectives. In the new millennium, the principal source of US engagement in Africa has been its military. The main US objective in Africa is to provide assistance and security. Africa's economic potential and its trade or investment potential ranks second and a distant third respectively on its list of priorities in Africa (although US is interested in investing in the oil industry) (ibid.). Contrarily, China's economic strength is its principal basis of

engagement in Africa and economic engagement is its primary means (King, 2010; Samy, 2010; Little, 2009; Cooke, 2009; Xu, 2008). Thus, the US military engagement in Africa far surpasses China's military presence in Africa (Xu, 2008, Keenan, 2008; Davis, 2009; McFate, 2010; Pham, 2011; Levy, 2009; Cooke, 2009).

Scholars like Lyman (2005) argue that despite the fact that China's activities do not threaten the US, China's superlative economic growth alters the playing field in Africa in the economic and strategic realm. Cropley (2009) on the contrary points out that China still significantly lags behind the US in its economic engagement in Africa. Although China narrowly eclipsed the US to become Africa's largest trade partner in 2009, Chinese aid and investments in Africa are dwarfed by the US and other OECD countries. Moreover, China neither has the intention nor the capacity to compete with the US (Xu, 2008). Rather, China enjoys the stability provided by US military assistance programmes. Beijing aims to build a wide ranging power base in Africa and obtain access to its strategic resources, and aims to avoid needless direct conflicts with the US (Foot 2006; Qin 2004).

Scholars and policy makers in Europe and the US are alarmed and concerned by the rapid strides made by Chinese NOCs in the oil industry in Africa especially West Africa. The conservative perception about China's NOCs in Africa is that they operate as a part of a very co-ordinated government strategy, and are able to gain access to oil in African countries because of the diplomatic, economic and political support from the government (Goldwyn and Morrison, 2005; Brookes 2007; Lake et al., 2007; Gill et al., 2006; Campbell, 2008; Chow, 2009).

Undoubtedly, Chinese investments in the oil industry in Africa and in West Africa have increased in the last two decades (Alessi and Hanson; 2012). Discerning fact from fiction, Downs (2007) and Goldwyn (2009) posit that Chinese NOCs are competing with but not 'locking out' US (and Western) IOCs. Moreover, in terms of oil production, acreage and value of assets, Chinese NOCs lag behind the IOCs. Alessi and Hanson (2012), Chow (2009), Downs (2007) and Gill and Reilly (2007) assert that contrary to prevailing perception, the operations of the Chinese NOCs are not reflective of a highly coordinated policy pursued by the Chinese government.

According to de Oliviera (2008), the notion of rivalry between Chinese NOCs and US IOCs is fallacious and has been exaggerated. China is not winning the competition, and lags behind the US and Western countries in the hydrocarbon industry in Africa. Although the financial support provided by Beijing does give an advantage to Chinese NOCs, Beijing's support has not significantly altered the playing field in the oil industry in Africa. Additionally, even if China may threaten (not that it threatens) US interests in onshore E&P where less technical expertise is required albeit by paying inflated prices for oil, Chinese NOCs are not competitive and do not pose a threat in the lucrative deep offshore areas. Chinese NOCs do not have the requisite cutting-edge technologies, large project management skills and capacity-building relative to IOCs. Thus, the IOCs are considered a more attractive option by African governments (Lyman, 2005; Goldwyn and Morrison, 2005; Downs, 2007; Frynas and Paulo, 2007, Houser, 2008; de Oliviera, 2008; Goldwyn, 2009). Downs (2007) asserts that the NOCs backed by Beijing's financial muscle may test the IOCs if and when

they acquire these capabilities or if they form a joint venture with companies that possess the technology and compete with the IOCs.

India in Africa

Relative to China in Africa, there is paucity of literature on India in Africa, but it is gaining currency. Various authors have been preoccupied with the relationship between India and Africa and have focused on India-Africa cooperation in the struggle against colonialism, apartheid and other instances of political oppression. There is also a very rich literature examining South Asian Diasporas in East and South Africa. Beri (2003) avers that there is both transformation and continuity in India's policy towards Africa since the end of the cold war. The policy is composed of five elements: enhancing economic cooperation, providing assistance to African armed forces, engaging with the Indian diaspora, thwarting and fighting terrorism, and preserving peace. Beri opines that India should take advantage of its goodwill and employ a new partnership to further strengthen relations with Africa.

Since 2006, there has been a modest surge in writing on more contemporary interactions between India and Africa. Although a handful of journal articles and reports have been written on India and Africa (in sharp contrast to innumerable articles and reports on China), Sheth (ed.) (2008) and Mawdsley and McCann (eds.) (2011a) have explored India's engagement with Africa. Sheth (ed.) (2008) examines the role of the Indian diaspora, democracy and governance, search for new markets and bilateral and multilateral cooperation in defence, maritime security, forestry, ship-building, pharmaceuticals, trade and commerce and knowledge industry in Indian-African relations. Mawdsley and McCann (eds.) (2011a) provides an overview of India in Africa and avers that India's role in Africa is going to increase. Drawing on a collection of case studies, they discuss India as an alternative development partner in the continent, India-East Africa economic linkages, identity and strategic instrumentality of South Asian community in East Africa, civil society relations, diplomatic manoeuvring for energy security, development cooperation and aid, geopolitics, security and maritime strategy. Sinha (2011) opines that since the beginning of the new century, India and Africa are prepared more than ever to re-establish economic and political relationships to promote their mutual interests. The government of India attaches greater importance to economic relations as the basis of renewed India-Africa engagement. Moreover, India's recent experience in reducing its aid dependency and starting its own aid programme has played a central role in its foreign policy towards Africa and commercial interests have become rooted in assistance programmes offered by India.[8] Taylor (2012) in similar vein argues that the increasing salience of India's interest in Africa has important implications for Africa. He examines the historical, political and economic ties and India's aid to Africa, and asserts that this represents a further diversification of Africa's IR away from 'traditional' North–South linkages. This arguably provides a greater range of options for Africa.

[8] Like China, India does not subscribe to the OECD definition of foreign aid or ODA (Sinha, 2011).

Naidu (2010) asserts that India is in Africa to satisfy its resource needs which are vital to its industrialisation and modernisation. In the process, a new competition is being set in motion between India and China on the one hand and other Asian countries on the other. Moreover, it is going to be hard to contain India because New Delhi represents what the West would like China to be. Modi (2010) examines the relationship between publicly owned Export-Import (EXIM) Bank of India, the Indian state, the captains of major Indian corporations and the Indian private sector enterprises under the stewardship of Confederation of Indian Industries (CII) in shaping the direction and content of India's growing engagement in Africa. Moreover, the influential Indian private sector is playing a critical role in India's engagement in Africa. Sharma and Mahajan (2007) scrutinise the key factors responsible for the growing engagement in the energy sector between India and China. They aver that India does not have a clearly defined energy policy with respect to Africa. Nonetheless, India's interests in the energy sector in the continent can be discerned at three levels i.e. the geopolitical arena, trade and commerce and foreign policy or diplomacy realm.

Vines and Oruitemeka (2007), Vines and Oruitemeka (2008) and Vines (2011) chart the evolving relations between India and other African countries in the Indian Ocean Rim. They aver that this strategy is expanding. Moreover, this strategy in addition to commercial linkages as in other African counties is also supported and strengthened by India's 2004 maritime doctrine. Due to concerns about China's expansion in recent years, India wants to expand its defence and commercial engagement with countries like Madagascar, Mozambique, the Seychelles and Mauritius. India's blocking of China's access to IBSA (group comprising India, Brazil and South Africa) is a part of this policy. Singh, S. (2007a), Beri (2008) and Rooyen (2010) discuss India's role and rationale in UN Peacekeeping Operations (UNPKO) in Africa. According to Verma (2012b), India with 9300 peacekeepers is the third largest contributor and has been a part of all the UNPKO-in Sudan, DRC, Liberia, Ivory Coast, Burundi, Angola, Ethiopia, Namibia, Rwanda, Somalia and Mozambique. "In future, India may well develop criteria that require a greater return on investment than has been the case over the last half century. A more tempered approach particularly in view of India's global aspirations seems plausible" (ibid.).

India and China in Africa

Newspapers like The Financial Times, The Guardian, and newspapers in India, China and African countries and others, news channels like the BBC, and articles and reports by independent researchers, think-tanks and international organisations also touch on comparative analysis of India and China in Africa. Goldstein et al (2006) give a detailed account of how India and China are influencing the growth patterns of African countries, particularly countries exporting oil and commodities.

Broadman et al (2007) take a benign view and aver that India and China are providing opportunities for African countries to supply goods and services, and process commodities to the two countries which is in stark contrast to Africa's relations with the developed countries. Morrissey and Zgovu (2011) compare and contrast India's and China's trade with sub-Saharan Africa, investigate the developmental impact and

provide policy recommendations to enhance growth and development in sub-Saharan Africa. Cheru and Obi (eds.) (2010a) provides a detailed discussion of the disparate aspects of the varied roles assumed by India and China in Africa. The Pan-African and multi-sectoral coverage focuses on geopolitics of Indian and Chinese engagement with Africa and on investment, aid, trade and diplomacy. The book also examines the challenges and opportunities posed by their increasing presence in Africa and their impact and implication for African policy makers and institutions like the AU, the New Partnership for Africa's Development (NEPAD) and regional economic consortia. They recommend that governments in Africa should negotiate with the two Asian giants from a position of strength and a more informed platform, and suggest recommendations to that affect. According to Cheru and Obi (2010b), over the long term, India will have a comparative advantage over China in Africa as a result of its diaspora, strong educational system, its democratic tradition and proximity to the continent. McCarthy (2011) argues that both India and China have a policy of engagement with Africa aligned around respect for non-interference and non-intervention which differentiates them from the traditional donors. He explores the internal developments in India and China, the influence of external developments, and the ideologies and principles that expounds the foreign policies of the two countries and their assistance to Africa. Beri and Sinha (eds.) (2009) compare and contrast India and China with respect to energy security in Africa. The book makes a concerted attempt to present energy security as a global problem there by going beyond state centric perceptions of energy security and linking it with local perceptions on energy resources. It employs case studies to explore Africa's role as a provider of energy and the myriad consequences of a plethora of oil producers in Africa. It also highlights India's manifold approach to Africa compared to China. In Mawdsley and McCann (eds.) (2011a), contributors point out that India and China have similarity in their interests and compete with each other. Moreover, Africa is strategically more important especially with respect to energy security for India than China. India like China has a 'no strings attached' policy, but it is seen in positive light compared to China, and its non-interference policy has escaped criticism so far. This is because India, unlike China does not have a 'go global policy' for its corporates (both in the public sector and in the private sector) to encourage them to enter international markets. Moreover, India is arguably engaged in a kind of 'globalisation slipstream' behind China in Africa.

China in West Africa

Little has been written about India's and China's engagement with West Africa as a region although scholars have worked on India's and China's interaction in individual West African countries as case studies especially in the oil industry. Campos and Vines (2008) and Utomi (2008) explore China's trade and diplomatic ties, financial engagement, motives and strategy, engagement in the oil sector and developmental impact on Angola and Nigeria respectively. Ferreira (2008) provides a multi-layered analysis of China-Angola relationship. Analysis focusing on China's engagement in Angola is more nuanced than just access to natural resources. Ferreira contends that all is not quiet on the China-Angola front and raises important questions regarding the long-term nature of Angolan-Chinese 'perfect marriage of convenience'. Using

Senegal as a case study, Gaye (2008) takes a holistic view of Sino-African relations in general and West Africa in particular. He asserts that China appears to act as a partner, competitor and coloniser in Senegal, West Africa and Africa. China faces a tough task if it does not adhere to African needs and a 'win-win' relationship. Berto et al. (2009) examine briefly how West Africa's and Economic Community of West Africa States' (ECOWAS) economic and political development path is influenced by their interconnection with other areas of the world especially China-Africa relations. An anthology of 'Occasional Papers', 'Policy Briefings' and articles have also been published by the South African Institute of International Affairs (SAIIA) on China's engagement with some natural resource rich West African countries in general and in the oil sector. For instance, Mtembu-Salter (2009) examines the operations of Chinese NOCs in Nigeria and Alves (2008) and Dittgen (2011) examine Chinese NOCs in the oil industry in Gabon

India in West Africa

Vasudevan (2010) avers that India-Nigeria relations, like relations with the African continent, have transformed from historical and political connections and have an increasing economic focus. Vasudevan takes a holistic perspective and explores the pertinence of the bilateral relationship between the two countries. The paper asserts that India-Nigerian relations can act as a catalyst to reshape India-Africa relations. Vittorini and Harris (2011) trace the historical roots of Indian and West African relations since the NAM Conference in Bandung in 1956. They explore India's diplomatic and corporate global strategy in West Africa especially Indian engagements in Liberia and Ghana and contend that India's engagement with West Africa - Francophone, Anglophone or Lusophone - will increase in the future. Beri (2010) on the other hand avers that although Indian oil companies have gained access to the Nigerian oil industry due to the historical relations between the two countries, the future is circumspect due to increasing insecurity and change in government. She promulgates that as India's investments increase, India needs to perform a dual act: first, a long term strategy is required to cope with the increasing insecurity, and second is to strengthen relations with African countries. A compendium of 'Occasional Papers' and articles have also been published by the SAIIA on India's interaction with some West African countries in the energy sector.

India and China in West Africa

India and China have also been compared and contrasted in West Africa. Singh, S. (2007b) discusses India's relations with West Africa in a wide historical context. The Chatham House paper discusses India's energy needs and highlights the regions significance for India. It also compares and contrasts India's and China's engagement in the region. It explicates that trade and economic framework is the key to the growing relationship between India and West Africa and outlines the broad framework with which India can engage the region. It contends that India's involvement in West Africa is expanding beyond its traditional Commonwealth partners. Vines, Weimer and Campos (2009) and Wong (2009) provide a comparative perspective of the effect of Asian oil companies especially Indian and Chinese oil companies on Angola and

Nigeria respectively. It elucidates the very divergent fortunes of Asian oil companies in the two countries. The Chatham House report concludes that Asian companies that were able to gain a footing in the oil industry in Nigeria as a quid pro quo for investing in downstream and infrastructure projects did not comprehend the politics in Nigeria. The report explains why China's oil strategy has been extremely successful in Angola relative to oil companies from other countries. Vines and Campos (2010) compare India and China in oil rich Angola and assert that China plans to be present in Angola for a long period of time. Although it is a symbiotic economic relationship, it also raises new policy challenges for Angola. Although India is trying to catch up with China, it is unable to do so because it unable to match China's financial muscle. Aguilar and Goldstein (2009) compare and contrast India and China in Angola with respect to oil, trade, Angola's problems with financing and the role played by the India and China, and the political economy of the relationship between Angola and the Asian Giants.

Contribution to the existing Literature

Although there is an ever increasing literature comparing India and China in Africa, few scholars have tried to provide an answer for the difference in the interaction of India and China in Africa. Even fewer have tried to explain the difference in India's and China's interaction in West Africa in general - their ability to mobilise resources especially oil. Singh, S. (2007b), Cheru and Obi (2010a), Bhattacharya, S.B. (2010), Obi (2010), Sinha (2010), Naidu (2010), Cheru and Obi (2011), Carmody (2011), Naidu (2011) and others point out that India in Africa (and in West Africa) is spearheaded by the private sector followed by the public sector comprising SOEs unlike China where the SOEs are the flag bearers. However, they do not explain the reason for the phenomenon.

Scholars have observed that China relative to India has greater outreach in Africa and Chinese SOEs outbid Indian SOEs and private enterprises because Indian enterprises do not have deep pockets relative to the Chinese SOEs. They do mention that Chinese SOEs have state backing under the aegis of the 'go global policy' and this is not the case with respect to Indian enterprises. Thus they mention and are able to explain why the Chinese state is able to provide more financial support to the NOCs relative to India. However, they do not explore and elucidate the political linkages between the NOCs and the Chinese government.

There is no comprehensive study of acquisition of oil blocks by Indian and Chinese oil companies in West Africa. Vines, Weimer and Campos (2009), Wong (2009) and Beri and Sinha (eds.) (2009) examine the competition between Indian and Chinese NOCs and mention that Chinese NOCs have outbid Indian companies in the oil industry in Angola. However, Vines, Weimer and Campos (2009) and Wong (2009) only examine the Indian and Chinese NOCs and do not study the Indian private sector oil companies. Scholars like Beri and Sinha (eds.) (2009), Dadwal (2011), Sharma and Ganesan (2011) and others do mention the Indian private sector oil companies but they do not provide an explanation how Indian oil companies like Essar Oil, OIL and IOCL have acquired oil blocks in West Africa. Singh (2007b) states that

the OIL-IOCL combine have acquired an oil block in Gabon through a 'farming in' offer. However, the study does not examine the quality of the oil block and its commercial potential.

Additionally, there is no comprehensive study of Indian oil companies in Nigeria apart from OVL although other Indian oil corporations like OIL, IOCL and Essar Oil also have oil blocks in Nigeria. Wong (2009) and Alao (2011) discuss the acquisition of oil blocks by Indian and Chinese oil companies in Nigeria. However, they only discuss the competition between OVL and OMEL on the one hand and Chinese NOCs on the other. The thesis discusses and explains how and why three Indian oil companies Essar Oil, OIL and IOCL have acquired oil blocks in Nigeria.

Moreover, no studies have been undertaken on the acquisition of oil blocks by Chinese oil companies in other countries in West Africa apart from Nigeria, Angola and Gabon. The thesis breaks ground by examining the acquisition of oil blocks by Chinese and Indian oil companies in 11 West African countries and provides an explanation for why China has greater outreach in the oil industry in West Africa relative to India. It also explains how and why IOCL and OIL have acquired an oil block in Gabon. Thus, it makes an empirical contribution to the existing literature on India's and China's interaction in the oil industry in West Africa.

The thesis aims to provide an answer and explain the reasons for the above mentioned phenomena. The thesis postulates that the difference in India's and China's ability to mobilise oil in the oil industry in West Africa is explained by two factors: first, is the difference in their economic and political power. Since China has greater economic power and political clout than India, it's behaviour and role is different vis-à-vis India in the oil industry in West Africa. This elucidates the ability of Chinese enterprises to outbid their Indian competitors as well as China's widespread outreach in Africa compared with India's discreetly selective approach.

The thesis also makes an empirical contribution to the existing literature on India and China in the oil industry in West Africa by providing a more comprehensive explanation for the ability of the Chinese oil companies to outbid their Indian counterparts. The thesis examines not only the bids that Chinese and Indian oil corporations place for the oil blocks and the quality of the oil blocks acquired by the oil companies from the two countries, but also tries to explain the reason why they are able to place those bids. The thesis examines the internal rate of return or the rate of return on capital/investment, rate of interest on loans and the ease of availability of loans or finance, the difference in the level of technology and ability to acquire technology, project management skills, risk aversion, valuation of the asset and the difference in the economic, political and diplomatic support received by the Chinese and Indian oil companies from their respective governments. It also mentions the reasons why the Chinese NOCs are preferred as partners by African oil companies and IOCs and examines the relative commercial viability or relative quality of the oil blocks acquired by Indian and Chinese oil companies. This is discussed in greater detail in Chapter 5 and proved empirically in Chapters 6 and 7.

Second reason is the difference in the political economy of India and China which translates into divergence in the composition of the economy especially the non-agricultural sector. This explains the diversity in reforms being introduced and why the Chinese economy is dominated by large scale and mostly subsidised SOEs and why the private sector has been stifled. India on the other hand is characterised by a mixed economy constituting SOEs as well as a vibrant private sector with 'global brand names' which acts as the torch bearer. The difference in the political economy explains why the oil industry in China is totally dominated by the SOEs whereas the oil sector in India is represented by SOEs and the private sector.

Thus, the main purpose of the thesis as discussed in Chapter 1 is to explicate the divergence in the ability of India and China to mobilise oil, a key resource, in West Africa. The thesis contends that neoclassical realism explains the difference in India's and China's interaction in West Africa by incorporating the difference in the political economy of India and China as the intervening variable and the difference in their economic and political power potential as the independent or the systemic variable. In the process it makes a theoretical contribution to the existing literature on neoclassical realism and political economy and neoclassical realism, and extends neoclassical realisms research design. The contribution to the existing literature is discussed in Chapter 3 and research design in Chapter 8.

Conclusion

The chapter provides a broad overview of the existing literature on India and China in Africa and in West Africa. It also highlights the comparative perspective on India's and China's interaction in Africa and West Africa and also in the oil industry in the Africa and West Africa. It discusses the difference in the interaction of India and China in Africa, West Africa and the oil industry in Africa and West Africa. The chapter mentions the empirical gap in the existing literature and provides a rationale for undertaking the research. It explains the rationale for comparing India and China and the reasons for their new found interest in Africa and West Africa. Africa has gained significance as an important oil supplier to the world. Although its oil reserves constitute approximately eight per cent of the global oil reserves and its reserves are marginal relative to the Middle East, Africa especially West Africa can play a more important role. It is estimated that there will be more offshore oil discoveries in the West African countries especially Nigeria and Angola in the near future which will not only increase the oil reserves but accentuate the ever increasing oil production in the region. West Africa also provides various commercial advantages and business opportunities and its high quality light sweet oil is in high demand.

The chapter also asserts that neo classical realist analysis can explain the difference in how India and China mobilise oil in the oil industry in West Africa. The thesis contends that neoclassical realism explains the difference in India's and China's interaction in West Africa by incorporating the difference in the political

economy of India and China as the intervening variable and the difference in their economic and political power as the systemic or independent variable, and this will the focus of the following chapter.

Chapter 3

Introduction

Globally, be it developed countries, newly industrialised states, developing countries or less developed countries, the increasing interface between international and domestic politics has complicated the job of government officials striving to achieve objectives in both realms. In similar vein, interdependence and developments in the international political economy influence and constrain the ability of the governments to effectively pursue economic policies in the domestic realm. The performance of a country in the global system and the capability of the government officials to obtain a cooperative or beneficial environment increasingly dictate the success of domestic policies.

Similarly, politics and economics in the domestic realm substantially influence the ability of the state to pursue its aims internationally. There is a realisation among governments in majority of the states globally regarding the pertinence of the domestic economy to international power. As a result, governments have pursued and undertaken measures to revitalise and reorganise the domestic economy. However, despite the acknowledgement, and critical and growing significance of domestic and international linkages, political scientists till the 1990s enjoyed only limited success in conceptualizing and explaining them. According to Robert Putnam (1988:427), "domestic politics and international relations are often somehow entangled, but our theories have not yet sorted out the puzzling tangles."

In 1970's and in 1980's, political scientists focused on different aspects of the relationship between international and domestic realms. For instance, the extensive literature on foreign policy studies has sought to identify the domestic sources of state behaviour in the international arena. The two most influential works in foreign policy studies have highlighted the importance of bureaucratic politics in foreign policy analysis and decision making in foreign policy (Allison, 1971), and the relevance of institutional networks and state-society relationships in the formulation and performance of foreign economic policy (Katzenstein, 1978). On the other hand, in the 1980's, a growing interest emerged largely among comparativists, in the international sources of domestic politics, or the "second image reversed." This literature generated rich insights by examining how international factors like economic size, trade dependence and war shaped domestic political structures (Gourevitch, 1978; Katzenstein; 1985; Rogowski, 1987). However, none of the studies realised that the realms of domestic and international politics are interrelated, and that policy or policies formulated in one realm overflow into the other realm. Governments frequently act simultaneously in both realms i.e. undertaking actions abroad to resolve domestic issues and in the domestic arena to solve external challenges. Thus, conceptual frameworks are required that not only highlight the effect of one on the other but also the interplay between the two realms (Putnam, 1988).

In 1948, Hans J Morgenthau wrote "Politics Among Nations: The Struggle for Power and Peace". The book was primarily responsible for cementing realism as the prevailing theoretical paradigm in the field of IR. In 1979, Kenneth N. Waltz wrote "Theory of International Politics", which led to a new structural version of realism – neorealism[9] – becoming the dominant paradigm in IR. However, it was only when Ashley (1986) drew a sharp distinction between the work of earlier realist scholars and Waltz's theory of international politics that the terms neorealism and classical realism became widespread.

In the field of international politics, structural realism or neorealism, the dominant paradigm, has tended to abstract from domestic politics to explain international outcomes such as system stability, economic openness or regime creation as a function of international attributes, principally the distribution of power. The inability of neorealism to explain the peaceful conclusion of the Cold War and the international politics in the post-Cold War period led to great disenchantment with neorealism (Schmidt, 2004). Scholars from other paradigms especially the liberalists commented that 'realism was on the decline' or 'the retreat of realism' or neorealism was no longer a dominant paradigm or neorealism was defunct. Consequently, modifications or addition of variables were suggested by various neorealists and liberalists that needed to be incorporated in the 1990s to explain and come to terms with the changing global political and economic landscape (Jervis, 1978; Krasner, 1978; Gilpin, 1981; Gaddis, 1987; Walt, 1987; Van Evera, 1990-91; Buzan, 1993; Wohlforth; 1994-95). Thus in 1997, postclassical realism was coined by Stephen G. Brooks.

In the 1990's, books written by eminent scholars like Wohlforth (1993), Brown et al (eds.) (1995), Christensen (1996), Schweller (1998) and Zakaria (1998), and a compendium of articles previously published in 'International Security', a globally renowned journal incorporated both the systemic or the exogenous variable and the domestic or unit level or endogenous variable. Subsequently, in 1998, in an article in World Politics, Gideon Rose invented the term neoclassical realism - a fusion of classical realism and neorealism. Adherents of neoclassical realism argue that they are realists because "The scope and ambition of a country's foreign policy is driven first and foremost by its place in the international system and specifically by its relative material power capabilities" (Rose, 1998: 146).

It is neo because it still retains the primacy of the systemic variable i.e. the level of external vulnerability due to the anarchical nature of the international system. It is classical because it incorporates unit level variables like beliefs of leaders, the degree of state autonomy from society, the extractive and mobilisation capacity of political-military institutions, the influence of interest groups, domestic societal actors and others.

The purpose of the chapter is to show that neoclassical realism is theories of foreign policies and explains foreign policy outcomes of states, and how political economy (political economy as employed in the thesis examines the structure of the economic system and not the FP executive) can be incorporated into neoclassical realism to explain the research question: 'Can and does neoclassical realism explain the difference in the way India and China mobilise oil, a key resource externally in the oil industry in West

[9] Neorealism as postulated by Kenneth Waltz is a structural theory but not the only structural theory. Robert Giplin's Hegemonic Stability theory and Robert Keohane's Modified Structural Realism are also structural theories.

Africa?' The chapter is divided into three sections. Section I discusses neoclassical realism as a theoretical paradigm and states that while neorealism is a theory of international politics, neoclassical realism explicates foreign policy outcomes. Thus, it is a theory of foreign policy. Section II shows the interplay between political economy and neoclassical realism. It discusses the existing literature with respect to neoclassical realism and political economy, and highlights the existing gap in the literature. It also illustrates how political economy is incorporated into neoclassical realism to elucidate the difference in the interaction of India and China in the oil industry in West Africa. Section III discusses the importance and significance of using neoclassical realism and states why it is desirable to use neoclassical realism rather than simply a foreign policy analysis to explain the research question.

Section I

For more than three decades, IR theory has been dominated by the debate between neo-realists and their various critics. Much of the debate has occurred over questions about the nature of the international system and its effect on patterns of international outcomes such as war and peace. Scholars have disputed whether a multipolar system is less stable and generates more conflict than a bipolar one or whether international institutions can increase the incidence of international cooperation. Since neorealism is not a theory of foreign policy but of international politics, it neither seeks to expound their actions in all cases nor in great detail. Thus the daily occurrences and events are explained by theories of foreign policy. The dependent variable in these theories is the conduct of individual states rather than the pattern of outcomes of state interactions. Contrary to neorealism, theories of foreign policy strive to expound the aims and objectives of states in the external sphere and how and when they try to achieve those aims and objectives.

Neoclassical realism coined by Gideon Rose (1998) is a theoretical paradigm which explains foreign policy outcomes of states. It aims to explicate the foreign policies of a state across different time periods or different states facing comparable external constraints and provides a theoretically-inspired framework to do so (Taliaferro et al, 2009a). According to Rose (1998: 146), "Its adherents argue that the scope and ambition of a country's foreign policy is driven first and foremost by its place in the international system and specifically by its relative material power capabilities. This is why they are realist. They argue further, however, that the impact of such power capabilities on foreign policy is indirect and complex, because systemic pressures must be translated through intervening variables at the unit level. This is why they are neoclassical."

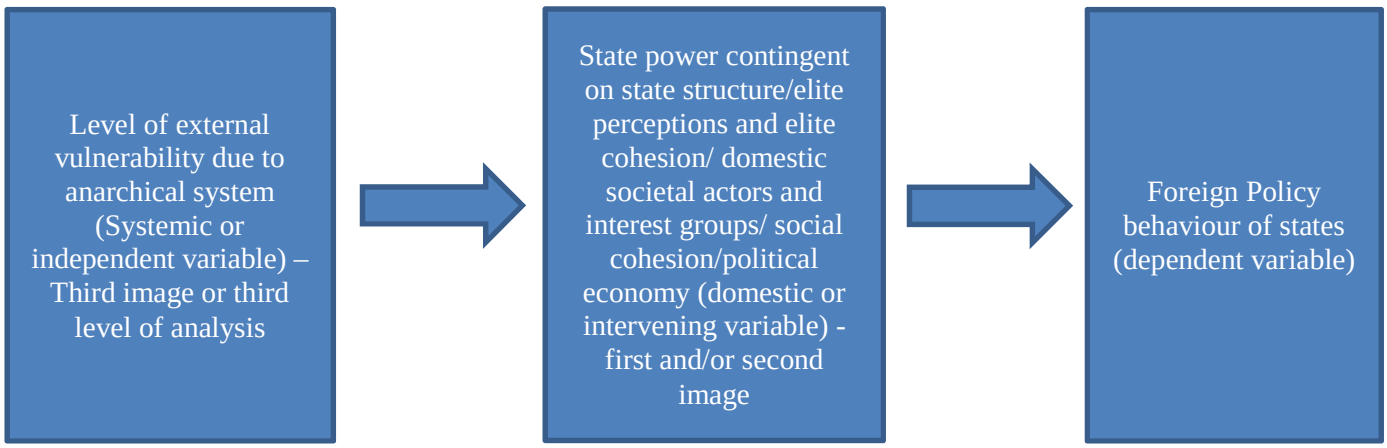
According to Waltz (1959), the first and second images are important and provide knowledge of the factors that determine and influence policy, whereas the third image provides the structure for international politics. However, without the third image, it would be difficult to assess the influence of the first and second image and/or predict the outcome.

Fareed Zakaria (1992) avers that a good analysis and comprehension of a foreign policy of a state should incorporate systemic, domestic and other factors, and it should be specified what aspect of a policy can be explained by what factor. Taliaferro et al (2009a) aver that neoclassical realism incorporates the theoretical perceptions and the scrupulousness of neorealism but it does not sacrifice the practical insights and the convolutedness of state craft that exists in classical realism. According to Juneau (2010), neoclassical realism puts forward a well-defined causal chain comprising of three steps: first, the independent or the exogenous variable or a country's relative material power in the anarchical international system. Second is the intervening or the endogenous variable or the domestic level 'transmission belt' which sieves systemic forces. Third is the dependent variable or the foreign policy outcome.

In consonance with other schools of realism, neoclassical realists assume that states are unitary actors and systemic forces are the foremost contributing factor of outcomes. According to Schweller (cited in Juneau 2010: 2), based on this assumption, "structure encourages certain actions and discourages others, i.e. systemic pressures are directly 'translated' into state actions…. Thus, in the long term, a state's behaviour will most likely converge with predictions based solely or mostly on structural factors. In the short term, however, divergences must be expected, and are accounted for by the integration of domestic-level variables. The intervening, domestic-level variables which channel, mediate and (re)direct systemic pressures represent one of the main, and most controversial, innovations of neoclassical realism."

The domestic variables enable an exploration of the internal practices which enables states to formulate policies and act in accordance to the systemic pressures (Sterling-Folker, 1997). Thus neoclassical realism incorporates first, second and third image variables. The causal chain of neoclassical realism is depicted in Figure 3.1.

Figure 3.1: Diagrammatic illustration of neoclassical realism



Like classical realism, neoclassical realism states that there is an explicit distinction between state and society and does not view the state as completely autonomous from society. According to neoclassical

realists, states are the principal actors in international politics (Taliaferro et al, 2009a). It represents a 'top down' conception of the state which implies that external behaviour is eventually driven by systemic forces. In other words, it views the states as embodied by the national security executive comprising the head of the government, ministers and government officials in charge of making foreign and security policy (Ripsman; 2002).

Although the executive branch is independent from the society, it is frequently compelled by political agreements to bargain with domestic actors like political parties, the legislature, economic sectors, and classes or the public to implement policy and extricate resources in order to implement policy choices. Hence contrary to Marxism and liberalism, neoclassical realism does not view states as merely accumulating the demands of disparate economic classes or social interest groups. According to neoclassical realists, leaders delineate the 'national interests' and direct foreign policy on the basis of the intentions of other states and relative shift in power, but always subject to domestic constraints. Consequently, policy responses are observed by neoclassical realists as a result (at times) of struggle and of state society co-ordination (Taliaferro et al, 2009a).

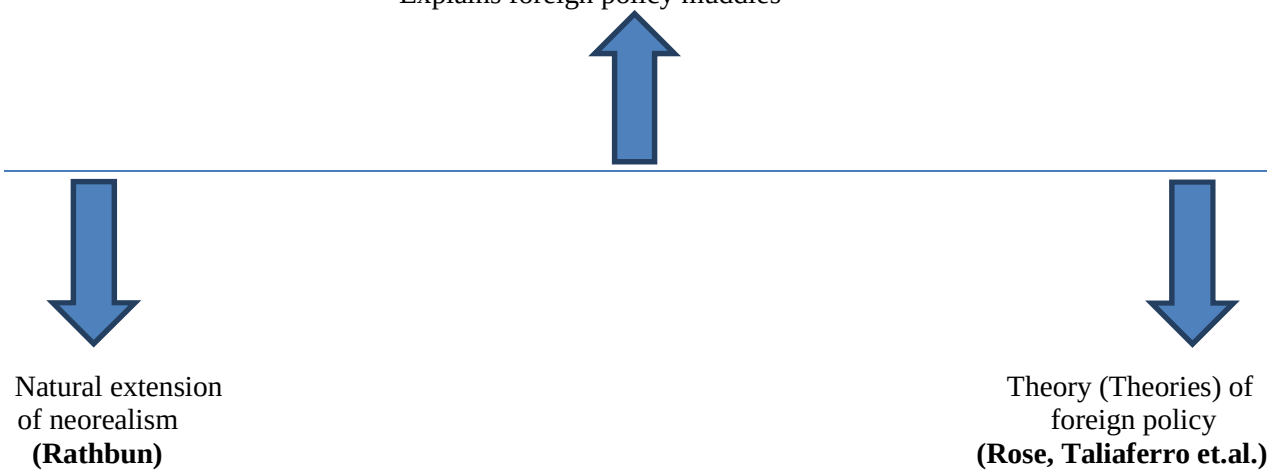
In recent years, scholars have debated whether neoclassical realism is a "theory of mistakes" Schweller (2006: 10) or as a standard foreign policy theory. According to Waltz (2003:53), states can "do any fool thing they care to, but they are likely to be rewarded for behaviour that is responsive to structural pressures and punished for behaviour that is not." Thus the system guides states in the direction of the paramount foreign policy but states recurrently diverge from the best solution because they are pushed in other directions by 'domestic pathologies' (Snyder, 1991).

According to Rathbun (2008: 319), "Neoclassical realism should be viewed as a logical and necessary extension of structural realism. It is 'a theory of mistakes'. It explains how domestic factors distract 'from ideal foreign policy as understood by neorealism' which provides a baseline of what an ideal rational unitary state would do." "It begins with the premise that ideal state behaviour is that which conforms with the unitary actor and objectivity premises of neorealism but shows that when these conditions are not met empirically, domestic politics and ideas are the culprits" (ibid.: 312). "States that stray too much from ideal behaviour, then, suffer severe consequences" (ibid.: 317). This methodology is exemplified by Christopher Layne's (2006) examination of U.S. foreign policy. Layne asserts that the misguided grand strategy of extra-regional hegemony has guided US foreign policy since 1945. He argues that the US should instead espouse a grand strategy of offshore balancing.

However, this does not bear consonance with all neoclassical realists. Rose contends that neoclassical realism is a theory of foreign policy. Norrin Ripsman, Steven Lobell, and Jeffrey Taliaferro posit that contingent on (i) clarity of threats and (ii) clear information on policy responses, neoclassical realism can not only simply explain foreign policy puzzles, but also foreign policy of states (Taliaferro et al, 2009b). They also contend that there are diverse neoclassical realist 'theories of foreign policy' and not one single neoclassical realist theory. Thus neoclassical realism is 'theories of foreign policy' (Taliaferro et al, 2009a).

Zakaria (1998) does not focus on mistakes and severe consequences. Zakaria identifies an incongruence i.e. the imperial under stretch of US foreign policy in the 19th century which contradicts the paradigms of classical and defensive realism. Although Zakaria's state centred realism offers a better structure to explicate this contradiction, he does not prescribe the course of action the US should take or have taken. Thus it is conceivable that the different approaches to neoclassical realism can be observed as comprising a spectrum. The spectrum ranges from the Rathbun on one end and Taliaferro et al and Rose on the other with Zakaria in the middle (Juneau, 2010). Figure 3.2 below depicts the spectrum of neoclassical realism. The thesis adheres to Taliaferro et al's assertion that neoclassical realism is 'theories of foreign policy'.

Figure 3.2: Spectrum of Neoclassical Realism



According to Juneau (2010), unlike Waltz who sought to explicate a small amount of large and significant things, neoclassical realism aims to expound numerous amounts (n) of small things (t). More importantly, its objective is to explain these things rather than just describe them. Thus, there is flexibility in achieving a balance between the 'n' and the 't' in neoclassical realism and the balance should be struck only in accordance with the research question under consideration. Consequently, the researcher has two options to choose from if the objective is to seek an extremely specific and accurate account of foreign policy: first, to add additional intervening variables and second, to operationalize them in an increasing number of specific ways. "A more general account (smaller n, larger t's) could, for example, use one intervening variable, either 'leaders' or state interests (status quo vs. revisionist), while a more specific study (larger n, smaller t's) could not only incorporate both, but increase their individual specificity by changing the first one to factional politics (which incorporates the balance of power among key regime factions) and the second one to either Schweller's (1998) model which further divides state interests into five categories or into the more nuanced variable of 'regime identity'" (ibid.:4).

Neoclassical realism is based on five assumptions. Most realists' agree with the first three but differ with respect to the last two. Neoclassical realism is steadfastly and unequivocally embedded within the realist tradition because it accepts the first three assumptions. Its distinctiveness arises because of its acceptance of the last two assumptions. The first three assumptions are: first, the nature of international politics is anarchical, second, the primacy of the conflict group and third, the primacy of power in the international system. However, neoclassical realism differs with classical realism and neorealism in the way it perceives the first and the third assumptions (Juneau, 2010).

Neoclassical realism accepts that the nature of international politics is anarchical, but it relaxes it somewhat, which allows it to view conflict not in terms of possibility but probability. This is similar to postclassical realism postulated by Stephen Brooks (1997). Juneau (2010:5) argues "Neoclassical realism avers that when the probability is low, states can focus on matters other than security, even while keeping an eye on future sources of conflict. Self-help, in other words, may be the default position of states, the one to which they revert when they must, but it is not necessarily a permanent one. For neoclassical realists, neglect of non-self-help behaviour leads structural realists to ignore a wide range of important foreign policy matters. Thus, neoclassical realism broadens the scope of realism."

With respect to primacy of power in the international system, neoclassical realists make three key arguments. First, the notion of power is flexible in its definition, operationalization and measurement. Second, although power is positioned at the beginning of the causal chain, neoclassical realists do not allow it to monopolize explanatory strength. They contend that in addition to power which influences state actions, domestic factors also play an important role. Third, they agree that power is not only a means but also an end in itself. However, they argue that contingent on circumstances, since states pursue myriad goals, it is not necessary that states may work towards a unitary objective - either power or security (Juneau, 2010).

Neoclassical realists accept that conflict groups are the key actors in world politics (Juneau, 2010). According to Gilpin (1986: 7), "The essence of social society is the group. The building blocks and ultimate units of social and political life are not the individuals of liberal thought nor the classes of Marxism (but rather) conflict groups." In the past, this unit comprised of either city-states or empires or tribes but since the eighteenth century, the dominant conflict group has been the state. Stephen Krasner (1985: 28) argues that "the behaviour of other actors, including multinational corporations and international organizations, is conditioned and delimited by state decisions and state power." However, Juneau (2010) asserts that the assumption of conflict groups does not state anything regarding the extent to which a state is a unitary actor. Consequently, in foreign policy analysis, it is possible to include the functioning of the state.

The fourth assumption is confined rationality. Realists have debated for long whether rationality should be incorporated within realism. Rationality is a principal tenet of realism according to Keohane, Grieco and Mearsheimer (cited in Juneau, 2010:5-6). For others like Waltz and Morgenthau, it is not.

Waltz and Morgenthau discard that states are rational actors and always act "rationally to achieve intended goals which themselves may not be rational in terms of the actual opportunities and constraints presented by the external environment in which they are embedded" (cited in Schweller, 2003:234). Waltz asserts that "neorealism is not a rationalist theory of state behaviour and states are pushed and pulled by structure. Thus, they either follow the pressures and incentives of the system, or they suffer consequences. This does not assume that they must, a priori, behave rationally" (cited in Juneau, 2010: 6).

Neoclassical realism conforms to the rationality assumption but it is qualified and contingent and referred as confined rationality. Neoreaslists agree that although systemic forces influence and constrain the behaviour of states, states are forced to act within a range of possibilities as determined by their relative power, it does not mean that states are rational actors. However, within the confined space and range of possibilities, rationality plays a role (Juneau, 2010) and states seek to maximise their aims and objectives contingent upon constraints placed on them (Zakaria 1998).

According to Christensen (1996:12), "Given the insufficient determinacy of Waltz's original approach for analysing foreign policy, additional assumptions about actors' rationality in responding to the international system are necessary if we are to argue from the international distribution of capabilities to the security strategies of particular nation-states." According to Juneau (2010: 6), "Neoclassical realism thus allows for a certain role for state agency. It does so, however, in an ontologically and epistemologically flexible manner, allowing, in particular, for sub-optimal behaviour (if, for example, domestic 'pathologies' impede optimal value-maximization). Neoclassical realists also accept that rationality is a fluid, imprecise and hard-to-define ideal, which needs to be clarified and fleshed out on a case-by-case basis."

The fifth assumption of neoclassical realism is ontological and epistemological flexibility and complexity. Neoclassical realists agree on the ontological complexity of international politics. They assert that sweeping generalizations on state behaviour like balancing, under balancing or bandwagoning are of limited use to someone who wants to know what state A did last on a day of the week or at a particular period of time. Thus neoclassical realists abjure and discard parsimony which is considered as a major hindrance on practicality and applicability (Juneau, 2010).

According to Schweller (2003), neoclassical realism presents progress within the realist research tradition. Neoclassical realists emphasize problem focused research that seeks to clarify and extend the logic of basic classical and structural realist propositions by specifying and further developing the non-structural arguments, causal processes and linkages at the domestic and international levels implied by structural theories of balance of power and hegemonic rivalry. Neoclassical realism employs the case study method to test general theories, explain cases and generate hypotheses. It incorporates first, second and third image variables. It not only addresses important questions about foreign policy but has also produced a body of cumulative knowledge.

Taliaferro et al (2009a) assert that neoclassical realism is not a modification of neorealism proposed by Waltz and it is also not an endeavour to put unit level variables in a theory to explicate an aberration. Additionally, it is wrong to typify realism as a strictly constructed research programme as postulated by Lakatos. Moreover, neorealism should not be characterised as the hard core of realism and any departure from neorealism should not be considered as verification of a degenerative problem shift (Vasquez, 1997). Thus, neoclassical realism might expound the likely military, diplomatic and economic responses of specific states to systemic constraints, but it does not explicate the systemic outcomes of those responses (Taliaferro et al, 2009a).

Section II

Section II shows the interplay between political economy and neoclassical realism. It discusses political economy in brevity and provides a working definition of political economy. It also discusses the existing literature on neoclassical realism and political economy and highlights the gap in the existing literature. It illustrates how political economy is incorporated as a domestic or intervening variable into neoclassical realism to explain the difference in the interaction of India and China in the oil industry in West Africa i.e. their ability to mobilise resources externally.

Political Economy and Neoclassical Realism

The phrase 'political economy' has had a long and distinguished history with numerous and diverse elucidations and import. According to Adam Smith, it was a science of management of a country's resources to create wealth. Karl Marx on the other hand defined it as the way in which the ownership of the means of production affected historical processes. It has had differing meanings for most of the last century. It was viewed as a methodology or as an interrelationship between politics and economics i.e. as an area of study. The methodological approach was split into two segments: the economic approach and the sociological approach. The former laid emphasis on rationality and was also coined as public choice, and in the latter, the level of analysis was the institutions (Wiengast and Wittman, 2006). According to Wiengast and Wittman (2006), "political economy is the methodology of economics applied to the analysis of political behaviour and institutions." Although political economy as a methodological approach is important, it lies outside the scope of the thesis. Thus the thesis discusses the political economy as an area study i.e. the inter relationship between politics and economics.

The thesis employs a simple but comprehensive definition of political economy as a "branch of social science that takes as its principal subject of study the interrelationships between political and economic institutions and processes. In other words, political economists are interested in analysing and explaining the ways in which various governments affect the allocation of scarce resources in society through their laws and

policies as well as the ways in which the nature of the economic system and the behaviour of people acting on their economic interests affects the form of government and the kinds of laws and policies that get made" (Johnson, 2005). Thus, political economy of a country is a domestic or an endogenous variable.

Accordingly, different economic and political systems exist in different countries. Different political economies in different countries have a direct bearing on how the state mobilises and extracts resources from the domestic society via the institutions of the state (and other means like nationalism and statist or anti-statist ideology) to achieve foreign policy objectives. Following Marx, capitalism and communism are two systems at the opposite end of the spectrum with a combination of the two in varying degrees and forms lying between the two. For the sake of simplicity, the thesis mentions three different political and economic systems: capitalist system where the means of production are in the hands of private enterprise as in the U.S., socialism/communism (there is an inherent difference between communism and socialism but for the ease of comparison the thesis uses the terms interchangeably) where the ownership of the means of production are in the hands of the state as in China before the economic reforms in1979, and a mixed economy system where the state controls the means of production in the key and strategic industries (private enterprise entered these industries at a later stage of development) and the consumer goods industry is in the hands of private enterprise as in India.

According to Taliaferro et al (2009a), neoclassical realism might explicate the likely military, diplomatic and economic responses of specific states to systemic constraints. Neoclassical realism, as discussed in the previous section proposes a clear causal chain with three steps. First is the independent variable or the country's relative power in the anarchic international system. Second is the intervening variable or the domestic-level 'transmission belt' which sieves systemic pressures. Third is the foreign policy outcome or the dependent variable. Neoclassical realists have incorporated state power contingent on state structure, elite perceptions and elite cohesion, domestic societal actors and interest groups and social cohesion as domestic variables to explain foreign policy outcomes of states.[10] Similarly, political economy can also be incorporated as a domestic or intervening variable into neo-classical realism to explain the foreign policy of a country. Political economy of a country is a domestic or endogenous variable and the relative power of a country in the international system is the systemic variable, and these two factors influence and impinge the foreign policy of a country. Political economy as a domestic or intervening variable in neoclassical realism is depicted in Figure 3.3.

[10] This is discussed in more detail below.

Figure 3.3: Political economy as intervening variable in Neoclassical Realism

Literature Review

Neoclassical Realism: Empirical studies

There has been a spurt in literature since the 1990's but neoclassical realism is still in an embryonic stage. However, it is gaining momentum as a theoretical paradigm. IR scholars and PhD students in top ranked universities are using neoclassical realism as a theoretical paradigm.

The genesis of neoclassical realism can be traced to books by William Wohlforth, Thomas Christensen, Fareed Zakaria and Randall Schweller in the 1990's. They aim to explicate the grand strategy of a state at a specific time and/or place. Wohlforth (1993) asserts that the sway of communism on USSR's net assessments and the incongruity between the US and the USSR regarding the distribution of power in the post-Cold War Europe was instrumental for Soviet grand strategy during the Cold War. Schweller (1998) examines Hitler's expansionist grand strategy and asserts that there were two reasons which facilitated Hitler's strategy: the tripolarity in the international system from the late 1930's to the early 1940's and the status quo and revisionist interests among the three poles i.e. the US, Germany and the Soviet Union.

Since Rose's article was published in 1998, scholars have utilised neoclassical realism to deal with myriad policy, historical and theoretical debates. Lobell (2003) and Schweller (2006) investigate and explicate the politics of alliance formation and threat assessment in Paraguay, Brazil and Argentina before the 1870 War of the Triple Alliance, and before the two world wars in France and Britain respectively. Davidson (2002) and Davidson (2006) employ neoclassical realism to examine the geneses of Italy's anti status quo grand strategy in the 1920's and 1930's. Taliaferro (2004) examines the interventions of Germany, Japan and the US in the periphery regions. McAllister (2002) and Barth (2005) investigate the beginning of the development of the US military commitment from 1940's-1960's to Western Europe and containment. Brooks and Wohlforth (2000/1) explore the interaction of the domestic constraints on the Kremlin's response to the deep relative decline in the 1980's, the relative shifts in power and the evolving nature of the global production. Sterling-Folker (2002a) explores the beginning of the US monetary policy since the fall of the Bretton Woods in 1973.

Schweller (1994), Schweller (2001) and Edelstein (2002) investigate the quandaries in assessment of the capabilities and intentions of emerging great powers. Byman and Pollack (2001) assess how grand strategy is influenced by ideology and the impact of individual leaders. Ripsman (2001) and Ripsman (2002) employ neoclassical realism to address the impact of domestic constraints on the ability of great powers to create long-lasting agreements after major wars. Layne (2006) and Dueck (2006) investigate the 2003 invasion of Iraq and the geneses of the Bush doctrine. Haglund and Onea (2008) use neoclassical realism as a theoretical paradigm to understand the making and analysis of Canadian foreign policy. Building on neoclassical realist thought, Weiss (2009) argues that a two-stage analysis of the power context offers a comprehensive explanation of some of the recent changes in German foreign policy especially the shift in preferences for institution building in the European Security and Defence Policy. Costalli (2009) argues that neoclassical realism is relevant in interpreting and explaining phenomena of current global and regional politics such as Euro-Mediterranean relations.

Cha (2000) and Cha (2002) examine the strategies of Japan, South Korea and the US during the North Korean nuclear crisis. An attempt to comprehend the foreign policy decision making in China from a comparative point of view is undertaken by Hao and Hou (2009). They also highlight the basic tenets of Chinese foreign policy and possible options for the future. Basrur (2009) avers that that neoclassical realism should be refined. This can be achieved by focusing on the relationship between the role of the structure and degrees of interdependence which will enable India to have an improved basis for understanding the evolving international system and forming a suitable comprehensive strategy towards it. Focusing on Central Asia, Ferguson (2011) uses neoclassical realism to assert that Russia and China have espoused a strategy of soft balancing to indirectly balance US hegemony in the region.

Neoclassical Realism: Theoretical studies

Scholars have also contributed to theoretical debates using neoclassical realism, and about neoclassical realism as a research programme and its contribution to IR. Sterling-Folker (2002b) and Sterling-Folker (2004) also make a theoretical contribution by studying the ontological convergence between neoclassical realism and constructivism. Kitchen (2010) utilises a neoclassical realist approach that incorporates the impact of ideas in the formation of a grand strategy.

Schweller (1997), Schweller (2003), Glaser (2003) and Wohlforth (2003), in their appraisal of the theoretical developments in IR, focus on debates regarding the practicality of employing Lakatos' methodology of scientific research programmes. Ducek (2005) uses a dual case study of US strategic adjustment after the first and second world wars to test a 'neoclassical realist' model. He avers that neoclassical realism fares well against cultural and purely structural options. Glenn (2009) avers that great insights can be obtained by different explanations for behaviour of states provided by neoclassical realism and strategic culture. He posits four key concepts of strategic culture and investigates the kind of collaboration that the four concepts can have with neoclassical realism. By examining regime types and viewing those through the lenses of state

power extraction in an anarchic and competitive world, Caverley (2010) avers that neo-conservatism falls in the neoclassical realism domain.

Neoclassical Realism and Political Economy

Tomes of literature have been written on political economy and international political economy. However, there is paucity of literature on neoclassical realism and political economy. In recent years, there has been an increase in literature on neoclassical realism and political economy where political economy has been used either directly or indirectly. Zakaria (1998) uses neoclassical realism and political economy to explain normal expansion, Christensen (1996) to explain why leaders inflate external threats to sell costly internal mobilisation campaigns, Snyder (1991) to explain reckless over expansion, Schweller (2004) to explain under balancing, Taliaferro (2006) to explain that states sometimes do not imitate the successful practices of the system's leading states in an apt and identical way, and Brawley (2009) and Brawley (2010) provide a political economy interpretation of balancing. All these studies focus on using neoclassical realism either to explain a contradiction in neorealism or to explain a structural phenomenon like polarity. Although not postulating neoclassical realism, Mastanduno, Lake and Ikenberry (1989) emphasised the role of political economy as a domestic variable to achieve international objectives. In similar vein, they discussed the role of international variables or strategies to achieve domestic goals. The aim of both the strategies is state survival.

According to Mastanduno, Lake and Ikenbery (1989), there are two distinctive domestic strategies that states utilise in the quest of foreign policy objectives: mobilisation and extraction.[11] Mobilisation normally takes two forms: direct mobilisation and indirect mobilisation. Under direct mobilisation, the state can directly influence economic activity and redistribute resources via centralised planning and other measure including the nationalisation of key and strategic industries and other sectors. This strategy is extremely useful if the country (let us say 'X') is in the initial phase of economic growth. A 'Big Push' is required to catch up with other countries that embarked on the process of economic growth before country X (Rosenstein-Rodan, 1943). This was the strategy adopted by both India and China after independence but led to different economic growth trajectories. This is discussed in greater detail in Chapter 4. Direct mobilisation can also be extremely effective when the country is in an extensive growth phase - a strategy adopted by China and India since the beginning of the new century. The state may also interfere indirectly in the economy to enable the accretion of wealth in the society and the concomitant tax revenue that accrues to the state. Mastanduno, Lake and Ikenberry (1989) assert that mobilisation is an investment in international power. By expanding wealth, the state or the executive facilitates the creation of the resources necessary to sustain military expenditures, stimulate technological innovation and expand the political and economic bases of power. Thus, the state increases its material power and also its comprehensive national power or strength.

[11] As mentioned in Chapter 1, there is a difference between mobilisation and extraction. The term extraction and mobilisation have different meaning and should not be used synonymously. Similarly, extraction in the oil industry is explained by the term E&P, and should not be confused with extraction as is used and implied in IR by Mastanduno, Lake and Ikenberry (1989). The thesis focuses on mobilisation only.

There is an economic and political cost associated with both mobilisation strategies. In direct mobilisation, the state has to incur a cost for the enormous administrative system. On the other hand, in indirect mobilisation, the state may have to provide concessions and subsidies to non-state actors as an incentive to expand output (Mastanduno, Lake and Ikenberry et al, 1989).

The state extracts resources from society for military expenditures, foreign aid, contributions to international organizations and other exercises to increase their power - hard power as well as soft power. Wealth provides the basis for international power, but it is not synonymous with power. The state must convert wealth into power by taxing, requisitioning or expropriating social resources. Extraction like mobilisation does entail costs and diminishes the present and future wealth of the nation-state. Using extracted resources to increase power consumes rather than produces wealth (Mastanduno, Lake and Ikenberry et al, 1989).

Consequently, there exists an inverse relationship between the two strategies of mobilisation and extraction. According to Mastanduno, Lake and Ikenberry (1989), mobilisation is synonymous with the creation of wealth and it is an investment in power. Internal extraction implies the consumption of wealth and formation of power. With an increase in extraction, it is possible that the state may enhance its endeavours at mobilisation. However, the effectiveness of the mobilisation may decline due to two reasons: first, the sum of investable wealth has decreased because of extraction. Second, incentives provided to create wealth in the future may be diluted by the introduction of inefficiencies in the economy and dissuading investment. Although these problems are less acute in direct mobilisation, it involves the introduction of greater economic inefficiencies. Extraction is necessary but costly in its long-term effects on the nation-state's capability to vie in the anarchical international system.

Contribution to Existing Literature

Although Mastanduno, Lake and Ikenberry (1989) emphasised the role of political economy as a domestic variable to achieve international objectives, they did not emphasise that political economy should be used as an intervening or domestic variable while retaining the primacy of the systemic variable. Moreover, they discuss internal mobilisation of resources by a state to increase its wealth and power. The thesis uses neoclassical realism as a theoretical construct to discuss external mobilisation. The thesis explains the difference in how India and China mobilise oil externally in the oil industry in West Africa. The rationale is regime survival as well as augmenting both absolute and relative power. Thus the thesis provides a theoretical contribution to the existing literature on neoclassical realism in general and neoclassical realism and political economy in particular.

The thesis uses political economy as an intervening variable in neoclassical realism to explicate the divergence in the ability of India and China to mobilise oil, a key resource in the oil industry in West Africa. In the process, the thesis extends neoclassical realism’s research design because in the past, political economy has been used as an intervening variable in neoclassical realism to explicate either a contradiction

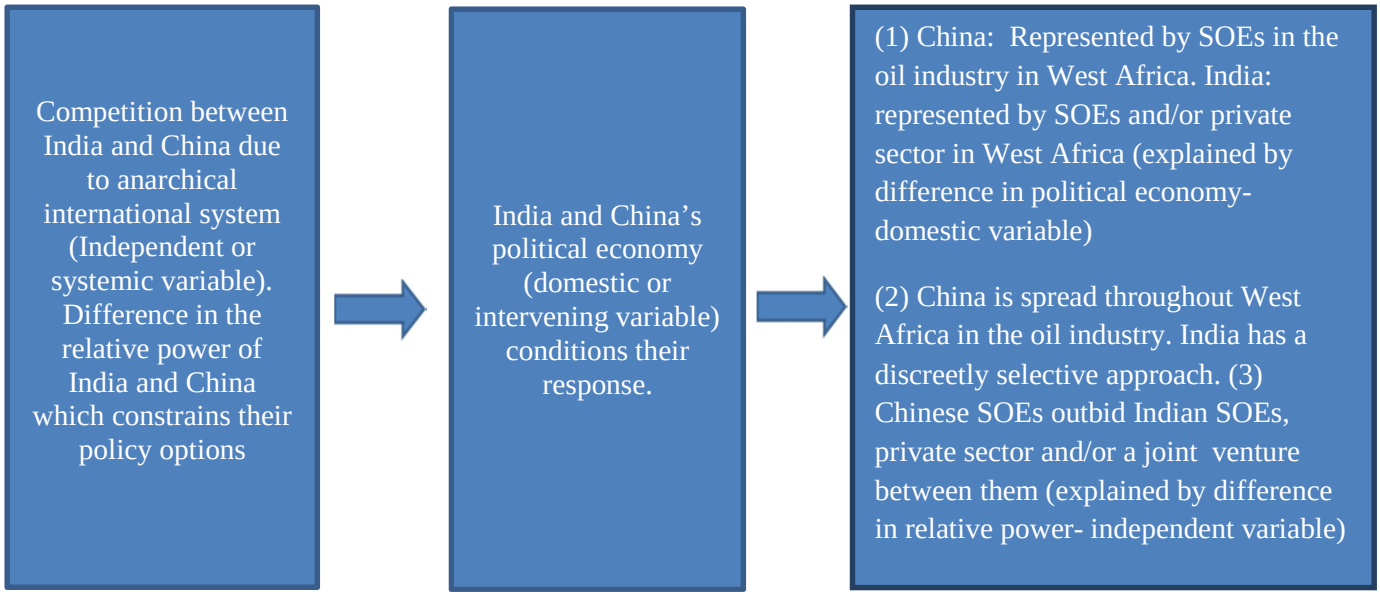
in neorealism like under balancing or to explain a structural phenomenon like polarity. With respect to India's and China's interaction in the oil industry in West Africa, the driving force is economic relations, to mobilise oil, a key resource. As mentioned above, foreign policy has been driven by economic motives and/or imperatives.

Neoclassical Realism and political economy of India and China

The question that arises is what are the differences in the interaction of Indian and Chinese oil companies in the oil industry in West Africa? The thesis contends that there are three differences. First, China is represented by the SOEs in the oil industry in West Africa where as India is represented by SOEs and/or private enterprises. Second, Chinese NOCs are able to outbid Indian SOEs and private sector enterprises if and when they directly compete for the same oil block. Third, Chinese NOCs are spread throughout West Africa relative to India which indulges in niche diplomacy and has a limited presence in the region.

The thesis contends that neoclassical realism explains the difference in India's and China's interaction in West Africa by incorporating the difference in the political economy of India and China as the domestic and intervening variable and the difference in their economic and political power potential as the systemic or the exogenous variable (See Chapter 4). The theoretical contribution to the existing literature on neoclassical realism and political economy and neo classical realism i.e. the role of neoclassical realism in explaining the difference in the interaction of India and China in the oil industry in Africa is illustrated in Figure 3.4.

Figure 3.4: Political economy of India and China as the domestic or intervening variable in neoclassical realism



Section III

Section III discusses the importance and significance of using neoclassical realism to explain the difference in the interaction of India and China in the oil industry in West Africa. It highlights why it is desirable to use neoclassical realism rather than simply a foreign policy analysis to explain the research question. This is done in two ways: first, the inherent problems of using foreign policy analysis. Second is the primacy and significance of the independent variable or the relative distribution of power in the anarchical international system.

Foreign Policy Analysis

Foreign policy literature categorises countries on the basis of their power into three categories: Great Powers (GP), Middle Powers (MP) and Small Powers (SP). Based on the difference in their power potential, different countries have different goals and different strategies to achieve those goals. Thus they behave differently in the international system. The thesis does not delve into the different characteristics of GP, MP and SP and the different strategies they adopt to achieve their goals and objectives.

It is arguable that foreign policy analysis provides an alternative way to illustrate the difference in how India and China mobilise resources externally. The difference in the relative power of India and China necessitates that they behave differently. Based on the difference in their power potential, China can be categorised as a GP and India as a MP. This is based on the contention that China is economically, politically and militarily more powerful than India. The difference in the power potential of India and China can explain why Chinese NOCs are able to outbid Indian NOCs and private sector enterprises oil companies and why Chinese NOCs are spread throughout West Africa relative to India which indulges in niche diplomacy and has a limited presence in the region.

However, the use of foreign policy analysis to elucidate the difference between external mobilisation of a key resource, oil, by India and China in the oil industry in West Africa has myriad problems. This is because first, there are definitional problems associated with GP and MP. Second, categorising India as a MP and China as a GP is also problematic.

Great powers and Middle powers: A Definitional Dilemma

The term major powers or GP have been used interchangeably in diplomatic parlance since the mid-eighteenth century. However, ambiguity has clouded the term and its definition (Buzan, 2004; Danilovic, 2002). According to Waltz (1979) and Wight cited in Buzan (2004: 59), a consensus exists about who the GP are although the power of the states cannot be reliably measured. However, Buzan (ibid.) highlights that Wight's comments are inconsistent regarding which countries classify as GP.

The definition of GP falls under three dimensions: power, status and spatial. The power dimension encompasses economic, military and political capabilities. Waltz (1979) defines major power on the basis of their material capability and social role and Posen and Ross (1996:17) as "powers that have substantial industrial and military potential." However, the definitions suffer from methodological disagreements. Waltz's definition fails to state how the different material elements are to be weighed against each other. Moreover, the analysis of political competence is subjective (Buzan, 2004). Posen's and Ross' definition allows China to scrape through for its ability to trade on capabilities that it does not currently possess but is likely to do so in the near future.

Hedley Bull's (1977) definition encompasses the status dimension. Bull states that a GP must be recognised by its leaders and populace and other countries people and leaders to have certain special rights and duties. According to Danilovic (2002), the status dimension is the most subjective since the official or the unofficial status of a GP also requires the willingness of a nation to act as a GP. Buzan (2004) elaborates that the definition does not discuss whether self-conception or acceptance should be given more weight than the other. Wright and Morgenthau cited in Buzan (2004: 62) point to the problems that formal recognition may entail when some GP politically promote a state's status. For e.g. China after WWII was co-opted by the US in the UNSC.

The spatial dimensional definition of a GP emphasises the geographic scope of actions, interests or projected power. The definition is helpful in distinguishing between a regional power and GP. According to Buzan (2004), GP are global system phenomena where as regional powers are confined to a region. However, the spatial dimension is based on perception rather than reality and thus subjective (Danilovic, 2002).

The term MP is not bereft of definitional and conceptual ambiguities either. The definition of MP also falls under three dimensions: hierarchical, behavioural and functional. MP in its most basic definition is a state i.e. in the middle - neither a GP nor a SP (Holbraad, 1984). States classified as MP in one fall under SP in the other which obfuscates the notion and makes it difficult to achieve a consistent definition (Chapnick, 1999).

According to the hierarchical model, as Keohane (1969: 296) avers "[A] MP is a state whose leaders consider that it cannot act alone effectively but may be able to have a systematic impact in a small group or through an international institution." However, this definition is politically subjective (Chapnick, 1999). Holbraad (1984: 76) argues that "MP can be distinguished best in terms of strength they possess and the power they command." But this definition is flawed because it fails to explain the term 'power'.

The proponents of the behavioural model like Holmes (1976) and Cox (1989) state that MP asserts a distinct and identifiable type of statecraft known as "middlepowermanship" or MP diplomacy. Andrew Cooper, quoting Evans and Bruce (1991: 323) develops the argument further by linking this discussion to the concept of niche diplomacy which involves "concentrating resources in specific areas best able to generate returns worth having rather than trying to cover the field." However, the behavioural dimension fails to provide an objective definition of MP as any state big or SP could be or behave like a MP. Additionally, that the

behaviour of MPs is described by MP internationalism and that MPs are states that follow MP internationalism is a tautology (Chapnick, 1999).

The functional model differentiates MPs by identifying them as states which possess the capability albeit in special instances of influencing global affairs. Because of fluctuations in the power of states across time and space (which is contingent on their economic and political capabilities), the model lacks precision and as soon as a state's capability to contribute to an issue in global affairs declines, an MP loses its middle quality Chapnick, 1999).

India a Middle Power, China a Great Power?

A dilemma exists regarding the power status of India and China in the IR literature. Segal (1999) and Goldstein (1997-8) classify China as a regional power but Buzan (2004) and others classify it as a GP. Similarly, India falls under a category of a GP on the basis of Waltz's (1979) definition but Buzan (2003) classifies it as a regional power and Buzan (2004) classifies it as a regional GP falling between regional powers and GP. Alden and Vieira (2005) on the other hand, associate India and China as rising powers with resource capabilities greater than those possessed by MP namely Norway, Canada, Sweden, Netherlands and Australia.

Due to the ambiguity in the definitions and power status of India and China, and definitional dilemmas regarding GP and MP, foreign policy analysis cannot be used to illustrate the difference in the way India and China mobilise resources externally in the oil industry in West Africa.

Neoclassical realism and the Independent variable

The definitional dilemmas associated with GP and MP to gauge the difference in the power potential of countries highlight the salience of the independent or systemic variable. Foreign policy analysis and neoclassical realism both aim to explain the foreign policy outcomes of states. However, the difference between foreign policy analysis and neoclassical realism is the independent or the systemic variable i.e. the difference in the relative power of states in the international anarchical system. While foreign policy analysis employs the categorisation of states into GP, MP and SP to highlight the difference in the states behaviour, neoclassical realism employs the difference in the relative power of states in the international anarchical system.

Neoclassical realists argue that "…the scope and ambition of a country's foreign policy is driven first and foremost by its place in the international system and specifically by its relative material power capabilities i.e. its hard power or economic, political and military power" (Rose, 1998:146). It is the systemic variable which limits the ambitions or goals and objectives of countries and the means to achieve these. As the relative power increases, states will seek more influence abroad, and as their relative power decreases, their

actions and ambitions will be scaled back accordingly. What is important is that one state has more or greater power than the other or vice-versa. Thus, categorising countries into GP, MP or SP is not important. This not only removes the definitional dilemmas but also describes the constraints that confine states, and the range of likely outcomes of the actions of states within a given system. The anarchical structure of the international system compels China to follow a different strategy with respect to India. Similarly, India's actions are constrained by the anarchical international system which leads to a different strategy compared to China.

Conclusion

The chapter discusses the progression of realism from classical realism to neoclassical realism. It postulates that neoclassical realism is 'theories of foreign policy'. Neoclassical realism postulated by Kenneth Waltz is the most dominant paradigm of realism. It is a structural and a systemic theory. It is a theory of international politics and not foreign policy, and seeks to explain important international outcomes.

Neoclassical realism coined by Gideon Rose provides a theoretically-inspired framework which seeks to explicate the foreign policies of a state across different time periods or states facing comparable external constraints. There is a debate amongst neoclassical realists whether it is a natural extension of neorealism or it explains foreign policy muddles or is a theory of foreign policy or 'theories of foreign policy'. The thesis contends that neoclassical realism is theories of foreign policies and it explains foreign policy outcomes of states.

Although literature has increased since the 1990's, neoclassical realism is still in its embryonic stage but it is gaining momentum. IR scholars and PhD students in top ranked universities are using neoclassical realism as a theoretical paradigm to explain outcomes during the two world wars, during the cold war, foreign polices of emerging and rising powers among others.

Despite the increasing use of neoclassical realism, there is paucity of literature on the role of political economy as a domestic or intervening variable in neoclassical realism. Most of the existing literature explains or seeks to explain a contradiction in neorealism or to explain a structural phenomenon like polarity. This is done by exploring internal mobilisation and extraction of resources to achieve foreign policy outcomes. The thesis uses political economy as an intervening variable to discuss external mobilisation of resources by India and China to enhance their industrialisation and economic growth and concomitant absolute and relative power.

The chapter then illustrates that political economy can be used as an intervening variable in neoclassical realism. It utilises political economy of India and China as a domestic and intervening variable in neoclassical realism to explain the difference in the interaction of India and China in the oil industry in West Africa to explain the difference in their ability to mobilise oil externally from countries in West Africa. In the

process, the thesis seeks to expand the research design of neoclassical realism. This will be discussed in more detail in Chapter 8.

Chapter 4

Introduction

This chapter discusses the independent variable i.e. the difference in the relative power of India and China and the domestic or the intervening variable i.e. the difference in the political economy of India and China. The thesis postulates that the independent variable and the intervening variable explain the dependent variable i.e. the difference in the how India and China mobilise oil externally in the oil industry in West African countries. The difference in the political economy of India and China explains why China is represented by the SOEs in the oil industry in West Africa where as India is represented by SOEs and/or private enterprises. The independent variable or the difference in the economic and political power between India and China explains why Chinese NOCs are spread throughout West Africa relative to India which has a limited presence in the region. The independent variable also explains why Chinese SOEs are able to outbid Indian SOEs and private sector enterprises if and when they enter into direct competitive bidding for oil blocks in the oil industry in West Africa and/or are preferred as partners by African oil companies and IOCs and/or have better quality oil blocks relative to their Indian competitors.

The chapter is divided into three sections. Section I discusses in brevity Sino-Indian relations since the end of WWII. It provides the context which facilitates the comprehension of the subject matter, especially the role and the significance of the independent variable which characterises the difference in the relative power in an anarchical international structure. Section II discusses the difference in the economic, political and military power of India and China. To gauge the difference in the economic power, it uses indicators like GDP, GNP and other development indicators like Infant Mortality Rate (IMR), life expectancy etc. To measure the difference in the political power, it uses the permanent membership of the UNSC as a dummy variable or parameter, and the perception of leaders, government officials and bureaucrats. Section III discusses the difference in the political economy of India and China since their independence, the trajectory of reforms introduced in the two Asian neighbours and how it has transformed their economic and industrial structure.

Section I

Sino-India relations since the end of Second World War are characterised by a roller coaster ride: at their zenith till the mid 1950's, hitting the nadir in 1962, a slight recovery in the late 1970's, tensions of war in the late 1980's, an improvement in 1990's, greater engagement and upward trend in the new millennium, and spiralling down since 2006. The relations are marred by rivalry, distrust, conflict, insecurity, estrangement

and containment. Since the new millennium, the relations are characterised by 'hot economics and cold politics' or 'coopetition'- economic cooperation and political competition.

In the early 1950's, the discourse of China-India relations manifested itself in third world solidarity and their support for freedom movements and struggle against colonialism for countries in Asia and Africa. This culminated into the NAM summit in Bandung, Indonesia in 1955 with China and India in the forefront (Quanyu, 2005). China's invasion of Tibet in 1950 laid the groundwork for souring of relations between India and China. Chairman Mao was resolute in bringing Tibet under China's direct administrative and military control and construed India's concerns over Tibet as the latter's interference in the internal affairs of China. In 1954, the two countries signed an eight-year agreement on Tibet. This provided the foundation for Sino-Indian relations in the form of the Five Principles of Peaceful Coexistence or Panch Sheel (Soni and Marwah, 2011). This culminated into the phrase 'Hindi-Chini bhai bhai' which means 'Indians and Chinese are brothers' (Malik, 2001).

In 1959, the spiritual leader of Tibet, the Dalai Lama escaped from Tibet and took sanctuary in India. This antagonised China and led to a reversal in the relationship between the two countries (Soni and Marwah, 2011). China declined to accept the McMahon Line and laid claims to certain parts in North East India namely the state of Sikkim, Arunachal Pradesh or South Tawang and Askai Chin. This resulted in a short war in 1962 in which India was defeated and no peace agreement was signed (Sharma, 2010). To this date, the Indian elite and intelligentsia bear the psychological scars and believe that India was stabbed in the back. The relationship between the two countries deteriorated in the 1960's and early 1970's. China backed Pakistan in the Indo-Pak wars in 1965 and 1971 and provided military, economic and political support and nuclear assistance to Pakistan. There was very little state to state contact and diplomatic overtures to improve the relationship between the two countries were not undertaken (Deepak, 2006). The period was also marred by minor border clashes leading to fatalities on both sides.

In 1977, there was an attempt by the new GOI to improve ties with China. In 1979, both nations officially re-established diplomatic relations. China altered its pro-Pakistan stance on Kashmir and also appeared willing not to raise a voice on India's assertion of Sikkim being an integral part of India and its special advisory relationship with Bhutan. However, tensions rose again in 1984 along the disputed border and in 1987 there were predictions of war. The situation was de-escalated after visits by the Indian Prime Minister and Foreign Minister to Beijing to negotiate a truce (Dutta, 2008).

The trend towards warming of relations was facilitated by Indian Prime Minister Rajiv Gandhi's visit to Beijing in 1988. An agreement was reached to restore friendly relations and to arrive at a fair and mutually acceptable solution to the border dispute on the basis of the Panch Sheel Agreement (Soni and Marwah, 2011). The 1990's was characterised by improvement in the relations between the two countries and border trade resumed in 1992 after more than thirty years. Consulates were also opened in Shanghai and Mumbai. The period saw high level visits from both sides and various rounds of talks were held to reduce strains on the disputed border by employing confidence-building measures (Sharma, 2010). The nuclear tests

conducted by India in 1998 led to a low point in relations between the two countries. The threat posed by China was provided as the rationale for conducting the tests. China was extremely critical of India's nuclear tests and its entry into the nuclear club. Beijing adopted cautious neutrality during the Kargil conflict in 1999 but did not condemn Pakistan (Malik, 2001).

In the new millennium, there was significant improvement of ties and economic engagement between India and China. There were high level visits from both countries. China recognised Sikkim as an integral part of India and there was also a movement towards resolving the border disputes. Sino-Indian trade skyrocketed to $39 billion by the end of 2007 from a modest $332 million in 1992. China is India's second largest trading partner and India is China's tenth largest trading partner. Considering the slowdown in the US economy, it is envisaged that China will soon eclipse the US to become India's largest trading partner (Sharma, 2010).

At the South Asian Association for Regional Cooperation (SAARC) Summit in 2005, China was accorded an observer status (Bhattacharya, 2010) but India has been reluctant to consider China for permanent membership in the SAARC. On the other hand, China has vacillated on India's permanent membership to the UNSC, from negative to neutral but not an endorsement.

An extremely significant element of the evolving relationship between India and China is based on energy. Both require access to energy sources for their industrial expansion and concomitant economic growth and are proactively trying to secure them by investing in the oil fields in the Middle East, Central Asia, Latin America and Africa. This entails competition which has been evident recently in bids for oil blocks in different parts of the world. India lags behind China in this race. This fierce competition for energy resources has geostrategic implications (Sharma, 2010). However, India and China have also cooperated in the energy sector in Sudan, Iran and Russia (Bhattacharya, 2005).

In 2006, China and India were embroiled once again in a verbal clash over the disputed border. China asserted that Arunachal Pradesh was an integral part of China. On the other hand, India alleged that China was occupying 38,000 square km of its territory in Kashmir. The matter was further aggravated in 2007 when China refused to grant a visa to an Indian Administrative Service officer in Arunachal Pradesh to attend a training programme because China considered Arunachal Pradesh as a part of its territory. Reciprocating China's action, the GOI prevented a 107-person delegation from traveling to China for the program. India also extended an invitation to Ma Ying-jeou, then a presidential candidate in Taiwan to visit the country (Sharma, 2010).

China's anti-satellite test in January 2007 concerned Indian officials and the strategic community in India. In January 2008, Indian Premier Dr Manmohan Singh visited China and held talks with Premier Wen Jiabao and President Hu Jintao. Bilateral discussions were also held on various issues like military, defence, commerce and trade amongst others. In October 2009, the Asian Development Bank (ADB) approved a loan for a project in Arunachal Pradesh and formally acknowledged that the eastern state was an integral part of India. However, China opposed the loan by the ADB (Jain, 2010).

There have been frequent reports in the Indian media about escalating Chinese transgressions into Indian territory. According to Joshi (2011: 157), "The Indian military recorded 270 border violations and nearly 2,300 instances of 'aggressive border patrolling' by China in 2008." India is also wary of China's 'string of pearls strategy'- a strategy of encirclement of India by mostly rudimentary maritime facilities in the Indian Ocean and countries surrounding India. China has also enhanced economic, military and political ties and nuclear cooperation with India's arch enemy, Pakistan. According to Harsh Pant, Kings College London (cited in Joshi, 2011: 159), China's behaviour is an attempt "at preventing the rise of India as a regional and global player." Vikram Sood, the former head of India's external intelligence service, the Research and Analysis Wing (cited in Joshi, 2011: 159), avers that "China is determined to keep us . . . psychologically and strategically handicapped." He also warned that "while we may agonize over challenges across our land frontiers, we would be ignoring the new challenge in the Indian Ocean unless we plan countermeasures now" (ibid.: 159).

India is trying to counter China's encirclement and invasion of its strategic space by employing and furthering its 'look East policy'. India is improving relations and has increased engagement and cooperation with ASEAN states especially Indonesia and Vietnam. It has also increased cooperation with Japan and South Korea (Rehman, 2009). Some analysts aver that the US wants to use India as a counterweight to balance or contain China's rise. However, it is debateable whether India is towing the US line (Gupta, 2006; Roehrig, 2009). India's joint naval exercises with the US, Australia, and Japan in 2007 further stoked fears in China that a democratic alliance is targeting China (Sharma, 2010).

In December 2010, Premier Wen visited India. More than 400 Chinese business leaders accompanied Premier Wen to increase the economic engagement with India (BBC, 2010). It is estimated that Sino-Indian trade will cross $100 billion by 2015 although this is fraught with lopsided current account balances and neo-mercantilist overtones (Economic Times, 2012). In 2012, India tested a missile capable of carrying a nuclear warhead to Beijing. This once again manifested the insecurity and mutual suspicion between the two countries. Because of Tibet and the border dispute, there exists a possibility of war, and since there is no guarantee that even a limited land war would not escalate, the naval, air, and missile balance is always pertinent in how a clash might play out.

Section II

Section II discusses the independent or the systemic variable- the difference in the relative power potential of India and China. The thesis focuses on hard power: political, economic and military power and soft power is excluded. India and China are involved in peace keeping operations in Africa, and anti-piracy operations in the Gulf of Aden and in the Indian Ocean which are regarded as expositions of soft power.

As discussed in Chapter 3, a dilemma exists regarding the power status of India and China in the IR literature. Due to the ambiguity in the power status of India and China, this section compares India's and China's economic and military capabilities using Posen's and Ross' (1996) definition of power dimension. To quantify political power, it uses Hedley Bull's (1977) conception of status as recognised by others. To substantiate the difference in the economic, political and military power of India and China, interviews were conducted with the academia, think tanks or strategic community, retired defence personnel and retired personnel in the Indian Foreign Service, experts from the UK, Nigeria and other countries, Table 4.1 provides the list of people interviewed.

Table 4.1: List of Interviews

	Name	Designation/Job Title	Institution	Date
1	Dr Keun-Wook Paik	Associate Fellow; Senior Research Fellow and Consultant to CNPC	Chatham House; Oxford Institute of Energy Services	29/08/2012
2	Dr Anupama Sen	Research Fellow	Oxford Institute of Energy Services	30/08/2012
3	Prof Srikanth Kondapalli	Centre for East Asian Studies, School of International Studies	Jawaharlal Nehru University	19/09/2012
4	Prof Ajay Dubey	Centre for African Studies, School of International Studies,	Jawaharlal Nehru University	18/09/2012
5	Prof Madhu Bhalla	East Asian Studies	Delhi University	22/09/2012
6	Dr A.S. Yaruingam	Head, Department of African Studies	Delhi University	19/09/2012
7	Ambassador M K Rasgotra	Former Foreign Secretary, GOI and President, Centre for International Relations	ORF	18/09/2012
8	Ambassador H H S Viswanathan	Distinguished Fellow	ORF	18/10/2012; 19/02/2013
9	Mr Ashok Dhar	Distinguished Fellow	ORF	03/10/2012
10	Mr Sunjoy Joshi	Director	ORF	26/03/2013
11	Mr Samir Saran	Senior Fellow and Vice President	ORF	22/02/2013
12	Ms Lydia Powell	Head, Centre for Resources Management	ORF	18/09/2012
13	Mr Nanda Unnikrishnan	Vice President, Centre for International Relations	ORF	18/09/2012
14	Mr Umashankar Sharma	Former Joint Secretary, Ministry of Petroleum and Natural Gas, GOI and General Manager	ORF	24/09/2012
15	Dr P K Ghosh	Senior Fellow	ORF	17/09/2012
16	Dr Satish Mishra	Senior Fellow	ORF	17/09/2012
17	Ambassador Kishan Rana	Honorary Fellow	Institute of Chinese Studies	22/09/2012
18	Dr Jabin T. Jacob	Assistant Director and Fellow	Institute of Chinese Studies	24/09/2012
19	Ambassador Rajiv Bhatia	Director General	Indian Council on World Affairs	25/09/2012
20	Dr G. Balachandran	Consulting Fellow	IDSA	28/09/2012
21	Dr Kalyan Raman	Research Fellow	IDSA	28/09/2012
22	Ms Ruchita Beri	Senior Research Associate	IDSA	05/10/2012
23	Ms Shebonti Ray Dadwal	Research Fellow	IDSA	26/09/2012
24	Major General (retired) Dipanakar Banerjee	Founding Director and Mentor	Institute for Peace and Conflict Studies	22/09/2012
25	Anonymous	-	OVL[a]	28/09/2012
26	Anonymous	-	OVL[b]	05/10/2012
27	Anonymous	-	OVL[c]	25/02/2013
28	Anonymous	-	IOCL[a]	26/09/2012
29	Anonymous	-	IOCL[b]	01/10/2012
30	Anonymous	-	OIL	01/10/2012
31	Anonymous	-	Essar Oil	25/10/2012
32	Anonymous	-	US IOC	28/12/2012
33	James Byrne	Reporter	Interfax	19/12/2012
34	Dr Bonnie Ayodele	Associate Prof, Department of Political Science	University of Ado Ekiti	28/01/2013

35	Dr Lu Bo	Deputy Director and Research Fellow, Department of World economy and Trade, Chinese Academy of International Trade and Economic Cooperation	Ministry of Commerce, PRC	09/03/2013
36	Prof Pang Zhongying	School of International Studies	Renmin University	28/01/2013
37	Prof He Maochun	Department of International Relations, and Director of the Research Centre for Economic Diplomacy Studies, Tsinghua University Institute of International Studies	Tsinghua University	08/03/2013
38	Prof Li Anshan	Director of Centre for African Studies, School of International Studies	Peking University	05/03/2013
39	Prof Zha Daojiong	Centre for International and Strategic Studies, School of International Studies	Peking University	13/03/2013
40	Prof Wang Li	Department of World History	Nankai University	07/03/2013
41	Prof Xiao Tang	Department of Political Science, and Director of African Studies Centre	China Foreign Affairs University	08/03/2013
42	Prof Xia Liping	Department of Diplomacy, and Deputy Dean	China Foreign Affairs University	05/03/2013
43	Dr Zhang Cuizhen	Associate Professor, School of International Economics	China Foreign Affairs University	08/03/2013
44	Dr Guo	Associate Professor, School of International Economics	China Foreign Affairs University	08/03/2013
45	Dr Liu Feitao	Deputy Director for the Division for American Studies and Associate Research Fellow	CIIS	05/03/2013
46	Dr Li Qingyan	Assistant Researcher, Department for International Strategic Studies	CIIS	05/03/2013
47	Dr Zhang Chun	Senior Fellow and Deputy Director Centre for West Asian and African Studies	SIIS	11/03/2013
48	Mr Zhu Ming	Institute for Global Governance Studies and Centre for West Asian and African Studies	SIIS	11/03/2013
49	Dr Li Wengang	Asst. Prof, Institute of West Asian and African Studies	Chinese Academy of Social Sciences	12/03/2013

Economic power

India and China with their phenomenal growth rates are surging ahead as world economic powers. While China has been growing at an incredible growth rate of approximately ten per cent for the last three decades, India has lagged behind. India has been growing at an average of six per cent from 1991-2000 and eight per cent since from 2001-2011. The reform process in the two countries is discussed in detail in the following section. China has made great strides in the economic realm and India is almost a decade behind China. It was estimated prior to the financial crisis that India would start growing at a faster rate relative to China by 2013. However, this has not materialised as of yet. China is expected to grow around eight per cent for the financial year (FY) 2012-2013 whereas India's growth has been scaled down to approximately six per cent for 2012-2013.

According to Table 4.2, India lags behind China in every economic indicator. China's GDP at $5.9 trillion is more than three times the size of India at approximately $1.7 trillion. In Purchasing Power Parity (PPP) terms, China's GNP is approximately £10 trillion which is two and a half time more than India's at $4 trillion. Moreover, China's per capita income (PCY) is more than three times India's PCY and in PPP terms, China's PCY is more than double India's PCY. China has a higher HDI rank of 101 compared to India's rank of 131. Adult literacy rates and life expectancy for both males and females are much higher in China than in India. China has a much lower Infant Mortality Rate compared to India. The percentage of population and the actual number of people living below the poverty line and in extreme poverty is lower in China than

Table 4.2: Economic Indicators of the India and China

Economic Indicators	China	India
Human Development Index (HDI) Rank 2011	Medium Human Development 101	Medium Human Development 134
HDI Value	.687	.547
Change in HDI Rank (2006-2011)	6b	1
GDP (US $ thousands)[c]	5,926,612,009,750	1,727,111,096,363
GNI at PPP (US $)[c]	10,221,684,440,510	4,159,721,220,009
GDP per capita (US $)[c]	4,428	1,410
GNI per capita at PPP (US $)[c]	7,640	3,400
GDP growth (annual %)[d] 2007, 2008, 2009, 2010	14.2, 9.6, 9.2, 10.4	9.8, 4.9, 9.1, 8.8
Gross enrolment ratio for primary, secondary and tertiary schools (%) 2001–2010[e]	112.7, 78.2, 24.5	116.9, 60.0, 13.5
Adult Literacy Rate (% ages 15 and older) 2005–2010[e]	94	62.8
Mortality Under five (per 1,000 live births) (2009)	19	66
Adult Mortality (per 1,000 people) Female, Male (2009)	87, 142	169, 250
Life expectancy at birth years Male/Female (2009)[f]	72, 75	63, 66
Population below income poverty line (%) $1.25 a day (2000–2009)[e] National poverty line (2000–2009)[e]	 15.9 2.8	 41.6 27.5
Population vulnerable to Poverty (%)	6.3	16.4
Population in severe Poverty (%)	4.5	28.6
Expenditure on health (% of GDP)	4.6	4.2

Source:

a. All figures are form the UNDP Human Development Report 2011 unless otherwise indicated
b. A positive value indicates improvement in rank
c. World Development Report 2010, World Bank
d. World Bank Data (http://data.worldbank.org/indicator)
e. Data refer to the most recent year available during the period specified
f. World Development Report 2012, World Bank

in India.[12] Moreover, China has foreign exchange reserves of more than $3 trillion compared to India's modest reserves of approximately $250 billion. Thus, China is economically more powerful than India.

[12] For an in-depth comparison of economic, human development, environmental and other indicators refer to the UNDP (2011) "Human Development Report 2011: Sustainability and Equity: A Better Future for All", Basingstoke; New York: Palgrave Macmillan, and/or World Bank (2011) "World Development Report 2012: Gender Equality and Development", The International

Political Power

China was co-opted by the US as a permanent member of the UNSC with veto power after WWII. The permanent membership was enjoyed from 1949-1971 by Taiwan until China took over in 1972. China's membership of the UNSC with a veto power alleviates its political status and leverage vis-à-vis India because the latter is not a permanent member of the UNSC.

Permanent membership of the UNSC with veto power is a symbol of prestige and influence for it alleviates the status of the states. It is exclusive and confined only to five countries perceived to possess GP capabilities i.e. advanced, developed and powerful economically, technologically, militarily, politically and socially (Ramesh, 2006). Each of the permanent members has the right of veto and if one of them votes against a resolution, it cannot be passed. According to Srinath Raghavan, Senior Fellow at New Delhi's Centre for Policy Research (cited in Wax and Lakshmi, 2010) "The key attribute of a great power is not just military or economic power, but the ability to set the agenda of international politics. The U.N. Security Council has a great deal of control over what is discussed". Thus, the five members are a part of a privileged group.

India aspires to become a permanent member of the UNSC and sit on the high table as a major global power. It has been trying to conjure support for its candidature for the permanent membership of the UNSC along with Germany, Japan and Brazil (BBC, 2012). However, its ambitions have been blighted to date. Opinion is divided whether India will become a permanent member of the UNSC and it seems it may take some time before India can sit on the high table as a great power (Interview with Ambassador Rasgotra, Prof Dubey, Prof Srikanth Kondapalli and Prof Madhu Bhalla). Thus, China is politically more powerful than India.

Military Power

According to Table 4.3, China expends more on defence expenditure than India. China has spent more on defence than India in the last decade. Table 4.4 illustrates that China has superior military prowess compared to India. The major arms supplier for both countries is Russia; although they have also acquired military equipment from France, Ukraine and Israel (India has also acquired military equipment from Germany and Great Britain and in the last couple of years from the US) which facilitates the technological comparison of their military capabilities to a certain extent (Military Balance, 2012). Considering that the technological difference is minor in conventional military equipment, China has numerical superiority over India in almost all the indicators. India lags behind China as far as missile and nuclear weapons are concerned. Additionally, China unlike India possesses anti-satellite capabilities. India is trying to acquire anti-satellite capabilities to

Bank for Reconstruction and Development/The World, Bank: Washington D.C. and/or World Bank (2012) "Indicators", http://data.worldbank.org/indicatorthe

match China and is playing catch up with China.[13] Thus, it can be rightly argued that China is a greater military power relative to India.

Table 4.3: Defence Expenditures of India and China from 2001-2011 ($US million)

Country	Year										
	2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**[a]
India	14,167	13,073	15,508	19,647	21,726	22,428	26,513	31,540	38,278	30,865	37,300
China	46,049	48,380	55,948	62,539	103,956	121,872	46,174	60,187	70,381	76,361	89,800

Source: Military Balance 2002-2012
a defence budget

All the interviewees in Table 4.1 (this was not discussed with James Byrne) stated unequivocally that China is economically, political and militarily more powerful than India. Moreover, China is at least ten years (if not more) ahead of India. Similarly, all the Indian and Chinese experts agreed that permanent membership of the UNSC with veto power can be used as a dummy variable to gauge the difference in the political power of India and China. They averred that China's permanent membership to the UNSC with veto power makes China politically more powerful and influential relative to India. As Prof Kondapalli (interview, Table 4.1) remarked, "The asymmetry in power favours China." They also agreed that relative to India, China is perceived as a greater power by leaders globally especially in Africa. According to Prof Bhalla (interview, Table 4.1), "African leaders see how China uses its economic muscle against the US. Economic influence translates into political influence. It is this perception which favours China relative to India in their interaction with African countries." According to Prof Kondapalli (interview, Table 4.1), "Unlike China which is active in 49 countries in Africa and 48 heads of state or other senior officials attend the FOCAC Summit, only 24-25 heads of state or senior government officials attended the India-Africa Forum."

China's economic and political muscle allows it to pursue strategies that India cannot match. It is widespread not only in West Africa but in the entire continent relative to India's selective approach. Thus, China's economic and political power enables it to have a greater and far reaching diplomacy relative to India.

[13] For an in depth comparison of the military power potential of US and China refer to Military Balance (2012), London: IISS Publications Department.

Table 4.4: Military Indicators of the India and China

Indicator	Country	
	China	India
Defence Budget (US $ billion) 2010, 2011, 2012	76.4[a], 89.8[a],106.0[ab]	29.7[c], 31.9[c], -
Defence Outlay (US $ billion) 2010, 2011, 2012	178.0[c]	30.9[c], -, -
Defence Personnel		
(i) Active[d]	2285000[e]	1325000
Army	1600000	1129000
Navy	255000	58350
Air Force	300000-330000	127200
(ii) Paramilitary	660000	1300586
Reserve	510000	1155000
Space Based Systems		
Satellites	40	2
(i) Imagery Satellites	15	-
(ii) Electronic/signals-intelligence satellites	11	-
(iii) Navigational satellites		
(iv) Space Surveillance	10	-
Anti-Satellite Capability	-	-
	Yes	No
Strategic Missiles	470	54
(i) ICBM	66	Tested[f]
(ii) IRBM	2	24
(iii) MRBM	35	-
(iv) SRBM	216	30
Equipment by Type		
(A) **Army**		
(i) Main Battle Tank (MBT)	7400+	3233+
(a) Modern MBT	2800	568
(ii) Modern armoured infantry fighting vehicles	2390	1105
(iii) ARTY	12462+	9682+
(B) **Navy**		
(i) Submarines	71	15
(a) Nuclear powered	5	1
(ii) Principal surface combatants	76	21
(a) Destroyers	13	10
(iii) Frigates	65	10
(iv) Aircraft Carriers	0	1
(v) Principal amphibious ships	1	1
(vi) Patrol and coastal combatants	211+	61
(vii) Mine warfare	65	-
(viii) Mine countermeasures	88	8
(ix) Logistics and support	205	49
(C) **Air Force**		
(i) Fourth generation aircraft	747	280
(ii) Fifth generation tactical aircraft	16	20
(iii) Bombers	132	-
(iv) Heavy medium transport aircraft	57	24
(v) Tanker and multi role tanker/transport aircraft	294	6
(vi) Heavy/medium transport helicopters	16	117
(vii) Attack helicopters	13	20
(viii) Airborne early warning and control aircraft	14	2
(ix) Heavy unmanned aerial vehicles	-	4

Source: All figures are from Military Balance 2012, International Institute for Strategic Studies unless stated otherwise

Notes

a Official defence budget at market exchange rates

b Chinese military defends $ 106 billion defence budget, The Economic Times, March 30 2012, http://articles.economictimes.indiatimes.com/2012-03-30/news/31261140_1_military-budget-military-expenditure-defence-budget (Accessed April 20 2012)
c. PPP estimate
d The Marine Core and the Coast Guard constitute the remaining forces
e Includes Strategic Missile forces of100,000
f Agni IV with a range of just over 5000 km was tested in April 19 2012. However, more tests are required before serial production can be initiated, http://articles.timesofindia.indiatimes.com/2012-04-19/india/31367133_1_agni-v-k-saraswat-wheeler-island (Accessed April 22 2012)

Section III

This section discusses the difference in the political economy and the reforms introduced in India and China which led to divergent industrial structure in the two countries. There are different types of economic systems. Accordingly, different economic and political systems exist in different countries. Different political economies in different countries have a direct bearing on how the state mobilises and extracts resources from domestic society via its institutions (and other means like nationalism, and statist or anti-statist ideology to achieve foreign policy objectives (Taliaferro, 2006). Following Marx, capitalism and communism are two systems at the opposite end of the spectrum with a combination of the two in varying degrees and forms lying between the two. For the sake of simplicity, the thesis mentions three different political and economic systems. First, the: capitalist system where the means of production are in the hands of private enterprise as in the U.S. Second is socialism/communism (there is an inherent difference between communism and socialism but for the ease of comparison, the thesis uses the terms interchangeably) where the ownership of the means of production are in the hands of the state as in China before the economic reforms in1979. Third is a mixed economy system where in the state controls the means of production in the key and strategic industries (private enterprise entered these industries at a later stage of development) and the consumer goods industry is in the hands of private enterprise as in India.

There is a consensus among scholars that the nature of economic system determines the composition of the non-agricultural sector and politico-legal institutions and the thesis adheres to this proposition. The debate regarding which economic system - capitalism, socialism or mixed economy - translates into higher economic and social welfare is outside the scope of the thesis.

A debate also exists whether different economies require different set of reforms or a universal set of reforms can be applied to any country in question. The Washington Consensus postulated by the IMF promulgates a ‘standard reform package’ consisting of a specific set of ten economic policy prescriptions that can be universally applied disregarding the political economy of the country in question (Williamson, 1989). The thesis concurs with (Stieglitz et al., 2006) that reforms should be introduced taking due cognisance of the political economy of the country in question.

The section is divided into three parts. The first part describes the analytical framework chosen to distinguish the political economy of India and China. Part two discusses the political economy of India in two different phases: pre reform phase - from 1947-1991 and post reform phase from 1991 to present. The third part discusses the political economy of China in two phases: pre reform phase from 1949-1978 and post reform phase from 1978 to present.

Political economy: An Institutional Framework

Before discussing India's and China's growth experience, it would be prudent to discuss the analytical framework chosen to highlight the difference in the political economy of India and China, the reforms introduced in the two countries and consequently their different growth trajectories. The analytical framework used is the one suggested by economic historian and noble laureate Douglas North (1990, 1994).

In this framework, the performance of the economies over time is determined by path-dependent responses of individual entrepreneurs and organizations to the changing incentive structure generated by the evolving institutional matrix consisting of mutually interacting formal and informal rules of the game in the social, economic and political domains. The critical role of path-dependence in this analytical framework prompts the discussion of the Indian and Chinese political economies with the post-independence economic development (strategies which were rooted in the pre-independence period) that aimed at transforming the respective under developed economies into dynamically growing economies with equitable distribution (Tendulkar and Bhavani; 2007).

An analytical framework offered by Douglas North (1990, 1994) provides an analytical comprehension of the evolution of economies over time. The key element of North's framework is the notion of 'institutional matrix' in a society characterised by an interconnected mesh of formal as well as informal rules of the game and their concomitant enforcement characteristics. Informal rules comprise of customs, ideological beliefs, traditions, conventions, widely accepted codes of conduct and other behavioural norms. Formal rules cover rules such as the constitution, statutes, common laws, individual contracts and any formally binding procedures in the social, economic and political realm. Rules governing the structure of polity, its functioning and basic decision making processes fall in the political domain. In the economic domain, they fundamentally encompass rules relating to the ownership, exchange and transfer of private property rights. The social domain comprises rules relating to inheritance of property, marriage and family (ibid.).

In this framework, the rules governing the formal organs of the state, namely the legislature, executive, and the judiciary are taken to constitute the political contract accepted by the people for governance. The political contract in turn evolves from and is shaped by the ideology of the society as reflected in the commonly accepted set of shared beliefs, goals, and practices enshrined in what may be termed as a social contract (Tendulkar and Bhavani, 2007).

Institutions together with the standard constraints of economics define the choice set and determine the

transformation (production) and transactions costs, and thus the feasibility and profitability of engaging in different economic activities. Thus institutions provide the incentive structure in the society i.e. opportunities for benefit in different realms in the society: social, political and economic. Institutions lay down the rules of the game according to which organisations and entrepreneurs act (North, 1994). For instance, if the institutional structure prevents the rise of entrepreneurship, then entrepreneurs will not rise (as in China from 1949-1978) or if it offers gains from unproductive activities such as procuring licenses to pre-empt competition, firms will spend their resources on these activities (as in India from 1947-1985). Thus, the amalgamation of formal rules, informal norms and enforcement characteristics i.e. the 'institutional matrix' shapes how an economy performs, and explicates the difference in the political economy of India and China.

Political Economy of India

This section is divided into two parts. The first part discusses the political economy of India in the pre reform period - from 1947 to 1991. Part two discusses the political economy of India in the post reform period – from 1991 to present.

Pre-reform Era: 1947-1991

Although India and China achieved independence around the same time, they adopted different political and economic paths to achieve rapid economic growth. In India, the long held beliefs in the ideologies of economic nationalism and Nehruvian socialism were firmly rooted in the suspicion of international trade, markets and private capitalists and a naïve faith in the benevolence and omniscience of state. This posed prima facie formidable obstacles to economic reforms. India's economic underdevelopment at independence was attributed to the British colonial policy of laissez faire and free trade by the political leadership at that time and this provided the rationale for economic nationalism (Srinivasan, 1996; Srinivasan and Tendulkar, 2003).

Consequently, India, a democracy, adopted a 'mixed economy' system to attain the 'commanding heights of the economy' and to mitigate the social ills of capitalism rather than destroying it. This development strategy and the consequent economic policies led to a highly regulated market and private economic activities for more than four decades. This is because India inherited limited but expanding functioning markets and private enterprise in modern industries remained well entrenched due to the democratic political framework that provided constitutional sanctity to the private ownership of property (Tendulkar and Bhavani, 2007). It is well documented that at independence, India had one of the most well developed private sectors in manufacturing in the third world (Mohan, 2005). However, the potential positive contribution of these features to economic development was never recognised by the political leadership inclined to establish a socialist pattern of society (opcit.).

The Indian economy was characterised by Soviet inspired model of centrally planned heavy industrialisation under the aegis of the Mahalanobis Model. This was formulated in the Industrial Policy Resolution (IPR) 1956. The public sector comprising SOEs commanded strategic industries like railways, telecommunications, defence, coal, iron and steel, oil and gas, atomic energy, aircraft manufacture, generation and distribution of electric power among others. The private sector produced consumer goods like electronic goods, automobiles and garments to name a few. There was a third sector – a mix of public and private enterprise - in which the state would increasingly establish new units and the private sector could also play a role. For instance in road transport, machine tools, ferro alloys, drugs, dyestuffs and plastics etc. (Misra and Puri, 1999). The Constitutional guarantee of the fundamental right to private property was provided by the IPR 1948. According to IPR 1948, SOEs will also progressively participate actively in the spheres of activity of the private enterprise and will not hesitate to intervene whenever the progress of the industry in the hands of the private enterprise was unsatisfactory. The IPRs of 1948 and 1956 reflected the prejudice against the private sector. The embedded beliefs of socialism and nationalisation were thus responsible for almost four decades of development strategy focused on public sector domination in basic and heavy industries and autarky till the 1970s (Tendulkar and Bhavani, 2007).

The Industries Development and Regulation Act (IDRA) 1951 paved the way for the regulation of the private sector. The IDRA made government permission compulsory for private investment above a certain specified limit with a view to channelise large scale private investment in accordance with social priorities by preventing the diversion of scarce resources into non-priority areas and also preventing over capacity in key and strategic areas (Marathe, 1986). The IDRA laid down elaborate rules for licensing giving rise to the famous ‘License Raj’ in India. To control the concentration of economic power in the hands of the private sector, IDRA restricted the entry of large business houses to only a small subset of scheduled industries (Tendulkar and Bhavani, 2007).

In the late 1960’s and again in the early 1980’s, the system of economic controls was re-examined and an attempt was made to limit controls to large firms to achieve economic and social egalitarianism (Gregory and Stuart, 1999). The Monopolies and Restrictive Trade Practices (MRTP) Act 1969, Foreign Exchange Regulations Act (FERA) 1973 and import and foreign exchange controls stifled the growth of the private sector. In 1968, Prime Minister Indira Gandhi nationalised the commercial banks and invoked the vote catching slogan of ‘Garibi Hatao’ (eradicate poverty). This was followed by an indiscriminate expansion of the public sector which continued unabated till the 1980’s (Tendulkar and Bhavani, 2007).

According to Desai (1999), the development strategy followed a caste system in modern industry for according policy priorities. The highest caste or the most favoured were SOEs. Second in the hierarchy were the modern small scale industries with the state providing protection and promotional concessions. These were followed by industries that needed government permission under the IDRA 1951 for undertaking domestic private investment exceeding a fixed pre-specified floor level. Fourth were the large scale business

houses represented by the private sector. At the bottom rung were the subsidiaries of foreign companies which were subject to stiffer conditions under the FERA 1973 (Tendulkar and Bhavani, 2007).

The IPR 1980 officially stated the popular disillusionment and disenchantment with the unsatisfactory state of the SOEs. There was recognition of the fact that the losses and lower profitability of the SOEs could no longer be camouflaged under 'public interest'. It announced a decision to make the SOEs more efficient by taking corrective measures on an individual basis under the aegis of a time-bound programme. The two primary objectives were first, maximise production and optimally utilise installed capacity, and second, to enhance productivity to achieve higher growth. In order to improve their financial performance, central SOEs were given limited autonomy through the instrument of memorandum of understanding (MoU) (Tendulkar and Bhavani, 2007). In the mid 1980's, some of the SOEs were granted special privileges and allowed to form joint ventures with foreign corporations. Maruti Udyog Limited's deal with Suzuki of Japan in 1983 is an apt example (Rosser and Rosser, 2004).

Under the stewardship of Prime Minister Rajiv Gandhi in 1984, a de facto reasonably wide ranging domestic liberalisation was introduced but the government was cautious on the external trade front. Although IDRA remained intact, the private sector was allowed to enter into industries which were previously under the hands of the public sector. There was also considerable relaxation of restrictions on large scale industrial houses falling under the MRPT Act. In external trade, rules for importation of technology were considerably liberalised in view of the earlier autarkic policy. These measures reflected a more positive attitude towards harnessing the role of the markets and private sector for development (Tendulkar and Bhavani, 2007). Despite loosening of controls after 1985, there was strong momentum for expansion of the SOEs (Rosser and Rosser, 2004).

The first candid official admission of the indiscriminate expansion of and serious problems afflicting the SOEs was stated in the statement of the IPR July 1991. Thus on the eve of reforms, India was possibly the most comprehensively regulated market economy (Tendulkar and Bhavani, 2007). Reforms were introduced in India in 1991 under the leadership of Prime Minister P.V. Narasimha Rao.

The prevailing government policies and regulations created a private sector characterised by large family owned business houses i.e. concentrated family ownership of Indian business assets. The highly favourable domestic climate in the absence of foreign competition and strong monopolistic positions made the industrial houses increasingly inclined to operate in the sheltered domestic market. To grow, Indian business groups pursued unrelated diversification. For instance, the Aditya Birla Group operated in diverse industries such as textiles, dairy, tea, sugar, automobiles, steel, sanitary ware, shipping, cement and plastics. The PRG Group had interest in agribusiness, cable, carbon black, financial services, music, radio, electricity, engineering, tea, typewriters, fibreglass etc. Some business houses found opportunities to expand business activities in emerging markets in Africa and Southeast Asia. The total FDI by Indian enterprises rose exponentially from a mere $2million in 1970 to approximately $100 million in 1980 (Kumar et al., 2009).

Before 1991, Indian private sector was characterised by poor quality and productivity. The 'licence Raj' and lack of competition provided an environment in which the Indian businesses flourished. However, they were globally uncompetitive and lacked comparative advantage because of lack of economies of scale and their inability to develop unique competencies. Thus, Indian companies in the public and the private sector were not geared to compete globally or against global competitors in the domestic markets (Kumar et al., 2009).

Post reform era: 1991 to present

Before discussing the post reform era, it is pertinent to distinguish between privatisation, disinvestment and liberalisation. According to Thiemeyer, there are at least 15 different concepts of privatisation (cited in Chai, 2003: 235). In the Indian debates, there is no uniformity in the usage of the term privatisation. The entry of private sector units in the construction of physical infrastructural facilities has usually been described as privatisation. In recent times, this has also been coined as public-private partnership. A sale of minor equity stake in SOEs is decried as privatisation by the Left political parties in India (Tendulkar and Bhavani, 2007). Chai (2003: 235) avers that privatisation in most countries implies the sale of state owned non-agricultural enterprises such that it reduces public ownership to less than 51 per cent and passes management control to commercially oriented private hands. This definition is used in the thesis. Disinvestment is defined as the establishment of a broad based ownership through liquidating or selling government shares to retail and institutional investors or a collective or the workers and managers of the enterprise. Liberalisation on the other hand implies the relaxation of government restrictions especially in the economic and social sphere. An example of liberalisation is the Washington Consensus. Economic liberalization is often associated with privatisation but the two can be quite separate processes.

In July 1991, India initiated systemic changes in its economic policies precipitated by the twin crises of fiscal deficits and defaults on foreign debt. The absence of reforms on both the fronts would have made the emergence of a viable new distributional equilibrium impossible. However, it was the external payment crisis and not the fiscal crisis and the unprecedented spectre of default on foreign loans that shook the polity. This was because of the still firmly held and pervasive belief in the doctrine of nationalism and associated solvency in external payments as a matter of national pride and prestige (Tendulkar and Bhavani, 2007).

The reforms introduced in 1991 involved a major shift in the development strategy towards greater integration with the world economy and liberalisation of restrictions on market transactions and private economic activities. The wide ranging and systemic nature of the reforms in 1991 can be seen in their extensive coverage and directional persistence for more than a decade and half: external sector (trade flows, exchange rate, and capital inflows including foreign direct investment), fiscal consolidation with the reform on the revenue and expenditure side, monetary and financial sector (freeing of interest rates, reduction in statutory liquidity and cash reserve ratios, introduction of capital adequacy norms, reduction in directed lending, limited privatisation, and significant expansion in the variety of financial instruments of intermediation), industrial sector (virtual abolition of comprehensive investment licensing, abolition of

restrictions on monopoly houses, significant opening up of activities previously reserved for the public sector), infrastructure (expansion of investment in roads, limited privatization of ports, privatization and introduction of competition in telecommunication), and partial/full privatisation of the public sector commercial enterprises amongst others. This is not to say that the reform process has been smooth, internally synchronised, complete or fully successful (Tendulkar and Bhavani, 2007; Kumar et al., 2009).

Nonetheless, economic reforms in India in 1991 paved the way for the privatisation and liberalisation of the Indian economy according to the Washington Consensus. This led to changes in the industrial, financial and trade policy. The IPR 1991 mentioned serious problems affecting the SOEs which made the SOEs a burden rather than a national asset. It promised a review of existing portfolio of public sector units (Tendulkar and Bhavani, 2007). Corrective measures included disinvestment of up to 20 per cent equity in some SOEs to yield 0.4 per cent of the GDP and a cut of a 0.3 per cent in budgetary support to SOEs. However, India's experience with privatisation of SOEs was short lived and very few central and even fewer state level SOEs were privatised. This was due to opposition not only within the ruling party but also from the opposition political parties because of vested selfish interests. Disinvestment of some SOEs was carried out despite some political opposition (Mohan, 2005). Table 4.5 provides a breakdown of disinvestments in terms of the number of SOEs in which the equity was sold and broad description of modalities of disinvestments.

Liberalisation removed the fetters which had plagued the economy since independence. The reforms changed the environment in which the Indian businesses could operate. The IPR 1991 allowed private firms to operate in sectors which were previously the domain of the SOEs albeit a small negative list of 18 industries like telecommunications, airways, energy, banking etc. This list was justified for reasons of security, environment and balance of payments. Later, only four sectors related to security and strategic concerns were reserved for the SOEs. It also removed fetters like diversification of large conglomerates under the MRTP Act, and pre-entry inspection of investment decisions regarding new capacity, mergers and expansion. The government took measures to facilitate private business. The incentive structure for private enterprise - markets and institutions for property rights and rule of law - that were in place since independence were strengthened (Bhavani and Tendulkar, 2007). Import licensing restrictions were also eliminated for 80 per cent of the industries in 1991 alone (Rosser and Rosser, 2004). There was a reduction in import tariffs which declined from an average of 85 per cent to 25 per cent. Additionally, quantitative controls on imports were also reduced. Indian enterprises were allowed to issue Global Depository Receipts (GDRs) to raise capital in the international financial markets. Foreign institutional investors were permitted to invest in the Indian equity markets. Measures were undertaken to make procedures for FDI approvals more efficient and there was automatic approval of projects in at least 35 industries if they were within the perimeter of foreign participation. Measures were also undertaken to increase FDI. For instance, foreign investment was allowed in priority sectors and the share of foreign investment in joint ventures was increased from 40 per cent to 50 per cent (Kumar et al, 2009).

Table 4.5: Disinvestment in Indian SOEs from 1991-2 to 2003-4

Year	No. of companies in which equity sold	Modality
1991-2	47 (31 in one tranche and 16 in another)	Minority shares sold by auction method bundles of 'very good', 'good' and 'average ' companies
1992-3	36 (in 3 tranches)	Bundling of shares abandoned. Shares sold separately for each company by auction method
1993-4	-	Equity of 7 companies sold by open auction but proceeds received n 1993-4.
1994-5	13	Sales through auction method in which NRIs and other persons legally permitted to buy, hold, or sell equity were allowed to participate
1995-6	5	Equities of 4 companies auctioned and government piggybacked on IDBI fixed price offering for fifth company
1996-7	1	GDR (VSNL) in international market
1997-8	1	GDR (MTNL) in international market
1998-9	5	GDR (VSNL)/Domestic offerings with the participation of FIIs (CONCOR, GAIL). Cross purchase by 3 oil sector companies i.e. GAIL, ONGC, and Indian Oil Corporation
1999-2000	4	GDR-GAIL, VSNL domestic issue, BALCO restructuring, MFILs strategic sale and others
2000-1	4	Strategic sale of BALCO, LJMC, KRL (CRL), CPCL (MRL)
2001-2	9	Strategic sale of CMC 51%, HTL 74%, VSNL 25%, IBP 33.58%, PPL 74% and other modes: ITDC, HCI, STC, MMTC
2002-3	5	Strategic sale of JESSOP 72%, HZL 26%, MFIL 26%, IPCL 25% and other modes: HCI, Maruti
2003-4	3	-
2004-5	-	IPO in NTPC, sale to employees of IPCL, and balance receipts of ONGC sale
2005-6	-	Sale of shares of MTNL to public sector financial institution and public sector banks and sale to employees.
2007-8	2	PGCIL and REC
2009-10	2	NHPC and OIL
2010-11	3	Coal India Limited, MOIL and SJVN
2011-12	1	PFC
Total	49[a]	

Source: Tendulkar and Bhavani, 2007: 132 from 1991-2 to2005-6; Department of Disinvestment, Ministry of Finance, GOI, www.divest.nic.in from 2007-8 to 2011-12

a Total number of companies in which disinvestment has taken place

The reforms proved a boon in disguise for the private sector. Measures undertaken by the government diversified the sectors in which private enterprises could operate providing them with new opportunities. It helped spur consolidation within industries and led to an increase in size and power of the private enterprises especially the well-established business houses like Reliance Industries Limited (RIL), Tata Group, Birla Group and Bajaj Group among others. Consequently, companies undertook tough corporate restructuring measures like focus on core business, consolidating the management, strengthening the balance sheet and

enhancing competitiveness to prepare them for the global marketplace. Competition with the MNCs also increased the competitiveness of the private sector (Kumar et al, 2009). Liberalisation also ushered in entrepreneurship which led to the emergence of small but dynamic firms led by entrepreneurs who are willing to take greater risks and are connected to the global economy. These small firms also have creative managers which augurs well for the Indian economy (Engardio, 2007)

Unlike China, India did not attract considerable FDI. This is because private industry, large and small, which received protection from stringent import controls since independence, did not want FDI in competing areas. However, it advocated FDI mostly through the joint venture route (which was non-competing and beneficial for domestic capitalists) and in areas like physical infrastructure where it would be complementary. FDI is still being kept under mostly case-by-case licensing restrictions and conditionalities. Overtime, however, as tariff levels were being progressively lowered, the Foreign Investment Promotion Board (FIPB) has been liberal in granting licenses, thereby introducing competition for domestic industry. Between January 1 2005 and October 10 2006, out of the 79 applications considered for FDI, 78 were approved (Tendulkar and Bhavani, 2007).

Reforms were also introduced in the SOEs to increase their operational efficiency. For instance, longer tenures for chief executives of SOEs, greater operational autonomy, MoU between SOEs and their parent ministries, freedom for SOEs to raise resources from the market etc. Despite the reforms, autonomy for the SOEs has remained elusive. Although the private sector has been freed from license permit restrictions, commercial SOEs remain shackled by the need to obtain administrative clearances from the procedure driven bureaucracy. The SOEs are also being squeezed by the significant reduction in budgetary support besides competing with the private sector (Tendulkar and Bhavani, 2007).

In the face of completion - domestic and foreign, a few SOEs have managed to pull up their socks and increase operational efficiency; a few that had been running well have continued to do so, but a large number of the SOEs have sunk deeper into the red (Tendulkar and Bhavani, 2007). There are 11 well performing SOEs including ONGC which account for more than 75 per cent of the profits of the SOEs. These are called the jewels of the Indian public sector (Navratan meaning nine jewels. 2 were added later on to make it 11). The nine SOEs were chosen because of their potential to become global players based on their size, performance, nature of activities, future prospects etc. The Navratans were delegated substantial powers like the freedom to incur capital expenditure without any monetary ceiling, entering into technology joint ventures, opening new offices in India and abroad, and the appointment of functional directors (Mohan, 2005).

The transformation of Indian enterprises and industrial houses post-1991 was critical in preparing Indian corporations for the global marketplace. The private sector and public sector coexist, operate and compete with each other in the Indian economy and since 1991, they also compete with the well-established and iconic MNCs in the domestic market in India and also globally. The increase in FDI is a direct consequence of the pursuit by Indian enterprises to be competitive globally (Kumar et al., 2009). Table 4.6 lists some of

the main sectors/industries in which the private and public sector compete not only with each other but also with MNCs.

Table 4.6: Industries where the private sector, public sector and MNCs operate in the Indian economy

Industry	Private Sector	Public sector	MNCs
Aviation- Domestic	Spice Jet, Kingfisher Airlines, Air Deccan Airlines, Go Air, JetLite	Air India and Indian Airlines	-
Aviation -International	Jet Airways	Air India	British Airways, Virgin Airlines, Air Emirates etc.
Commercial Automobiles	Tata Motors, Mahindra and Mahindra	Maruti Udyog Limited (MUL) till 2007	General Motors, Nissan, Volkswagen, Mercedes, Ford etc.
Hotels and Hospitality	Taj Group, Oberoi's, The Leela Palaces, Hotels and Resorts, ITC	Ashok Group of Hotels	Starwood Hotels & Resorts Worldwide (Le Meridien).
Mining	Vedanta, Hindalco, Dempo Mining Corporation Limited, Obulapuram Mining Company	NALCO, Hindustan Copper Limited	-
Oil and Gas	Reliance Industries, Essar Oil, Videocon	ONGC, IOC, BPCL, HPCL, GAIL	BP, Chevron, Cairn, Royal Dutch Shell
Iron and Steel	Tata Iron and Steel, Arcelor Mittal, Essar, Yash Birla, Kirloskar Group, Jindal Steel and Power Limited	SAIL, Bharat Refractories Ltd., KIOCL Ltd., Rashtriya Ispat Nigam Limited, Ispat Industries Limited	POSCO, POS-Hyundai Steel Manufacturing, Daido Kogyo, Ralco Steels Private Limited
Heavy manufacturing	L&T, Bharat Forge	BHEL, Braithwaite & Co. Ltd., Andrew Yule & Company Ltd., Bharat Bhari Udyog Nigam Ltd.	Volvo Construction Equipment, Komatsu, Caterpillar, Hitachi Construction Machinery, CNH
Banking and Finance	ICICI, HDFC, Yes Bank	SBI, P&B, Bank of Baroda, Andhra Bank	HSBC, Citi Group, RBS ABN Amro, Deutsche Bank
Consumer Electronics	Videocon, Godrej, BPL	-	LG, Samsung, Sony, Philips
Wireless and Telecommunications	Reliance Communications, Bharti Airtel, Idea, Tata DoCoMo	BSNL, MTNL, NICSI	Vodafone, Virgin Mobile
Pharmaceuticals	Ranbaxy, CIPLA, Dr Reddys	Bengal Chemicals & Pharmaceuticals Ltd., Bihar Drugs & Organic Chemicals Ltd.	Pfizer, Novartis, Johnson & Johnson, GlaxoSmithKline
Shipping	Reliance Industries Limited, Essar Shipping Ports, Garware Offshore Services Limited, Great Eastern Shipping	Hindustan Shipyard Limited, Dredging Corporation Of India Ltd., Ennore Port Ltd., Sethusamudram Corporation. Ltd.	Maersk, The Mediterranean Shipping Company etc.

Source: Compiled from different ministries, GOI

Indian firms in the public and the private sector have also appeared in the Fortune 500. Table 4.7 provides a breakdown of the list of Indian companies in the Fortune 500 from 2005-2012. The number of Indian firms has increased from five in 2005 to eight in 2012 and there has been a gradual improvement in their ranking especially RIL which has moved from 415 in 2005 to 99 in 2012. Out of the five public sector enterprises, four are in the hydrocarbon sector and one in the banking sector. These two sectors were the sole recourse of the SOEs from 1947-1991. The oil and gas sector in India in discussed in detail in Chapter 5. The number of private sector enterprises in the list of Fortune 500 companies has increased from one in 2005 to two in 2008 and three in 2010. There are expectations that the number of private sector enterprises in the Fortune 500 will increase and there may also be an improvement in their ranking.

Table 4.7: List of Indian corporations in the Fortune 500 from 2005-2012

Company	Ownership	Sector	Rank in Year							
			2005	2006	2007	2008	2009	2010	2011	2012
Indian Oil	Public	Oil and Gas	170	153	135	116	105	125	98	83
Reliance Industries	Private	Diversified	417	342	269	206	264	175	134	99
Bharat Petroleum	Public	Oil and Gas	429	368	325	290	289	307	272	225
Hindustan Petroleum	Public	Oil and Gas	436	378	336	287	311	282	336	267
State Bank of India	Public	Banking	-	498	495	380	363	354	292	285
Tata Motors	Private	Automobile	-	-	-	-	-	410	359	314
Oil and Natural Gas	Public	Oil and Gas	454	402	369	335	402	413	361	357
Tata Steel	Private	Iron and Steel	-	-	-	315	258	442	370	401
Total			5	6	6	7	7	8	8	8

Source: Compiled from Fortune Global 500, 2005- 2012

Since the beginning of the twenty-first century, the Indian private sector has emerged as the flag bearer not only domestically but also globally. According to a report published on June 26 2010 in Business Standard, a leading economics daily in India, from 2000-2010, net sales and net profits grew at a faster rate in the private sector relative to the public sector. During the period 2000-2010, the share of the private sector in the net sales jumped from 48.33 per cent to 68.55 per cent. On the other hand, the share of the public sector fell from 51.17 per cent to 31.45 per cent. In similar vein, the share of private sector with respect to net profit in the secondary and tertiary sectors rose from 39.17 per cent to 63.86 per cent whereas the share of the public sector declined from 60.83 per cent to 36.14 per cent. Thus, India's economy has become a private sector economy in the first decade of the new millennium. Economic growth in India is being driven by entrepreneurs and business leaders whose firms have become competitive and operate globally (Business Standard, 2010).

This phenomenon can be expounded by several factors - negative as well as positive. The rise of Indian companies in myriad sectors especially civil aviation, banking and finance, energy, information and technology, telecommunications and manufacturing highlights the positive facet. During the same period, the increase in FDI also resulted in an increase in private sector's share in national income, sales and profits. On the other hand, the negative aspects are that the public sector has been unable to generate resources internally for its growth. Additionally, the share of the public sector in the economy has declined along with a decline in investment by the public sector owing to the government's fiscal constraints (Business Standard, 2010).

Indian enterprises especially the Indian private sector undertook corporate restructuring programmes which instilled confidence in them. As a result, rather than being scared of global competition in the domestic market, they were transformed into buoyant players adept at building Indian multinationals. This led to the creation of a number of large private enterprises that compete with the best in the world. Moreover, most of these enterprises fall in the high segment or cutting edge and knowledge based industries. For e.g.

pharmaceuticals and bio-technology powerhouses like Ranbaxy, Dr Reddy's Laboratories, CIPLA, Jubilant and software giants like Infosys, TCS, and Wipro to name an illustrious few. These outsourcing companies progressed from a low-cost base and are slowly but steadily making a movement, up the food chain to more sophisticated projects and are starting to challenge the prominent Western MNCs like EDS, IBM and Accenture. Consequently, the Indian government is being persuaded by the Indian enterprises to implement changes in its policies and move towards a more open domestic market and business environment (Kumar et al., 2009).

Indian corporations especially the private sector corporations have also acquired enterprises abroad. For instance, in 2006, Tata Steel acquired the Anglo-Dutch Company Corus for $12 billion to become the fifth largest steel producer in the world. Another Tata Group Company, Tata Motors acquired Jaguar Land Rover for $2.3 billion in 2008. The Tata Group has also acquired hotels across the globe. Tata Tea, the second largest branded tea company in the world acquired Tetley based in the UK. Mittal Steel acquired Arcelor to become the largest steel producer in the world. Incidentally, Mittal is credited for consolidating the steel industry. Hindalco, a part of the Aditya Birla Group made an all cash $6 billion purchase of Canadian Novelis to become the world's largest aluminium company. Other prominent Indian firms like Infosys, TCS, Wipro, Bharat Forge, Essel Propack, Vedanta, Mahindra and Mahindra, Hidesign, Marico, Godrej, VIP, United Breweries, TVS, Larsen and Toubro, Bajaj Auto, Piramal Enterprises, RPG Group and Suzlon among host of others have made acquisitions and/or are planning to make acquisitions abroad. Even smaller private sector firms have made foreign acquisitions abroad. For instance, Bennett Coleman acquired Virgin Radio Holdings for $100 million in 2008. The relatively unknown Rain Group bought the US based CII Carbon for $595 million in 2007 which helped them to become the world's leading producer of calcine petroleum coke (Kumar et al., 2009).[14] In 2001, Indian outward investment was $1 billion but by 2006, it increased to $10 billion and outstripped FDI into India. In two months, from January to February 2007, 40 foreign investment deals were arranged and/or concluded by Indian enterprises amounting to $21 billion. This has whetted the appetite of the Indian private sector which has become more ambitious and foreign acquisitions are set to rise in the future. It is estimated that foreign acquisitions and investments are high on the agenda for approximately 60 per cent of India's leading 200 firms (Kumar, 2012).

Political Economy of China

This section is divided into two parts. The first part discusses the political economy of China in the pre reform period - from 1949 to 1978. Part two discusses the political economy of China in the post reform period - from 1979 to present.

[14] For a comprehensive list of acquisitions by the Indian private sector, please refer to: Kumar et al. (2009); Engardio, P. (2007); Yesudian, S (2012); Nayak, Amar K.J.R. (2011); Pradhan, Jay Prakash (2008); Goldstein, Andrea (2007); "India Invests Abroad", Forbes India http://www.forbes.com/2011/11/23/forbes-india-entrepreneurs-invest-abroad.html; "Indian Takeovers Abroad: Running with the bulls. Are Indian firms really going to take over the world?" The Economist March 3 2012, http://www.economist.com/node/21548965.

Pre-reform Era: 1949-1978

The PRC was proclaimed by Mao Zedong in 1949. In 1949, China was a poor country characterised by low PCY, significant pressure from population on arable land and other resources and an absence of institutions appropriate for economic development. China a Communist state, adopted Stalin's model of 'centralised planned economy' emphasising capital intensive heavy industrialisation to the detriment of the agricultural sector with comprehensive state and collective property. However, there were substantive modifications from the Soviet model. The result was economic growth and development which was interrupted when ideological and political factors gained supremacy over economic factors (Rosser and Rosser, 2004).

The period from 1949-52 was a period of consolidation. The state had two important goals. First, the redistribution of land to individual households was implemented in preparation of collectivization. However, collectivisation was not to be pursued in undue haste. China adopted the basic Soviet model of land reform and subsequent collectivization in the 1950's. There were also differences between the two which were sufficient to avoid some of the extreme negative consequences experienced in the Soviet Union. Second was nationalization and consolidation of industry in preparation for national economic planning. Financial and educational reforms were also undertaken along with other changes deemed necessary to stabilise the economy in preparation for the beginning of the first five year plan in 1953 (Gregory and Stuart, 1999).

During the early 1950's, there was a gradual transition from private industry towards socialist industry. The shift was targeted to be slow, though toward the latter part of the first five year plan it became rapid (Gregory and Stuart, 1999). In 1955, Mao launched the full scale socialist 'transformation movement' which spelled the beginning of the end of private economic activities (Mantzopoulos and Shen, 2011). The pattern of change was from private ownership to elementary state capitalism followed by advanced state capitalism, and finally to socialist industry. By 1965, 68 per cent of the gross value of output was accounted for by the state industry and only 16 per cent by joint state private enterprises. From 1953 to 1957, aggregate investment accounted for 20 per cent to 25 per cent of the national product. Heavy industry in China absorbed on average approximately 85 per cent of industrial investment and only 8 per cent of state investment was devoted to agriculture. The figures suggest a relatively high rate of accumulation for a poor country like China with emphasis on industry in general and heavy industry in particular (Gregory and Stuart, 1999).

During 1956 to 1957, there was open discussion and criticism of the system. The Stalinist model was discarded and Mao proclaimed a policy of simultaneous development of agriculture and industry with the economy 'walking on two legs'. This was manifested in the 'Great Leap Forward' (1958-60). The 'Great Leap' was a massive resurgence of ideology which replaced rationality. Campaigns were instigated with revolutionary fervour to emphasize a new role for the peasantry, especially through small-scale industry in the country side contrary to all economic principles of mass production and economies of scale, and the introduction of agricultural communes. Agriculture was organised into massive communes encompassing thousands of households. The disruptions of the 'Great Leap' were substantial. Although the 'Great Leap

Forward' was abandoned by 1960, the commune system introduced in 1958 remained (Rosser and Rosser, 2004; Mantzopoulos and Shen, 2011).

Like the 1950's, the 1960's is divided into two very different periods: moderation in the early 1960's and upheaval in the late 1960's. The early 1960's was a period of relative calm in which Chinese leaders looked towards balance in economic development, modernisation in the agricultural sector and recovery from the aftermath of the 'Great Leap'. During this period, substantial reforms were introduced in industry. The Chinese industrial structure was modified to suit Chinese conditions and modifications for the most part withstood late upheavals. Both central control and local initiative changed during this period. There was a movement away from overwhelming importance on gross output towards quality in production and the elimination of major deficiencies in the planning system. The centre tried to put pressure on enterprises to improve quality and efficiency and to enhance the role of technical expertise in the decision making process. Many decisions especially minor ones were shifted to the local level (Rosser and Rosser, 2004).

The 1960's witnessed a widespread educational campaign among the Chinese people which culminated in the 'Cultural Revolution' (1966-1969). It had a devastating impact on the Chinese economy and populace. Although economic activity was substantially affected, the basic organisational agreements in industry and agriculture did not alter in significant ways (Gregory and Stuart, 1999).

The early 1970's was a period of recovery from the events of the Cultural Revolution. However, attempts to return to normalcy were interrupted by the death of Lin Biao, the then number two in 1971 (Rosser and Rosser, 2004) followed by the deaths of Zhou Enlai, the first Premier of the PRC in early 1976 and Mao in September 1976. Shortly thereafter, in October 1976, the 'Gang of Four', representing the revolutionary left and espousing a continuation of the Stalinist mode of industrialisation were arrested amidst great ideological fervour (Mantzopoulos and Shen, 2011). Mao's economic policies continued for two years after his death (Rosser and Rosser, 2004). By the end of the Mao era, China was devoting an unusually large share of its product to investment and focusing that investment on industry relative to other countries at similar levels of economic development. After Mao's death, reforms were initiated in 1978 under the leadership of Deng Xiaoping. Although the reform era took China along a very different path, the experience of the Soviet model remained influential especially with respect to privatising large scale industry (Gregory and Stuart, 1999).

Post reform era: 1978 to present

Before discussing the Chinese economy in the post reform era, it would be pertinent to state that the definition of private sector and SOEs in China is blurred and fraught with difficulties. This can be attributed to a great extent to the reforms that have spawned a variety of hybrid and highly ambiguous ownership firms (Haggard and Huang, 2008). In China, there are officially seven different kind of enterprises based on ownership: individual ownership, private ownership, joint ownership, shareholding corporations, foreign

ownership or Foreign Invested Enterprises (FIEs), collective ownership and state ownership. The most common measure in the literature is the non-state sector which some analysts have equated with the private sector. The first five ownerships comprise the private sector in China (Lin and Song, 2007).[15] Because FIEs are more privileged (discussed later in the chapter) relative to other constituents of the private sector, FIEs are not included in the definition of the private sector in China. The thesis contends that the first four ownerships comprise the private sector. The private sector and the FIEs, two separate constituents, constitute the non-state sector. Township and Village Enterprises (TVEs) are a part of the collective enterprises. According to (Woetzel, 2008), "Many observers define a Chinese SOE as one of the approximately 150 corporations that report directly to the central government. Thousands more fall into a grey area, including subsidiaries of these 150 corporations, companies owned by provincial and municipal governments and companies that have been partially privatised yet retain the state as a majority or influential shareholder."

In 1978, Deng Xiao Ping implemented the four modernizations: agriculture, industry, science and technology and national defence (Rosser and Rosser, 2004). The Deng reforms fundamentally altered the Chinese economic system while at the same time maintaining state and party control (Mantzopoulos and Shen, 2011). Economic reforms introduced in China relative to India were different and had a different impact on the economy. China adopted the East Asian model of FDI induced growth. Special Economic Zones (SEZs) were created for foreign firms because institutions like the rule of law, property rights etc. had not been established in China (Gregory and Stuart, 1999). China embarked on gradual and evolutionary reforms referred as the 'Beijing Consensus'. Legal, fiscal, financial, price and wage reforms were introduced (Mantzopoulos and Shen, 2011). Market forces were introduced in a meaningful way. China maintained a complex and highly restrictive system of controls in the initial period of the reform to provide protection to domestic industry (Lardy, 2003).

Although the Deng reforms introduced in 1978 were intended to be a gradual process termed as 'crossing the river by feeling the stones', in reality the reforms moved quickly, especially in the countryside. This was because the party and the state chose not to stop them and because they resulted from the unleashing of existing entrepreneurial forces. The Deng reforms made two important changes to the country side: first allowing Chinese farmers to work for themselves rather than for the collectives and second, allowing townships to create TVEs (Gregory and Stuart, 1999).

Prior to 1978, the commune was the unit of organisation in agriculture. The household responsibility system was introduced in the late 1970's. The release of local agricultural markets and the contracting by the state with households for the sale of major crops led to the end of collectivization and the markets dominated both the input and output side of the Chinese agriculture (Rosser and Rosser, 2004).

After the initial moves in 1980, major enterprise reforms were introduced in 1984 when most firms were allowed to replace plan targets with responsibility contracts that enabled them to retain and freely dispose of

[15] For a detailed analysis of the problems in defining the private sector in China refer to Haggard, Stephen and Huang, Yasheng (2008).

surplus. The dual price system was extended to most of the economy thus creating a market economy beyond the contracted portion and a steadily declining share of the SOEs. Although industry and transportation remained under state control and ownership, the reforms allowed villages and townships to form their own enterprises. The TVEs are owned by the town or village governments (Rosser and Rosser, 2004). These enterprises which were concentrated initially in the services and the light industry, accounted for one-third of Chinese manufacturing by the mid-1980. The TVEs were free to develop unencumbered by state planning and bureaucratic fetters. They were also free to form joint ventures with foreign partners, who supplied capital and export marketing expertise. The development of services and light manufacturing promoted the growth of services. From 1978-1981, the share of total investment devoted to heavy industry fell sharply from 54.7 per cent to 40.3 per cent (Gregory and Stuart, 1999). The average size of TVEs is relatively small compared to the SOEs. For example in 1998, an average TVE in the industrial sector employed only 11 workers which was only 2.6 per cent of the level of employment in an industrial SOE (Chai, 2003).

To remedy China's lack of advanced technology and its shortages, the reform strategy decided to tap Western markets and Western capital to promote China's economic development. Considering that Chinese legal protection of property rights was weak and Chinese courts could not be counted on to enforce the property rights of foreigners, Chinese reformers set up various SEZs. Moreover, China liberalised its joint venture laws to encourage the creation of export oriented joint ventures in these zones. This led to a massive influx of Western capital after 1978. FDI led to the installation of technology and the creation of marketing savvy enterprises that permitted China to become the largest exporter in the world surpassing Germany in 2011. In the late 1970's, the regulations pertaining to foreign trade were relaxed and businesses were encouraged to import and export using decentralized market arrangements. Exportation has been especially important in developing agreements to encourage the sale of manufacturing goods in foreign markets and to stimulate FDI in China (Mantzopoulos and Shen, 2011; Gregory and Stuart, 1999).

The reform strategy retained state control and ownership of the key and strategic industries like heavy industry, banking, finance, aviation and transportation or the 'commanding heights' of the economy. The state economy is managed along the lines of an administrative command economy with a national economic plan. SOEs are required to fulfil the plan and if they sustain losses, they are bailed out by state subsidies or direct credits administered through state owned banks. The Chinese system of credit is based on the savings deposits of frugal Chinese citizens and is directed by a state credit and finance plan exclusively to SOEs even if the rate of return on invested funds is extremely low especially when compared with private enterprise where the returns are much higher (Rosser and Rosser, 2004). About 70 per cent of SOEs make losses, and bad loans to SOEs account for 30 per cent of the GDP. The discussion about the privatisation of large SOEs was delayed until the summer of 1997 (Gregory and Stuart, 1999). The state sector accounted for two-thirds of manufactured output in the early 1980's, but by mid-1990, its share had fallen to 50 per cent. By 1992, the pure SOE was in a minority (opcit.).

The hallmark of the late 1980's was the demonstration by students and workers in the Tiananmen Square which was brutally crushed by the military.[16] After a period of international disapproval, China resumed economic reforms in 1992 signalled by Deng's visit to Shenzhen, the prominent SEZ close to Hong Kong. Reforms spread to many provinces and rule on private enterprise were loosened. In 1993, the CCP officially declared its desire to achieve a socialist market economy. In 1994, farmer demonstrations and resurgent inflation up to 20 per cent increased pressure for scaling back reforms (Rosser and Rosser, 2004). With Deng increasingly ill in early 1995, reforms were scaled back by President Jiang Zemin and Premier Li Peng. Before Deng died in 1997, the movement for more reforms asserted itself and the hard line Premier Li Peng was replaced by reformist Zhu Rongji who promised to restructure the SOEs (Mantzopoulos and Shen, 2011). The private sector was recognised as legitimate in the constitution in 1999 and China joined the WTO in 2001 (Rosser and Rosser, 2004).

Privatisation, SOEs and the non-state sector

The performance of SOEs in China suffers from both political as well as agency costs. In the 1990's, reforms were introduced to address these issues. Two strategies were adopted: privatisation and corporatization. The primary objective of corporatization was to transform SOEs from solitary state proprietorships to modern-form corporations and imbibe in them a Western style corporate governance structure without seriously diluting the dominant public but not necessarily state ownership (Xu, Zhu and Lin, 2007). Privatisation of SOEs in China is a very recent phenomenon (Lin and Song, 2007). There was no privatisation of SOEs in the initial reform period although reforms were introduced in the SOEs to increase their efficiency and productivity (opcit.). 100 large and medium SOEs at the central and 2500 at the local level were corporatized or converted into companies. Disinvestment of SOEs was also carried out but restrictions were imposed to prevent the state from losing control over them. By 1997, 1080 of the 2500 SOEs were transformed into limited liability or shareholding companies characterised by diversified equity ownership (Mohan, 2005: 185).

China's overall policy still remains strong state control over large proportion of industrial assets (Tian, 2007). The state has retained the larger and let the smaller enterprises go which implies state control over the top 500-1000 large firms and control over heavy industry, banks, railways, airlines and infrastructure. In 1997, the 500 largest SOEs had 37 per cent share of the assets of the SOEs, contributed 46 per cent of the tax collected on all SOEs and its share of total profits was 63 per cent (Yao, 2004). The transfer of ownership has occurred only in small scale SOEs that account for a relatively small proportion of industrial assets and profits (Xu, Zhu and Lin, 2007). This has not led to a significant reduction of state ownership or control over business enterprises. The larger corporatized SOEs are run either by state owned asset management companies or the concerned supervisory departments as before. Until the first half of the 1990's, only two-

[16] There was widespread belief amongst the intelligentsia that the four developments were to be supplemented by democracy- the fifth development. However, it should be pointed out that the demonstrators in the Tiananmen Square were not only demonstrating to get democracy but also against corruption, unemployment, living conditions among others.

five per cent of the 118,000 industrial SOEs had been transferred to the non-state sector and almost all of them were small firms (Mohan, 2005). Between 1997- 2002, 21,000 small scale SOEs were privatised (Cheng, 2005).

According to a study conducted by the World Bank in 1997, reforms led to the increased efficiency of the SOEs but approximately 50 per cent of the industrial SOEs incurred net losses amounting to 1.3 per cent of the GDP. Moreover, the SOEs absorbed 75 per cent of the credit and the rate of return of 6 per cent was lower compared to 8.4 per cent and 9.9 per cent earned by collectives and FIEs (Mohan, 2005). The SOEs suffer from a number of inefficiencies (Haggard and Huang, 2008) and rely considerably on state support in the form of subsidies for their operations. They take loans from the state commercial banks but do not have to repay the loans (Chen and Li, 2007). Moreover, government provides loans to SOEs at a much lower rate compared to the market rate (Lin, 2007). An ESRC-funded research led by Dr Jackie Sheehan of Nottingham University states that without subsidies, China's SOEs cannot compete internationally (ESRC, 2002).

China's private sector has grown dramatically since 1978 despite being constrained or even forbidden to develop (Tian, 2007; Zheng and Yang, 2009). The boom in FDI in the 1990's reduced the political leadership's need to cater to the concerns of the private sector leading to somewhat of a stagnation in the growth of the private sector in the 1990's and 2000's relative to the 1980's (Haggard and Huang, 2008). The private sector has begun to grow more rapidly since the reforms in 1993 with an apparent acceleration after 1997. Deng's speech in 1992, The Fifteenth National Congress of the CPC in 1997 and the Sixteenth National Congress of the CPC in 2002 encouraged the growth of the non-public sector including private enterprise. The number of individual owned businesses increased from 0.14 million in 1978 to 24.64 million in 2005. By the end of 2005, the number of private enterprises increased to 4.30 million employing 58.24 million employees (Zheng and Yang, 2009). The economy was characterised as 'Socialism with Chinese characteristics' (Lin and Song, 2007). Table 4.8 depicts the proportion of private enterprises and their registered total from 2000 to 2005. Although the strictly private sector has expanded primarily in the SEZs, the biggest increase in absolute terms has been in the collective sector especially the rural TVE sector. The TVEs provided an alternative to privatisation where it was unavailable because until 1993, privatisation outside the SEZs continued to be limited. However, there has been a considerable expansion since 1993 when the TVEs were hit by a wave of privatisation which accelerated after 1997 (Zheng and Yang, 2009).

Compared to regular SOEs, TVEs with their greater flexibility and freedom from central control are able to fill niches where SOEs are limited such as light industry. However, compared to centralised SOEs, TVEs face harsher budget constraints and operate in vigorously competitive markets. In 1989, three million TVEs either went bankrupt or were taken over by others. They also have an edge over strictly private firms because of their lower tax rates and they also have an advantage in negotiating with a still dominant government (Rosser and Rosser, 2004). FIEs have been preferred over the domestic private sector (Haggard and Huang, 2008). Thus, it appears that there is a hierarchy in the industry with SOES at the fore, followed by TVEs and FIEs, and private enterprise constituting the bottom rung of the ladder. By 1997, less than seven per cent of

Table 4.8: Proportion of Private Enterprises and their Registered Total (200-2005)

Year	SOE and Collective Enterprises (thousand)	Foreign Invested Enterprises (thousand)	Private Enterprises (thousand)	Total Enterprises	Proportion of Private Enterprises (%)	Proportion of Registered Capital
2000	5,351	203	1,762	7,316	24.08	10.63
2001	4,833	202	2,029	7,063	28.73	13.05
2002	4,445	208	2,435	7,088	34.35	20.68
2003	4,124	226	3,006	7,256	40.87	18.69
2004	3,798	242	3,651	7,691	47.47	22.56
2005	3,491	260	4,301	8,057	53.38	26.33

Source: Zheng, Hongliang and Yang, Yang (2009), pg. 18

the 25 million TVEs were collectively owned (Greenfield, 1997). In 1999, a study confined to Zhejiang and Jiangsu provinces demonstrated privatisation levels of 55.3 per cent and 59.5 per cent respectively with much of the privatisation occurring in 1998 (Rosser and Rosser, 2004). Thus, the private sector comprises small and medium scale TVEs and SOEs which have been privatised (Whittington, 2005). Generally, private businesses on average employ less than 15 employees per firm. They are concentrated in small-scale manufacturing, retail and other service industries, and are at a relative technical and scale disadvantage compared to the SOEs and other firms (Chen and Li, 2007).

Huang (2003) and Zheng and Yang (2009) aver that private sector in China has been deliberately stifled. Continued support for SOEs in the form of subsidies and soft loans has restricted private sector access to markets and financing (Tian, 2007). Restrictions have been imposed on the private enterprise to prevent them from competing against the SOEs while FIEs enjoyed preferential clauses. Research carried out by the State Development Planning Commission showed that until 2004, there had been restrictions to market access in nearly 30 industries within the non-public sector. In a certain coastal province, SOEs could enter into more than 80 industries, foreign held firms more than 60 industries and private businesses could only access about 40 industries. The local government had refused more than 56 per cent of loan applications by small and medium sized enterprises while more than 70 per cent of the bank loans were made to SOEs (Zheng and Yang 2009). The private sector is subject to numerous takes, fees and levies from local governments (Lin and Song, 2007; Tian, 2007) and has less than 30 per cent of funding support (opcit.). Loans to private enterprises have been subjected to higher interest rates relative to SOEs (Lin, 2007). In addition, private enterprises are denied access to stock markets in Shenzhen and Shanghai (Tian, 2007).

In one cross country survey, private firms in China are the most constrained in the world in terms of their access to capital. Moreover, the share of private sector in total fixed asset investment in the 1990's was less than it was in the 1980's (Haggard and Huang, 2008: 353). Private firms lack access to relevant business information and face restrictions on direct access to foreign trade compared to SOEs. They are often discriminated against on the basis of uncertain and unclear rules especially in the context of property rights

leading to difficulties in protecting private property and contract rights (Tian, 2007). Commercial legislation requirements are not only expensive but also time consuming and registered capital requirements for a private limited company in China are the highest in the world (Wagle et al., 2000). Li Yining (cited in Zheng and Yang, 2009: 13) described the restrictions facing the private enterprise as a 'glass door' which was holding entrants back. Officials of the National Development and Reform Commission had said that promoting non-state sector growth did not mean that private enterprises were to be encouraged, supported and developed independently, but that they should be taken into consideration within the context of improving the socialist market economy system (ibid.:14). Despite these limitations, the private sector has outpaced the state sector and the collectively owned TVEs. This has led to a significant shift in the composition of industrial output. Until 1990, SOEs produced almost 90 per cent of the gross industrial output. In 2004, industrial value of SOEs above designated size declined to 35 per cent of the industrial value added and other types of enterprises produced 65 per cent (Lin and Song, 2007).

As a result of states discriminatory policies, many private enterprises chose to put on a 'red cap' or a 'red hat' by being affiliated to SOEs or collective units which allowed them to register as publicly owned or collective firms to enjoy the benefits that accrue to these enterprises (Haggard and Huang, 2008). Many resourceful private enterprises have converted to FIEs by registering overseas before coming back to compete with SOEs and real FIEs in their home market (Zheng and Yang, 2009). Thus, SOEs continue to be significant players in the Chinese economy and the growth of mixed property forms that maintain central or local government ownership and control has far outstripped the growth of private firms (opcit.).

Steps have been taken by private enterprises to become globally competitive and efficient. The family oriented management style has been further integrated into an expert based management style. A large number of professional and technical workers have entered private enterprises enhancing the quality of mangers and ordinary employees. The private sector has optimised its industrial structure and has expanded into heavy industry, chemical industries and infrastructure fields. Their level of technology is increasing and product quality is improving. As and when restrictions to market access are relaxed, their share in these industries will increase. The innovation ability of enterprises is constantly improving which is expected to result in technologies and products with proprietary intellectual property rights (Zheng and Yang, 2009). The Chinese government under the leadership of Hu Jintao and Wen Jiabao has sought to improve the business environment for the private sector like property rights, security for private investors and more equal treatment between domestic private firms and FIEs in the sectors in which they can enter and invest (Haggard and Huang, 2008). Despite these measures, Chinese private enterprises have a long way to go before they can become competitive with global brand names or become large scale enterprises to acquire corporations across the globe like the private enterprises in India.

Table 4.9 provides a breakdown of the list of Chinese companies in the Fortune 500 from 2005-2012. It shows that the number of Chinese enterprises in the Fortune 500 has increased more than four times from 16 in 2005 to 73 in 2012, and the rankings of the Chinese enterprises has improved at a fast pace. The list is

Table 4.9: List of Chinese corporations in the Fortune 500 from 2005-2012

Company	Ownership	Sector	Rank in Year							
			2005	2006	2007	2008	2009	2010	2011	2012
SINOPEC Group	SOE	Oil and Gas	31	23	17	16	9	7	5	5
CNPC	SOE	Oil and Gas	46	39	24	25	13	10	6	6
State Grid	SOE	Power	40	32	29	24	15	8	7	7
Industrial and Commercial Bank of China	SOE	Banking	229	199	170	133	92	87	77	54
China Construction Bank	SOE	Banking	315	277	230	171	125	116	108	77
China Mobile Communications	Private (Hong Kong)	Telecommunications	224	202	180	148	99	77	87	81
Agricultural Bank of China	SOE	Banking	397	377	277	223	155	141	127	84
Noble Group	Private (Hong Kong)	Diversified	-	-	-	349	218	242	139	91
Bank of China	SOE	Banking	339	255	215	187	145	143	132	93
China State Construction Engineering	SOE	Construction	-	486	396	385	392	187	147	100
CNOOC	SOE	Oil and Gas	-	-	469	409	318	252	162	101
China Railway Construction	SOE	Construction	-	485	384		252	133	105	111
China Railway Group	SOE	Construction	-	441	342	341	242	137	95	112
Sinochem Group	SOE	Petrochemicals	287	304	299	257	170	203	168	113
China Life Insurance	SOE	Finance	212	217	192	159	133	118	113	129
SAIC Motors	SOE	Automobiles	-	475	402	373	359	223	151	130
Dongfeng Motor Group	SOE	Automobiles	-	-	-	-		182	145	142
China Southern Power Grid	SOE	Power	316	266	237	226	185	156	149	152
China FAW Group	SOE	Automobiles	448	470	385	303	385	258	197	165
China Minerals	SOE	Mining	-	-	-	-	-	-	-	169
CITIC Group	SOE	Finance	-	-	-		415	254	221	194
Baosteel Group	SOE	Iron and Steel	309	296	307	259	220	276	212	197
China North Industries Group	SOE	Aerospace and Defence	-	-	-	-	-	348	250	205
China Communications Construction	SOE	Infrastructure/ Construction	-	-	-	426	341	224	211	216
China Telecommunications	SOE	Telecommunications	262	279	275	288	263	204	222	221
China Minmetals	SOE	Mining	-	-	435	412	331	332	229	-
China Natural Resources	SOE	Mining	-	-	-	-	-			233
Shenhua Group	SOE	Mining	-	-	-	-	-	356	293	234
China South Industries Group	SOE	Manufacturing	-	-	-	-	428	275	227	238

Ping An Insurance	SOE	Finance	-	-	-	-	-	383	328	242
China Huaneng Group	SOE	Power	-	-	-	-	425	313	276	246
Aviation Industry Corp. of China	SOE	Aviation	-	-	-	-	426	330	311	250
China Post Group	SOE	Postal Services	-	-	-	-	-	-	343	258
HeBei Iron & Steel Group	SOE	Iron and Steel	-	-	-	-	375	314	279	269
Jardine Matheson	Private (Hong Kong)	Diversified	-	-	457	437	411	382	320	275
China Metallurgical Group	SOE	Diversified	-	-	-	480	380	315	297	280
People's Insurance Co. of China	SOE	Finance	-	-	-	-	-	371	289	292
Shougang Group	SOE	Iron and Steel	-	-	-	-	-	-	326	295
Aluminium Corp. of China	SOE	Mining/Metals	-	-	-	476	499	436	331	298
China National Aviation Fuel Group	SOE	Logistics/Transportation	-	-	-	-	-		431	318
Wuhan Iron & Steel	SOE	Iron and Steel	-	-	-	-	-	428	341	321
Bank of Communications	SOE	Finance	-	-	-	-	494	440	398	326
China Resources	SOE	Diversified	-	-	-	-	-	395	346	
Jizhong Energy Group	SOE	Mining	-	-	-	-	-		458	330
China United Network Communications	SOE	Telecommunications	-	-	-	-	419	368	371	333
China Guodian	SOE	Power	-	-	-	-	-	477	405	341
Jiangsu Shagang Group	Private/SEZ	Iron and Steel	-	-	-	-	444	415	367	346
China Railway Materials	SOE	Diversified	-	-	-	-	-		430	349
Huawei Investment & Holding	Private/SEZ	Telecommunications	-	-	-	-	-	397	352	351
Hutchison Whampoa	Private (Hong Kong)		347	259	290	286	281	302	362	362
China National Building Materials Group	SOE	Building Materials	-	-	-	-	-	-	485	365
Sinosteel	SOE	Iron and Steel	-	--	-	-	372	352	354	-
Sinomach	SOE	Manufacturing	-	-	-	-	-	-	435	367
China Datang	SOE	Power	-	-	-	-	-	412	375	369
Lenovo Group	SOE	Electronics/Computers	-	-	-	499	-	-	450	370
China Ocean Shipping	SOE	Logistics	-	-	488	405	327	-	399	384
Power China	SOE	Power	-	-	-	-	-	-	-	390
COFCO	SOE	Food Processing	434	463	405	398	335	312	366	393
Henan Coal & Chemical	SOE	Mining	-	-	-	-	-	-	446	397
ChemChina	SOE	Chemicals	-	-	-	-	-	-	475	402
Tewoo Group	SOE	Diversified	-	-	-	-	-	-	-	416
China Electronics Shenzhen Company	SOE	Manufacturing	-	-	-	-	-	-	408	425

Zhejiang Materials Industry Group	SOE	Logistics	-	-	-	-	-	-	484	426
China Huadian	SOE	Power	-	-	-	-	-	-	-	433
China Shipbuilding Industry	SOE	Shipbuilding	-	-	-	-	-	-	463	434
Shandong Weiqiao Pioneering Group	SOE	Textiles	-	-	-	-	-	-	-	440
Shanxi Coal Transportation & Sales Group	SOE	Logistics	-	-	-	-	-	-	-	447
China Pacific Insurance (Group)	SOE	Diversified	-	-	-	-	-	-	467	450
China Power Investment	SOE	Power	-	-	-	-	--	-	-	451
Shandong Energy Group	SOE	Mining	-	-	-	-	-	-	-	460
Ansteel Group	SOE	Iron And Steel	-	-	-	-	-	-	-	462
Zhejiang Geely Holding Group	Private/non-state	Automobiles	-	-	-	-	-	-	-	475
Greenland Holding Group	SOE	Real Estate	-	-	-	-	-	-	-	483
Xinxing Cathay International Group	SOE	Diversified	-	-	-	-	-	-	-	484
Kailuan Group	SOE	Mining	-	-	-	-	-	-	-	490
China Merchants Bank	SOE	Banking	-	-	-	-	-	-	-	498
Total			16	20	24	29	37	46	61	73

Source: Compiled from Fortune Global 500, 2005 -2012

dominated by SOEs especially large SOEs focusing on key and strategic industries like banking and finance, oil and gas, iron and steel, mining, infrastructure, telecommunications, power and energy and heavy industries like automobiles, shipping and aviation. From 2005-2012, only seven private enterprises are in the list of Fortune 500. Out of the seven, four are based in Hong Kong and the remaining three are based in the SEZs in China. As mentioned above, privatisation was limited to the SEZs till the late 1990's. The private enterprises figured in the list after 2008. The Jiangsu Shagang Group made it to the list in 2009, the Huawei Investment & Holding in 2010 and the Zhejiang Geely Holding Group figured in the list for the first time in 2012.

In similar vein, the MNCs from China are dominated by SOEs (Larcon, 2009a). The 10 Chinese companies listed in the top 100 non-financial multinational enterprises from developing countries are SOEs or state controlled enterprises. Non-governmental companies like Huawei Technologies and Wanxiang have followed SOEs in their internalisation process but they are much smaller in size relative to the SOEs (Li, 2009b). Acquisitions by Chinese companies are a part of the government's 'go global' strategy to boost investment abroad. China has slowly started to invest abroad and this has been carefully controlled and encouraged by Beijing (opcit.). TCL Corporation, a SOE controls the venerable Radio Corporation of America (RCA) brand. Another SOE, Lenovo Group Limited, China's largest maker of computers acquired

IBMs PC business in 2004. Haier, a SOE, the second largest white goods maker in the world failed in its bid to acquire Maytag Corporation. Similarly, CNOOC riled the US government before it withdrew its $18.5 billion bid for UNOCAL Corporation. Exploits of other major SOEs like Baosteel, ChemChina, Sinomach, China Netcom, ZTE and others are well documented (Engardio, 2007).

Huang (2003) opines that government support for SOEs has resulted in China's failure to create globally competitive firms. Chinese private enterprises especially small and medium sized enterprises face administrative difficulties in developing the internationalisation process compared to the SOEs (Li, 2009b). This is not to say that Chinese private sector enterprises have no foreign acquisitions. For instance, Zhejiang Geely Holding Group, a private enterprise headquartered in Hangzhou, acquired Volvo in 2010 (Reed and Ward, 2010). Similarly, Jiangsu Shagang Group, the largest steel manufacturing privately owned company in China acquired the Dortmund-Horde plant from German industrial giant ThyssenKrupp for 30 million euros (Diao, 2007). However, the government policy is changing to create the same conditions for all business enterprises (Li, 2009b).

There is a wide consensus that the emergence of the Chinese MNCs can be attributed to the role of the state because the SOEs have explicit or implicit backing from Beijing. Despite the coddling from Beijing, the Chinese SOEs have not yet matured into true world beaters (Engardio, 2007) although there are some exceptions (Li, 2009a; Economist, 2012). The CCP has provided protection from foreign competition and encouragement to the SOEs to consolidate in important industries. According to an independent Chinese study, majority of the SOEs would incur losses if it was not for the government's grants and hidden subsidies. SOEs hardly pay any dividends back to the government. The money is reinvested into SOEs rather than allocating it more efficiently. Consequently, it reinforces the strength of the SOEs and the fortunes of their bosses, and political and economic reforms have been opposed and stymied by these vested interests (Economist, 2012).

Due to the intense domestic competition where rivals cut prices relentlessly and also competition from foreign firms, Chinese firms often venture out of China from a position of weakness rather than strength (Engardio, 2007). According to Darrell Rigby, partner at consulting firm Bain and Co. (cited in Engardio, 2007:105), "The management tools the Chinese companies used to become the world's leading factory are not the same as those that they will need to lead global innovation. …. That is one of the reasons Lenovo insisted that IBM executives stay on the board after it acquired IBMs PC business."

According to McKinsey &Co., Chinese companies lack executives with international experience. China has 5000 executives with international experience but will need 75000 in the next five years (Engardio, 2007). According to Yue (2012), "Indigenous innovation has achieved some progress, but it is far from successful partly due to policy incoherence, and partly due to the intensifying liberalisation pressures from China's main trading partners. Economic growth alone is by no means the hard evidence of China's rise in any meaningful way. Globalisation did not make China any closer to an emerging industrial power. The prospect of catch-up remains remote."

The Indian case is quite the opposite where the domestic firms invest abroad from a position of strength (Kumar et al., 2009). Financial data of 340 publicly listed Indian companies during the period 1999 to 2003 from Standard and Poor's (S&Ps) Compustat indicates that Indian enterprises - barring a few exceptions – have performed much better vis-à-vis Chinese businesses in two areas: returns on investment and return on equity. This is because Indian businesses have to respond to market pressures. Despite the fact that the Indian economy is heavily regulated, it is more or less a well-functioning market economy. On the other hand, China is not a completely free market economy because the economy is still dominated by colossal SOEs (Engardio, 2007). It is for this reason that the Chinese government wants the Indian private enterprises to participate in the privatisation of China's SOEs (Chandran, 2006).

Conclusion

China and India are two ancient civilisations with a long history. Since the two countries became independent, the relations between the two countries have oscillated: reaching the peak, hitting the nadir, prospects of good relations marred by unwanted and eventful occurrences, hostility, suspicion and containment amid ever increasing trade and commerce.

China and India followed different economic and political paths to achieve rapid economic growth after independence. This resulted in different political economies and growth trajectories in the two countries. China was dominated by large scale SOEs and private sector was almost absent in the pre-reform period. India on the other hand was characterised by a mixed economy with the public sector comprising SOEs operating in the key and heavy industries while consumer goods sector especially the Fast Moving Consumer Goods industry was in the hands of the private sector.

As a result, the reforms adopted by the two countries were also different and led to different rates of economic growth. China initiated economic reforms in 1979 and achieved phenomenal growth rates. India undertook economic reforms in 1991. The difference in the political economy and economic reforms undertaken in India and China also led to a difference in the industrial structure in the two countries. Economic reforms in India led to the emergence of a vibrant private sector with global brand names. The private sector operates in tandem with the public sector comprising SOEs in almost all sectors of the economy. Economic reforms in China led to the emergence of gargantuan SOEs which dominate the domestic economy. Although privatisation of SOEs was initiated in the 1990's, only the small and medium size SOEs were privatised.

Since 1979, the Chinese government embarked on a conscious policy to protect, nurture and increase the size and power of the SOEs to the detriment of the small and medium scale enterprises and the private sector. The Chinese government evolved the 'go global policy' in the new millennium to increase the presence, scale and operations of the SOEs so that they can become the 'shining armour' not only in China abut also globally. As

a result, the number of Chinese SOEs featuring in the Fortune 500 Global rankings has increased steadily in the last 5-7 years. Since the beginning of the new millennium, China has become a rising power with great economic, military and political stature. It is the second largest economy in the world and according to some recent estimates will surpass the US by 2017.

Since 1991, an effort has been made by the GOI to increase the competitiveness of the Indian SOEs. Policy measures were also introduced to privatise the SOEs. However, increased liberalisation, privatisation and globalisation proved a boon for the private sector. Unlike China, Indian private enterprise is the flag bearer not only in India but also globally. Indian private sector is famous for its global brand names. India lags China by at least a decade in economic and military parlance. With respect to political power, the permanent membership of the UNSC alleviates China's status as a GP relative to India. The difference in the political economy and the difference in the relative power of India and China are also reflected in the oil sector in India and China which is discussed in the next chapter.

Chapter 5

Introduction

Following from Chapter 4, the purpose of the chapter is to establish first, the difference in the political economy of India and China or the intervening variable and the difference in the relative power of India and China or the independent variable as discussed in Chapter 3, explain the difference in how India and China mobilise oil in the oil industry in West Africa. It illustrates that the Chinese SOEs are active in the oil industry in West Africa. India on the other hand is represented by SOEs and/or private enterprises. This mirrors the different political economies of India and China. Second, it demonstrates that Chinese NOCs have greater economic power and financial strength relative to Indian oil companies and receive greater diplomatic and political support from the Chinese state which the GOI cannot match. This mirrors China‘s greater economic and political prowess relative to India.

Section I provides a brief overview of the different sectors in the global oil and gas industry and the different kind of companies which operate in this industry. Section II discusses the oil and gas sector in India - the upstream and the downstream sectors and the companies which operate in these sectors. It highlights the fact that the oil industry in India in both sectors is dominated by SOEs although private sector is also present. IOCs also operate in India. They have entered into joint ventures with SOEs and/or the private sector companies. Section III examines in detail the companies operating in the upstream sector in India. It also discusses their E&P operations and their acquisition of assets in India and abroad. Section IV explores the oil and gas industry in China - the upstream and the downstream sectors and the companies which operate in the industry. It brings to fore that the oil and gas sector in China comprises primarily of SOEs. The SOEs have entered into joint ventures with some IOCs. Section V discusses in detail the operations of the SOEs in the upstream sector globally and in China. Section VI provides a comparative perceptive of the Indian and Chinese companies. It incorporates opinions and perspectives from industry experts and officials of Indian oil companies to gauge the difference in the political power and financial muscle of the oil companies from India and China.

Section I

There are three major sectors in the oil and gas industry: upstream, midstream and downstream. The upstream industry discovers and produces crude oil and natural gas. It is generally referred to as the E&P

sector.[17] The upstream sector comprises all the activities that are undertaken in the field like acquiring land and mineral rights, conducting public involvement, engineering and planning of servicing and drilling wells, fracturing and perforating wells, supplies, acquiring land and mineral rights, conducting public involvement, identifying prospects, shooting seismic surveys, cementing, drilling fluids and equipment and others.[18]

The midstream sector undertakes activities like storing, processing, marketing and transporting commodities like natural gas, sulphur and oil and natural gas liquids (NGLs) like butane, propane and ethane. It serves as an important link between the consumers and producers in far off petroleum producing areas. The downstream sector on the other hand includes natural gas distribution companies, petroleum products distributors, oil refineries, retail outlets and petrochemical plants.[19] It provides numerous products to the consumers like natural gas, gasoline or petrol, jet fuel, lubricants, fertilizers, pharmaceuticals, pesticides, plastics, heating oil and diesel among others. In industrial jargon, midstream activities are generally included in the downstream sector.[20] The thesis adheres to this classification. Thus the oil industry is divided into two main sectors: upstream and downstream.

There are four different types of companies in the oil and gas sector. First, companies which produce crude oil. They are further classified into two categories: NOCs and integrated MNCs or IOCs. Some of the biggest NOCs are Saudi Aramco, Abu Dhabi National Oil Company, Kuwait Petroleum Corporation, Petronas, Sonangol, CNPC, Sinopec, CNOOC, Petro China, ONGC and Gazprom among others. Some oil producing countries have only one NOC whereas others have more than one. All NOCS do not play the same role for their respective countries. Some NOCs are actively engaged in crude oil selling business, refining business and are in control of the sale and destination of their cargo. They allocate the quota among their buyers and also declare their price which is called the Official Selling Price (OSP) (Patra, 2004).

There are some NOCs whose main role is to set the OSP and ensure revenue for their respective country. These NOCs contract the marketing of their crude wholly or partly to some IOCs. For instance, Egyptian General Petroleum Corporation has given British Petroleum (BP) the right to market its crude 'Suez Mix' while retaining the right with BP to fix the OSP for the crude. Similarly, Yemen Oil and Gas Company has contracted Nexen. There is another kind of NOC like Petronas in Malaysia which undertakes diverse activities like E&P, setting OSP, marketing crude types, trade in crudes of country's origin, refining and domestic marketing of products. A recent phenomenon is the movement of NOCs outside their home countries and investing internationally both in the upstream and downstream sectors. NOCs which have invested in the downstream sector include Saudi Aramco, Statoil of Norway, Petroleos de Venezuela, Pertamina of Indonesia, Pemex of Mexico, Petronas, Petrobras of Brazil among others (Patra, 2004). NOCs

[17] "What is the upstream oil & gas industry?", Petroleum Services Information of Canada http://www.psac.ca/industry-info/101-what-is-the-upstream-oil-a-gas-industry (Accessed on August 2 2012)
[18] "Upstream industry", Petroleum Services Information of Canada http://oilandgasinfo.ca/our-oil-and-gas-industry/how-does-the-oil-and-gas-industry-work/upstream-industry (Accessed on August 2 2012)
[19] Ibid. 17
[20] "The Industry Handbook: Oil Services Industry", Investopedia, http://www.investopedia.com/features/industryhandbook/oil_services.asp#axzz22Owq9FaT (Accessed on August 2 2012)

which have invested in the upstream sector include ONGC of India, CNPC, Sinopec, Petrochina and CNOOC from China and Petrobras from Brazil to mention a few.

The second type of oil producing company and the second category is the IOCs. The IOCs have integrated operations namely E&P, refining, marketing and trading. They are very powerful operators in the oil markets because of their scale of operations, volume of transactions and financial strength. They are few in number like Exxon Mobil, Shell, BP, Chevron Texaco, Total, Conoco Phillips and Eni. They play multiple roles in the crude oil market. They are suppliers of crude oil because they bring equity crude oil in the market through E&P, buy crude oil for their own refineries and their trading wing buys and sells crude oil in the markets for profit (Patra, 2004). The extent of their operations, size and strength can be gauged by the fact that the above mentioned IOCs figure in the top 35 list of companies in the Fortune 500 global ranking of the largest corporations. These seven companies are also termed as 'Super Majors'.[21] Table 5.1 provides the ranking of the seven major IOCs from 2005-2012. The rank of these IOCs has been steadily improving so much so that the seven IOCs are amongst the top 17 corporations in the world in 2012. Moreover, Shell, Exxon Mobil and BP have figured in the top 4 for the last seven years.

Table 5.1: Global Fortune 500 ranking of the seven major IOCs from 2005-2012

IOCs	Rank in Year							
	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Shell	4	3	2	2	1	2	2	1
Exxon Mobil	3	1	3	3	2	3	3	2
BP	2	4	4	4	4	4	4	4
Chevron	11	6	7	6	5	11	10	8
Total	10	12	10	8	6	14	11	11
Conoco Phillips	12	10	9	10	7	17	12	9
Eni	33	27	26	27	17	24	23	17

Source: Compiled from Fortune Global 500, 2005 -2012

There is also a group of integrated IOCs which are smaller in size relative to the big seven and with less geographical reach. It consists of companies like Amerada Hess, Diamond Sharmock, Marathon, Occidental, Unocal and Ultramar. There are yet smaller companies most of whom specialise in single segment and are usually referred to as 'Independents'. They include Anadarko, Ramco, Saga, and Talisman among others (Patra, 2004).

The third category of companies in the oil market is trading companies. They play an intermediary role between the buyer and seller across the world and make profit for themselves by taking advantage of price movements. The last 15 years has seen the emergence of a new kind of trader: the Wall Street refiners. These

[21] Refer to Patra (2004), pg.176-178 for the 'Super Major Theory'.

are investment banks which have set up oil trading arms to deal in oil derivatives in a way similar to the way they deal with other financial instruments (Patra, 2004).

The fourth category is the refiners. They are users of crude oil and are the ultimate buyers. In certain cases, they can also be sellers of crude oil which they have bought. They resell crude oil for three reasons: first, to make profit due to price movements; second, to swap the crude oil, inter grade or inter month; and third, due to unscheduled changes in demand pattern. Refiners are not only interested in the price they pay for crude oil but also in the value of the crude they realise from the refined products that are produced from crude oil. Thus, a particular type of crude oil has an economic value for a particular refinery and some refineries specialise in the refining of a particular kind of crude (Patra, 2004).

Section II

The oil and gas industry in India is one of the six core industries and has extremely important forward linkages with the rest of the economy (FICCI, 2010). As discussed in Chapter 4, after independence in 1947, India adopted a 'mixed economy' system to attain the 'commanding heights of the economy'. Before 1947, the oil industry was monopolised by private companies led by US companies Caltex and Standard-Vacuum, and Burmah-Shell (BS), a British owned oil company. According to IPR 1948, the oil industry was reserved and would be the domain of the SOEs. It also stipulated that unless special permission was given all new units should be owned by the government. Consequently, Indian Oil Company, OIL and ONGC were formed by the GOI in 1961. In September 1964, IOCL was formed by merging Indian Oil Company and Indian Refineries Ltd.. IOCL was made responsible for the downstream sector i.e. marketing and refining, and ONGC was in charge of the majority of the upstream sector i.e. E&P and capacity marketing.[22]

During the premiership of Indira Gandhi, the Indian economy experienced a wave of nationalisation in the late 1960's and the early 1970's. Around 1973, when the world witnessed the first oil shock, the Indian oil industry was passing through the phase of nationalisation which culminated in the formation of Hindustan Petroleum Corporation Limited (HPCL) and Bharat Petroleum Corporation Limited (BPCL). In 1976, the GOI acquired the Caltex refinery in Vizagapatnam and the BS refinery in Bombay. The BS refinery became BPCL's primary asset, and in March 1978, the Caltex Oil Refining (India) Ltd. was merged with HPCL. On October 1 1976, the GOI acquired Esso's 26 per cent stake and HPCL became a wholly owned SOE. Burmah Oil's remaining share in the Assam Oil Company was nationalised on October 14 1981 and its marketing and refining operations were acquired by IOCL. Thus six out of the 12 refineries in India

[22] 'Indian Oil Corporation Ltd. History', http://www.fundinguniverse.com/company-histories/indian-oil-corporation-ltd-history/ (Accessed Aug 2 2012)

belonged to IOCL. The other half belonged to other SOEs.[23] Consequently, by 1981, the oil and gas industry comprised only of SOEs (Patra, 2004).

The turning point for the oil and gas industry came in 1991 when India embarked on the path of economic reforms, liberalization and globalisation. The Indian oil industry was integrated into the world oil market. The oil market graduated from conditions of oligopoly to a state of monopolistic competition with the entry of the private sector. There were consolidations and mergers within the SOEs operating in the industry and companies underwent various shades of restructuring (Behuria, 2004).

Till 1993, the entire oil and gas industry was subjected to extensive regulation and controls. Both the upstream and the downstream sectors were centrally planned. The process of integrating the oil industry with the world oil market began in February 1993 when the GOI allowed the private sector to import and sell kerosene and Liquefied Petroleum Gas (LPG). Licenses were granted to private companies to set up refineries and foreign companies were allowed to invest in the equities of refineries. On the eve of total de-regulation, by March 2001, a restructuring exercise of the NOCs was undertaken. Stand-alone or independent refineries were merged with integrated refineries and marketing companies by divesting the government shareholding in these refineries. Thus, Chennai Petroleum Corporation Limited (CPCL) and Bongaigon Refinery and Petrochemical Limited were made subsidiaries of IOCL. Kochi Refineries and Numaligarh Refineries were made subsidiaries of BPCL. IBP Limited, the stand alone marketing SOE was sold to IOCL through competitive bidding by the Ministry of Disinvestment (Patra, 2004). The GOI disinvested its stake in SOEs like ONGC, GAIL, BPCL and HPCL from 1994-2005 and there are further plans to disinvest in ONGC and IOCL (BMI, 2012a).

From April 2002, the GOI allowed nine private companies to operate in the downstream sector which led to a paradigm shift in retail selling. The GOI introduced policies aimed at increasing domestic oil E&P. Indian basins were opened up and offered to private and foreign companies for investment. New Exploration Licensing Policy I (NELP-I) was announced in 1997 and NELP-II in 2000 to attract private and foreign investment in the E&P sector in India (Patra, 2004). NELP-II permitted foreign enterprises to have 100 per cent equity ownership in oil and gas projects (BMI, 2012a). Since then, seven more licensing rounds have been introduced and NELP-IX was launched on October 15 2010. During the licence round, in excess of 260 blocks were allocated. It is estimated that in the near future, four more licence rounds will be undertaken and investors will be allowed to bid for assets (PWC, 2012).

Table 5.2 provides a breakdown of the SOEs and private enterprises operating in the oil and gas industry in India. The table shows that the oil and gas industry is dominated by SOEs. SOEs are still the dominate players in the E&P sector and have the largest acreage despite the increasing role of the private enterprises (PWC, 2012). ONGC is the largest upstream-oriented oil company, dominating the E&P segment and accounting for roughly three-quarters of the country's oil output. OIL and IOCL also participate in the upstream sector. Domestic private companies and IOCs also operate in the upstream segment. Privately

[23] Ibid. 22

Table 5.2: SOEs and private enterprises operating in the oil and gas industry in India since 1991

Company	Ownership	Sector
Aban Offshore	Private with foreign equity stake	Upstream
Cairn India (part of Vedanta Group)	Private with foreign equity stake	Upstream
Essar Energy (Essar Oil is a subsidiary of Essar Energy and both are a part of Essar Group)	Private Conglomerate	Upstream and downstream
Gujarat State Petroleum Corporation	SOE[a]	Upstream
OIL	SOE	Upstream
ONGC and OVL	SOE	Upstream
RIL (Part of Reliance Group)	Private Conglomerate	Upstream and Downstream
Tata Petrodyne (Part of Tata Group)	Private Conglomerate	Upstream
IOCL	SOE	Upstream and Downstream
Hindustan Oil Exploration Company Limited	Private	Upstream
Shiv-Vani Universal	Private	Downstream
Reliance Petroleum (Subsidiary of RIL)	Private Conglomerate	Downstream
GAIL (India) Ltd.	SOE	Downstream
BPCL	SOE	Downstream
Bongaigaon Refinery and Petrochemicals Limited (Subsidiary of IOCL)	SOE	Downstream
Castrol India	Private- Part of BP Group	Downstream
CPCL (Subsidiary of IOCL)	SOE	Downstream
Gujarat Gas Company	SOE	Downstream
HPCL	SOE	Downstream
Indraprastha Gas	SOE	Downstream
Mahanagar Gas	Joint venture between GAIL, BP and state government of Maharashtra	Downstream
Mangalore Refinery and Petrochemicals Limited (Subsidiary of ONGC)	SOE	Downstream
Petronet LNG	SOE	Downstream
Reliance Natural Resources Limited (Subsidiary of Reliance Anil Dhirubhai Ambani Group)	Private Conglomerate	Downstream
IBP (merged subsidiary of IOC)	SOE	Downstream
South Asia LPG Company Pvt Ltd	Joint Venture between HPCL and Total	Downstream

Source: Compiled from India: Oil and Gas Report Q3 2012, Part of Business Monitor International's Industry Report & Forecasts Series, Business Monitor International 2012

a It is owned by the state government of Gujarat. It is the only SOE to be owned by a state government rather than the GOI.

owned domestic conglomerate RIL participates in the Indian exploration and refining segments, with BP set to be a key partner in domestic upstream activities (BMI, 2012a).

Experts assert that onshore and shallow basins have been explored a lot in India, but the future of the oil industry is in the deep water and ultra-deep water oil and gas resources. This will allow India to meet its ever increasing energy needs. However, Indian NOCs are hampered by the lack of technology and experience and financial resources to carry E&P activities in these areas. This provides opportunities for IOCs with the requisite financial strength and monetary resources to enter into joint ventures with Indian NOCs and private enterprises to develop such areas (PWC, 2012).The IOCs have entered into joint ventures with both SOEs and private enterprises. Despite the opportunities and NELPs, IOCs are active on a relatively small scale with UK-based Cairn Energy, through its Mumbai-listed Cairn India subsidiary, the most successful foreign upstream investor. In January 2012, the Cabinet Committee on Economic Affairs (CCEA) approved Vedanta Resources bid to purchase Cairn's Indian arm for $8.5 billion. The three key upstream players in India are ONGC, OIL and Cairn India (BMI, 2012a).

India's downstream segment is also dominated by SOEs, although private companies have increased their market share. IOCL is the largest state-controlled downstream company operating ten of India's 19 refineries (20 if the Jamnagar complex is counted as two plants) and controls approximately 75 per cent of the domestic oil transportation network. RIL started the first privately owned refinery in India in 1999 and has gained a substantial share of the market (BMI, 2012a). The refining sector features a number of domestic companies, namely HPCL, BPCL, Chennai, Kochi, IOCL, RIL and Essar Energy. Fuel distribution has traditionally been handled by IOCL, HPCL and BPCL. However, IOCL, RIL, ONGC and other domestic companies such as Essar have been building retail networks (BMI, 2012a).

Several IOCs are present in the Indian lubricants market, which was deregulated several years ago. Shell, ExxonMobil and Caltex play host to over a third of the market between them. While these operations are relatively small, they have allowed the majors to study the Indian market and establish brand recognition. Castrol India, a subsidiary of BP, has a stronger lubricants market position than any of the leading IOCs. The majors began to obtain government approval for the establishment of fuels retail networks in 2004[24] (BMI, 2012a).

Diversification of sources of crude procurement has been attempted to meet the soaring domestic demand (discussed in chapter 2) and both the SOEs and private enterprises have been successful in this endeavour. For instance, OVL, IOCL, OIL and RIL have increased their efforts to secure crude acreage and equity in overseas oil fields in Indonesia, Vietnam, Myanmar, Sudan, Angola, Nigeria, Central Asia, Sakhalin, Iraq, Iran, Libya, Gabon and other places (BMI, 2012a).

The GOI granted ONGC and IOCL 'Maharatna' (Maharatna or 'mega jewel' status is given to the country's largest SOEs) status in November 2010 to increase the SOEs competitiveness in acquiring international oil and gas assets, particularly as India increasingly sees itself in direct competition with China. The 'maharatna' status will provide ONGC and IOCL five times more resources to spend on acquisitions, and will give more flexibility in negotiations and in adopting a more streamlined decision making process. Indian oil companies have repeatedly found themselves outspent particularly by China's large NOCs in their search for international assets. According to Bloomberg, Chinese state owned oil companies spent $32 billion acquiring energy assets in 2009 compared with $2.1 billion acquisition by ONGC (BMI, 2012a).

OVL has struggled to compete with China's NOCs, particularly in the race to secure African energy assets. With the aim of narrowing the gap with Chinese companies, the GOI directed ONGC and OIL to acquire one major international asset in every FY starting April 2010. Furthermore, the Ministry of Petroleum has formally asked the Finance Ministry to create a sovereign wealth fund (SWF) specifically for the purpose of overseas energy asset acquisitions, utilising funds from the country's foreign-exchange reserves. According to leading Indian daily, the Telegraph, SWF would total around $20 billion. Moreover, the newspaper cited

[24] For a brief description of the upstream and downstream operations of IOCs like BP, Shell, BG Group, Total, Eni and Oilex, refer to "India: Oil and Gas Report Q3 2012", BMI 2012, pp. 90-93.

unnamed sources from the oil ministry stating that China's SWF, China Investment Corporation (CIC) would be studied carefully if the decision is taken to establish a SWF (BMI, 2012a).

However, analysts argue that although a SWF for energy could help Indian companies acquire assets overseas, it would not bridge the gap between Indian and Chinese energy firms. China set up CIC on the back of foreign currency reserves of approximately $3 trillion that dwarf those held by India. CIC's assets alone are currently greater than India's entire foreign currency reserves, making it impossible for India to create an SWF on the same scale. Thus, while a $20 billion SWF would allow Indian companies to compete more effectively abroad, especially when scouting smaller targets; it would not enable the Indian NOCs to compete with Chinese NOCs (BMI, 2012a). The E&P operations and the acquisition of assets of ONGC (and OVL), IOCL, OIL, RIL, and Essar Energy globally and in India, are discussed in greater detail in Section III.

Section III

This section discusses the E&P operations and acquisition of assets of three Indian SOEs and two Indian private enterprises globally and in India. The SOEs are ONGC (and OVL), IOCL and OIL, and the private enterprises are RIL and Essar Energy.

ONGC (and OVL)

ONGC was established on August 14 1956 as a statutory body under the ONGC Act with the objective to develop petroleum resources and for the sale of petroleum products. Under the aegis of the Companies Act, 1956, ONGC was transformed into a Public Limited Company and from February 1 1994, it was renamed as the Oil and Natural Gas Corporation Limited (FICCI, 2010). ONGC has headquarters in Dehradun in India. It is one of the largest Asian oil and gas E&P corporations in the world. It was ranked 357 in the Fortune Global 500 list of the world's largest corporations for 2012 (Table 5.3). ONGC was ranked 21 amongst the Top 250 oil companies in 2010 by Platts (Table 5.4). Platts is a provider of benchmark price valuations in the physical energy markets and of energy and metals information.

ONGC is the GOI's main upstream vehicle and in an incomparable position to exploit India's upstream potential. It is the dominant acreage holder and producer of oil and gas in the country. The GOI owns 74.14 per cent of the company which accounts for approximately 61 per cent of crude oil output and 71 per cent of natural gas output in India. It has been diversifying into refining and oil distribution while attempting to build an international upstream asset base. In June 2011, ONGC released its estimate for total gas volumes at its discoveries in the deep water DWN 98/2 block in the Krishna-Godavari (KG) Basin. ONGC stated that the block holds initial in-place gas reserves of 101billion cubic meters (bcm). It believes the discoveries in

Table 5.3; List of Chinese and Indian oil companies in the Fortune 500 from 2005-2012

Company	Country	Type	Rank in Year							
			2005	2006	2007	2008	2009	2010	2011	2012
Sinopec Group	China	SOE	31	23	17	16	9	7	5	5
CNPC	China	SOE	46	39	24	25	13	10	6	6
CNOOC	China	SOE	-	-	469	409	318	252	162	101
IOCL	India	SOE	170	153	135	116	105	125	98	83
RIL	India	Private	417	342	269	206	264	175	134	99
ONGC	India	SOE	454	402	369	335	402	413	361	357

Source: Compiled from Fortune Global 500, 2005-2012

Table 5.4: Platt 2010 ranking of Chinese and Indian oil companies

Company	Country of Origin	Rank
Petrochina (subsidiary of CNPC)	China	4
Sinopec (subsidiary of China Petrochemical Corporation)	China	8
CNOOC	China	15
ONGC	India	21
RIL	India	24
IOCL	India	42
Essar Energy	India	225

Source: Compiled from Platts Top 250 Global Energy Company Rankings

the northern portion of the block are commercial. Currently, the company produces about 76 per cent of its gas from fields offshore Mumbai, on India's west coast. Any significant gas production in the KG Basin will help the company diversify its conventional gas supply sources. DWN 98/2 block is located near India's sole producing deep water gas block, KG-D6 off India's east coast (BMI, 2012a).

ONGC has struggled to raise recovery rates, maintain production and tap new discoveries. It is under considerable state pressure to enhance its performance and has set itself tough targets. India's State Bank of India (SBI) is planning to bid for a 5 per cent stake in ONGC. The GOI plans to raise a minimum of $2.5 billion through the sale of its 428 million shares in ONGC in order to control its widening fiscal deficit and advance its delayed privatisation programme. The sale will reduce the government's stake in ONGC to 69.14 per cent (BMI, 2012a). ONGC has three major strategic aims: first to improve its recovery factor; second, to intensify its exploration activities and third, to increase involvement in foreign projects via OVL. The company intends to invest $3.34 billion to increase production at its oil fields and the investment would be spread across seven schemes. ONGC has invested $2.9 billion in Improved Oil Recovery (IOR) and Enhanced Oil Recovery (EOR) techniques at 15 of its major fields (ibid.).

ONGC’s long-term goals include doubling its oil and gas reserves by 2020 and increasing its overseas production to 1.2 million boe/d by 2025 as well as strengthening its global recovery factor from 28 per cent to the global norm of 40 per cent over the next 20 years. The bulk of ONGC’s new reserves will come from

offshore and deep water fields with the company planning to invest INR20 billion in 15 redevelopment programmes. It aims to raise oil production by 15 per cent to 560,000bpd by March 2014. ONGC also aims to increase its gas output by 58 per cent to 36.5bcm annually by March 2017. It is targeting enhanced recovery from existing fields and plans to accelerate new oil and gas developments (BMI, 2012a).

On March 30 2012, ONGC signed a MoU with oil major ConocoPhillips (ONGC, 2012). Reports suggest that the transaction is said to involve the joint assessment and exploration of 19 blocks offshore India and blocks in the Andaman and Nicobar Basins. According to reports, ONGC would consider offering Conoco a stake in deep-water blocks it holds off India's eastern coast. In return, ONGC may get a slice of equity in Conoco's US shale gas assets. Such a deal could create a platform for great technical advances on the part of ONGC (BMI, 2012a).

International operations are carried out through the group's wholly owned subsidiary OVL. Hydrocarbons India Private Limited formed on March 5 1965 was renamed as OVL on June 15 1989. Since then, OVL has become the second largest E&P corporation domestically with respect to proven oil and gas reserves and oil production. The principal function of OVL is to explore oil and gas abroad. This includes acquiring oil and gas acreage, E&P, development, transport and exporting oil and gas.[25]

Presently, OVL has 30 E&P projects in 15 countries: Kazakhstan, Vietnam, Nigeria, Iraq, Colombia, Myanmar, Libya, Russia, Syria, Venezuela, Sudan, Brazil, South Sudan, Cuba and Iran.[26] OVL's operations in Nigeria are discussed in detail in Chapter 7. Table 5.5 provides a list of the countries in which India and Chinese oil companies undertake E&P activities. It has maintained a balanced portfolio of assets and has a combination of discovered, exploratory and producing assets. It is the operator and joint operator in 8 and 7 projects respectively. OVL's hydrocarbon production is ascribed to 10 assets: Brazil (BC-10), Syria (Al-Furat Project), Venezuela (San Cristobal), Russia (Sakhalin-I and Imperial), Vietnam (Block 06.1), Sudan (GNPOC), South Sudan (GPOC and SPOC/Block 5A) and Colombia (Mansarover Energy Colombia Limited). OVL's leading alliance partners are BP, Ecopetrol, Exxon, CNPC, Statoil Hydro, Eni, Petrobras, PDVSA, Petronas, Rosneft, Petro Vietnam, Shell, Repsol, Total, Sinopec and TPOC.[27]

OVL started operations outside India by undertaking a service contract in Iraq and exploration and development of two oil fields in Iran: Rostam and Raksh. In 1992, an important discovery was made by OVL in Vietnam where it struck two major free gas fields: LanTay and LanDo. This was achieved in a joint venture with Petro-Vietnam and BP. OVL acquired a 20 per cent interest in in Sakhalin-1 in Russia's Far East for approximately $2.1 billion in 2001. This was the most expensive overseas investment by any Indian corporate up till 2001. OVL also acquired Imperial Energy Corporation Plc., a UK listed company in January 2009 for approximately $2.1 billion. This allowed OVL access to E&P assets in Tomsk region of Western

[25] About OVL, Company, ONGC Videsh Limited http://www.ongcvidesh.com/Company.aspx (Accessed Aug 2 2012)
[26] For a detailed analysis of the various oil blocks, refer to Assets, ONGC Videsh Limited, http://www.ongcvidesh.com/Assets.aspx?tab=0 (Accessed August 4 2012)
[27] Ibid. 25

Siberia, Russia. An important gas discovery was made in Block A-1 in Myanmar in January 2004. OVL has a 20 per cent interest in Block A-1.[28]

The Bolivarian Republic of Venezuela government awarded a 40 per cent equity share in "Empresa Mixta" to a consortium of partners and OVL. The project will result in the development of Carabobo 1 Centro and Carabobo 1 Norte blocks situated in the Orinoco Heavy Oil Belt in Venezuela. On April 16 2011, OVL acquired a 25 per cent share in Satpayev exploration block at Astana in Kazakhstan by signing an agreement with KazMunaiGas, the Kazakh NOC.[29]

Table 5.5: E&P activities of Chinese and Indian companies globally

Company	Countries in which they operate				
	Africa	**Asia and the Pacific (except Middle East)**	**Middle-East**	**Latin America**	**North America**
CNPC	Libya, Nigeria, Sudan, Equatorial Guinea, Niger, Tunisia, Chad, Algeria, Mauritania	Azerbaijan, Kazakhstan, Turkmenistan, Russia, Myanmar, Indonesia, Mongolia, Thailand, Uzbekistan	Iran, Iraq, Oman, the UAE, Syria	Ecuador, Peru, Venezuela	Canada
PetroChina	Liberia	Australia, Kazakhstan, Iraq	-	Venezuela, Peru	Canada
Sinopec	Yemen, Nigeria, Gabon, Angola, Cameroon, Algeria	Kazakhstan, Russia, Myanmar,	Saudi Arabia, Syria,	Ecuador, Columbia, Venezuela, Trinidad and Tobago, Brazil, Argentina	US, Canada,
CNOOC Ltd.	Uganda, Ghana, Kenya, Algeria, Equatorial Guinea, Nigeria, Republic of Congo, Gabon[a]	Myanmar, Cambodia, Indonesia, Australia	Iraq, Qatar	Brazil, Argentina, Venezuela, Trinidad and Tobago	Canada, US
ONGC (OVL)	Libya, Sudan, South Sudan, Nigeria	Vietnam, Myanmar, Russia, Kazakhstan	Iraq, Iran, Syria	Cuba, Venezuela, Colombia, Brazil	-
IOCL	Libya, Nigeria, Yemen, Gabon	East Timor	Iran	Venezuela	-
OIL	Gabon, Libya, Sudan, Nigeria, Yemen	East Timor	Iran	-	-
RIL	Yemen	East Timor, Australia	Oman, Kurdistan	Peru, Colombia	US
Essar Energy	Madagascar, Nigeria	Vietnam, Indonesia	-	-	-

Source: Compiled from OVL, OIL, IOCL, RIL, Essar Energy (Essar Oil), CNPC, Sinopec, PetroChina and CNOOC.
a CNOOC will acquire a 25 per cent share from Shell in offshore exploration blocks BC9 and BCD10 (http://www.shell.com/global/aboutshell/media/news-and-media-releases/2012/upstream-deals-cnooc-and-cnpc-25072012.html - Accessed January 6 2013)

OVL's most significant asset is a 25 per cent equity stake in the Greater Nile oil project in Sudan purchased from Canada's Talisman Energy in October 2002 for $758 million. OVL has also paid $136 million to acquire 25 per cent stakes in Blocks 5A and 5B from Austria's OMV and has agreed to pay a further $125.4 million for a stake of 11 per cent in Block 3 and Block 7 from Middle Eastern investors (BMI, 2012a). OVL has embarked on a strategic objective of being the numero uno Indian player in the international E&P

[28] Ibid. 25
[29] Ibid. 25

business (ONGC, 2012b). OVL has also outlined its intention to invest approximately $1 billion during the following five years in Côte d'Ivoire's oil and gas industry.[30]

IOCL

IOCL has headquarters in New Delhi, India. According to the Fortune 500 global rankings, it is the world's 83rd largest corporation (Table 5.3). It is the national flagship oil corporation of India. It has operations encompassing the entire oil and gas industry like E&P of crude oil & gas, refining, marketing of petroleum products, marketing of petrochemicals and natural gas and pipeline transportation. It was ranked 42 by Platts in its ranking of the top 250 oil companies in the world in 2010 (Table 5.4) IOCL is India's largest partially publicly listed company by sales. IOCL and its subsidiary CPCL hold a 48 per cent market share in petroleum products, 71 per cent share in the downstream sector pipeline capacity in India and a 34.8 per cent proportion of India's refining capacity. The group has a combined capacity to refine 1.3 million bpd and owns and operates 50 per cent of India's 20 refineries. Its network of crude oil and product pipelines cover approximately 11,000km across the country. In addition to aviation fuel stations and LPG bottling plants, IOCL has 19,463 petrol and diesel filling stations and 140 bulk storage terminals and depots. The GOI owns 78.9 per cent share of IOCL and plans to divest ten per cent of its share. IOCL may further sell ten per cent of its equity. According to industry experts, the proceeds from privatisation may act as a catalyst for boosting investment (BMI, 2012a).

In E&P, IOCL's domestic portfolio includes 11 oil and gas blocks and two Coal Bed Methane (CBM) blocks. The CBM blocks comprise two blocks which are a part of the consortium under NELP-VIII: GK-OSN-2009/2 and GK-OSN-2009/1. Its foreign portfolio comprises of ten blocks in Iran, Nigeria, Yemen, Libya, Yemen and East Timor. In Yemen, IOCL formed a consortium with OIL, Medcon Energi of Indonesia and Kuwait Energy and acquired a share in two exploration blocks. In Venezuela's Carabobo heavy oil region, IOCL was also awarded Project -1 as a part of the consortium.[31] IOCL and OIL have incorporated Ind-OIL Overseas Ltd, a Special Purpose Vehicle (SPV) to acquire E&P assets abroad and increase E&P operations. IOCL and OIL also have an exploration block in Gabon and OIL is the operator. IOCL-OIL combine has also been able to acquire a share in an oil block in Nigeria (BMI, 2012a). This is discussed in detail in Chapter 7.

IOCL has an interest in the Petronet LNG consortium in Gujarat and it is the operator of the LNG terminal. It also operates abroad. It has entered into a joint venture with Petronas of Malaysia to market the LPG imported at Haldia in Eastern part of India. IOCL commenced operations in fuel retail in Sri Lanka in 2003. The retail chain comprises 100 service stations. In 2004, it started fuel retail in Mauritius and plans to create a network of 25 outlets (BMI, 2012a).

[30] Ibid. 25
[31] Forays into E&P, E&P, Indian Oil http://www.iocl.com/Aboutus/e_and_p.aspx (Accessed Aug 2 2012)

IOCL aims to realise $6 billion in revenue by 2011-2012 via vertically integrating the different sectors of the oil industry. It has moved backwards into E&P and forward into petrochemicals. It has also globalised its market operations and has diversified into natural gas. It plans to undertake huge global expansion and plans to enter into talks with Turkey to expand its presence in the country. It plans to use Turkish refineries to access the European markets (BMI, 2012a).

OIL

OIL was taken into full state ownership in 1983. It was previously part owned by the former Burmah Oil Company (now part of BP). OIL is responsible for onshore upstream oil and gas E&P, transport of oil and production of LPG (BMI, 2012a). In a recent Credit Rating and Information services of India Limited (CRISIL)-India Today survey, OIL was judged to be in the top five major SOEs and one of the top three NOCs in India. The company's upstream acreage is concentrated in North-East India where it has been active since 1959. OIL has over 100,000 square km of Petroleum Exploration Licence/Mining Licence areas for its E&P activities. The majority of its acreage is situated in North East India especially Assam and is responsible for the whole of its crude oil production and a major proportion of gas production. Ten per cent of OIL's gas production is accounted by Rajasthan.[32] OIL has achieved a high success rate of 65 per cent in drilling exploratory oil wells employing its scientific and systematic exploration methods. OIL possesses excellent support services like remote blasting units and satellite navigation and also has 2D and 3D seismic data acquisition abilities.[33]

OIL has expanded domestically as well as internationally. It has moved into 11 Indian states since 1999 and now has assets onshore in Orissa, Andaman, Rajasthan, Uttar Pradesh and Brahmaputra, and offshore in Saurashtra (BMI, 2012a). It also has exploration operations in onshore areas of Mahanadi and Ganga Valley. Additionally, it has a participating interest in NELP exploration blocks in Mumbai Deep water, Mahanadi Offshore and Mahanadi Onshore among others.[34] In 2005, the company received GOI's approval to expand its activities internationally. It now holds exploration assets in Africa (Gabon, Libya, Sudan and Nigeria), the Middle East (Yemen and Iran) and East Timor (opcit.).

In the downstream segment, the company has a 26 per cent stake in the Numaligarh refinery. It also operates a 1,432km crude oil pipeline network in the north east, which transports oil produced by OIL and ONGC to supply refineries at Numaligarh, Guwahati, Bonaigaon and Barauni, as well as a branch line to the Digboi refinery and a 660km products pipeline. The network comprises of 17 repeater stations and 10 crude oil pumping stations in West Bengal, Assam and Bihar in Eastern India. LPG production is carried out at its plant in Duliajan in Assam (BMI, 2012a).

[32] Profile, Oil India Limited http://www.oil-india.com/Profile.aspx (Accessed August 20 2012)
[33] Exploration, Oil India Limited http://www.oil-india.com/Exploration.aspx (Accessed August 20 2012)
[34] Ibid. 32

Although OIL has overseas exploration acreage, it only holds producing assets in India. In the FY 2008-2009, OIL produced an average of 69,360 bpd of oil, 2.27bcm of gas and 47,610 tonnes of LPG. The government currently owns 98.13 per cent of OIL but an Initial Public Offering (IPO) was planned for September 2009 after which GOI's share fell to 78.43 per cent. OIL set a price band of INR950-1,050 per share and expected to raise as much as INR27.8 billion ($570 million) through the IPO with the proceeds to be channelled into E&P (BMI, 2012a)

OIL's strategic focus is very much on the onshore upstream segment. OIL is targeting crude oil production of 3.95 million tonnes in FY12/13 and production is expected to reach nearly 3.9 million tonnes in FY 11/12 ending March 31 2012, exceeding its target of 3.7 million tonnes. The company stated in July 2009 that it planned to use its INR67 billion cash surplus to acquire stakes in onshore oil blocks across India as well as offshore gas blocks and marginal fields. Capital expenditure for the FY 2009-2010 was INR23.35 billion – only INR200 million of which was allocated to the downstream. Of the upstream portion, INR14.3 billion was allocated to E&P with INR4.95 billion earmarked for revamping ageing fields (BMI, 2012a)

In January 2010, OIL confirmed that it was looking to purchase producing assets abroad and singled out Africa, Latin America and Australia for potential investment. OIL had a budget of $2.47 billion for acquisitions. The announcement followed plans outlined by the company in June 2009 to buy stakes in producing fields or to acquire companies that held properties in the Middle East and Africa region at a time when assets were still relatively cheap amid the global economic crisis. The move to acquire producing assets signals a shift in the company's strategy – similar to one pursued by other Asian NOCs particularly Chinese NOCs and it is likely that there will be tough competition (BMI, 2012a).

With none of its overseas assets currently producing, OIL is eager to complete work commitments as quickly as possible with the hope of hitting commercial quantities of reserves and starting production from these assets. In order to reduce its risk exposure, OIL is not looking to expand its exploration acreage unless assets are 'very attractive, prospective and if possible bundle with a producing property', but it is specifically looking to buy in to producing assets or companies with producing assets (BMI, 2012a).

RIL

The Reliance Group was established by Dhirubhai H. Ambani. It has diversified business in the materials value chain and energy. The conglomerate's annual revenue is more than $66 billion. RIL is the energy and chemicals division of the Reliance Group. RIL is ranked 99 in the Fortune Global 500 2012 (Table 5.2) and is India's biggest private sector company.[35] RIL was ranked 24 amongst the Top 250 oil companies in 2010 by Platts (Table 5.3). The Group's activities range from petrochemicals, oil and gas, marketing and refining of petroleum, textiles, retail, telecommunications and special economic zones.[36]

[35] Reliance Industries Limited, http://www.ril.com/html/aboutus/aboutus.html (Accessed Aug 2 2012)
[36] Ibid.35

RIL operates in the upstream and the downstream sectors, and is one of the most aggressive investors in the two sectors in India. It has acreage of approximately 300,000 square km in 31 onshore and offshore blocks and is India's biggest private sector E&P enterprise. RIL has a 30 per cent stake in the Mukta and Panna oil and gas fields off Mumbai High and in Tapti field located North West of Mumbai. The fields are operated in a joint venture with ONGC and the BG Group (BMI, 2012a). It also operates in the KG-V-D3 and CB-10 blocks. RIL has decided to continue with the appraisal of discoveries in CB-10, KG-V-D3 and KG-D6 blocks. RIL has 3 CBM blocks in Sonhat, Sohagpur (West) and Sohagpur (East).[37]

In October 2002, RIL discovered its first major gas find in the KG Basin. A strategic partnership in the oil and gas business was announced by BP and RIL. According to the agreement, BP would enter into a joint venture with RIL on equal terms to produce and sell gas in the Indian market. Additionally, BP would acquire a 30 per cent share in 23 oil and gas Production Sharing Contracts (PSCs) covering approximately 270,000 square km that are operated by RIL in India including the KG-D6 block. Consequently, the partnership will be the largest private sector holder of exploration acreage in India. It will also undertake measures to speed up the establishment of infrastructure to receive, transport and market natural gas in India. It will merge RIL's project management and operations proficiency with BP's world leading deep-water E&P abilities. In blocks with water depths ranging from 400m to in excess of 3000m, RIL be the operator. RIL will receive approximately $7.2 billion from BP for the stake in the 23 PSCs and for completion adjustments. According to the agreement, if exploration leads to the development of commercially viable discoveries, RIL might receive up to $1.8 billion from BP. (BMI, 2012a).

RIL also has 13 international oil blocks. These include three in Yemen (one producing and two exploratory), one each in East Timor and Australia, and two each in Peru, Oman, Kurdistan and Colombia. The total acreage of the blocks is approximately 99,145 square km.[38] RIL's definitive aim is to integrate across the value chain in the oil and gas industry. In October 2007, it revealed plans to increase its hydrocarbon reserves by more than 200 per cent from 4.4 billion barrels of oil equivalent (boe) to 10 billion boe. In addition to the $2 billion spent on exploration and appraisal, RIL plans to invest $4 billion in India in the recent future to realise the country's hydrocarbon potential (BMI, 2012a).

RIL hopes to develop significant proven resources in Russia, Yemen, East Timor, Egypt and Colombia. In 2007, it signed two PSCs with the Kurdistan Regional Government in Iraq. To reduce risk, in November 2009, RIL declared that it was seeking partners to 'farm out'[39] its overseas assets. It decided to reduce its participating share from an average of 80-90 per cent to approximately 40-50 per cent (BMI, 2012a).

[37] Reliance Industries Limited, http://www.ril.com/html/business/exploration_production.html (Accessed Aug 2 2012)
[38] Ibid. 37

[39] Farm out' is an agreement which a company makes with a third party if the former wants to keep its share in the asset, and mitigate the risk or does not have the monetary resources required to undertake operations that are desirable for that asset. The third party is called the farmee and the company is called the farmor. The farmor receives a sum of money from the farmee for the asset. Additionally, the farmee promises to spend money to perform a specific activity related to the asset like operating and/or oil exploration. The interest transferred by the farmor is a 'farm-out' whereas the interest received by the farmee is a 'farm-in'. Farmout, Investopedia http://www.investopedia.com/terms/f/farmout.asp (Accessed January 15 2013)

In 2010, RIL was exposed to US shale gas through three upstream joint ventures. RILs material resource base will be expanded by the joint ventures. Additionally, it will enhance RIL's ability to become the operator in unconventional resource projects in the future and provide it with modern platforms to expand its E&P business. Reliance Marcellus LLC, a subsidiary of RIL and Atlas Energy Inc. (now owned by Chevron) entered into a partnership which allowed RIL to acquire a 40 per cent share in the formers principal Marcellus shale acreage area. The drilling of 3000 wells will be supported by the acreage.[40]

Reliance Eagleford Upstream LLC (REU), an affiliate of RIL entered into a partnership with Pioneer Natural Resources Company. The partnership enabled RIL to acquire a 45 per cent share in PNRC's principal Eagle Ford shale acreage. The partnership has an approximately 91 per cent stake in 289,000 acres i.e. approximately 263,000 acres. Moreover, to support the increasing needs of the joint venture in the upstream sector, PNRC and RIL formed a joint venture in the midstream sector and REU acquired a 49.9 per cent share in the midstream venture for $46 million. PNRC will be the operator in the joint venture and both parties will have equal governing rights.[41]

RIL's affiliate Reliance Marcellus II LLC also formed a joint venture with Carrizo Oil & Gas, Inc. This allowed RIL to acquire a 60 per cent share in shale acreage in Northeast and Central Pennsylvania. RIL's share represents nearly 62,600 acres out of a total of roughly 104,400 acres of undeveloped leasehold in Marcellus II LLC's principal shale acreage in Northeast and Central Pennsylvania. In the next 10 years, the acreage will support the drilling of 1000 wells.[42]

Essar Energy (Essar Oil)

In 1969, the Essar Group was established by brothers Mr Shashi Ruia and Mr Ravi Ruia. The Essar Group is a diverse Indian conglomerate with operations in iron and steel, oil and gas, power, ports and projects, shipping, telecom, realty, information and technology, publishing and agribusiness.[43] Essar Oil is a subsidiary of Essar Energy and part of the Essar Group of companies. Essar Group currently holds nearly 89 per cent of Essar Oil. Essar Oil has traditionally been a downstream company. In recent years it has emerged as an oil giant internationally because it decided to participate and expand operations in all aspects of the oil value chain. It has expanded rapidly both domestically and abroad in the E&P sector. It has a strong presence in the CBM acreage in India, which has provided it exposure to a sector with a high growth potential. It also specialises in unconventional gas which may also provide opportunities to expand especially if it is able to enter into CBM acreage abroad. In January 2009, Essar declared that it planned to invest approximately $140 million over a four year period on its exploration assets abroad (BMI 2012a). Essar Energy was ranked 225 amongst the Top 250 oil companies in 2010 by Platts (Table 5.3).

[40] Ibid. 37
[41] Ibid. 37
[42] Ibid. 37
[43] Essar, www.essar.com (Accessed August 2012)

Essar Oil through its affiliate Essar E&P has a wide portfolio of E&P stake in assets in Assam, West Bengal, Assam and Gujarat. It is expanding and has plans to further expand CBM acreage in India. In June 2010 when the results were announced for the fourth round of bidding for CBM-IV, Essar emerged as the biggest winner. It won the rights for Sohagpur North East bloc in Madhya Pradesh, Raj Mahal block in Jharkhand, and Ib Valley and Talchir blocks in Orissa. This increased Essar's CBM acreage by approximately 2,233 square km and added approximately 215 bcm of prospective resources to the Ranjganj CBM block in West Bengal. Production from Ranjganj is expected to reach 1.1 bcm per annum by 2012 rising from 100,000 cubic meters a day. Essar aims to develop its expertise and become the leader in CBM production domestically by adopting CBM technology and exploration and expand abroad by leveraging its expertise (BMI, 2012a).

Essar has both production and exploration assets. It has two producing assets which are under development: small block in Mehsana, Gujarat and the Ratna and R-Series gas asset near Mumbai. It has exploration blocks in Jharkand and Assam. It has developmental rights in established exploration blocks and a 300,000 bpd refinery on the west coast of India. Plans are underway to increase its exploration acreage across the globe and expand its Indian refinery capacity – initially to 400,000 bpd and then possibly to 770,000 bpd. Essar has CBM acreage in excess of 2,700 square km in India which represents the country's biggest portfolio. Its CBM block in Raniganj is close to commercial production and Essar has signed customer contracts with several companies (BMI, 2012a).

Essar has a portfolio of offshore and onshore oil blocks globally. It can explore approximately 45,000 square km of acreage and has 2.1 billion boe of resources and reserves through its E&P business.[44] In India, Madagascar, Vietnam, Indonesia and Nigeria, it has 15 oil blocks constituting E&P fields amounting to 2,109 million boe of resources and reserves. It has un-risked in-place resource base of 971 million boe, 2C (contingent resources) of 209 million boe, net 2P (proven and probable reserves) and best estimate prospective resources of 929 million boe.[45]

Essar acquired a 50 per cent stake in the Mombasa refinery from Kenya's sole refiner Kenya Petroleum Refineries in July 2009. The refinery has a capacity put at 70-90,000 bpd and a throughput of approximately 30,000 bpd. The acquisition of the refinery provides Essar access to the markets in countries in East Africa: Uganda, Rwanda, Tanzania and Burundi. In October 2010, it also expressed interest in bidding for the shale gas acreage and CBM in Indonesia (BMI, 2012a).

[44] Oil and Gas, Essar, http://www.essar.com/section_level1.aspx?cont_id=fBlwNPJhC0c= (Accessed August 2 2012)
[45] Exploration and Production, Essar Energy, http://www.essarenergy.com/operations/exploration-and-production.aspx.For a detailed analysis and map of global E&P operations, refer to http://www.essarenergy.com/operations.aspx (Accessed Aug 4 2012).

Section IV

Oil has existed in China since time immemorial. Before China became independent in 1949, there was little scientific petroleum E&P albeit on a very small scale (Kambara, 1974). This was because of political instability, absence of knowledge among oil geologists regarding the petroleum geology relevant to the land deposit type of oil fields and apathy by the international oil industry. The largest oil field in China before 1949 was in the Yumen field in Kansu province and modern mechanisms of oil exploration were employed after 1936. During 1907-1949, there were a number of oil and gas discoveries in China but these were all small (Kambara and Howe, 2007).

As discussed in Chapter 4, after 1949, China adopted Stalin's model of 'centralised planned economy' with comprehensive state and collective property. Consequently, China received considerable assistance from the Soviets till the breakdown in relations in 1960. After the formation of the PRC, creation and enlargement of refineries, preservation and development of shale oil distillation factories and crude oil E&P were hastened. China received substantial material aid and technical assistance from the Soviet Union during the first five year plan from 1953-1957, but he government's primary focus was on exploration (Kambara and Howe, 2007). Chinese techniques and their own ideas frequently took primacy over modern science notwithstanding the fact that China made concerted attempts to study modern petroleum technology from the Soviet Union (Kambara, 1974).

In 1960, the petroleum industry in China entered into a crisis with the departure of all Soviet oil specialists following the Sino-Soviet split. Although the Chinese had acquired some knowledge of modern petroleum from the Soviet's, their experience and knowledge was incomplete. Thus by 1960, the Chinese were in total control of refinery maintenance and production control although they received some help from Soviet experts (Kambara, 1974). In 1960-61, priority was once again given to E&P of oil (Kambara and Howe, 2007). The Daquing oil field was opened in 1960 (Ebel, 2005) and in 1963, China claimed petroleum self-sufficiency i.e. it was able to cope without importing oil from the Soviet Union (Kambara, 1974).

In the late 1960's, the Cultural Revolution dislocated output and growth and hampered the working of refineries, distribution arrangements and transportation (Kambara and Howe, 2007). Thus, the Cultural Revolution led to a decline in the oil and gas industry. There was resurgence in the 1970s because China became a permanent member of the UNSC with veto power which increased its stature globally as the leader of the Third World. China's membership of the UN and the 'open door' policy are related to the Cultural Revolution. A key element of Cultural Revolution was disagreements relating to the utilisation of modern technology, and a new disposition to learn and employ western technology was signified by the 'open door' policy (Kambra, 1974).

After Mao's death in 1976, the new chairman of the CCP, Hua Guofeng, embarked on plans that were strongly oriented towards heavy industry with significant contribution from the oil industry. Consequently,

Hua Guofeng appointed Yu Qiuli, the leader of the so called 'Oil Group' as the chairman of the State Planning Commission to herald industrial revival in China. This changed dramatically when Deng Xiaoping came to power. Deng rejected Hua's plans of heavy industrialisation in favour of agriculture and light industry and undertook institutional reforms. Deng's 'open door' policy changed the prospects of the oil and gas industry by allowing it to tap into foreign resources, by bringing China into the international oil and energy markets and revolutionising the organisation and management practices of the pre-reform industry. One of the most important features of the 'open door' policy was to allow and to obtain access to foreign technology and expertise for E&P. This is in sharp contrast to the die-hard opposition before 1978 of allowing foreign involvement in China's oil industry if it required any kind of foreign ownership or even access to China's resources. This issue was particularly important in the case of offshore E&P (Kambara and Howe, 2007).

The 1980's spells the start of the reformation era for the oil and gas industry in China. As early as 1982-1983, measures were undertaken by the government which laid the framework for the contemporary oil and gas industry. The rules provided the most rudimentary PSCs in the shape of petroleum contracts. The objective of the mandates was to benefit China by obtaining FDI and gaining access to technology and industry acumen (Blumental, Chu and Au, 2009). Consequently, CNOOC was established in 1982. CNOOC was responsible for offshore exploration and joint contracts with foreign companies. Under CNOOC, four companies with specific geographical remit were established to provide specialised services to foreign companies. These were the Bohai Petroleum Corporation based in Tianjin, The South Yellow Sea Petroleum Corporation in Shanghai, the South China Sea East Petroleum Corporation based in Guangzhou and responsible in particular for the Pearl River Delta and the South China Sea West Petroleum Corporation based at Maoming. Further rounds of international bidding were conducted in 1984 and 1989. In the 1980's, more than hundred foreign companies participated in offshore ventures constructing more than 200 test wells. However, in the 1990's poor results discouraged almost all of them from undertaking further offshore search (Kambara and Howe, 2007).

The political change had important implications for the performance of the oil industry. The impact worked through both the resolution of coordination conflicts and the mechanism of investment allocation. Considering that oil industry is of strategic significance, decision on major projects and financing was taken at very high levels. Before reform, this factor worked in favour of the industry. However, in the post reform period, the oil industry could not win national budgetary support that was needed by the industry (Kambara and Howe, 2007).

In the 1980's, at the lower level of planning and management, the responsibility for the upstream and downstream sectors was divided. China Petroleum Corporation (CPC) under the Ministry of Petroleum Industry (MPI) was responsible for the upstream sector. However, in 1988, this agreement changed when the CPC was replaced by the CNPC still under the MPI. In the downstream sector, the key entity was Sinopec under the Ministry for Chemical Industries. Neither CNPC nor Sinopec were allowed to issue blocks for

offshore prospecting to foreign companies and this right was confined to CNOOC (Kambara and Howe, 2007).

During the 1990's, major transformation in the planning and administration of the oil industry was undertaken reflecting the wider trend to convert an economy based on central planning and non-competitive administration into one in which independent units enhanced their efficiency and utility by reducing cost, innovation and ever increasing capabilities to conform to market needs. The oil industry proved to be a model that was followed by other large scale and capital intensive industries. The turning point in this successful process was the 1998 reform according to which all ministries were to be converted into bureaus and the entities below them to operate as commercial entities operating on the governance and operating principles of modern corporations (Kambara and Howe, 2007). The government reorganised the oil industry merging most state owned assets which led to the creation of two enormous commercial entities namely the China National Petroleum Corporation (the 'new' CNPC) and China National Petrochemical Corporation (the 'new' Sinopec). Each was assigned a primary geographical location with North and West China for CNPC and South China for Sinopec. The old agreement was changed and both operated and competed with each other in the upstream and downstream sectors although CNPC leans more towards upstream activities and Sinopec more towards the downstream especially refining (Ebel, 2005). The intention of this reform was to create two Chinese NOCs which would develop capabilities to compete within China and worldwide with the IOCs. Subsequently, CNPC, Sinopec and a reformed CNOOC were all converted into holding companies known as PetroChina, Sinopec Coporation and CNOOC Ltd., and were encouraged to establish further operating company subsidiaries. The three companies were listed in stock exchanges in Hong Kong, London and New York (Kambara and Howe, 2007).

As discussed in Chapter 4, despite the fact that China has made rapid progress towards a market economy, public interest and public funds still play the central role. Table 5.6 provides a breakdown of the companies operating in the oil industry in China. The largest of these companies is wholly state-owned CNPC followed by partly privatised PetroChina (subsidiary of CNPC), Sinopec and CNOOC (BMI, 2012b).

Shaanxi Yanchang Petroleum Group Company is a SOE and the fourth largest oil company in China. It was established in 2005 by merging 21 private E&P companies and three refineries (Blumental, Chua and Au, 2009). Additionally, there are numerous oil companies owned by provincial governments. It is not surprising to see (Table 5.6) that all the companies are SOEs. As discussed in Chapter 5, private enterprises in China are small in size relative to the SOEs. This is also the case in the oil industry. This is not only because of the role of institutions and the Maoist legacy of the past, but also because E&P is a risky business which fledging private capitalist corporations in China are less willing to undertake (Kambara and Howe, 2007). There are numerous small private oil companies in China like Guangdong Jovo Group, Dalian Shide, Leiyu Industry, Boco Energy, Weihai Huayue, Central Asia Oil Company and Oil China Company among others but they are very minor players unlike in the oil industry in India where the private sector oil companies play a major role.

Table 5.6: Chinese companies operating in the oil and gas industry in China since 1978

Company	Ownership	Sector
China Clean Energy, Inc	SOE	Downstream
CNPC	SOE	Upstream and Downstream
PetroChina (subsidiary of CNPC)	SOE	Upstream and Downstream
Fushun Petrochemical Company (subsidiary of Petrochina)	SOE	Downstream
CNOOC Ltd.	SOE	Downstream
China United Coalbed Methane Corporation (subsidiary of CNOOC Ltd.)	SOE	Upstream
China Oilfield Services (subsidiary of CNOOC Ltd.)	SOE	Upstream
China Natural Gas	SOE	Downstream
China Petroleum & Chemical Corporation Limited or Sinopec Corp. or Sinopec (subsidiary of Sinopec Group)	SOE	Upstream and Downstream
Sinopec Shanghai Petrochemical Company Limited (subsidiary of Sinopec)	SOE	Downstream
CITIC Resources Holdings Limited (subsidiary of CITIC Group)	SOE	Upstream
Shaanxi Yanchang Petroleum	SOE	Upstream and Downstream
Shenergy Group (including its subsidiary Shenergy Company)	SOE	Downstream
Towngas China Company Limited	SOE	Downstream
Sinochem Group	SOE	Upstream and Downstream
China ZhenHua Oil Co., Ltd. (subsidiary of China North Industry Corporation)	SOE	Upstream and Downstream

Source: Compiled from China: Oil and Gas Report Q3 2012, Part of Business Monitor International's Industry Report & Forecasts Series, Business; Blumental, David, Chua, Tju Liang, and Au, Ashleigh (2009)

PetroChina is the largest corporation accounting for 65 per cent of crude oil production and taking a leading role in China's E&P activities (Kambara and Howe, 2007). It also accounts for 95 per cent of the domestic natural gas market and 40 per cent of the market for petroleum products. Sinopec on the other hand, is the largest producer of refined oil products not only in China but also in Asia. CNOOC produces in excess of 10 per cent of the domestic crude oil (Ebel, 2005). The three companies combined have the major proportion of upstream and downstream oil/gas assets in China and have also entered into joint ventures with IOCs (BMI, 2012b).

In December 2004, under the aegis of the Gongshanglian, the China Chamber of Commerce for the Petroleum Industry (CCCPI), 140 private oil companies formed an association. In June 2006, the largest private sector companies in China united to establish the Great United Petroleum Holding Co., Ltd. (GUPC) under CCCPI's coordination. The conglomerate had approximately 5 billion Yuan ($603.9 million) as capital at the time of its establishment. GUPC is hopeful that it will be able to provide a platform for the private companies to compete with the large SOEs to expand operations domestically and acquire upstream projects overseas. However, they have not been successful (Blumental, Chua and Au, 2009). In June 2012, the Chinese government introduced guidelines to encourage the participation of private oil and gas companies in the upstream and downstream sector of the oil industry. Analysts opine that it is part of a drive by the government to foster competition and break the monopoly of the three big NOCs in China's oil industry (Xinhua, 2012; Own, 2012). However, Dr Zhang Chun, Senior Fellow and Deputy Director Centre for West Asian and African Studies at the Shanghai Institute for International Studies (SIIS) avers, "The three oil companies have great political influence and are able to influence China's policy on energy security. They have hijacked the government." According to Zhu Ming at the Institute for Global Governance Studies and Centre for West Asian and African Studies at SIIS, "The private oil companies in China are not allowed to

go abroad and invest. They are only allowed to buy oil from the top three NOCs." They are sceptical that the private sector will play a bigger role in the oil industry in the near future.

WTO membership led to the opening of the Chinese fuels market in 2004. IOCs have been participating in the upstream sector in China for many years, but they do not have a strong presence in that sector (BMI, 2012b). Chinese government has encouraged foreign cooperation in E&P activity globally and in China to acquire technological capability (KPMG, 2009).

Additionally, in the 2007 Catalogue of Foreign Investment Industries, investments linked to new technologies for petroleum exploration and development and investments in E&P of petroleum and natural gas are listed as encouraged industries. However, it is specifically mentioned in the catalogue that all E&P operations in China should be conducted in partnership with Chinese companies (Blumental, Chu and Au, 2009). Unlike the upstream sector, partnerships with the oil majors in the downstream industry i.e. fuels distribution, gas transportation and petrochemicals is very recent development. BP, Shell, Exxon Mobil, Chevron and Conoco Phillips to name a few are active in the upstream and downstream sectors, and Husky Energy, Statoil, Total, Caltex, Eni and the British Gas Group among others in the upstream sector in China. Major IOCs like BP, ExxonMobil and Shell are all building world-scale petrochemicals capacity in China in conjunction with Sinopec and PeroChina. However, the major Chinese companies are moving fast to establish a strong grip on the distribution system in order to minimise the risk of losing profitable market share to the IOCs (BMI, 2012b).

China's oil production growth can be attributed to the rapidly rising output from nine giant fields which accounted for some 80 per cent of the country's total production in 2010. Five of these fields are now declining, in particular the flagship Daqing and Shengli oil fields. Production growth in the future will be driven by the remaining four fields at which production is still expanding or has remained steady: Changqing, Xinjiang, Dagang and Tarim (BMI, 2012b). Since the late 1990's, diversification of sources of crude procurement has been attempted by CNPC, PetroChina, Sinopec and CNOOC. Consequently, Chinese NOCs have aimed at acquiring and expanding their E&P activities globally and purchasing equity oil stakes abroad to meet the ever increasing domestic demand (discussed in chapter 2). Consequently, China's SWF, CIC was established in September 2007 following the issuing of Yuan1.55 trillion of special bonds. These bonds were used to acquire $200 billion of China's foreign currency reserves. Although CIC is wholly state-owned, it claims that its investment decisions are based entirely on commercial considerations contingent on the way the capital was acquired. CIC has played an extremely significant role in the purchase of overseas energy assets. For instance, an 11 per cent stake in Kazakhstan's KazMunaiGaz E&P acquired in September 2009, a 14.9 per cent stake in Russia-based Nobel Oil Group and a 13 per cent take in coal-producer SouthGobi Energy Resources. According to Bloomberg, CIC's assets now stand at $300 billion (BMI, 2012a). Table 5.5 provides a list of the countries in which the Chinese NOCs have E&P operations. The E&P activities and the acquisition of assets by CNPC, PetroChina, Sinopec Corp. and CNOOC Ltd globally and in China are discussed in detail in Section V.

Section V

This section discusses the E&P operations and acquisition of assets of four Chinese NOCs globally and in China. The SOEs are CNPC, PetroChina, Sinopec and CNOOC. Although CITIC Resources Holdings Limited, a subsidiary of CITIC Group and Shaanxi Yanchang Petroleum are also NOCs operating in the upstream sector in China, they are relatively small compared to the NOCs mentioned above and operate only in China. According to Dr Lu Bo, Deputy Director and Research Fellow, Department of World economy and Trade, Chinese Academy of International Trade and Economic Cooperation, Ministry of Commerce, PRC, the domestic oil sector in China is dominated by CNPC, Sinopec and CNOOC and China is represented by these three SOEs (and their subsidiaries) abroad.

CNPC

CNPC has its headquarters in Beijing. It is the largest integrated oil and gas enterprise not only in China but also globally. It is globally renowned for construction engineering and operates in segments like development of new energy, oilfield services, natural gas & pipelines, manufacturing petroleum equipment, E&P of petroleum, finance, capital management and insurance services among others.[46] CNPC was founded in 1988 and was restructured into an integrated oil company in 1998 during the overhaul of China's oil and gas sector (BMI, 2012b). CNPC is ranked sixth in the Fortune Global 500 list of the world's biggest corporations for the year 2012 (Table 5.3). Its total assets in 2011 amounted to 3,027.88 billion Yuan with an operating income of 2,381.28 billion Yuan.[47] It has presence in almost 70 countries.[48]

CNPC is wholly owned by the state although PetroChina its main subsidiary is owned by financial institutions. CNPC is a key player in implementing China's international oil strategy and its principal focus is on securing oil production outside the domestic market through international E&P projects. Most of its Chinese operations are conducted via its 90 per cent owned subsidiary PetroChina. Unlike PetroChina and Sinopec, CNPC is under no great pressure to boost efficiency and maximise profits. Since privatisation is not on the agenda, it can be expected to concentrate on growth rather than profitability (BMI, 2012b).

CNPC has E&P projects in offshore and onshore China.[49] It owns 14 large-scale refining and petrochemical enterprises, numerous R&D units, 14 big and gigantic oil and gas field companies, mechanical manufacturing and technical service companies and 19 marketing enterprises situated in North China, South West China, North East China and North West China. At present in China, CNPC operates onshore oil and gas fields in the North East and North West as well as a few shallow water blocks in northern Bohai Bay

[46] "CNPC at a Glance", http://www.cnpc.com.cn/en/aboutcnpc/cnpcataglance/ (Accessed August 5 2012)
[47] "Key Figures", http://www.cnpc.com.cn/en/aboutcnpc/cnpcataglance/keyfigures/ (Accessed August 5 2012)
[48] "About CNPC", http://www.cnpc.com.cn/en/aboutcnpc/default.htm (Accessed Aug 5 2012)
[49] "Exploration and Production", http://www.cnpc.com.cn/en/aboutcnpc/ourbusinesses/explorationproduction/ (Accessed Aug 5 2012)

(BMI, 2012b). It has operations in 13 provinces in China.[50] It has had consecutive important findings in the Hailaer, Qaidam, Tarim, Bohai Bay, Sichuan, Junggar, Ordos and Songliao basins. Consequently, in excess of 500 million tonnes of established oil lasting eight years and 300 bcm of gas lasting seven years was added.[5152] Domestically, the Chinese major is expected to concentrate on the northern Bohai Sea region, close to its existing oil and gas infrastructure. CNPC announced in September 2007 that it planned to drill 17 per cent more horizontal wells than originally planned that year in order to raise productivity at ageing oil fields and fully exploit new finds (BMI, 2012b).

CNPC is also the biggest operator and contractor of oil and gas pipeline in China with storage networks and pipeline linkages in 28 Chinese provinces, autonomous regions and municipalities. 80 per cent of domestic natural gas is produced by four major gas provinces: Changqing, Tarim, Qinghai and Sichuan. Employing pipelines like Zhongxian-Wuhan, Shaan-Jing and West-East (I &II) pipelines, well established linkages and advantageous utilisation and development prospects, CNPC annually provides in excess of 40 bcm of natural gas to the Yangtze and Pearl river deltas, Chongqing, Sichuan and the neighbouring Bohai Bay areas.[53]

After receiving approval from the Chinese government, CNPC started cooperating with the IOCs for joint E&P of blocks in China. These projects and blocks are primarily situated in oil and gas fields in Xinjiang, Changqing, Liaohe, Daqing, Dagang, Liaohe and Jilin. CNPC has formed joint ventures with IOCs to develop complex oil and gas fields and unconventional hydrocarbon resources like shale gas, CBM, risk exploration and offshore exploration and development. In 2011, a natural gas cooperation project of Dajing block in Junggar Basin was sanctioned by the Ministry of Commerce. The execution of joint CBM evaluation agreement of Daning block in Ordos Basin and the Fushun-Yongchuan joint shale gas evaluation agreement was also underway. By the beginning of 2012, 36 exploration and development projects were being undertaken jointly. This included 11 and 15 conventional gas and oil projects respectively and ten CBM projects which produced 4.04 million tonnes of crude oil and approximately three bcm of natural gas. This was an increase of approximately five per cent year on year and aggregated to 7.03 million tonnes of oil equivalent.[54]

CNPC has oil and gas interests in 33 countries and assets in 27 countries in the Asia-Pacific, South America, Africa, the Middle East and Central Asia-Russia[5556] (Table 5.5). With CNPC's traditional resource base in decline, the country's largest crude producer must search for new reserves at home and abroad. CNPC's oil

[50] "Oil and Gas Provinces", http://www.cnpc.com.cn/en/aboutcnpc/ourbusinesses/explorationproduction/operatediol/default.htm?COLLCC=2961629153& (Accessed August 5 2012)
[51] Ibid. 50
[52] For a list of major oil discoveries internationally and in China, refer to "Major Oil and Gas Discoveries", http://www.cnpc.com.cn/en/aboutcnpc/ourbusinesses/explorationproduction/Major_Oil_and_Gas_Discovery.htm (Accessed August 5 2012)
[53] "Natural Gas and Pipelines", http://www.cnpc.com.cn/en/aboutcnpc/ourbusinesses/naturalgaspipelines/?COLLCC=2889927973& (Accessed August 5 2012)
[54] "Joint E&P Blocks in China", http://www.cnpc.com.cn/en/aboutcnpc/ourbusinesses/explorationproduction/joint/Joint_BlocksinChina.htm (Accessed August 5 2012)
[55] Ibid. 47
[56] "CNPC Worldwide", http://www.cnpc.com.cn/en/cnpcworldwide/?COLLCC=3032785381& (Accessed August 5 2012)

and gas production from its overseas assets was approximately two mbpd in 2011. This represented a 15 per cent increase year on year on output of 1.73 mbpd in 2010. The company is targeting foreign oil and gas output of four mbpd by end-2015 – with overseas production contributing 50 per cent to the total output – in an effort to meet domestic demand for oil and gas (BMI, 2012b).

Domestically, CNPC announced plans in January 2011 to set up three domestic oil production hubs in order to make up for an expected production plateau at the company's flagship Daqing oil field. According to a report by China's Xinhua news agency, CNPC intends to increase production capacity by 50 million tonnes per annum (tpa) at the Songliao Basin in north-east China, 50 million tpa at the Erdos Basin in central China and 50 million tpa at the Xinjiang Basin in western China. In addition, it hopes to develop smaller production centres of 20 million tpa (400,000 bpd) in the Sichuan Basin in South West China and the Bohai Bay region. The decision to build up the company's production hubs, particularly those outside its traditional northern heartlands is a sign of the company's drive to broaden its production base in the face of declining output from mature fields (BMI, 2012b).

CNPC’s focus is on increasing its international oil reserves, although it is also considering overseas downstream investments such as refineries and petrol stations. The corporation’s strategy of overseas expansion is similar to that of the IOCs which generally derive 60-70 per cent of their total business from overseas operations. In particular, CNPC is looking at the Russian Far East and the Caspian region, viewing both as potential sources of crude imports. Regular discussions are being held by the two governments to explore the possibility of making such exports. However, CNPC’s drive for assets in the region could threaten Russia’s dominant existing position, potentially providing a future source of friction (BMI, 2012b).

CNPC announced in January 2009 that it was targeting five per cent oil and gas output growth per annum. Additionally, despite the dim global economic scenario, it would continue to boost investment. The company sees strong potential for expansion, particularly overseas, as Chinese oil and gas demand continues to grow while domestic supply remains constrained. In addition, CNPC views the international financial crisis as an opportunity for low-cost expansion of its upstream and downstream market position through acquiring assets relatively cheaply. The company’s strategy will focus on three main areas: increasing exploration of domestic oil and gas blocks, making progress on major refining projects and enhancing oil and gas transport and distribution infrastructure (BMI, 2012b).

PetroChina Company Limited or PetroChina

PetroChina Company Limited (PetroChina) has its headquarters in Beijing. It is a dominant player in the hydrocarbon industry in China and is the biggest oil and gas producer domestically. It is also one of the biggest oil companies globally. In 2011, PetroChina surpassed ExxonMobil to become the biggest oil and gas producer globally. It produced 2.43 mbpd in 2011 compared to Exxon’s 2.3 mbpd (Fontevecchia, 2012).

On November 5 1999, CNPC launched PetroChina as a joint stock company possessing limited liabilities.[57] It is the largest publicly traded Chinese oil corporation. PetroChina was the first NOC to be launched in stock market in China and is still viewed as China's oil sector proxy (BMI, 2012b). On April 6 2000, PetroChina's American Depositary Shares were listed on the New York Stock Exchange and on April 7 2000 its 'H' shares were listed on the Hong Kong Stock Exchange Limited. On November 5 2007, it was listed on the Shanghai Stock Exchange.[58] In April 2000, a minority interest IPO was put forth in the Hong Kong and New York stock exchanges by PetroChina. The market capitalisation of the IPO rose above $3 billion but fell short of its target of $7 billion. The IPO was scaled back due to objections by human rights and labour groups of CNPC's operations in a controversial project in war torn Sudan (Blumental, Chu and Au, 2009). It was ranked fourth amongst the Top 250 oil companies in 2010 by Platts (Table 5.4). CNPC owns 90 per cent of PetroChina. As of March 31 2012, total assets were valued at 2,034.273 billion Yuan and the net cash flow from operating activities was 21.844 billion Yuan (PetroChina Company Limited, 2012a).

PetroChina operates both in the upstream and downstream sector. It has a wide spectrum of interests in all the sectors of the hydrocarbon industry: E&P, refining and storage of crude oil, transportation of crude oil, refined oil, oil products and natural gas, marketing and development of natural gas and crude oil and the production and marketing of derivative chemicals and other chemicals and primary petrochemical products among others.[59]

Petrochina faces numerous challenges like the construction of China's new gas import infrastructure, expansion of retail network, improving the refining system and securing upstream projects abroad while trying to maintain oil production despite limited internal projects. Additionally, it has to provide adequate returns on investment to institutional investors. Despite the increase in efficiency, prolonged future growth is not guaranteed because of the asset base that it inherited (BMI, 2012b).

The lion's share of PetroChina's oil and gas reserves are situated in South Western, North Eastern, North-Western and Northern China and the majority is in the Songliao Basin in the Jilin and Heilongjiang provinces which is the site for the Daqing oil region. For some time now, PetroChina's oil production in China has remained the same because most of its oil fields including the Daqing are getting exhausted (BMI, 2012b).

To reduce E&P costs, Petrochina aims to terminate non-profitable and slightly profitable exploration operations and is concentrating its energies on Qaiddam, Tarim, Sichuan, Bohai Bay, Songliao and Shanganning basins. It also aims to increase profitability by employing energy saving technologies for extraction activities and increasing the length of the work interval to 800 days which will reduce lifting costs (BMI, 2012b).

[57] "Company Profile", About PetroChina , http://www.petrochina.com.cn/Ptr/About_PetroChina/Company_Profile/default.htm (Accessed August 6 2012)
[58] Ibid.57
[59] Ibid. 57

Vice President of PetroChina Li Hualin asserts that by 2015, the corporation's gas production may catch up with its oil production. A press release from Bloomberg stated that by 2015, PetroChina may be able to increase its gas supply to Beijing by 100 per cent. The corporation's objective to substantially increase the production and supply of gas bears consonance with the government's strategy to enhance the proportion of gas in its domestic energy strategy. PetroChina plans to produce one bcm of gas from shale formations in China's Sichuan Basin in the south west of the country by 2015 which would make it the first significant shale gas producer in China according to Li Luguang, the head of PetroChina's Sichuan subsidiary (cited in BMI, 2012b: 78).

In 2011, PetroChina carried on employing the 'Peak Growth in Oil and Gas Reserves' Program. Several deep advances and important discoveries were made in major exploration areas like Qaidam Yingdong Formation, Baxian County depression in Bohai Bay Basin and palaeohigh in Sichuan. Additionally, four 50-million level and eight 106t- blocks with package reserves were ascertained in Xujiahe of Sichuan and Jiyuan of Ordos among other areas. On the basis of estimation by D&M and according to SEC's reserve criteria, PetroChina's supplementary domestic confirmed oil and gas reserves in 2011 were 98.51 million tonnes and 121.7 bcm respectively which marked a good replacement.[60]

PetroChina had few assets abroad until June 2005 when it acquired 50 per cent of the overseas assets of the parent company CNPC for $2.5 billion. Currently, it has assets in several countries like Peru, Iraq, Venezuela, Australia, Canada and Kazakhstan (BMI, 2012b).[61] Since then, it has expanded its overseas cooperation. It has steadily expanded and incorporates combining the development of oil and gas including the development of non-conventional oil and gas projects and the integration of upstream and downstream activities. PetroChina and BP are partners in the Rumaila Project in Iraq which has an average output of 1.19 mbpd. It has started to break-even and commenced shipping back crude to China. The Halfaya Project did not encounter any problems and the construction of facilities for drilling wells, seismic and ground output were undertaken at a rapid pace. The Arrow Project in Australia progressed smoothly. In September 2011, PetroChina signed a deal to purchase Bow Energy Limited which operates in the coal seam gas exploration and development sector. In 2011, PetroChina's output of oil and gas from overseas assets increased by 18.2 per cent relative to last year and reached 120.8 million boe. This reflected a significant increase in contribution to the overall results from foreign operations (BMI, 2012b).

In 2012, PetroChina International Investment Company, clinched a deal with Africa Petroleum for a strategic investment in certain of its oil and gas exploration activities in West Africa. The deal gives PetroChina an exclusive period to decide if it wants to invest in nearly 20 per cent of Block LB-09 in Liberia (discussed in detail in Chapter 6). It also allows China to invest up to 20 per cent in at least one exploration block in Sierra Leone, Liberia, Cote d'Ivoire, Senegal and The Gambia (Energy Business Review, 2012).

[60] "Exploration and Production", About PetroChina, http://www.petrochina.com.cn/Ptr/About_PetroChina/Core_Business/Exploration_and_production/ (Accessed August 6 2012)

[61] "Oil and Natural Gas Companies in China: PetroChina, Sinopec and CNOOC", Facts and Details, April 2012 http://factsanddetails.com/china.php?itemid=319&catid=13&subcatid=85 (Accessed August 15 2012)

Sinopec Corp. or Sinopec

Sinopec is one of the largest oil and gas companies in the world. It is headquartered in Beijing. It is a listed corporation on domestic as well as international stock exchanges. On January 25 2000, the enterprise was incorporated by Sinopec Group or China Petrochemical Corporation. On October 18 and October 19 2000, 16.78 billion 'H' shares were floated by Sinopec in New York, London and Hong Kong stock exchanges, and on July 16 2001, it issued 2.8 billion 'A' shares in the Shanghai Stock Exchange.[62] As of 2012, Sinopec is 55.06 per cent owned by the wholly state-owned Sinopec Group (BMI, 2012b). It is ranked fifth in the Fortune Global 500 list of the world's biggest corporations for the year 2012 (Table 5.3) and is ranked eighth amongst the Top 250 oil companies in 2010 by Platts (Table 5.4). In 2011, Sinopec reported revenues of 2.5 trillion Yuan and net profit of 73.2 billion Yuan. Revenues increased from1.9 trillion Yuan in 2010 while profits were up 2.1 per cent on the previous year. The results have been attributed to a higher contribution from the company's E&P segment owing to higher oil prices (BMI, 2012b)

Sinopec has a wide array of interests in all the sectors of the hydrocarbon industry: a complete marketing network and a strong oil & petrochemical core business in addition to an integrated downstream, midstream and upstream operations.[63] China's best downstream petrochemical and oil assets were allocated to Sinopec during the reorganisation of the hydrocarbon industry in the 1980's. It has approximately 66 per cent share in China's fuel market and has 30,063 stations making it the largest operator in the retail market for hydrocarbon products. It is the largest refiner and producer of petrochemicals in the country and has entered into major partnerships with IOCs like BASF, Exxon Mobil and BP (BMI, 2012b).

Sinopec is also involved in the upstream segment globally and in China. It is the second largest oil and gas producer in China. It has oil & gas E&P zones in the south, east and west of China. It has 12 oil and gas subsidiaries.[64] Additionally, it has 17 oilfield companies, 40 refining and petrochemical companies, 33 oil sale companies and nine research institutions amongst other holdings in China.[65] Till December 31 2011, Sinopec has had 192 production licences with acreage of 20,300 square km 297 and exploration licenses with acreage of 966,800 square km.[66] It produces crude oil mainly for processing at its own refineries and natural gas which is primarily sold to other companies. Oil production is also being enhanced by acquisitions and international diversification (BMI, 2012b).

Sinopec is heavily involved in south-west China where its operations are carried out through Sinopec Southwest Oil & Gas Company. The most important part of the region for the company is Sichuan where Sinopec holds 'total three-tier reserves' (possible reserves) of 1.5 trillion cubic meters (tcm). Recent Yuanbu discoveries will serve to boost this asset base as Sinopec looks to ramp up production to serve growing gas

[62] "About Sinopec: Our Company" Sinopec Corp. http://english.sinopec.com/about_sinopec/our_company/20100328/8532.shtml (Accessed August 6 2012)
[63] Ibid. 62
[64] "Exploration and Oil Production" Sinopec Corp. http://english.sinopec.com/about_sinopec/our_business/exploration_oil_production/ (Accessed August 6 2012)
[65] "Subsidiaries" Sinopec Corp. http://english.sinopec.com/about_sinopec/subsidiaries/ (Accessed August 6 2012)
[66] Ibid. 64

demand in the region. Sinopec expected to produce a total of 6.32bcm of gas in H210, marking an 11 per cent increase over the first half of the year and a 40 per cent rise in annual output (BMI, 2012b).

Exploration efforts will be stepped up by Sinopec in China's north-western regions, away from Sinopec's traditional bases in the east and the south. Sinopec will focus 60.1 billion Yuan-worth of investment on the Sichuan-East China gas project and the development of Tahe, Shengli and Ordos (BMI, 2012b). Till December 31 2011, Sinopec's recoverable reserves were 3.96621 billion boe. Natural gas constituted 6.70868 tcm and crude oil constituted 2.8481 billion barrels. With the aim of increasing the rate of development, at the end of 2011, Sinopec launched five E&P campaigns in unconventional oil & gas field, Shengli Oilfield, Ordos Basin, Sichuan Basin and in Tarim Basin.[67]

Sinopec has overseas E&P operations in Asia, Middle East, Latin America and Africa. Overseas external oil and gas cooperation is undertaken on behalf of Sinopec by the wholly-owned subsidiary of Sinopec Group, Sinopec International Petroleum Exploration and Production Corporation (SIPC). SIPC was established in January 2001 and is headquartered in Beijing.[68] It has operations in 19 countries globally (Table 5.5).

Major progress has also been made in the development of new projects and the Sinopec Group successfully acquired five projects including Addax Petroleum (AP) and partial equity of three blocks in Angola.[69] Sinopec's acquisition of oil blocks in Angola is discussed in Chapter 6. Significant funds have been allocated to secure overseas oil and gas reserves (BMI, 2012b). Out of the 321.73 million barrels of crude oil produced by Sinopec in 2011, 18.36 million barrels came from Africa and the remaining from China. There has been a reduction in crude oil produced in Africa. In 2009 and 2010, Sinopec produced 26.47 million and 25.67 million barrels of oil in Africa.[70]

CNOOC Ltd. or CNOOC

CNOOC Ltd. is a subsidiary of the CNOOC Group. CNOOC Ltd and the CNOOC Group were incorporated in Hong Kong in 1999. On February 27 and February 28 respectively, CNOOC Ltd was listed on the New York Stock Exchange and the Hong Kong Stock Exchange. In July 2001, it was also listed on the Hang Seng Index. The group is the biggest producer of natural gas and crude oil in offshore China and also one of the biggest oil and gas E&P enterprises globally. Its main operations are in sale of oil and natural gas, development and E&P. Like CNPC, PetroChina and Sinopec, it also has its headquarters in Beijing. In the first quarter of 2012, CNOOC revenues from oil and gas sales amounted to 48.4 billion Yuan, an increase of 3.7 per cent year-on-year (BMI, 2012b). The Group has total assets of approximately 384.26 billion Yuan.[71] It is ranked 101 in the list of Fortune 500 companies (Table 5.3) and was ranked 15 amongst the Top 250 oil companies in 2010 by Platts (Table 5.4)

[67] Ibid. 65
[68] "About SIPC", http://www.sipc.cn/english/s1/ (Accessed August 16 2012)
[69] Ibid. 68
[70] Ibid. 64
[71] "About us", CNOOC Ltd., http://www.cnoocltd.com/encnoocltd/aboutus/default.shtml (Accessed August 16 2012)

CNOOC Ltd. is the smallest of the privatised Chinese NOCs and specialises in offshore E&P. The Chinese government has a 70 per cent share in CNOOC Ltd. It is more efficient and focused relative to Sinopec and PetroChina. The higher returns generated in the upstream sector differentiates CNOOC's simple business model relative to Sinopec and PetroChina. Sinopec and CNPC have lately been approved to undertake E&P operations offshore (BMI, 2012b).

CNOOC is undertaking diversification in a number of directions. It is making a concerted attempt to develop a portfolio of upstream assets internationally which may dilute its future investments in China. For instance, its desire to expand rapidly is well illustrated by its failed attempt to acquire Unocal in the US. In 2001, CNOOC annulled an agreement with the parent company which bestowed the latter with the sole rights to operate, explore and produce oil and gas assets. Since 2001, CNOOC and its parent company share upstream projects. This highlights that Chinese government is assuming a stronger role in CNOOC's activities and has decided to offer more political and financial support for acquisitions abroad in the future (BMI, 2012b). The Group's major activities are offshore China in Bohai, Western South China Sea, Eastern South China Sea and East China Sea.[72]

In 2010, the development of the entire group was propelled by the best performance to date of the upstream sector: nine projects commenced production, there were 81 oil and gas fields and 13 new oil and gas fields were ascertained. Active oil and gas exploration activities were undertaken which led to breakthroughs and progress in South Sea Region and Bohai Bay. Oil and gas production increased significantly both domestically and internationally. Overseas oil and gas production touched a high of 50 million tonnes and ten million tonnes respectively. In 2011, total crude oil production was 46.61 million tonnes and natural gas was 16.7 bcm.[73] Till December 31 2011, the Group's average daily net production was 909,000 boe and it had confirmed reserves of nearly 3.19 boe.[74] According to CNOOC's General Manager Fu Chengyu, as part of CNOOC's plan to expand domestically and abroad, CNOOC is set to invest between $121 billion and $151 billion during 2011-2015 (BMI, 2012b).

CNOOC plans to expand and diversify its operations in China. It aims to become active in more complex deep water projects and go beyond just shallow water activities. It also plans to play a significant role in exploiting China's unconventional gas resources and entered into joint ventures with BP and Chevron for the exploration of three deep water blocks in the South China Sea in September 2010. In the process, they joined BG Group and Husky Energy among other Western companies (BMI, 2012b).

CNOOC and Italian major Eni in April 2012 announced a PSC in a deep water block located about 400km southeast of Hong Kong. The 5,129 square km block was awarded by CNOOC in 2011 and was the third largest offered by a NOC to a foreign company in the South China Sea. According to the terms of the PSC, Eni will conduct 3D-seismic surveys and bear the full cost of exploration (BMI, 2012b).

[72] Ibid. 71
[73] "Upstream", CNOOC Ltd., CNOOC, http://en.cnooc.com.cn/data/html/english/channel_118.html (Accessed August 16 2012)
[74] Ibid. 71

CNOOC reserves the right to take up a 51 per cent working interest in any commercial discoveries made offshore in China. Additionally, it also aims to be a significant player in the drive for unconventional gas in China. In the licencing round in November 2010, it was one of the few companies that were approved to acquire shale acreage in China. This will enable CNOOC to import technology which it was able to access via its joint venture in the US with Ford shale (BMI, 2012b).

CNOOC announced on January 12 2012 that it had started drilling at its first domestic shale gas project in Anhui Province. According to a Bloomberg news release, exploration is taking place across a 4,800sq km block in Wuhu City to which CNOOC acquired the rights in December 2010. CNOOC was eligible to bid in China's first shale gas licensing round in July 2011 but was unsuccessful in acquiring any of the acreage on offer. A second shale-focused licensing round was scheduled for January 2012. CNOOC is expected to be active in this second round as it continues to build its unconventional portfolio (BMI, 2012b).

CNOOC has E&P operations in 19 countries in Asia, Latin America, Africa, Middle East and North America[75] (Table 5.5). It aims (along with Sinopec and CNPC) to continue expanding rapidly abroad to meet China's growing energy needs. This is being done by flexing its financial muscle. In 2010, it expanded its operations in Latin America by investing billions of dollars aimed to increase its presence in Venezuela and on assets in Argentina and Brazil. In Africa, CNOOC is to acquire a share in the multibillion barrel discovery in Uganda. However, the deal has been delayed due to a tax row. It has also expressed interest in investing in Ghana's flourishing offshore reserves (BMI, 2012b).

CNOOC's production is expected to reach 330-340 million boe in 2012. This would represent a rise of 2.4 per cent year on year compared with estimated production of 331-332 million boe in 2011. The rise in the production will be driven by new projects such as the Long Lakes oil sands project in Canada and the Missan oil field in Iraq. CNOOC is targeting compound annual production growth of six-ten per cent during 2011-2015 (BMI, 2012b).

Section VI

This section provides a comparative perspective of the Indian and Chinese oil companies. It examines the diplomatic, political and financial support received by the NOCs in the two countries due to the difference in the economic and political power, ability to take risk, difference in technology and project management skills.

As discussed previously in this chapter, the oil industry in China comprises predominantly of SOEs. Private sector enterprises are also present but they are very minor players in the oil industry. On the other hand, in India, the SOEs and the private sector operate in the oil industry and RIL, Essar Oil and Cairn India, a part of

[75] "Overseas", Key Operating Areas, About us, CNOOC Ltd. http://www.cnoocltd.com/encnoocltd/AboutUs/zygzq/Overseas/ (Accessed August 16 2012)

the Vedanta Group are major players. The SOEs and private enterprises also operate in joint ventures. This can be explained by the difference in the political economy of the two countries as discussed in Chapter 4. A comparative perspective of India and Chinese NOCs is as follows:

Diplomatic, political and financial support: The ability of the governments in India and China to provide diplomatic, political and financial support to the NOCs is influenced and constrained by the difference in their economic and political power. The governments in the two countries played an extremely important role in perpetuating, propagating and supporting the NOCs. All the Indian oil companies especially ONGC (and OVL), OIL and Essar Oil which are active in the upstream sector and in the oil industry in West Africa are smaller in size, market capitalisation and revenue compared to the three Chinese NOCs namely CNPC (and PetroChina), Sinopec and CNOOC. This is evidenced by the fact that all the three Chinese NOCs are ranked higher in the Global Fortune 500 rankings compared to the three Indian oil companies mentioned above for the period 2005-2012. Prof He Maochun, Director of the Research Centre for Economic Diplomacy Studies, Tsinghua University Institute of International Studies states "The Chinese oil companies are rich enough to support themselves. They are richer than a bank." It should be noted that both Indian and Chinese NOCs have improved their respective rankings (Table 5.3). The Chinese NOCs are also ranked higher than Indian oil companies in the prestigious Platt rankings (Table 5.4).

It can be argued that since China has a bigger economy than India, Chinese oil companies would be larger relative to their Indian counterparts. Chinese NOCs are bigger also because of the state support and subsidies that they receive relative to Indian NOCs. The CIC has $300 billion at its disposal - $100 billion for NOCs, $100 billion for agriculture and $100 billion for infrastructure - which is larger than the foreign exchange reserves of India which stand at approximately $250-$280 billion. According to Ashok Dhar, Distinguished Fellow at the Observer Research Foundation (ORF), "Chinese government facilitates business."

Prof Xiao Tang, Director of African Studies Centre at China Foreign Affairs University states that China is able to provide more diplomatic and political support compared to India. According to Dr Keun-Wook Paik, Senior Fellow at the Oxford Institute of Energy Services, "Chinese NOCs receive direct political and diplomatic support from the Chinese government under the aegis of the 'go global policy' introduced in 2000. It is very difficult for Indian oil companies to compete with Chinese NOCs." Prof He Maochun states that the SOEs (especially the NOCs) have close relations with the central government, the state banks and commercial banks. "China will continue to support the NOCs financially, diplomatically and politically to invest abroad." According to Dr Liu Feitao, Deputy Director for the Division for American Studies and Associate Research Fellow at the Chinese Institute of International Studies (CIIS), and other Chinese experts, the heads of the NOCs are appointed by the central government. According to Dr Zhang Chun and Zhu Ming at SIIS and other Chinese academics and experts, most of the SOEs including the NOCs are on the list of the CCP leadership. For instance, the CEO of CNOOC is a Vice-Ministerial level official and because of his official identity, he has easy and direct access to the power centre. Zhu Ming states that "The former CEO of CNOOC, Mr Wei Liucheng was appointed the Governor of Hainan province (from 2003-2007). The

top leaders of the provincial governments in China are not only from the CCP but also from the SOEs. This is not the case in India." Samir Saran, Senior Fellow and Vice President at ORF avers, "It is not the CCP design to support the NOCs. In China, it is the tail that is wagging the dog. Some members of the CCP are linked to the NOCs and have vested interests. Thus there is a sort of a Russia like oligarchs in the CCP and money flows right from the top." Dr Lu Bo, Ministry of Commerce, PRC states that the Central government in China has more control over the SOEs and the NOCs relative to India. Although CIC, EXIM Bank, State-owned Assets Supervision and Administration Commission of the State Council (SASAC) and state banks are independent and operate separately, because the Central government has control over them, the government is able to exert influence on their operations. According to Dr Liu Feitao, because the central government has control over the SOEs, "Chinese NOCs have the advantage to mobilise other Chinese SOEs. Thus, Chinese NOCs are able to offer oil for infrastructure deals which has made Chinese companies successful in Africa. India cannot do that." A similar sentiment is expressed by Samir Saran. "Capability is when your some of parts can come together to influence your decision making. Capacity is the ability to make this happen. India does not have the capacity to make its some of parts come together unlike China. This is why the weight of the state fails."

According to Lydia Powell, Head of Centre for Resources Management at the ORF, an executive from IOCL (IOCL[a]) and two executives from OVL (OVL[b] and OVL[c]), although the GOI also provides diplomatic and political support to the NOCs in their quest for oil, Indian NOCs are unable to match the Chinese NOCs. According to Dr Ayodele, University of Ado Ekiti, the relative difference in economic and political power plays an extremely important role in the ability of the Chinese and Indian governments to provide economic, political and diplomatic support to their respective oil companies. Dr Ayodele avers that China's economic power and UNSC membership with veto power enables China to establish better diplomatic relations with countries in West Africa which also helps the Chinese NOCs to the detriment of Indian oil companies. To quote Dr Ayodele, "Chinese power even trumps India's historical relations with Africa. China has used its economic power to build more robust relations with African countries including countries in West Africa. China's political and economic diplomacy cannot be matched by India." Uma Shankar Sharma, former Joint Secretary, Ministry of Petroleum and Natural Gas, GOI and now an energy expert at the ORF states that "Perception matters. African leaders see how China uses its veto power." Prof Li Anshan, Director of Centre for African Studies at Peking University also agrees that perception matters. "Some African Presidents and leaders trust China a lot. Diplomatic support and relations provided a good foundation for business development. It allowed Chinese companies to invest in Africa. When China asks for something, African leaders agree." According to Ruchita Beri, Senior Research Associate at the Institute for Defence Studies and Analysis (IDSA), "China uses money to build state to state relations." Shebonti Ray Dadwal, Research Fellow at the IDSA states that "China is a favoured partner because of economic and political power." Prof Li Anshan states that because China is able to give more aid to Africa, Chinese NOCs are preferred as partners over Indian oil companies. According to Sunjoy Joshi, Director, ORF (telephone interview), "India has not been able to match the aid provided by China. There is not much leverage there." Prof Zhongying

from the School of International Studies at Renmin University avers “49 African leaders attended the FOCAC in Beijing. These leaders do not go to the UN General Assembly meeting in New York.” According to Dr Zhang Chun, “The decisions of the African countries to give oil blocks to Chinese oil companies are not only based on economics but also on political and diplomatic considerations. In the last two decades, China’s relations with Africa have strengthened relative to India-Africa relations.” This illustrates the importance of China-Africa relations.

Chinese NOCs also receive significant financial support from the Chinese government. According to Dr Paik, in addition to the support from the CIC, Chinese NOCs also receive financial support from the SASAC, Chinese Development Bank and the Chinese EXIM Bank under the aegis of the ‘go global policy’ introduced in 2000. According to Dr Lu Bo, “China has much larger foreign exchange reserves than India. State banks are willing to lend to the SOEs especially the NOCs for investment abroad because they know the NOCs will return the money.” Dr Liu Feitao states “Chinese NOCs and other SOEs are able to borrow at 0-1 per cent interest rate domestically.” Lydia Powell asserts that “Chinese oil companies have access to cheap capital. Indian oil companies do not have access to cheap capital. In India, NOCs are asked to borrow from the market at the market prevailing interest rate which is substantially higher than the rate at which the Chinese NOCs can borrow money from the state owned Chinese banks.” To quote an executive from OVL[b], “The domestic cost of capital in India is 10-11 per cent.” According to executives from OVL, IOCL, OIL and Essar Oil, the availability of cheap capital makes it easier for Chinese NOCs to operate at 3-4 per cent rate of return. Shebonti Ray Dadwal and Uma Shankar Sharma assert that for Indian NOCs, the minimum rate of return is 10-11 per cent whereas for private sector oil companies, the minimum rate of return is in the range of 18-20 per cent. The IOCs operate at a margin of around 15 per cent. To quote an executive from OVL (OVL[b]), “In the international market, finance is available at 3-4 per cent but currency fluctuations are a problem. It also requires collateral like guarantees from the parent company (ONGC) or banks and/or sovereign guarantees are required which OVL will not be able to provide for very large sums. OVL has to bank on commercial capital which is not less than 4-5 per cent. It is difficult to work at 3-4 per cent.” This puts OVL at a disadvantage with respect to Chinese NOCs.

According to Ruchita Beri, and Shebonti Ray Dadwal, because China is economically more powerful than India, it can provide more financial support to NOCs relative to India. To quote Shebonti Ray Dadwal, “The purses of the Indian NOCs have increased manifold but they still cannot be compared to China and they still cannot beat them. Cash is a problem with India compared to China” According to Ambassador Viswanathan, former Indian High Commissioner to Nigeria and Distinguished Fellow at ORF, “Chinese oil companies have extremely deep pockets. ONGC and OVL have deep pockets by Indian standards but not compared to Chinese oil companies.”

According to Ruchita Beri, Uma Shankar Sharma and executives from IOCL and OVL, the signature bonus[76] and royalty payments in some of the West African countries are too high especially in Angola, high even for the IOCs. However, the Chinese NOCs can afford it. Consequently, Indian oil companies are unable to bid for oil blocks. According to executives from OIL, IOCL, OVL and Essar Oil, and Ashok Dhar, Indian oil companies cannot and could not have bought Nexen, a Canadian oil company which CNOOC acquired for $15.1 billion. To quote an executive from OVL (OVL[b]), "It is out of our league. Chinese strategy is driven by finance and economic power. If you do not have the money, Chinese strategy is not going to work."

Risk: The gargantuan financial resources at the disposal of the Chinese NOCs enable them to take more risks, to bid for oil blocks in almost every country in West Africa and outbid Indian oil companies if and when they compete directly for an oil block. According to Lydia Powell and James Byrne, Reporter at Interfax, a news agency, Chinese bidding does not make commercial sense. Shebonti Ray Dadwal avers that "India is extremely risk averse relative to China. India does not go in for a difficult asset." According to Dr Zhang Chun, "Chinese companies are more risk oriented." According to Dr Paik, "China is not concerned about the rate of return on investment. Chinese NOCs are concerned about the size of the oil reserves." An executive from OVL (OVL[b)] commented, "Our offers have a strong weightage on realistic assumptions, upon the rate of returns on the asset and the future potential of the asset. Chinese are not concerned about returns. They have too much money. The ground reality is that China and Chinese oil companies have more money and we have to survive with that. We are still surviving." According to Ashok Dhar, "Indian oil companies will value the asset in a much more commercial way. The due diligence process is very good. Also, Indian oil companies are conservative." To quote Uma Shankar Sharma, "China can bid for anything. They have too much money." According to an executive from IOCL (IOCL[b]), "IOCL wants to get into areas where there are verified reserves, where there is production and not much risk should be associated with production. IOCL looks at a price of $85-$90 per barrel and not more than that. Chinese are looking at prices of $110-$115 per barrel. Even with the most optimistic pricing, it is difficult to match the Chinese." Dr Lu Bo asserts that 'the Indian oil companies are more reasonable than Chinese companies in their investment decisions." Although Dr Lu Bo agrees with the decision making process of the Indian NOCs, he avers that "It is difficult to forecast what will happen in 10-20 years. In order to win the bid, sometimes Chinese oil companies have to take risks, and forgo many things. We can only wait and see whether the decisions are good. It is too early to say whether Indian or Chinese oil companies are right in their decision making process. Sometimes if you are too hesitant to take the risk, you will lose the opportunity. This is what Indian oil companies have done." According to Ambassador Viswanathan, Chinese oil companies can afford a long gestation period where as Indian oil companies have to be careful about returns on investment.

[76] Signature bonus is like an entry fee. Whenever an oil company enters into acreage, the host government charges money and sometimes it can be as high as $1 billion (Interview with OVL[b]).

Technology and project management: Although both Indian and Chinese NOCs have more or less similar technological capabilities, according to Shebonti Ray Dadwal, Uma Shankar Sharma and executives from OVL, IOCL and OIL, India is at disadvantage because it is unable to buy the necessary technology that is required. Both India and China rely on outsourcing to third parties but China has an advantage as it is able to pay a higher price for technology because it has more money. According to Sunjoy Joshi, "Technological edge is there if a company is the 'operator' in the oil block. OVL is not the operator but sometimes Chinese companies are. They are able and willing to pay higher amounts to become operators. Chinese NOCs are extremely aggressive in acquiring technology. The whole purpose of the joint venture is to acquire technology. Indian oil companies are limited in their ability to acquire technology." According to an executive from OVL (OVL[b]), IOCL[a] and Ashok Dhar, Indian oil companies especially RIL have better skills to manage complex and difficult projects than Chinese oil companies. If India had more money, Indian oil companies would be ahead. However, despite better project management skills, Chinese oil companies are a preferred partner relative to Indian oil companies. Even IOCs prefer to have Chinese oil companies as a partner because the former want to have a strong financial partner.

According to executives from Indian NOCs, Ambassador Viswanathan, Samir Saran and Dr Ayodele, the support provided by the Chinese government enabled the Chinese NOCs to become extremely large and important players in the global oil industry. However, this has not been the case with Indian NOCs because the Indian government is unable to extend similar kind of support. This is reflected in both the Global Fortune 500 rankings as well as the prestigious Platt Rankings for oil companies.

Table 5.7 illustrates the difference in the oil companies from the two countries.

Table 5.7 Comparative perspective of Indian and Chinese oil companies

Indicator/Measure	China	India
Financial support from the government	Substantial support provided by CIC, EXIM Bank, SASAC and state banks	Yes but significantly less than China
Forex reserves	Approximately $3 trillion. CIC has $100 billion at its disposal	Approximately $250-280 billion
Political support	Substantial - Heads of the NOCs and senior executives are appointed by the government and heads of NOCs have Vice-Ministerial posts which allows them direct access to the power centre	Yes but significantly less than China. Heads of NOCs and senior executives do not hold such appointments in the government
Diplomatic support	Substantial. China's status as an emerging superpower with a permanent membership of the UNSC with veto power allows the Chinese government to provide substantial diplomatic support.	Yes but significantly less than China. India is not a member of the UNSC. The asymmetry in power favours China vis-à-vis India.
Financial strength	Extreme strong financially as illustrated by the Fortune 500 rankings	Extremely strong financially in India but financially weaker relative to Chinese NOCs as illustrated by the rankings.
Rate of interest paid on loans	0-1 per cent	Can vary from 3-4 per cent to 10-11 per cent
Rate of return on investment	3-4 per cent	NOC: 10-11 per cent Private enterprises: 18-20 per cent

Ability to take risk	Less risk averse	More risk averse, conservative
Valuation of price of oil (per barrel)	Very optimistic ($110-$115)	Conservative ($85-$90)
Technological capability	Same	Same
Ability to acquire and access technology	Relatively easy access due to greater financial resources	Constrained by lack of financial resources
Project management	More or less as capable as Indian NOCs but less than RIL	Better project management skills especially RIL

Source: Interviews conducted with employees/executives from Indian oil companies, industry experts, strategic community and academics. See Table 4.1

Conclusion

India and China adopted different economic paths and embarked on different growth trajectories. They had different political economies: India a mixed economic system and China communism. Consequently, the reforms introduced in the two countries were also different. As discussed in Chapter 4, in the post reform period, the private sector became the flag bearer of India's growth represented by global brand names although the public sector also played an important role in the growth process. With respect to China, the economy is dominated by colossal SOEs which dominate the entire economic spectrum.

The different political economies of India and China are reflected in the oil sector in the respective countries. In the post reform period, the oil industry in India is characterised by dominant SOEs, a vibrant and fast emerging private sector and joint ventures between the SOEs, private enterprises and IOCs. China on the other hand has an oil industry represented by the SOEs with joint ventures formed with IOCs to increase the E&P activities in China - both onshore and offshore. The oil sector is dominated by three oil companies: CNPC, Sinopec and CNOOC. Private sector oil companies are also present in the oil industry but they are extremely small in size relative to the major NOCs and are very minor players.

The difference in the relative power of India and China is also reflected in the oil sector. Chinese NOCs have more financial muscle relative to Indian oil companies. Chinese oil companies have greater market capitalisation and financial resources at their disposal relative to Indian oil companies. This is evident from the rankings of the Indian and Chinese oil companies in the Global Fortune 500 rankings and also in the prestigious Platt Rankings of oil companies. All three major Chinese oil companies are ranked higher that their Indian counterparts in the Platt rankings. CNPC and Sinopec are ranked higher than all the Indian oil companies in the Global Fortune 500 rankings whereas CNOOC is ranked higher than ONGC (and OVL), OIL and Essar Oil which operate in the upstream sector and have operations in West Africa.

Moreover, Chinese NOCs are active in more countries, globally, in Africa and in West Africa. Chinese NOCs are able to take more risks and bid for even difficult oil blocks. They are less concerned about the rate of return, are willing to pay higher price to access and acquire technology and are preferred as partners by both the IOCs and other oil companies relative to Indian oil companies. Chinese NOCs also receive greater

diplomatic and political support relative to Indian oil companies. Thus China's economic and political power provides Chinese NOCs a substantial edge over Indian oil companies. Hence neoclassical realism i.e. the independent variable and the intervening variable can explain the difference in how Indian and Chinese oil companies mobilise oil in West Africa- the dependent variable to achieve their respective goals, objectives and ambitions. The hypothesis that neoclassical does explain the difference in how India and China mobilise oil externally in the oil industry in West Africa is tested in Chapter 6 and Chapter 7.

Chapter 6

Introduction

Chapter 5 illustrated that the difference in political economy of India and China and the difference in their relative power is also reflected in the oil sector. Chinese oil companies have more financial muscle relative to Indian oil companies. Chinese oil companies are active in more countries, globally and in Africa relative to Indian oil companies. It also highlighted that Chinese oil companies are able to take more risks and bid for even difficult oil blocks, are less concerned about the rate of return, are willing to pay higher price to access and acquire technology and are preferred as partners by both the IOCs and other oil companies relative to Indian oil companies. Chinese NOCs also receive greater diplomatic and political support relative to Indian oil companies. Thus China's economic and political power provides Chinese NOCs a substantial edge over Indian oil companies. The difference in the political economy i.e. the domestic or the intervening variable explains why SOEs are predominant in the oil sector in China. On the other hand, in the oil sector in India, both SOEs and private enterprises are active and the latter play an important role in the oil sector.

Chapter 6 tests the hypothesis that neoclassical realism can explain the difference in how India and China mobilise oil in the oil industry in West Africa. Geopolitically, according to the UN, West Africa includes 17 countries. The thesis excludes Saint Helena and includes Angola, Equatorial Guinea and Cameroon in West Africa.

The chapter is divided into two sections. Section I discusses the null hypothesis and the alternative hypothesis. Section II examines whether Chinese SOEs outbid Indian enterprises and whether China is spread throughout West Africa relative to India's selective approach. It discusses the presence of Indian and Chinese oil companies and the number of oil blocks that each country has in eight countries in West Africa. It also discusses the oil industry in eight countries: oil reserves and production and the oil blocks acquired by Indian and Chinese oil companies in the eight countries respectively. Focus is to find out if India and China bid for the same oil block in the countries and if it supports the hypothesis. It also examines whether China is represented by SOEs and whether India is represented by SOEs and/or private enterprises in the oil industry in West Africa. It does a case study 'pattern-matching' of eight countries to test the hypothesis that neoclassical realism does explain the difference in how India and China mobilise oil industry in the oil industry in West Africa i.e. their ability to mobilise resources externally.

Section I

As mentioned in Chapter 1, the researcher wanted to compare and contrast the bids placed by Indian and Chinese oil companies for the individual oil blocks in West African countries to gauge/test the difference in the oil companies from the two countries based on parameters like the price of oil, ability to take risk, level of technology, project management skills, financial support from EXIM bank and other government organisations etc. as discussed in Chapter 5. However, due to commercial confidentiality and national security, it was not possible to get access to the detailed bids. The researcher was also unable to interview government officials from China and from West African countries, and executives from the Chinese NOCs and six major IOCs (except one IOC). The researcher used secondary sources to gather data. Sources available in the public domain (primary and secondary sources) and semi-structured elite interviews were used by the researcher to prove the test the hypothesis.

The researcher used the following to test the hypothesis that China has greater outreach in West Africa relative to India and Chinese oil companies outbid Indian companies to acquire oil blocks in West Africa:

(1) Comparing the number of blocks bid for and acquired by Indian and Chinese oil companies.

(2) The number of countries that they have bid for and acquired blocks in West Africa.

Where the Indian and Chinese oil companies did not enter into direct competitive bidding to acquire oil blocks, two proxies are used to gauge the difference in their economic and political power. First is the preference as a partner in the E&P process in West Africa. Since China is economically and politically more powerful than India as discussed in Chapter 4 and this is reflected in the oil industry as illustrated in Chapter 5, ceteris paribus oil companies especially African NOCs should prefer to have Chinese oil companies as partners. This may also explain why China has greater outreach in the oil industry in West Africa relative to India. Second proxy or dummy variable is the quality of the oil block. The premise is that if China is economically and politically more powerful than India, then the quality of the oil blocks that China has acquired would be better than oil blocks acquired by India. The assertion is predicated on human consumer behaviour and spending power. Thus, if an individual has more income and or wealth or in simple words is richer than another individual, ceteris paribus, he or she will have a greater propensity to spend. Thus, a richer individual based on his or her income and/or wealth may be able to afford a Ferrari where as a relatively poor person may have to contend with a Fiat or an Audi as the case might be.

The difference in wealth also affects the propensity to take risks. Thus, a rich individual, ceteris paribus, is less risk averse as compared to an individual with relatively lower income and wealth, or in other words a poorer individual is more risk averse than a richer individual. Because a rich individual is less risk averse, he or she is not only able to spend more money, but also is less concerned about the returns on the investment. A richer individual is able to sustain and absorb a longer gestation period compared to a poorer individual.

Thus, China being economically and politically more powerful than India should spend more money i.e. it places a higher bid for an oil block compared to India and also bids for more oil blocks relative to India in West Africa. Moreover, unlike India, China should not be concerned about the rate of return on investment in the short term because it has extremely deep pockets. As discussed in Chapter 4, China has foreign exchange reserves in excess of $3 trillion compared to India which has foreign exchange reserves of approximately $250-$280 billion.

The hypothesis is:

H_O: Null Hypothesis

(1) The independent or the exogenous variable i.e. the difference in the relative power of India and China in an anarchical international system explains (a) why Chinese oil companies are spread more relative to Indian oil companies in countries in West Africa; (b) the ability of the Chinese oil companies to outbid Indian oil companies if and when they bid for the same block, and/or (c) why Chinese oil companies are chosen as the preferred partner over Indian oil companies by other oil companies while entering into joint ventures to bid for oil blocks, and/or (d) why Chinese oil companies have better quality oil blocks relative to Indian oil companies.

If Chinese oil companies have more oil blocks in one country and are operating in more countries than their Indian counterparts, then the hypothesis is accepted. Similarly, if the former outbid the latter for oil blocks, and/or are chosen as the preferred partner for a joint venture to bid for oil blocks in West African countries and/or have better quality oil blocks, the hypothesis is accepted. Otherwise the hypothesis is rejected.

(2) The intervening or the domestic variable i.e. the difference in the political economy of India and China explains why China is represented by SOEs in the oil industry in West African countries and India is represented by SOEs and/or private enterprises.

If China is represented by SOEs in the oil industry in West African countries and India is represented by SOEs and/or private enterprises, then the hypothesis is accepted. Otherwise the hypothesis is rejected.

H_A: Alternative Hypothesis not H_O

Section II

This section tests the hypothesis that neoclassical realism can explain the difference in how India and China mobilise oil in the oil industry in West Africa. It discusses the oil industry in eight countries: oil reserves and production and the oil blocks acquired by Indian and Chinese oil companies in the eight countries

respectively. Focus is to find out if India and China bid for the same oil block in the countries and if it supports the hypothesis.

India and China: Oil blocks in 8 countries in West Africa

Table 6.1 depicts the names and number of oil blocks that Indian oil companies bid for and acquired respectively in eight countries in West Africa. Table 6.1 shows that Indian oil companies bid for six oil blocks in two out of the eight countries in West Africa: Angola, and Ghana and acquired no oil blocks. OVL was unable to acquire Block 15(06), Block 17(06), Block 18(06); Block 18, Block 31 and Block 32 in Angola. OVL lost bid for Block 31 to Indonesia's NOC PETRAMINA. OVL also lost the bids for Block 15(06), Block 17(06), Block 18(06) and Block 18 to Chinese NOC Sinopec. A joint venture between Sinopec and CNOOC outbid OVL for Block 32.

Table 6.1: Oil blocks bid for and acquired by Indian oil companies in 8 countries in West Africa

Country	Company	Number of Blocks	Names of Blocks	Type of Blocks
Angola	OVL	6	Block 18[a]; Block 31[b]; Block 15(06)[c]; Block 17(06)[c]; Block18(06)[c]; Block 32	Offshore; Offshore; Offshore; Offshore; Offshore; ultra-deep water
Ghana	OVL	0	Jubilee oil block[d]	Offshore
Total	**Bid 6; Acquired 0**			

Source: All figures are from Vines, Alex, Weimer, Markus and Campos, Indira (2009) unless otherwise indicated.

a OVL lost the bid to Sinopec. OVL offered $310 million and increased the offer to $725 million. Sinopec paid $2 billion for the oil block (Vines, Weimer and Campos, 2009).

b OVL lost the bid to PERTAMINA Indonesia's state owned oil company PERTAMINA paid $3.5 billion whereas OVL bid $2 billion, http://www.chinadaily.com.cn/business/2011-05/11/content_12489760.htm (Accessed January 6 2013)

c OVL offered $1 billion for the development of the three offshore blocks (Vines, Weimer and Campos, 2009)

d OVL has expressed interest in acquiring the Jubilee oil block, http://ghanaian-chronicle.com/in-the-name-of-oil-ghana-is-already-wallowing-in-a-flood-of-debt/;
http://epaper.timesofindia.com/Default/Layout/Includes/ET/ArtWin.asp?From=Archive&Source=Page&Skin=ET&BaseHref=ETD%2F2009%2F11%2F19&ViewMode=HTML&PageLabel=16&EntityId=Ar01601&AppName=1 (Accessed January 6 2013)

According to Table 6.2, Chinese oil companies are active in all the eight countries in West Africa. Additionally, Chinese oil companies bid for 30 oil blocks and acquired 28 blocks. Hence it can be concluded that Chinese oil companies are spread more widely across West Africa relative to India oil companies and the former outbid the latter for oil blocks in West Africa. India lost bids for oil blocks in Angola to Chinese NOCs. Moreover, Chinese NOC was preferred as a partner relative to Indian oil companies. This is discussed in more detail below.

Indian and Chinese oil companies in West Africa

The presence and or absence of Chinese and Indian oil companies is discussed in eight West African countries namely Angola, Ghana, Chad, Equatorial Guinea, Cameroon, Mauritania, Niger and Liberia where

Table 6.2: Oil blocks bid for and acquired by Chinese oil companies in 8 countries in West Africa

Country	Company	Number of Blocks	Name of Block	Type of Block
Angola	Sinopec	7	Block 15/06[a]; Block 17/06[a]; Block 18[a]; Block 18/06[a]; Block 31[b]; Block 32[c]; Block 3/80[d]	Offshore; Offshore; Offshore; Offshore, Ultra deep water; Ultra deep water; Onshore
Cameroon	Sinopec[e]	12	Blocks in Rio Del Rey Basin[f]	Offshore
Chad	CNPC	1	Block H[g]	Onshore
Equatorial Guinea	CNPC	1	Block M	Offshore
Equatorial Guinea	CNOOC	1	Block S	Offshore
Ghana	CNOOC	-	Jubilee Oil Field[h]	Offshore
Liberia	Petro China	1	Block LB-09	Offshore
Niger	CNPC	2	Block Bilma; Block Tenere	Onshore; Onshore
Mauritania	CNPC	4	Block Ta13; Block Ta21; Block 12; Block 20	Onshore; Onshore; Onshore; Onshore
Total		**Bid 30; Acquired 28**		

Source: All figures are from CNPC, Sinopec, PetroChina and CNOOC unless otherwise indicated.

a Sinopec has a stake in the 4 oil blocks in a joint venture with China Sonangol. The company is Sonangol Sinopec International (SSI), http://www.chinasonangol.com/oil_and_gas.html (Accessed January 6 2013)

b Sinopec lost the bid to PERTAMINA Indonesia's state owned oil company PERTAMINA paid $3.5 billion whereas OVL bid $2 billion, http://www.chinadaily.com.cn/business/2011-05/11/content_12489760.htm (Accessed January 6 2013). The bid placed by SSI cannot be verified.

c Sinopec joined hands with CNOOC to bid for a 20 per cent stake in ultra-deep-water oil block 3299 operated by Total, which was being relinquished by the US oil company Marathon. The joint offer by Sinopec and CNOOC ($1.3 billion) outbid rival bids from OVL, Petrobras and even CNPC. However, the deal was put on hold due to below market valuation (Alves, 2010)

d Sinopec was not awarded a stake in the shallow-water bloc 3/80 (later renamed 3/05 and 3/05–A), as the signature of the joint study programme signed in February 2005 originally suggested (Alves, 2010). Following Manuel Vicente's visit to Beijing in early July 2005, these stakes (25 per cent of bloc 3/05 and 25 per cent of bloc 3/05–A, both operated by Sonangol EP) were awarded to CSIH instead. In 2007 these stakes were handed over to SSI for a brief period, according to Vines, Weimer and Campos (2009)

e Sinopec operates in Cameroon, Gabon, Nigeria and Nigeria-São Tomé & Principe, JDZ through its subsidiary AP. Sinopec acquired AP, a Canadian oil company in June 2009 for an estimated $7.22 billion.

f Sinopec through its subsidiary AP acquired an 80 per cent stake in Pecten Cameroon Company (PCC) which has interests in 12 offshore blocks, http://www.sipc.cn/english/News/news/199.shtml (Accessed August 6 2012)

g Block H covers the whole or part of seven depositional basins – Erdis, Doseo, Bongor, Chad Lake, Madiago, Doba, and Salamat, http://www.cnpc.com.cn/en/cnpcworldwide/chad/?COLLCC=357099209& (Accessed January 6 2013)

h, GNPC, Ghana's state-owned oil company and CNOOC made an unsuccessful joint bid of $5 billion for a 23.5 per cent stake of Dallas-based Kosmos Energy LLC in the Jubilee oil fields. Kosmos had earlier rejected Exxon Mobil's bid of $4 billion Experts believe that GNPC and CNOOC will acquire the oil block, http://online.wsj.com/article/SB10001424052748704141104575588111375730330.html (Accessed January 6 2013)

Chinese NOCs have oil blocks. Angola is a major player in the West African oil industry. Ghana, Chad and Equatorial Guinea are small players and the others are minor or fringe players. Tables 6.3 and 6.4 provide the oil reserves and oil production figures of the eight countries from 2001-2012 and 2000-2011 respectively.

Table 6.3: Proven Oil reserves from 2000-2012 in Billion Barrels

	Year											
Country	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Angola	5.412	5.412	5.412	5.412	5.412	5.412	8.0	9.035	9.040	9.500	9.500	9.500
Ghana	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.015	0.015	0.015	0.015	0.660
Chad	N/A	N/A	N/A	N/A	N/A	N/A	1.5	1.5	1.5	1.5	1.5	1.5
Equatorial Guinea	0.012	0.012	0.012	0.012	0.012	0.012	0.012	1.10	1.10	1.10	1.10	1.10
Cameroon	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.200	0.200	0.200	0.200
Mauritania	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.10	0.10	0.10	0.10	0.20
Niger	0	0	0	0	0	0	0	0	0	0	0	0
Liberia	0	0	0	0	0	0	0	0	0	0	0	0

Source: Compiled from US Energy Information Administration, http://www.eia.gov/cfapps/ipdbproject/iedindex3.cfm?tid=5&pid=57&aid=6&cid=r6,&syid=2000&eyid=2012&unit=BB (Accessed January 11 2013)

Table 6.4: Oil production from 2001-2011 in Thousand Barrels per day

	Year											
Country	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Angola	746.1	741.9	896.1	902.3	1054.4	1260.5	1434.9	1768.5	2014.3	1948.0	1987.7	1839.8
Ghana	7.1	7.2	7.4	7.5	8.6	7.4	7.1	7.7	7.7	7.7	8.9	78.2
Chad	0	0	0	36.1	170.6	176.7	157.9	144.2	127.0	115	126.2	123.7
Equatorial Guinea	167.5	181.4	212.6	206.5	368.2	375.5	362.9	368.5	359.2	346.0	322.7	303.0
Cameroon	85.1	76.9	69.9	67.2	66.3	82.7	86.8	83.2	81.7	77.2	65.3	62.0
Mauritania	-0.1	0	0	0	0	0	30.6	15.0	12.8	11.2	8.2	7.7
Niger	0	0	0	0	0	0	0	0	0	0	0	6.7
Liberia	0	0	0	0	0	0	0	0	0	0	0	0

Source: Compiled from US Energy Information Administration, http://www.eia.gov/cfapps/ipdbproject/iedindex3.cfm?tid=5&pid=53&aid=1&cid=r6,&syid=2000&eyid=2012&unit=TBPD- (Accessed January 11 2013)

Angola

Since early 2002, there has been sustained peace in Angola. After 16 years, parliamentary elections were held in 2008. The elections led to a resounding victory for the incumbent Movimento Popular de Libertação de Angola (MPLA). The MPLA obtained 191 seats out of 220 seats in the National Assembly which cemented its political hegemony in the country. After the end of the civil war, Angola has experienced high rates of economic growth. This is due to a rapid increase in oil exports and high government spending (Vines, Weimer and Campos, 2009).

Oil industry in Angola

Angola, an OPEC member since 2007, is one of the major oil producing countries not only in West Africa but also in Africa. It is an important oil supplier for China and the US. According to Table 2.4 and Table 2.5, it has the third largest oil reserves in Africa after Libya and Nigeria and is the second largest oil producer in West Africa and in Africa after Nigeria. It has the 18th largest oil reserves in the world. New exploration data suggests that Angola's reserves may be larger than initially estimated.[77] According to Table 6.3, oil reserves in Angola have almost doubled from 2001 to 2012 increasing from approximately 5.4 billion barrels to 9.5 billion barrels. According to BP, Angola's oil reserves are approximately 13.5 billion barrels. Oil production in Angola has almost tripled from approximately 746 thousand barrels per day (tbpd) to 1840 tbpd (Table 6.4). As mentioned above, there are expectations of further offshore oil discoveries in Angola. Angolan economy is completely reliant on oil. According to the IMF, in 2001, approximately 98 per cent of the government revenue came from the export of oil. Angolan crude oil is light and sweet and has low sulfur content which is ideally suited for export to major world markets.[78]

[77] Angola, Country Analysis Brief, US Energy Information Administration, http://www.eia.gov/countries/country-data.cfm?fips=AO (Accessed January 13 2013)
[78] Ibid. 77

The IMF projected that the Angolan economy will grow by 26 per cent in 2011 due to rising oil prices. Despite this impressive economic growth, nearly 66 per cent of the people live on less than $2 per day. Contrarily, the elite who enjoy close relations with the state and the polity and have been blemished by pervasive corruption have become tremendously wealthy. Although transparency has improved in recent years, billions of petrodollars have simply vanished and not reached the central bank (Corrigan, 2008).

Angola has been plagued by the mismanagement of revenues from oil exports. The oil industry again came into the limelight during the Presidential elections in August 2012. Since the start of the new century, capturing and disbursement of profits related to the oil industry has improved especially via the government's Oil Investment Fund. However, the opposition disagrees on the degree of improvement made.[79]

The major proportion of oil reserves in Angola are situated offshore because the civil war constrained onshore exploration. Nonetheless, proven onshore reserves exist in the partly unstable Cabinda providence, and around Soyo, a city in northern Angola.[80] Angola has followed a policy of diversification in its energy relationships since 1968 when oil production commenced off the coast of Cabinda province. Angola's continental shelf was divided into blocks. A majority of the blocks have been offered to IOCs through a bidding process where in they enter into a partnership with Sonangol to undertake E&P activities (Vines, Weimer and Campos, 2009).

Angola has six onshore and offshore, and nine deep water oil producing blocks. Table 6.5 provides a breakdown of the oil producing oil blocks. Angola also has 33 E&P oil blocks. It has ten onshore and off shore blocks, 13 deep water oil blocks and ten ultra-deep water E&P oil blocks. Table 6.6 provides a break-down of the E&P oil blocks in Angola.

Table 6.5; Onshore and Offshore Production activity in Angola

Type of Oil Blocks	Name of Oil Blocks
Onshore and Offshore	Block-0 (Area A,B), Block- 2/85, Block- 3 (Canuku), Block- 3/05, Block-3/91, FST Association, FS Association
Deep Water	Block-14, Block-15, Block -17, Block-18

Source: Compiled from Angola Concessions-EIA, Available at www.eia.gov/countries/analysisbriefs/Angola/.../angola_concessions (Accessed January 13 2013)

Table 6.6: Onshore and Offshore Exploration activity in Angola

Type of Oil Blocks	Name of Oil Blocks
Onshore and Offshore	Block-0 (Area A,B), Cabinda Northern, Cabinda Southern, Block-2/05, Block-3/05A, Block-4/05, Block-5/06, Block-6/06, Block-8, Block-9/09
Deep Water	Block-14, Block-15/06, Block-16, Block-17/06, Block 18/06, Block-19/11, Block-20/11, Block-21/09, Block-22/11, Block-23, Block-24/11, Block-25/11, Block-26/06
Ultra Deep Water	Block-31/ Block-32, Block-33, Block-34. Block-35/11, Block-36/11 Block-37/11, Block-38/11, Block-39/11, Block-40/11

Source: Compiled from Angola Concessions-EIA, Available at www.eia.gov/countries/analysisbriefs/Angola/.../angola_concessions (Accessed January 13 2013)

[79] Ibid. 77
[80] Ibid. 77

India and China in the oil industry in Angola

A licencing round was held in 2006 in Angola. The government assured a high level of transparency for the licencing round which yielded unprecedented signature bonuses in excess of $3 billion for the ultra-deep Blocks 31, 32, 33 and 34. This was much higher than the signature bonuses paid in 1999 and 2000. AGIP-Eni made a world record winning bid of $902 million to become operators Block 15(06). This bid was due to strong Chinese competition for the block and resulted in a world record bid of $2.2 billion in Blocks 18(06) and 17(06) by Sonangol Sinopec International (SSI)[81] for non-operator interest (Vines, Weimer and Campos, 2009).

SSI has bid for five oil blocks and acquired four oil blocks (Table 6.2). Through SSI, Sinopec's oil equity is 11 per cent in Block 15(06), 15.125 per cent in Block 17(06), 22 per cent in Block 18(06) and 27.5 per cent in Block 18 (Vines, Weimer and Campos, 2009). It lost a bid for Block 31 to PERTAMINA, Indonesia's state owned oil company. PERTAMINA paid $3.5 billion whereas OVL bid $2 billion (Wang, 2011). The bid placed by SSI cannot be verified. SSI outbid OVL for Block 18 in deep water Angola in 2004. OVL wanted to purchase Shell's 50 per cent stake in Block 18 and finalised an agreement with Shell in April 2004. In December 2004, Sonangol supported by an executive decree (no. 148/2004 of 14 December) officially exercised its preventive right to purchase Shell's 50 per cent share in the oil block (Alves, 2010). This blocked ONGC's move to acquire Shell's stake. Consequently, India was unable to procure approximately five million tonnes of crude oil per day (Singh, 2007). China's goodwill with the Angolan leadership was confirmed when Shell's stake was transferred to SSI in February 2005. Desidério Costa, the Minister for Petroleum formally sanctioned the transfer (Alves, 2010). China's offer of $725 million for infrastructure development surpassed India's offer of $310 million. Consequently, SSI acquired the concession (Vines, Weimer and Campos, 2009). Estimates of China's aid to clinch the deal vary with Singh, S. (2007b) stating that China offered $2 billion for a variety of projects to Angola and India offered $200 million for the developing railways.

OVL also offered $1 billion for the deep water blocks: 15(06), 17(06) and 18(06). This was less than the $2.2 billion bid by SSI for non-operator rights for the Blocks 17 (06) and Blocks 18 (06) - $1.1 billion for each oil block. SSI also paid $750 million for Block 15 (06) (Vines, Weimer and Campos, 2009). Thus, OVL bid of $1 billion is less than $ 2.9 billion that SSI bid for the three oil blocks. A joint venture between Sinopec and CNOOC outbid OVL for a 20 per cent stake in ultra-deep water Block 32 which Marathon, a US based oil company wanted to relinquish in 2009 (Alves, 2010).

The Angola experience was a lesson for the Indian oil companies especially OVL. As discussed in Chapter 5, ONGC out of all the Indian oil companies is the biggest player in the upstream segment in India and globally through its overseas arm OVL. It is a 'maharatana' or a 'mega jewel' and receives considerably support and privileges from the GOI. ONGC and OVL were completely swept away by Chinese oil companies in

[81] In Angola, Chinese SOE Sinopec operates in a joint venture with China Sonangol. The name of the company is SSI.

Angola. It was also a hard learnt lesson for the Ministry of Oil and Natural Gas, GOI so much so that Mr Mani Shankar Aiyar, Minister for Oil and Natural Gas, GOI stated that if Indian oil companies cannot compete with Chinese oil companies, the former should cooperate with the latter. It can be speculated that the Angola experience was the reason why Indian oil companies did not enter into direct bidding with Chinese oil companies for oil blocks in countries in West Africa (Vines, Weimer and Campos, 2009).

In Angola, Chinese oil companies have so far crowded out other Asian oil companies (NOCs as well as private enterprises) despite the fact that they supported the National Liberation Front (FLN), opponents of the MPLA during the civil war. Angola has become the largest oil exporter for China in Africa. Moreover, Saudi Arabia and Angola have exchanged position frequently as biggest oil suppliers to China (Zhu, 2010). On the other hand, despite establishing diplomatic relations with Angola in 1975, India has been unable to enter Angola's' oil industry.

One of the key factors responsible for the success of Chinese NOCs in the oil industry in Angola is that China was able to interlink business with diplomacy. The partnership between Sonangol and Sinpoec International - the partnership between Sinopec and private business interests based in Hong Kong – has been instrumental in allowing the Chinese to build a portfolio of joint ventures with the Angolan leaders transcending the oil sector and venturing into real estate, aviation and construction worldwide. Moreover, China moved quickly to provide loans for post-war reconstruction in Angola contrary to the traditional Western donors who were reluctant to support an international donor's conference or finance post-war reconstruction. Angola received loans from China amounting to at least $13.4 billion (up to $19.7 billion as per some estimates) by 2009. The importance of Sino-Angolan relationship can be gauged by the fact that in 2008, President José Eduardo dos Santos visited China twice. Consequently, Sinopec was able to beat Indian oil companies and obtained a stake in deep water oil blocks operated by BP through the SSI. Later, it also got a stake in three more offshore blocks. The 'resources for infrastructure' deal has been coined as the 'Angola model' by the World Bank (Vines, Weimer and Campos, 2009).

Angola's relations with China and India do not fit the stereotype of a weak African country being mercilessly exploited by the Asian giants. Angola gave due care to its relationship with China. The symbiotic relationship developed progressively in a realistic but disciplined way. The oil-for-infrastructure model worked in Angola because Angola needed to finance its post-war recovery. China realised that it was possible to conduct business with Sonangol which was a functional oil company. Although there have been some hiccups in the China-Angola relationship, Angola has been able to manage its relationship with China and its NOCs to its benefit. The oil for infrastructure model has served both countries well (Vines, Weimer and Campos, 2009).

Compared to India and other Asian countries, China has been able to meet Angola's need for post-war reconstruction owing to its greater economic power and financial muscle. China still tops the trade rankings. It imports the maximum amount of crude oil from Angola relative to other Asian countries including India and has increased exports to and investment in Angola. Despite the fact that India has rapidly expanded in

Angola, it has played a minor role in Angola's oil industry. In the race between India and China, the latter has clearly surpassed India in the oil industry in Angola. India and other Asian countries might be able to get oil concessions in the future if Angola decides to diversify its oil industry (Vines, Weimer and Campos, 2009).

Hypothesis Testing

OVL bid for six oil blocks in Angola and was unable to acquire any oil block in Angola. OVL and Sinopec (through SSI) entered into competitive bidding for Block 18 where SSI outbid OVL by a ratio of more than two is to one. Similarly, OVL bid $1 billion for three oil blocks: 15(06), 17(06) and 18(06). SSI bid $2.9 billion or approximately three times the amount bid by OVL. A joint venture between Sinopec and CNOOC outbid OVL for Block 32. Thus Chinese NOCs outbid OVL for five oil blocks in Angola. This meets conditions 1(a), 1 (b), 1 (c) and (2) of H_O.

Thus, the null hypothesis is accepted.

Ghana

Democratic Ghana is a relatively more stable country in West Africa. It has a sound record of peaceful transition of power. In recent years, it has recorded history by hosting a sequence of fair and free elections. On two occasions, the incumbent has respected democracy and stepped down from office after the opposition won the elections. Ghana possesses a free media which operates without fear of retaliation and a strong civil society which augurs well for democratic consolidation. It is the second largest producer of gold after South Africa and the second biggest producer of cocoa after Ivory Coast.

Although Ghana depends mainly on the primary sector for economic growth, it has followed stable and prudent economic policies which have resulted in strong rates of growth. Consequently, between 2003 and 2008, poverty has declined form 53 per cent to 28 per cent. It is one of the few countries in Africa which is ahead of schedule to meet its MDGs. Despite the advances, approximately 80 per cent of the population still lives on less than $2 per day. It is one of the fastest growing economies in Africa and its newest oil producer (Harvey, 2010).

Oil industry in Ghana

According to Table 6.3 and Table 6.4, Ghana is a fringe player in the oil industry in West Africa. Its oil reserves of 0.660 billion barrels are small relative to Chad and Equatorial Guinea despite the major offshore oil discoveries in the Jubilee oil fields in 2007. Because of the Jubilee oil fields, oil reserves have more than

quadrupled from 0.015 billion barrels to 0.66 billion barrels in 2012. Consequently, oil production has also increased from 7.7 tbpd to 78.2 tbpd but it is still small relative to Chad and Equatorial Guinea. It is estimated that oil production will increase in the future. There are also expectations of major oil finds in the Jubilee oil fields in the near future.

It is estimated that oil revenues will reach the zenith by 2017 and the oil revenues will be approximately $1-$1.5 billion per annum till 2025. This is a significant increase in the government revenue considering that it is roughly $ 3.7 billion at present (Harvey, 2010).

India and China in the oil industry in Ghana

Both India and China have expressed interest in acquiring oil blocks in the offshore Jubilee oil fields. Neither China nor India has acquired an oil block in Ghana. Ghana's NOC, the Ghana National Petroleum Corporation (GNPC) and CNOOC entered into a joint venture and placed an unsuccessful joint bid of $5 billion for a 23.5 per cent stake in Dallas-based Kosmos Energy LLC's block in the Jubilee field and assets situated close by. Exon Mobil had expressed interest in the block and previously talked with Kosmos Energy. It was willing to pay $4 billion but withdrew its offer after objections were raised by the government in Ghana. Moreover, Kosmos Energy believed that the offer of $4 billion was undervalued because it estimates its worth at approximately $6.75 billion. That is also the reason why it rejected the joint bid by CNOOC and GNPC (Sharma and Ordonez, 2010).

OVL also expressed an interest in acquiring Kosmos Energy's stake in the Jubilee oil fields. It wanted to enter into a joint venture with GNPC to bid for the stake. GNPC currently holds a ten per cent stake in Jubilee oil fields. OVL was willing to match CNOOC's offer if it were to tie up with GNPC. However, GNPC decided to enter into a joint venture with CNOOC.[8283] GNPC preferred CNOOC over OVL because a loan of $3 billion was provided for the development of the hydrocarbon sector by the China Development Bank, and in September 2010, the China EXIM Bank also provided a loan of $10.4 billion for the development of infrastructure (Sharma and Ordonez, 2010).

As in Angola, Chinese financial muscle and prowess has not only strengthened Sino-Ghana relations but allowed China to access and play an important role in the oil industry. Aside from writing down debt owed to it by Ghana since 1985 by $25 million, China has provided much-needed additional loans to assist Ghana to overcome its development challenges. China's recent assistance to Ghana includes $562 million loan from the China EXIM Bank for the construction of a $622 million dam at Bui. China is also helping Ghana meet its objective of improving telecommunication services and integrating information and communication

[82] Shrinate, Supriya (2009) "Ghana blocks in ONGC crosshairs: OVL In Talks With GNPC To Bid For Kosmos Energy's Stake In Giant Offshore Jubilee Field. The Economic Times, November 19 2009, Section: Economy; Page: 16, Available at http://epaper.timesofindia.com/Repository/getFiles.asp?Style=OliveXLib:LowLevelEntityToPrint_ET&Type=text/html&Locale=english-skin-custom&Path=ETD/2009/11/19&ID=Ar01601 (Accessed January 6 2013)

[83] "In the name of oil, Ghana is already wallowing in a flood of debt", http://ghanaian-chronicle.com/in-the-name-of-oil-ghana-is-already-wallowing-in-a-flood-of-debt/ (Accessed January 6 2013)

technology to Ghana's development. In addition to the energy sector, China has also provided assistance to Ghana in telecoms, transport, agriculture and fishing, mining, education, health, water and sanitation, defence among other sectors (Idun-Arkhurst, 2008). Thus, China's economic, political and diplomatic clout and concomitant support for its NOCs relative to India provided an opportunity to CNOOC to enter the oil industry in Ghana.

Hypothesis Testing:

Indian oil companies did not bid for oil blocks in Ghana and have not acquired oil blocks in Ghana. However, OVL wanted to bid for a stake in the Jubilee oil field in conjunction with GNPC. GNPC in a joint venture with CNOOC bid for Kosmos Energy's stake. In this case there was no direct competitive bidding between Indian and Chinese oil companies. However, GNPC showed a preference for CNOOC over OVL. Thus, there was direct competition between an Indian SOE and a Chinese SOE to partner an African NOC GNPC, and CNOOC prevailed in the competition.

This meets conditions 1 (a), 1 (c) and (2) of H_O. Thus, the null hypothesis is accepted.

Chad

Chad a former French colony is Africa's fifth-largest nation. Although it is still under French influence, it has been trying to come out of it for years. It suffers from inadequate infrastructure and internal conflict. Since independence, Chad has been marred by violence and instability arising primarily from tensions between the mainly Christian and animist south and predominantly Arab-Muslim north. President Deby has held office since 1990. Several groups have taken up arms against the government and the situation has been further complicated by Sudanese incursions. President Deby survived a coup attempt in 2006. Chad is one of the most corrupt countries in the world. Even by West African standards, poverty is widespread in Chad and health and social conditions are below the regional average.[84]

Oil industry in Chad

According to Table 6.3 and Table 6.4, conflict ridden and conflict prone Chad is a relatively new player in the oil industry in West Africa. Barring Angola, Chad has the maximum amount of oil reserves of 1.5 billion barrels in the eight countries in West Africa covered in this chapter. Chad came into prominence in 2003 when significant quantities of oil were produced. From 2003-2011, oil production had fluctuated in Chad.

[84] "Chad: profile" http://www.bbc.co.uk/news/world-africa-13164686 (Accessed January 12 2013)

Oil production reached the peak in 2005 at 176.7 tbpd. Since then production has declined and reached the trough in 2009. There has been a marginal increase in production relative to 2009 levels in 2010 and 2011.

China in the oil industry in Chad

Since diplomatic ties resumed between China and Chad in 2006, relations between the two countries have enlarged and strengthened. China's development activities especially the Rônier refinery project epitomises the expanding relationship between the two. China gained ascendancy in Chad after N'Djamena rejected Chad's relations with the West by annulling the Chad–Cameroon pipeline project led by the World Bank. The hallmark of China-Chad relations will be epitomised by China's engagement in the oil industry in Chad despite the recent turbulence (Dittgen and Large, 2012).

CNPC is active in Chad. In December 2003, CNPC entered into a deal with Cliveden - a company from Switzerland - to purchase stake for the risk exploration of Block H. The block constitutes the whole area or part of the area of seven depositional basins: Erdis, Doseo, Bongor, Chad Lake, Doba, Salamat and Madiago. In 2005, CNPC was able to prove the presence of three different groups of reservoirs: top, middle and bottom. CNPC was able to obtain 100 per cent equity on Block H in 2006. In the Bongor Basin of the block, it discovered Baobab and Ronier-1 and other new oil bearing structures.[85]

Continuous exploration in the Mimosa and Ronier areas in the Bongor Basin in 2009 led to the finding of new reserves. Additionally, substantial advances were made in the exploration of Baobab and Prosopis. In Bongor Basin, CNPC made important discoveries. In 2010, a successful formation test was attained in Cassia N-1, a risk exploration well situated in the Naramay area of Block H. The well produced 1,000 tonnes of oil per day. In Block H in Bongor Basin in Chad, a hydrocarbon play was discovered in 2011.[86]

Apart from E&P activity, CNPC also provides Oilfield and Engineering services. A joint venture agreement was signed between CNPC and the Ministry of Petroleum in Chad in September 2007 to construct an oil refinery. In October 2008, the foundation was laid for N'Djamena JV refinery. CNPC has a 60 per cent share and the Ministry of Petroleum, Chad has the remaining share. N'Djamena JV refinery is the only refinery in Chad and it is estimated to process 2.5 million tonnes of crude oil on an annual basis. It became operational in June 2011 and marked the complete operation of the first phase of Chad's integrated upstream and downstream project.[87]

Hypothesis Testing:

Indian oil companies did not bid for oil blocks in Chad and have not acquired oil blocks in Chad. Thus,

[85] CNPC in Chad, http://www.cnpc.com.cn/en/cnpcworldwide/chad/?COLLCC=357099209& (Accessed January 6 2013)
[86] Ibid. 85
[87] Ibid. 85

competitive bidding between Indian and Chinese oil companies did not occur. However, CNPC, a Chinese SOE has acquired 1 oil block in Chad. This meets condition 1(a) and (2) of H_O.

Thus, the null hypothesis is accepted.

Equatorial Guinea

Equatorial Guinea is characterised by widespread inequalities in income and wealth. It is a rich country of poor people and is a textbook case of resources curse. It has the lowest HDI Rank of all the countries in the world. According to the UN, approximately 50 per cent of the people have access to clean drinking water and IMR is extremely high. It is infested with nepotism and cronyism, and the oil money has been used by the rulers to increase their own wealth and expend on defence rather than on development projects for the populace.[88]

Since independence, Equatorial Guinea has not been well governed. Obiang Nguema seized power in a coup by executing his uncle in 1979. President Obiang has been in power for more than three decades and oil money has made his regime increasingly paranoid. Like his predecessor, President Obiang has arranged periodic crackdowns against the opposition and his regime is infamous for human right violations. The President ridicules western notions of transparency. He opines that oil revenues are a state secret and how much money his government earns from oil is nobody's business. According to Transparency International, Equatorial Guinea is one of the 12 most corrupt countries in the world. A US Senate investigation in 2004 discovered that President Obiang's family was the recipient of large sums from US oil corporations like Hess and Exxon Mobil. In 2008, Equatorial Guinea met the candidature of the Extractive Transparency Initiative (ETI)[89] but failed to meet an April 2010 deadline.[90]

Oil industry in Equatorial Guinea

According to Table 6.3 and Table 6.4, Equatorial Guinea is a substantial player in the oil industry in West Africa not only because of its oil reserves but also oil production. Oil reserves have increased from a paltry 0.0120 billion barrels in 2001 to 1.1 billion barrels in 2012. Oil production has also increased substantially. It increased from 167.5 tbpd in 2000 to 375.5 tbpd in 2005. Since then it has declined and reached 303.0 tbpd in 2011. It is expected that the recent operationalization of the Aseng oil and gas-condensate field may revive the production of liquids in 2012. The Zafaro field has been the mainstay of Equatorial Guinea's

[88] "Equatorial Guinea: profile" http://www.bbc.co.uk/news/world-africa-13317174 (Accessed January 12 2013)
[89] ETI is an international project meant to promote openness about government oil revenues.
[90] Ibid. 88

hydrocarbon industry. However, recently, its present output has decreased by almost 50 per cent. Consequently, Equatorial Guinea has been eager to commence production from new assets.[91]

China in the oil industry in Equatorial Guinea

Chinese SOEs CNPC and CNOOC have an oil block each in Equatorial Guinea. In 2006, CNPC moved into Equatorial Guinea and its major oil asset is in Block M. The block has acreage of 2,703 square km and is situated in the Rio Muni Basin. CNPC and Fruitex signed a Simplified Purchase Agreement (SPA) for the block on May 15 2006 and on July 20 2006, the government of Equatorial Guinea signed an E&P agreement for the block. CNPC is the operator and has a 70 per cent share in Block M.[92]

In 2006, CNOOC Africa Limited, a subsidiary of CNOOC, the National Oil Company of Equatorial Guinea, GEPetrol and the Ministry of Mines, Industry and Energy in Equatorial Guinea were signatories for a PSC for Block S. The block is situated offshore in south Equatorial Guinea and has acreage of nearly 2,287 square km. It is water depths ranging from 30-1500 meters (Rigzone, 2006).

Hypothesis Testing:

Indian oil companies did not bid for oil blocks in Equatorial Guinea and have not acquired oil blocks in Equatorial Guinea. Thus, competitive bidding between Indian and Chinese oil companies did not occur. However, CNPC and CNOOC have acquired one block each in the country. This meets condition 1(a) and (2) of H_O.

Thus, the null hypothesis is accepted.

Cameroon

Cameroon came into existence in 1961 when two former colonies one belonging to France and other form the UK were unified. Cameroon has struggled to come to terms with a multi-party system from one party system since it was created with severe restrictions on the freedom of expression. President Biya has been in power from 1982. He is one of Africa's most entrenched Presidents. It was during his tenure that a move was made towards multi-party democracy due to local discontent. In April 2008, a controversial amendment to

[91] US Energy Information Administration, Equatorial Guinea, October 16 2012, http://www.eia.gov/countries/country-data.cfm?fips=EK&trk=p1 (Accessed January 13 2013)
[92] CNPC in Equatorial Guinea, http://www.cnpc.com.cn/en/cnpcworldwide/equatorial/?COLLCC=3318356053& (Accessed January 6 2013)

the constitution by Cameroon's parliament enabled President Biya to run for a third term of office in 2011.[93]

Cameroon has favourable agricultural conditions and modest oil resources. This has provided Cameroon with one of the best endowed primary commodity economies in the continent. Despite that, it faces many serious problems like stagnant per capita income, inequalities in income, a bureaucratic civil service, endemic corruption and a climate which is unfavourable for business.[94]

Oil industry in Cameroon

Table 6.3 and Table 6.4 illustrate that Cameroon is a relatively small player in the oil industry in West Africa. The oil reserves in Cameroon are marginal amounting to only 0.4 billion. This puts Cameroon in the middle of the table out of the eight countries. Proven oil reserves in Cameroon have fallen from 0.40 billion barrels in 2001 to 0.20 billion barrels in 2012 i.e. a fall of 50 per cent. Oil production was 85.1 tbpd in 2000. This declined substantially till 2004. It rose again in 2005 and peaked to 86.8 tbpd in 2006. Since then, production has declined steadily.

China in the oil industry in Cameroon

Out of the three Chinese NOCs, Sinopec has operations in Cameroon. Sinopec operates in Cameroon through its subsidiary AP. On October 31, SIPC, another subsidiary of Sinopec, acquired 80 per cent stake of Pecten Cameroon Company (PCC) held by Shell for $538 million. On May 25, 2011, SIPC through its wholly-owned subsidiary AP entered into an acquisition agreement with Shell, under which SIPC would take over all 80 per cent stake of PCC held by Shell and Cameroon National Petroleum Corporation would hold the remaining 20 per cent. PCC holds 12 E&P offshore blocks in the Rio Del Rey Basin and operates two of them. Subsequently, PCC was rechristened as Addax Petroleum Cameroon Company LLC (APCC). APCC has stakes in one oil block in Ngosso, four oil blocks in Lokele, six oil blocks in Rio Del Rey and one in Dissoni.[95]

The Ngosso licence area is situated offshore west of Cameroon in the hydrocarbon rich Rio del Rey Basin. It is adjacent to the shore in deep water of approximately eight meters. Ngosso licence area and OML123 in Nigeria have similar subsurface geological and operational conditions. It has acreage of 117,100 acres or 474 square km. There has been no exploration activity in the block in the last two decades although it contains a number of hydrocarbon discoveries. The government of Cameroon and AP signed a contract in December 2002 for the licence area. AP has a 60 per cent share in the block and is the operator.[96] AP has holdings in 11

[93] "Cameroon: profile" http://www.bbc.co.uk/news/world-africa-13146029 (Accessed January 12 2013)
[94] "Cameroon", The World Factbook, Central Intelligence Agency, https://www.cia.gov/library/publications/the-world-factbook/geos/cm.html (Accessed January 12 2013)
[95] Addax Petroleum, Operations, Cameroon, http://www.addaxpetroleum.com/operations/cameroon (Accessed January 11 2013)
[96] Ibid. 95

additional offshore blocks. The breakdown is as follows:

Lokele: four oil blocks: 40 per cent share in Mokoko Abana, 25 per cent stake in South Asoma, 32.25 per cent share in Lipenja, and 27.6 per cent stake in Erong North.

Rio Del Rey: six oil blocks: 24.5 per cent in Bavo-Asoma, Ekoundou Marine, Kole Marine, Boa-Bakassi and Kita Edem, and 25 per cent in Sandy Gas.

Dissoni: one oil block: 37.5 per cent in Dissoni North.[97]

Hypothesis Testing:

Indian oil companies did not bid for oil blocks in Cameroon and have not acquired oil blocks in Cameroon. Thus, competitive bidding between Indian and Chinese oil companies did not occur. However, Sinopec through its subsidiary, AP has 12 oil blocks in Cameroon. This meets condition 1(a) and (2) of H_O.

Thus, the null hypothesis is accepted.

Mauritania

Mauritania is one of the poorest countries in the world. It is relying on revenue from its offshore oil and gas reserves for future prosperity. It is expected that millions of barrels of oil will be produced by the Chinguetti and Tiof fields. President Taya's twenty years of authoritarian rule was ended by a coup in 2005. A move towards democracy was initiated in March 2007 but it was short-lived. There were also coups in 2008 and 2009.[98]

Mauritania was suspended from the African Peer Review Mechanism (APRM) following the coup d'état in August 2008 and also from the AU. Mauritania was not officially readmitted to the APRM although its suspension from the AU was revoked in 2009. However, during the 14th Summit of the Committee of Participating Heads of State and Government (known as the APR Forum) held in Addis Ababa, Ethiopia in January 2011, Mauritania, was readmitted into the APRM.[99]

Oil industry in Mauritania

Mauritania, according to Table 6.3 and Table 6.4 is a very small and new player in the oil industry in West

[97] Ibid. 95
[98] "Mauritania profile" http://www.bbc.co.uk/news/world-africa-13881985 (Accessed January 12 2013)
[99] Ibid. 98

Africa. Its oil reserves and oil production are marginal. It has oil reserves of approximately 0.10 billion barrels. Oil production started in 2006 and has declined since then. It produced 30.6 tbpd in 2006 and production has declined every year to 7.7tbpd.

China in the oil industry in Mauritania

CNPC not only operates in E&P production activities in Mauritania but also provides oil field services. Since 2004, CNPC has been operating four exploration projects in Mauritania. CNPC and the Ministry of Industry and Mining of Mauritania entered into an agreement for the E&P of four oil blocks: Block 12, Block Ta13, Block 20 and Block Ta21. Blocks Ta21 and Ta13 situated in the in the Taoudeni Basin, have acreage of 15,292.45 square km and 19,778.5 square km respectively. Block 20 and Block are 12 situated in the coastal basin and the latter has acreage of 10,339.05 square km. CNPC has conducted comprehensive geological research, formation testing and drilling in the four blocks.[100]

In 2005, the Mauritanian National Assembly approved PSCs for Blocks 12, Ta21 and Ta13. In the same year, CNPC entered into a 'farm out' agreement with Brimax Petroleum Limited and became the operator of Block 20. The 'farm out' agreement was ratified by the Mauritanian National Assembly on August 18, 2005. In the first exploration well, Heron-1 assigned in Block 20, oil and gas show was observed in 2006. Oilfield services like well drilling, well logging and geophysical prospecting are also provided by CNPC.[101]

Hypothesis Testing:

Indian oil companies did not bid for oil blocks in Mauritania and have not acquired oil blocks in Mauritania. Thus, competitive bidding between Indian and Chinese oil companies did not occur. However, CNPC has acquired four oil blocks in the country. This meets condition 1(a) and (2) of H_O.

Thus, the null hypothesis is accepted.

Niger

Niger is one of the poorest and also one of the most undeveloped countries in the world. However, it is rich in natural resources like minerals (uranium and gold) and oil. The best route to economic power in Niger is through political office. In 2009, using unconstitutional measures in an attempt to extend his political office, President Tandja suspended a democratic constitution that limited the President's term in office. The polity in Niger aggrandizes their personal wealth to the detriment of the people by receiving kick-backs and

[100] "CNPC in Mauritania", http://www.cnpc.com.cn/en/cnpcworldwide/mauritania/ (Accessed January 12 2013)
[101] Ibid. 100

misusing revenues from lucrative mining contracts. Niger typifies 'islands of prosperity surrounded by seas of poverty'. Moreover, political parties also receive support from countries which have invested heavily in Niger due to strategic reasons. For instance, France which receives uranium imports from Niger for its nuclear energy has a vested interest in Niger. President Tandja was ousted in a coup in 2010. Polls to restore civilian rule were held in January 2011.[102]

Oil industry in Niger

According to Table 6.3 and Table 6.4, Niger is a very small player and a new comer in the oil industry in West Africa. Its oil reserves and oil production are marginal so much so that the US Energy Information Administration has given a numerical value of '0 billion' barrels for its oil reserves. This does not imply that the oil reserves are zero because it produced 6.7 tbpd in 2011. What '0 billion' barrels implies is that its oil reserves are in single digit million barrels or even less. Niger started producing oil in 2011.

China in the oil industry in Niger

In 2003, CNPC started its oil and gas operations in Niger. It operates in upstream and downstream sectors. It operates a refinery in a joint venture, is the operator in two E&P ventures and also provides oilfield services. CNPC own and operates two E&P blocks: Tenere and Bilma. CNPC signed a deal with the government in Niger on November 23 2003 for E&P licence for the two blocks. In Block Tilma, CNPC has a 100 per cent ownership. In Block Tenere, CNPC has an 80 per cent share and TG World of Canada has a 20 per cent stake. Block Tenere and Block Bilma are situated in the vicinity of the Sahara desert and cover an area of approximately 71,155 square km and 60,884 square km respectively. In 2005, integrated studies and 2D seismic data acquisition were initiated in Block Tenere. The first exploration well, Saha-1 in Block Tenere was spudded on October 30 2006. During drilling, encouraging source ricks were observed.[103]

Niger and CNPC were signatory to combined upstream and downstream ventures in Agadem block in June 2008. This involved the construction of a refinery as a joint venture, constructing and operating a long-distance pipeline and exploration and development of oil fields. According to the terms of the contract, within a three year period, CNPC was to finish the first stage of construction and make the refinery, pipeline and oil filed operational. In 2009, substantial progress was made in the exploration of the Agadem project. In the Dibella site situated east of Agadem, formation test resulted in high yield flow from three exploration wells in 2010.[104]

Stage-I of the Agadem project was finished and turned functional on November 28 2011. It constitutes a 1Mt/a Zinder Refinery, 1Mt/a oilfield and a pipeline of 462.5 km length which connects the oilfield and the

[102] "Niger Profile" http://www.bbc.co.uk/news/world-africa-13943662 (Accessed January 12 2013)
[103] "CNPC in Niger", http://www.cnpc.com.cn/en/cnpcworldwide/niger/?COLLCC=376754904& (Accessed January 12 2013)
[104] Ibid. 103

refinery. The produce from the refinery includes LPG, diesel, gasoline and fuel oil which will be exported to the neighboring countries after it is supplied domestically in Niger.[105]

Hypothesis Testing:

Indian oil companies did not bid for oil blocks in Niger and have not acquired oil blocks in Niger. Thus, competitive bidding between Indian and Chinese oil companies did not occur. However, CNPC has acquired two oil blocks in the country. This meets condition 1(a) and (2) of H_O.

Thus, the null hypothesis is accepted.

Liberia

Liberia is the oldest republic in Africa. However it became infamous in the last decade of the 20th century for its protracted and devastating civil war and the role played by President Charles Taylor in the civil war in Sierra Leone. First polls were undertaken in 2005 after the end of the civil war and Ellen Johnson-Sirleaf came to power. She is Africa's first female president. Charles Taylor, the former President of Liberia was convicted for war crimes in Sierra Leone by the International Criminal Court. The infrastructure is in ruins. President Johnson-Sirleaf has been praised for upholding the rule of law and stability in Liberia. She has also managed to obtain forgiveness from international lenders for Liberia's huge national debt. This has enabled Liberia to be financially stable and has also made the country much more attractive to foreign investors. However, she has also been criticized for being ineffective against corruption and for favouring nepotism. At the 14th ARF Form held in Addis Ababa, Ethiopia in 2011, Liberia voluntary acceded to the APRM.[106]

Oil industry in Liberia

According to Table 6.3 and Table 6.4, like Niger, Liberia is a very small player, and a new comer in the oil industry in West Africa. Its oil reserves and oil production are marginal so much so that the US Energy Information Administration has given a numerical value of '0 billion' barrels for its oil reserves. This does not imply that the oil reserves are zero barrels or oil production is zero barrels. What '0 billion barrels' implies is that its oil reserves are in single digit million barrels or even less. Similarly, oil production in Liberia is relatively small.

[105] Ibid. 103
[106] "Liberia Profile", http://www.bbc.co.uk/news/world-africa-13729506 (Accessed January 12 2013)

China in the oil industry in Liberia

In 2012, PetroChina International Investment Company, a subsidiary of PetroChina, clinched a deal with Africa Petroleum for a strategic investment in some of its oil and gas exploration activities in West Africa. The deal gives PetroChina an exclusive period to decide if it wants to invest in nearly 20 per cent of Block LB-09 in Liberia. The deal allows PetroChina to invest up to 20 per cent in at least one exploration block in Sierra Leone, Liberia, Cote d'Ivoire, Senegal and The Gambia (Energy Business Review, 2012). The option PetroChina had to pick up a stake in Liberia from African Petroleum Corp. has expired. African Petroleum stated that it is continuing to negotiate with the Chinese firm in good faith (Petroleum Africa, 2012).

Hypothesis Testing:

Indian oil companies did not bid for oil blocks in Liberia and have not acquired oil blocks in Liberia. Thus, competitive bidding between Indian and Chinese oil companies did not occur. However, PetroChina, a subsidiary of CNPC has acquired one oil block in the country. This meets condition 1(a) and (2) of H_O.

Thus, the null hypothesis is accepted.

Conclusion

Africa has gained significance as an important oil supplier to the world. Although its oil reserves constitute approximately eight per cent of the global oil reserves and its reserves are marginal relative to the Middle East, Africa especially West Africa can play a more important role. It is estimated that there will be more offshore oil discoveries in the West African countries in the near future which will not only increase the oil reserves but accentuate the ever increasing oil production in the region. West Africa also provides various commercial advantages and business opportunities to oil companies and its high quality light sweet oil is in high demand.

The chapter discussed the presence of Indian and Chinese oil companies in eight countries in West Africa and the number of oil blocks that each country has in those countries. It tested the hypothesis that neoclassical realism explains the difference in how India and China mobilise oil in the oil industry in eight countries in West Africa where Indian oil companies bid but did not acquire oil blocks. The hypothesis is that the independent variable i.e. the difference in the relative power of India and China in an anarchical international system explains (a) why Chinese oil companies are spread more relative to Indian oil companies in countries in West Africa; (b) the ability of the Chinese oil companies to outbid Indian oil companies if and when they bid for the same block, and/or (c) are chosen as the preferred partner by other oil companies while entering into joint ventures to bid for oil blocks and/or (d) have better quality oil blocks

relative to Indian oil companies. The intervening variable i.e. the difference in the political economy of India and China explains why China is represented by SOEs in the oil industry in West African countries and India is represented by SOEs and/or private enterprises.

The test yielded results which proved the hypothesis and the hypothesis was accepted. The test demonstrated that in all the eight countries, China was represented by SOEs and India was also represented by SOEs. This establishes that the intervening variable or the difference in the political economy of India and China elucidates the difference in their ability to mobilise oil externally.

The test also proved that the independent variable or the difference in the relative power between India and China explains why the Chinese oil companies are able to outbid their India counterparts if and when they bid for the same oil block as in Angola where Indian oil companies were over bid by their Chinese counterparts when they bid for the same oil block, and/or Chinese oil companies are preferred as partners to enter into joint ventures to develop oil blocks relative to Indian companies as in Ghana. In Ghana, GNPC preferred to enter into a joint venture with Chinese NOC CNOOC to bid for Kosmos Energy's stake in the Jubilee Oil field rather than choose Indian NOC OVL as a partner.

Moreover, Chinese oil companies bid for more oil blocks in West Africa as a region and also acquired more oil blocks in the region relative to Indian oil companies. Additionally, Chinese oil companies had bid for and acquired oil blocks in eight countries. Indian oil companies on the other hand had bid for oil blocks in two countries and did nit acquire oil blocks in any of the countries. This conforms to the hypothesis that the difference in the relative power of India and China does explain why Chinese SOEs have greater outreach in West Africa relative to Indian oil companies. Testing of the hypothesis in Nigeria and Gabon, two countries where both Indian and Chinese oil companies have acquired oil blocks is discussed in the next chapter.

Chapter 7

Introduction

This chapter tests the hypothesis that neoclassical realism explains the difference in how India and China mobilise oil in the oil industry in West Africa. The chapter carries forward the hypothesis from the previous chapter. The hypothesis is tested in two countries namely Nigeria, Gabon, and the Nigeria and São Tomé & Principe JDZ in which both India and China have oil blocks. The thesis undertakes a case study analysis in Nigeria, Gabon and Nigeria-São Tomé & Principe. A formal declaration for the joint development of oil and other resources in the areas over lapping their respective maritime boundaries was signed by Nigeria and the Democratic Republic of São Tomé and Principe in 2001. This led to the establishment of the JDZ and the Joint Development Authority (JDA), an administrative body that supervises the enactment of the treaty and underlying licence areas.[107] Although both Nigeria and São Tomé & Principe have jurisdiction over the JDZ, the thesis includes JDZ and discusses it with Nigeria because São Tomé & Principe is an extremely minor player in the oil industry in West Africa

The chapter does a case study 'pattern-matching' of two countries in West Africa namely Nigeria and Gabon. The chapter is divided into two sections. Section I discusses the oil industry in Nigeria, the oil reserves and production, and the oil blocks bid for and acquired by India and China in Nigeria and JDZ in Nigeria-São Tomé & Principe. Focus is to find out if India and China entered into direct competitive bidding for the oil blocks. Section II explores the presence of Indian and Chinese oil companies in Gabon. It discusses the oil industry in Gabon, oil reserves and production and the oil blocks bid for and acquired by India and China in Gabon. It tries to find out if India and China entered into direct competitive bidding for the oil blocks.

Section I

This section explores the presence of Indian and Chinese oil companies in Nigeria and the JDZ in Nigeria-São Tomé & Principe. It also discusses the oil industry in Nigeria, oil reserves and oil production and the oil blocks acquired by India and China in Nigeria (including the JDZ). It tests the hypothesis (as discussed in Chapter 6) that neoclassical realism explains the difference in the way India and China mobilise oil in the oil industry in West Africa. To prove the hypothesis, it investigates if Indian and Chinese oil companies entered into direct competitive bidding for the oil blocks and if the latter outbid the former, the number of oil blocks

[107] "Joint Development Zone", Operations, Addax Petroleum, http://www.addaxpetroleum.com/operations/jdz (Accessed January 15 2013)

that oil companies from the two countries have bid for and acquired and the nature or type of Indian and Chinese oil companies that are operating in the oil industry in Nigeria. If there is no direct bidding for oil blocks, to substantiate condition 1(b) (discussed in Chapter 6), the chapter examines condition 1 (c) that is the Chinese oil companies are preferred as partners and/or condition 1 (d) that is the quality of the oil blocks to substantiate the hypothesis. The thesis contends that since China has greater economic and political power than India, the quality of the oil blocks bid for and acquired by Chinese oil companies should be better than their Indian counterparts and Chinese NOCs should be preferred as partners relative to Indian oil companies.

Nigeria

Nigeria is one of the most important countries in Africa especially West Africa. It is considered one of the African superpowers along with South Africa and is competing with South Africa for the permanent membership of the UNSC with veto power. It can make this claim because of various reasons. Nigeria is the second largest economy in sub-Saharan Africa behind South Africa. It is also the fourth largest economy in Africa and the most populous country in the continent. Historically, Nigeria has been a prominent player in African politics through the UN, the ECOWAS, the AU and the NEPAD. Nigeria has also deployed troops in West Africa to end disorder especially in Liberia (Alao, 2011).

Despite its growing status as a major power in Africa, Nigeria is still an extremely poor country where 70 per cent of people live on less than a dollar a day. Although it has secured billions of dollars as revenue from oil, less than fifty percent of the population in Nigeria has access to basic amenities like sanitation, drinking water etc.. The country's infrastructure is ineffective. Even by third world standards, there is lack of efficient transport. There is severe shortage of electricity and medical services are poor (Alao, 2011). Nigeria is epitomised by 'islands of prosperity surrounded by seas of poverty'. In the last few years, Nigeria has also witnessed violence along ethnic and religious lines, and separatist aspirations have been growing in some parts of Nigeria.

Despite billions of dollars of oil revenue, Nigeria has an extremely low status in human development. This is attributed to Nigeria's long-standing governance problems. Nigeria gained independence in 1960 and had its first coup d'état in 1966. It subsequently endured military rule under a succession of military dictators. President Olusegun Obasanjo won the elections in 1999 and democracy was restored in Nigeria. In 2007, Umaru Musa Yar'Adua succeeded Obasanjo to the Presidency. This was the first time that there was a transfer of power from one civilian administration to another since independence (Mthembu-Salter, 2009). Although the last decade has witnessed continuous civilian rule, there have also been allegations of electoral malpractices. However, the April 2011 elections have been considered one of the best ever conducted in the country (Alao, 2011).

Nigeria is infested with corruption especially in the oil industry. Nigeria National Petroleum Corporation (NNPC), Nigeria's NOC, is dysfunctional and has been misused as little more than a cash machine by successive Nigerian leaders. Moreover, the oil industry has been marred by inconsistency, uncertainty and confusion due to frequent changes between civilian and military rule (Wong, 2009; Mthembu-Salter, 2009).

Oil industry in Nigeria

Nigeria, an OPEC member since 1971, is the largest oil producer in Africa. According to Table 2.4, it has the second largest oil reserves in Africa after Libya and the largest reserves in Sub Saharan Africa and West Africa. According to Table 7.1, the oil reserves in Nigeria have almost doubled during the period 2001-2012. It is expected that oil reserves will further increase as more oil discoveries are made in offshore Nigeria. Nigeria also has the largest natural gas reserves in Africa but is unable to develop the sector due to lack of adequate infrastructure.

Table 7.1: Proven Oil reserves from 2000-2012 in Billion Barrels

	Year											
Country	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Gabon	2.499	2.499	2.499	2.499	2.499	2.499	2.00	2.00	2.00	2.00	2.00	2.00
Nigeria	22.50	24	24	25	35.255	35.876	36.220	36.220	36.220	37.200	37.200	37.200

Source: Compiled from US Energy Information Administration (http://www.eia.gov/cfapps/ipdbproject/iedindex3.cfm?tid=5&pid=57&aid=6&cid=r6,&syid=2000&eyid=2012&unit=BB- Accessed January 11 2013)

The slowdown in E&P in the oil and gas industry can be attributed to the uncertainties in Nigeria's investment policies and regulatory structure. Consequently, there have been deferments in project development, including LNG projects. However, there is optimism that the Petroleum Industry Bill (PIB) (which has been delayed and has been expected for a long time) could provide an adequate regulatory framework and mitigate investment uncertainties in the oil and gas industry. Due to lack of support especially from the IOCs, passage of the PIB has been stalled. The ongoing debate within the Nigerian government has further compounded the problem. However, after multiple rounds of revisions, IOCs have a more positive outlook of PIB. Concerns still linger and have been expressed by Shell recently.[108] At the time of writing, Nigeria's National Assembly is voting on the PIB.

According to Table 7.2, oil production in Nigeria has remained approximately around the 2.3 mbpd on average during 2000-2011. In 2011, Nigeria produced about 2.53 mbpd of oil which is almost 16 per cent less than its oil production capacity of over 3 mbpd. This is attributed to disruptions in production (discussed below) that have compromised parts of Nigeria's oil industry. The Nigerian economy relies heavily on the oil

[108] Nigeria, Country Analysis Brief, US Energy Information Administration, http://www.eia.gov/countries/cab.cfm?fips=NI (Accessed January 15 2013)

Table 7.2: Oil production from 2001-2011 in Million Barrels per day

	Year											
Country	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Gabon	0.314	0.269	0.251	0.241	0.238	0.266	0.236	0.243	0.247	0.241	0.245	0.244
Nigeria	2.16	2.26	2.12	2.2	2.33	2.66	2.44	2.35	2.16	2.21	2.45	2.52

Source: Compiled from US Energy Information Administration (http://www.eia.gov/cfapps/ipdbproject/iedindex3.cfm?tid=5&pid=53&aid=1&cid=r6,&syid=2000&eyid=2012&unit=TBPD- Accessed January 11 2013)

sector. According to the IMF, over 95 percent of export earnings and about 40 percent of government revenues can be attributed to Nigeria's oil industry.[109]

In 2005, oil production reached the zenith of 2.63 mbpd in Nigeria. However, there was a decline in production because many companies were forced to withdraw staff and shut in production due to an increase in violence from militant groups. Since December 2005, there has been an increase in kidnappings, pipeline damage and militants taking control of oil resources in the Niger Delta. The oil rich Niger Delta Basin is in a fragile state due to local ethnic and religious tensions, tensions over revenue distribution, opaqueness of oil revenues and environmental damages from oil spills.[110]

The Movement for the Emancipation of the Niger Delta (MEND) is the most important militant group. It is attacking oil infrastructure to achieve political goals. MEND aims to achieve redistribution of oil wealth and have greater local control of the sector to foster development in the Niger Delta. Consequently, by 2009, oil production decreased by more than 25 per cent. After 2009, there was a rise in oil production because the militants reached an agreement (at the end of 2009) with the government whereby they received cash payments and training opportunities in exchange for giving up arms.[111]

The continued increase in new deep water offshore production also contributed to an increase in oil production till 2005. Measures were also undertaken by the government in the 1990's to increase investment in deep water projects to enhance production and diversify Nigeria's oil fields. This was due to increase in insecurity in the Niger Delta. This facilitated greater investment and production in deep water fields from IOCs. Consequently, in 2003, the first deep water field began production and output from deep water fields has increased Nigeria's production capacity by more than 800 tbpd.[112]

According to the IEA, oil output increased marginally in 2012 and averaged almost 2.15 mbpd for the first six months of 2012. New production from deep water fields and expansion of existing fields has resulted in a recent expansion in oil production. The Usan field operated by Total began production in July 2012. It

[109] Ibid.108

[110] Ibid.108

[111] Ibid. 108

[112] Ibid. 108

produces in excess of 100 tbpd and is the latest major deep water field to commence production. Expectations are that the field will produce 180 tbpd by the end of 2012.[113]

According to the Nigerian government, there is environmental damage and Nigeria is incurring a loss of $7 billion annually due to illegal refineries, losses in official oil sales and oil theft. The Nigerian National Oil Spill Detection and Response Agency contends that sabotage, bunkering and poor infrastructure has led to nearly 2,400 oil spills during 2006-2010 and approximately 260,000 barrels per year of oil has been spilled for the past 50 years.[114]

An extremely contentious issue in Nigeria is the distribution of oil revenue because all the receipts from the oil revenue like value-added tax, corporate tax, customs duties and production proceeds go directly to the coffers of the central government. Trust between state governments, local councils and the central government has been vitiated due to the twin evils of mismanagement of oil revenue and lack of transparency. As a result, a revenue sharing agreement was established by the 1999 constitution. According to the agreement, 13 per cent of the oil revenue from onshore production is shared by the nine oil producing states in the Niger Delta. The National Priorities Services Fund receives 6.5 per cent, local councils 15.2 per cent, states 31.1 per cent and the federal government gets 47.2 per cent.[115]

The theft, sabotage and political tensions in the Niger Delta are due to the discord over the present revenue sharing agreement. There have been demands by groups to increase their share from onshore activities to 50 per cent and to also get a proportion of the revenue from off shore production. It is not clear how the PIB will impact the present revenue sharing agreement.[116]

NNPC has joint ventures and PSCs with Chevron, Eni, ConocoPhillips, Statoil Hydro, ExxonMobil, Total, AP (a subsidiary of Sinopec), Petrobras and others. Shell has been operating in Nigeria since 1936 and has the biggest crude oil production capability of approximately 1.2-1.3 mbpd. However, the instability in Nigeria has affected Shell the most and the majority of its crude oil production capacity has stopped some dating to early 2006. The majority of Shell's production is in onshore oil blocks in the Niger Delta and in shallow water. Shell operations are handled by its subsidiaries: Shell Petroleum Development Company of Nigeria Limited (SPDC) and Shell Nigeria Exploration and Production Company Limited (SNEPCO). SPDC, the largest oil and gas corporation in Nigeria, is a joint venture between Shell, Agip, NNPC and, Elf Petroleum Nigeria Limited - a subsidiary of Total. Shell has a 30 per cent share, Agip 5 per cent, NNPC 55 per cent and Elf Petroleum has a share of 10 per cent.[117]

ExxonMobil is the second largest IOC in Nigeria. It operates fields in a partnership with NNPC and produces 800 tbpd. Chevron produced 516 tbpd of oil on average in 2011 and is the third largest producer. It functions under its subsidiary Chevron Nigeria Limited. In joint partnership with NNPC, it has a 40 percent stake in 13

[113] Ibid. 108
[114] Ibid. 108
[115] Ibid. 108
[116] Ibid. 108
[117] Ibid. 108

concessions. A major proportion of its operations are onshore in the Niger Delta and in shallow water. It also has stake in deep water oil blocks, particularly its largest deep water oil block, Agbami.[118]

Total and Eni produced 179 tbpd and 96 tbpd respectively in 2011 in Nigeria, and are the fourth and fifth largest producers of oil. Total is the operator in one onshore and a number of offshore oil blocks. It is the operator of the Usan deep water field and its production has not been hindered in recent years. On the other hand, Eni/Agip has experienced some incidents especially at the Brass River terminal that resulted in a decline in production since the end of 2006.[119]

Oil trade figures in Nigeria have not changed much in the last several years despite the instability and shut-in production. This can be ascribed significantly to capacity additions and shifting world demand. Nigeria exports 28 per cent of crude oil to Europe, 12 per cent to India, eight per cent to Brazil, Canada five percent and three per cent to South Africa. Energy Intelligence Group's International Crude Oil Market Handbook claims that Nigeria exports roughly 20 types of crude oil. Most of them are light, sweet grades with low sulfur content. The gravities range from API 29-47 degrees and sulfur content from 0.05-0.3 per cent.[120]

Nigeria has agreed to an OPEC quota of 1.704 mbpd of crude oil production. However, it still plans to introduce projects in the next few years. It is estimated that oil production may increase in the medium term in Nigeria due to planned upstream developments particularly deep water projects. However, the projects are contingent on the PIB being passed by the Nigerian Parliament and the fiscal and regulatory mechanisms needed in the oil industry.[121]

China and Nigeria

Both China and Nigeria are undergoing significant changes. China, with its rapidly growing economy has embarked on an aggressive pursuit of trade and investment across the world. Nigeria, for its part, has tried to bring about major domestic economic and political reforms and thus remove its negative image as an unstable and unreliable business partner. The desire for a symbiotic relationship forms the backbone for recent developments and future prospects of Sino–Nigerian economic relations. China is a major economic and political power that can positively complement Nigeria’s desire to diversify its economic reliance on the West. China is also seen as a credible investor in Nigeria’s major natural resource endowments and a country whose support can assist in Nigeria’s international diplomacy (Mtembu-Salter, 2009).

A pro-Western stand was adopted by governments in Nigeria in the early years of its independence. The relationship between China and Nigeria became strained during 1968-70 because China supported Ibo-dominated Biafra’s bid to secede from the Nigerian federation. Diplomatic relations were established in 1971. In 1993, Sani Abacha became the President and initiated contact with the Chinese government.

[118] Ibid. 108
[119] Ibid. 108
[120] Ibid. 108
[121] Ibid. 108

Consequently, the Nigerian–Chinese Chamber of Commerce was founded in 1994, and a $529 million contract to construct the railway system in Nigeria was awarded to China Civil Engineering Construction Corporation (CCECC) in 1995. Relations were further strengthened in 1997 when Li Peng, the former premier of China's State Council visited Nigeria. During his visit protocols were signed relating to power generation, steel and oil. However, nothing materialised until Obasanjo came to power in 1999 (Mtembu-Salter, 2009).

Since the beginning of the 21st century, Sino-Nigerian relations have deepened. The first ministerial conference of the FOCAC was held in Beijing in October 2000 and was attended by senior Nigerian representatives. Consequently, a contract to construct 5000 housing units for athletes taking part in the annual All-Africa games to be held in Abuja in 2000 was awarded to CEEC. CEEC built the housing units in due time. Agreements were also signed between the two countries in 2001 which led to the establishment of China Investment Development and Trade Promotion Centre in Nigeria and Nigeria Trade Office in China (Mtembu-Salter, 2009).

During Obasanjo's second term, from 2003-2007, relations between the two countries were further strengthened. Obasanjo visited China twice and Prime Minister Wen Jiabao and President Hu Jintao visited Nigeria. In 2006, the intergovernmental Nigeria–China Investment Forum was established and Obasanjo as the Minister of Petroleum awarded several major oil blocks to the Chinese companies. As a quid pro quo, Chinese companies were required to invest and build infrastructure across a wide range of sectors. This increased the presence of Chinese companies in number of projects in Nigeria (Mtembu-Salter, 2009).

By 2006, the perception in policy circles was that the relationship between the two countries was founded on economic interests and both countries had developed a set of lucid policies to meet those interests. China had a three pronged strategy towards Nigeria: expansion of the market for Chinese manufactured goods, to increase the share of Chinese MNCs in the Nigerian market and to increase the presence of Chinese NOCs in the oil industry (Mtembu-Salter, 2009). The thesis focuses on the presence of Chinese NOCs in Nigeria.

The essential tenet of the 'oil for infrastructure' deal propagated by Obasanjo was that Chinese NOCs and other Asian oil companies had to include and commit in their bids to build major infrastructural projects in Nigeria (Wong, 2009). The rationale behind the 'oil for infrastructure' deal was three fold. First, the Nigerian government was disillusioned and frustrated with the lack of development in its co-operation with the West since independence. Second, the government was also exasperated with the cumbersome aid conditionalities placed by the West. Moreover, Obasanjo was extremely impressed with his first-hand experience of the rapid infrastructure development when he visited China (Mtembu-Salter, 2009).

The policy was pursued vigorously by the Chinese government with some success. Although China obtains approximately 33 per cent of its oil from sub-Saharan Africa, it secures only three per cent from Nigeria. However, from 2001-2007, China has invested nearly 45 per cent or $4.8 billion in the oil industry in Nigeria out of a total of £10.5 billion in the oil industry in sub-Saharan Africa. Consequently, exports of Chinese

manufactured goods rose rapidly in Nigeria. Additionally, Chinese MNCs were awarded significant new contracts in key industries like construction, power, telecommunications and transport during this period, and China's total investment in Nigeria reached $6 billion by 2008 end (Mtembu-Salter, 2009).

Bilateral trade between the two countries has increased substantially since Nigeria's independence. Trade increased from $2.3 million in 1969 to £10.3 million in 1971. It reached $90 million in 1994 and increased more than seven times to $830 million in 2000. Since the beginning of the new millennium, bilateral trade has grown exponentially and reached $7.3 billion in 2008. However, the trade imbalance has persisted and worsened due to export of Chinese manufactured goods which constitute 93 per cent of the trade (Mtembu-Salter, 2009).

China in the oil industry in Nigeria

Before being cajoled by Obasanjo's administration to acquire ownership of oil blocks, China and other Asian countries obtained Nigerian oil by buying on the spot market and through long term contracts. Petrochina had annual deals with NNPC to supply 30 tbpd and Sinopec had contacts worth 100 tbpd. But China was forced to hunt and acquire its own oil blocks because of its growing energy needs due to a rapidly growing economy. China was skeptical of entering the oil industry in Nigeria because it was dominated by Western oil companies and due to insecurity in the Niger Delta. Insistent lobbying by Obasanjo persuaded the Chinese NOCs to enter Nigeria. To mitigate their concerns, Obasanjo waived signature bonus or offered Chinese NOCs the right of first refusal (RFR) at a discounted rate on oil blocks if the latter committed to invest in infrastructure projects and the downstream oil sector (Mtembu-Salter, 2009).

In 2005, the first bidding round under the aegis of 'oil for infrastructure' was undertaken and 77 boil blocks were offered. Many Western companies boycotted the bidding round because they opposed RFR and concerns that bidders were required to enter into partnerships with local partners most of whom were political cronies. Consequently, only 44 blocks were given and approximately 50 per cent withdrew because there was default on payments by winners. Chinese oil companies also did not take part in the auction because they were under the impression that oil blocks offered in the auction had already been secured in their earlier negotiations with the Obasanjo administration (Mtembu-Salter, 2009).

The Obasanjo government held another biding round in May 2006 because of plethora of confusions including those mentioned above. Companies which were willing to make significant infrastructure and downstream investments were allowed to participate in this auction. Chinese, Indian and other Asian NOCs all received RFR on pre-assigned blocks. They bid for the oil blocks and secured them. CNPC pledged to invest $2 billion in the struggling Kaduna refinery and in return acquired four oil blocks: two oil production licences OPL732 and OPL721 in the Chad Basin and OPL 298 and OPL 471 in the Niger Delta (Mtembu-Salter, 2009).

In May 2007, two weeks before departing office, the Obasanjo government undertook another bidding round to provide a last chance for Obasanjo's supporters to milk the cow. 45 oil blocks were offered out of which 24 were pre-assigned to 12 companies on RFR basis. In return for a $2.5 billion loan from the Chinese Exim Bank for the construction of a hydro-electric power plant in Mambilla and the Lagos-Kano railway, four blocks were offered to CNOOC on RFR terms. In return for investment in the Kaduna refinery, one block was offered to CNPC on RFR basis. However, due to the extremely high political risk, Asian NOCs including CNPC and CNOOC did not participate in the final bidding round (Mtembu-Salter, 2009).

Chinese NOCs also acquired oil blocks outside the purview of three auctions held during Obasanjo's two terms in office. Sinopec acquired a 29 per cent share in Block 2 in the Nigeria–São Tomé JDZ in 2006. In 2006, financed by a loan from the EXIM Bank, CNOOC acquired a 45 per cent share in OML130 in the lucrative Akpo offshore field. The total financial commitment for the deal was $2.692 billion. CNOOC also acquired a 35 per cent stake in OPL 229 for $60 million in 2006. It also announced that it intended to invest $1.5 billion with the finance provided by Sinosure, China's export credit agency (Mtembu-Salter, 2009).

Since 2006, concerted attempts were made by Obasanjo to get a third term in office by changing the constitution but in 2007, Yar'Adua was elected as president. A prompt investigation was launched by the new government to investigate the 'oil for infrastructure' deals signed between the Asian oil companies and the Obasanjo administration. Consequently, the contracts were either revoked or suspended.[122] The common belief was that the present government will revive some of the contracts if and only if the contracts are restructured taking into account new political realities i.e. until the present regime is able to profit from the 'oil for infrastructure' deals. The construction of the Mabilla power plant and the Lagos-Kano railway has been suspended. The repair of the Kaduna refinery is also uncertain. Additionally, there are recommendations from an ad hoc committee of the House of Representatives investigating the 'oil for infrastructure' deals that CNPC should relinquish OPL 298. However, the committee agrees that CNPC should retain OPL 471, OPL721 and OPL732 (Mtembu-Salter, 2009).

There is a lot of uncertainty regarding China's Obasanjo-era deals. However, it is certain that the concept of 'oil for infrastructure' is dead because Yar' Adua's administration had a new oil policy: 'oil for cash'. This implies that in future, oil blocks will be awarded to those who bid the highest. The Chinese leadership firmly believes that the change in government has burned them. However, China has resolved to engage with Nigeria because of its natural resources and the large size of the market (Mtembu-Salter, 2009).

Dwarfing the CNOOC deal, Sinopec acquired AP for $7.2 billion. AP is one of the biggest independent oil producers in West Africa and has extensive onshore and offshore operations in Nigeria. This was the first of the many overseas takeovers of oil companies by Chinese NOCs in Chinese corporate history (Mtembu-Salter, 2009). In December 2012, CNOOC acquired another Canadian oil company Nexen for $15.1 billion, one of the largest ever acquisitions in the international oil industry (Chua, 2012).

[122] Refer to Wong (2009) for a detailed analysis of the oil for infrastructure deals and the revocation of the oil contracts.

Thus, three Chinese oil companies are operating in Nigeria: Sinopec and its subsidiary AP, CNPC and CNOOC. According to Table 7.3, AP bid for eight oil blocks and acquired all the eight blocks. CNPC bid for four oil blocks and acquired all the blocks. CNOOC bid for two oil blocks and acquired the blocks. Sinopec also bid for and acquired one oil block in the JDZ. In total, the three Chinese companies bid for 15 oil blocks and acquired the blocks.

Table 7.3: Oil blocks bid for and acquired by Chinese oil companies in Nigeria and Gabon

Country	Company	Number of Blocks	Name of Block	Type of Block
Nigeria	CNPC	4	OPL298; OPL471; OPL721; OPL732	Onshore; Offshore; Onshore; Onshore
Nigeria[a]	Sinopec	8	OML 123; OML 124; OML126; OML 137; OPL 227; OPL 291; Okwok; OML 138[b]	Offshore; Onshore; Offshore; Offshore; Offshore; Onshore; Offshore; Offshore
Nigeria	CNOOC[c]	2	OML 130; OPL 229	Offshore; Offshore
Nigeria-São Tomé & Principe, JDZ	Sinopec	1	Block 1	Offshore
Total		**Bid 15; Acquired 15**		

Source: All figures are from CNPC, Sinopec and CNOOC unless otherwise indicated.
a In Nigeria, AP has 11 oil producing field complexes with around 60 production wells.
b Sinopec acquired Total's 20 per cent stake in the block for $2.46 billion, Business Day http://www.newsite.businessdayonline.com/sinopec-buys-totals-stake-oml-138-246billion (Accessed January 2013)
c CNOOC is reportedly looking to acquire a stake in up to 23 oil blocks in Nigeria in a deal which could be worth around $30 billion, http://www.petroleumworld.com/lag09093001.htm (Accessed 6 Jan 2013)

CNPC in Nigeria

Nigeria and CNPC commenced their cooperation in the oil sector in 2006. The Nigerian government and CNPC signed an agreement to cooperate in the oil and gas industry. Consequently, CNPC won contracts for four blocks: OPL721, OPL298, OPL732 and OPL471. Blocks OPL 732 and 721 are situated in the Chad Basin in the Borno province in northern Nigeria. OPL732 is for risk exploration only. Blocks OPL 471 and 298 are offshore blocks situated in the Niger Delta with acreage of 1,370 and 1,012.4 square km respectively.[123]

CNPC also provides oilfield services in the country. It has delivered seismic data processing services for Total ELF, UERL/SIPEC and NPDC/SIPC, and seismic data acquisition services for Shell and EERL. CNPC is also involved in community development. In October, 2011, Kelema-1 and Kelema-2, two community markets funded by CNPC under the community sustainability program in the Southern Ijaw area of Bayelsa State, Nigeria were completed and put into use.[124]

CNOOC in Nigeria

OML130, a deep water project, was carved out of OPL 246. It is located 200 km offshore at depths ranging from 1,100-1,700 meters (Singh, S. 2007) and constitutes four oilfields: Preowei, Egina, Akpo and Egina

[123] CNPC in Nigeria, http://www.cnpc.com.cn/en/cnpcworldwide/nigeria/ (Accessed January 17 2013)
[124] Ibid. 123

South. CNOOC owns a 45 per cent interest in the OML 130 block in Nigeria.[125] It bought contractor rights for $2.3 billion (Wong, 2009). OML-130 was CNOOC's biggest-ever foreign acquisition. It had recoverable reserves of 600 million barrels of oil and 2.5 tcb of natural gas and was hailed as CNOOC's crowning achievement (Singh, S. 2007b).[126] In March 2009, the Akpo oilfield started production. However, it has reached its designed peak production capacity. According to a Nigerian journalist, it can be inferred that one of the reasons why the block has been a success is because one of CNOOCs partners is South Atlantic Petroleum (SAP). SAP is owned by TY Danjuma, the former Nigerian defence minister, a close friend and once a senior officer in Yar'Adua's administration (Mtembu-Salter, 2009a). CNOOC and the operator undertook preliminary development work in 2011 on the three other oil fields including the Egina field.[127]

OVL won the auction for OPL 246. OVL planned a $2 billion deal to acquire a 45 per cent stake in Nigeria's Akpo Field (OPL-246). It was one of the very few important deals in Africa where India was able to outbid China. However, the Indian CCEA prevented OVL's planned acquisition of the block. The Indian Cabinet thought that the political risk involved was too high. "It has not been approved," stated finance minister Palaniappan Chidambaram. According to Jaspreet Singh, a senior analyst with Prabhudas Lilladher, "Nigeria is a very risky country to invest in, especially for state-owned companies like ONGC."[128]

OPL 229 is a shallow-water block with acreage of 1,376 square meters. It has water depth of less than 25 meters. It was upgraded into mining license OML 141 in 2008 after significant yields were discovered in 2007 from exploration wells Barracuda and Dila. It was estimated that oil production would commence in 2009. It is next to Brass oil terminal and the planned Brass LNG terminal and is also adjacent to a major find by Shell. Shortly after acquiring OML130 for $2.69 billion, CNOOC ventured into OPL 229 (Aizhu, 2008).

CNOOC opted out of most of its 35 per cent stake in oil mining licence OML141 despite the company's successful drilling of two wells because of allegations of corruption by individuals in Sinosure (Mtembu-Salter, 2009). In August 2008, CNOOC decided to return its stake in the block to Emerald Energy Resources Ltd., an independent Nigerian firm. In January 2006, CNOOC had paid $60 million for a share in the block, but it remains unclear if the company will reacquire any of that investment. The new agreement will allow CNOOC to remain invested in the project with a 5 per cent interest as collateral for an $80 million loan that helped fund exploration efforts.[129]

[125] "Overseas", Key Operating Areas, About us, CNOOC Ltd. http://www.cnoocltd.com/encnoocltd/AboutUs/zygzq/Overseas/ (Accessed August 16 2012)
[126] "Nigeria: CNOOC sends shockwaves over licence exit" Energy-pedia news 20 August 2008, http://www.energy-pedia.com/news/nigeria/cnooc-sends-shockwaves-over-licence-exit-
[127] Ibid. 125
[128] 'India blocks West Africa oil deal', BBC News online, 16 December 2005, http://news.bbc.co.uk/1/hi/business/4534412.stm (Accessed January 21 2013)
[129] Ibid. 125

Addax Petroleum and Sinopec in Nigeria and JDZ

Addax Petroleum in Nigeria

In 1998, AP started operations in Nigeria when it signed two PSCs with NNPC. The average annual production was 8.8 tbpd. Since Sinopec's acquisition of AP, the sine qua non for AP's growth has been to acquire oil assets which are deemed by other companies to have limited remaining production potential. AP has been able to increase production and reserves in an economically worthwhile manner due to its strong operational and technical expertise. In Nigeria, AP has one onshore oil block and six offshore oil blocks. This includes two fields with 20 producing wells in OML 124, two fields with 14 production wells in OML126 and 11 field complexes with approximately 60 production wells in OML123. The continuous progress with field development planning may significantly enhance production. Oil production is expected to increase by approximately 14 per cent from 75 tbpd to over 85 tbpd at the end of 2012 from the three concessions combined (OML123, OML124 and OML126).[130] The onshore and offshore concessions are discussed below:

Onshore

OML124 is located approximately 100 km north of Port Harcourt in Imo State. It has acreage of 74,100 acres (300 square kms) and is AP's smallest licence area in Nigeria with respect to production. It has two oil producing fields namely Izombe and Ossu. The fields are operated as a common production area. In December 2008, Njaba, an undeveloped field was also discovered. Several identified exploration prospects are also contained in OML 124 but they have not been drilled and tested yet. The total output from OML124 averaged 4.5 tbpd in 2011.[131]

Offshore

OML123 is situated offshore. It is in the south-eastern part of Nigeria nearly 60 km south of Calabar in the Gulf of Guinea. It is AP's largest licence area in terms of reserves and production. It has acreage of 90,700 acres or 367 square km in water depths that range from 3-40 meters. It has a number of exploration prospects and nine producing oil fields (Mimbo, Akam, Adanga North Horst, North Oron, Adanga, Bogi, Inagha, Ebughu and extensions, and Oron. It also contains three un-appraised oil discoveries (Ebughu NE-A, Adanga West and Adanga East), a large 8,600 acre or 35 square km undeveloped gas discovery (Oron East) and two undeveloped oil fields (Antan and Kita Marine). In November 2011, first oil exploration was carried in Kita Marine which is under development.[132]

OML126 and OML137 are adjacent oil blocks. They are located south of Port Harcourt and are approximately 90 km offshore. The water depths range from 50 meters and 210 meters. Together, they are

[130] "Nigeria", Operations, Addax Petroleum, http://www.addaxpetroleum.com/operations/nigeria (Accessed January 15 2013)
[131] Ibid. 130
[132] Ibid. 130

responsible for the majority of the recent increase in output and are also AP's largest Nigerian properties in terms of area. Production started in March 2005 and by 2011 it averaged 35 tbpd. OML137, an exploration and appraisal block, has no production facilities on the block and to date no oil has been produced from the block. Seismic surveys were conducted in 2006. OML 137 contains the Ofrima North oil discovery. It also has four identified oil prospects (Atuma, Asa, Ofrima North and Udele), numerous deep and shallow leads and a number of likely commercial natural gas discoveries (Ofrima, Odum, Shokoloko, Asanga and Toriye).[133]

OPL291 is situated nearly 130 km off the coast of Nigeria. Water depths range from nearly 1,000 meters to 2,300 meters. In October 2006, AP acquired a 72.5 per cent stake in and operatorship of OPL29 from Starcrest Nigeria Energy Limited (SNEL) in 2006. SNEL retained 27.5 per cent ownership. It is located in close proximity to the Agbami oil field in an adjoining block. Agbami, currently being developed by Chevron is a world class oil field. This highlights the highly prospective nature of the block. It signifies the compulsory abdication area after OPL216 was converted to OML127 before the development of the Agbami field in OML127. According to the present 2D and 3D seismic data which covers majority of the licensing area, a potentially significant prospect (Odoko) has been identified in addition to a number of leads.[134]

Okwok is situated south of Calabar, nearly 45 km off the Nigerian coast. Water depths range from 35 meters to 50 meters. It has acreage of 22,500 acres (91 square kms). It was discovered in 1967 and a partial appraisal was undertaken by Exxon Mobil in 1968. Although two more wells were drilled, one as recently as 1993, the wells were not production tested. Two 3D seismic surveys were undertaken, one as recently as in 2004. In 2006, AP drilled three wells and a side track well out of which two wells were flow tested. On testing, the first well produced 0.40 tbpd of light 32° API oil. However, due to sand control problems, it was difficult to reach the actual flow potential of the well. The second well produced 1.2 tbpd of medium 26° API oil. Due to potential tie-back to production, both wells are currently suspended.[135]

OPL227 is situated in the low offshore waters of western Niger Delta Basin. It has acreage of approximately 84,100 acres (340 square km). It was acquired by AP in June 2008. AP has a 40 per cent stake in the offshore block. The three other partners are indigenous Nigerian oil companies: Petroleum Prospects International Ltd, Express Petroleum & Gas Company Ltd (EPGCL) and Niger Delta Petroleum Resources. During 1974-1988, four wells were drilled. Although all the wells encountered hydrocarbons, the quantity was not commercially viable. To date, no 3D seismic data have been acquired but minimal 2D seismic data has been acquired. The operator of OPL227 is EPGCL. AP is the technical advisor and will conduct technical operations. The drilling of three exploration wells has been planned.[136]

[133] Ibid. 130
[134] Ibid. 130
[135] Ibid. 130
[136] Ibid. 130

Sinopec in Nigeria

A Sinopec subsidiary, SIPC paid $2.46 billion in cash for Total's 20 per cent stake and operating rights in OML138. OML 138 contains the Usan field in the Niger Delta. The field was discovered in 2002 and production started in February 2012. It has the capacity to produce 180 tbpd. NNPC is the concession holder of block OML 138. Other partners include Chevron (30 per cent), ExxonMobil (30 per cent) and Canada's Nexen Petroleum (20 per cent). After acquiring its share, Sinopec announced that it will be able to recover approximately 100 million barrels from OML 138. The acquisition allows Sinopec to fulfil twin objectives: first, adding a sizeable asset to its portfolio and second, to develop expertise in E&P in deep waters.[137]

Sinopec in JDZ

Sinopec has procured substantial interests in a number of prospective exploration blocks in the JDZ. Presently, it has a 42.37 per cent stake in one block, JDZ-1. Block 1 has acreage of 174,000 acres (704.5 square km) and is situated nearly 300 km away from the Nigerian coast. The depth of water spans from 1,600 meters to 1,900 meters. In 2012, two exploration wells were drilled. The block is operated by Total.[138] A discovery was made in the Obo-1 exploration well in 2006 when it encountered 150 feet of net pay. This demonstrated that there was a working hydrocarbon system in the JDZ.[139]

India and Nigeria

Nigeria and India have a long history of political friendship, economic relations and social interaction even before Nigeria gained independence. The relationship has developed significantly in recent years heralded by greater trade and commerce. Economic connections range from oil exploration, telecommunications and transportation, to retailing, banking, power, education and military training. Of all these, however, the relationship between the two countries in oil and gas appears to be the most important in recent times. This is due largely to the importance of these resources for the economic development of both countries (Alao, 2011).

President Obasanjo's visit to India in 2000 ensued by a number of lower level visits from Nigerian government officials provided the momentum for India-China relations. On November 3 2004, Obasanjo visited India again and had discussions with Indian Premier Shri Atal Behari Vajpayee. The talks focused on the hydrocarbon industry and this was followed by visits from Cabinet Ministers from Nigeria to continue with the discussions (Singh, S. 2007b). India's involvement in Nigeria falls under its wider outreach programme in Africa. Since the early 2000s, India has been extensively involved in wider investment in Africa and there have been visible demonstrations of friendship between the two countries. The country

[137] "Sinopec buys Total's stake in OML 138 for $2.46 bn" Business Day, http://www.newsite.businessdayonline.com/sinopec-buys-totals-stake-oml-138-246bn (Accessed January 6 2013)
[138] "Joint Development Zone", Operations, Addax Petroleum, http://www.addaxpetroleum.com/operations/jdz (Accessed January 15 2013)
[139] JDZ Block 1, Nigeria - São Tomé & Príncipe JDZ, Afren Plc
http://www.afren.com/operations/nigeria__sao_tome_and_principe_jdz/jdz_block_1/ (Accessed January 20 2013)

launched an initiative known as Team-9 Techno-Economic Approach for India Movement, seeking co-operation with West African countries like Chad, Cote d'Ivoire, Equatorial Guinea, Ghana, Mali, Senegal, Guinea Bissau and Burkina Faso. The Indian High Commission in Nigeria estimated that 35 000 Indians were living in Nigeria as of October 2010 not to mention the Indian diaspora in Nigeria. Many Nigerians are also living in India. Diplomatic friendship is evident in several exchanges of visits between leaders of both countries. The signing of the Abuja Declaration in October 2007 signaled an important new phase in diplomatic links between Nigeria and India and provided an institutional framework to support investments and commerce. Following the declaration, the fifth joint session was held in March 2011 to review the state of relations between the two countries (Alao, 2011).

India has had a history of extensive commercial links with Nigeria. According to the Nigerian Foreign Affairs Ministry, Indo–Nigeria trade reached a peak of $10.2 billion during 2008–09 although the global financial crisis reduced this to $8.7 billion in 2009–10. During the first part of 2010-11, trade between the two countries grew by more than 50 per cent relative to the same time period in 2009-2010. It is estimated that trade will increase to $12 billion for the following year. Additionally, India has invested $5 billion in Nigeria (Alao, 2011).

As with most emerging powers, India requires considerable energy supply. As discussed in Chapter 2, it is envisaged that India's energy demand is expected to increase at an extremely fast rate while supply from its ageing oil fields is expected to increase slowly. To meet its energy needs, India has turned to Africa especially West Africa. India has three interests in Nigeria's oil industry: E&P and development in the upstream sector, refineries and purchase of crude oil (Singh, S. 2007b). Although India may be looking towards Africa as a whole, Nigeria is its main target because Nigeria plans to increase its oil production to 2.7mbpd by 2012. Recently, Nigeria has been one of India's main sources of crude oil, fulfilling around 8–12 per cent of its requirements. Currently India imports approximately 13 million metric tonnes of crude oil from Nigeria annually (Alao, 2011).

India's rapidly growing economy's thirst for oil led the GOI to seek increased ownership of Nigerian oil reserves. India's interest in Nigerian oil was strongly encouraged by the Nigerian government when Obasanjo was the President (1999–2007). Obasanjo's government auctioned oil blocks in bidding rounds that required bidders to commit themselves to providing Nigeria with major infrastructural projects. After initial hesitation, India responded positively, coupling its investments with substantial involvement in construction projects in Nigeria (Alao, 2011).

India in the oil industry in Nigeria and JDZ

India is represented by four oil companies: OVL, IOCL, OIL and Essar Oil. ONGC (in a joint venture with Mittal Energy Limited (MEL)) bid for two oil blocks in Nigeria and acquired the blocks. OVL also bid for two oil blocks but lost to the South Korean National Oil Company. OIL and IOCL entered into a joint

venture and bid for and acquired a stake in one oil block in Nigeria. Essar Oil did not bid for an oil block in Nigeria but acquired an oil block in Nigeria. OVL also bid for and acquired an oil block in Nigeria-São Tomé & Principe, JDZ (Table 7.4). Thus, the Indian oil companies bid for six oil blocks but acquired five oil blocks.

Table 7.4: Oil blocks bid for and acquired by Indian oil companies in Nigeria

Country	Company	Number of Blocks	Names of Blocks	Type of Block
Nigeria	OVL	4	OPL 279[a]; OPL 285[a]; OPL 321[b]; OPL 323[b]	Deep water; Deep water; Deep water; Deep water
Nigeria	OIL and IOCL	1	OPL 205[c]	Onshore
Nigeria	Essar Oil	1	OPL 226[d]	Offshore
Nigeria-São Tomé & Principe, JDZ	OVL	1	Block 2	Offshore
Total	**Bid 6; Acquired 5**			

Source: All figures are From OVL, OIL, IOCL, Essar Oil and Wong, Lillian (2009) unless otherwise indicated.
a OVL bid for the blocks in a joint venture with Mittal Energy Limited. The joint venture company is called OMEL
b OVL lost the bid to South Korean National Oil Company despite an offer of $485 million which exceeded all other offers (Singh, S. 2007; Wong, 2009).
c Block license was converted to OML142 from OPL 205, http://www.oil-india.com/JVs.aspx#Nigeria (Accessed January 5 2013)
d Essar Oil did not bid for OPL 226 (Interview with Essar Oil Executive)

OVL in Nigeria and JDZ

OVL in Nigeria

In 2006, OMEL (joint venture between ONGC and MEL) won two of the 18 oil blocks (Blocks 279 and 285) as a part of a strategic 'oil for infrastructure' deal. According to the deal, OMEL promised to invest $6 billion to construct a new refinery that would produce 180 tbpd; building a 2,000-megawatt power plant or building an East–West railway or any other downstream project as may be determined by the country's steering committee. OMEL was also given the RFR on Block 250 in exchange for the execution of a feasibility study on a new railway. However, the implementation of this deal has been problematic as the Indians have not honoured their commitment. Nigeria has asked OMEL to fulfill its $6 billion commitment of investing in infrastructure (Alao, 2011). The 2 offshore oil blocks are discussed below:

OPL 279 is a deep water offshore exploration block and has acreage of 1,125 square km. The PSC was signed on February 23 2007. OVL entered into a joint venture with MEL and bid and acquired the block. OMEL has a 45.5 per cent share in the block through its wholly owned subsidiary company OMEL Exploration & Production Nigeria Ltd.. EMO, a local Nigerian company with a 40 per cent share and Total with a 14.5 per cent stake are the two other partners. On February 22 2012, the first phase of exploration expired. With the drilling of Kuyere-1 well in January-February 2010 and the acquisition of 534 square km of 3D seismic data, all the MWP commitments under the first phase of exploration have been met. The drilling of the well led to the discovery of hydrocarbons in three pay zones. On the basis of post-drill analysis of G&G data, it was possible to identify some prospects in the deeper stratigraphic levels of the block.

"However, the identified prospects do not offer a standalone discovery case for any viable commercial development. A notice of relinquishment was accordingly issued to NNPC on 21 November 2011."[140]

OPL 285 is a deep water offshore exploration block. It has acreage of 1,167 square km. A PSC was signed on 23 February 2007. OMEL has a 64.33 per cent share in OPL 285 as the operator through its subsidiary OMEL Energy Nigeria Limited. EMO and Total are the other partners with a ten per cent and 25.67 per cent share respectively. The MWP commitment for the first phase of exploration for the block has been completed. This entailed the drilling of Opueyi-1 well in August-September 2010 and acquiring 524 square km of 3D data. Drilling led to the discovery of "two sub-commercial hydrocarbon zones" in the well. A decision was taken by OMEL to undertake a second phase of exploratory activity based on review of G&G data and post drilling analysis. OMEL would like the commitment for the downstream project to be waived by NNPC, the regulator and on November 24 2011, a letter was sent to NNPC to request for a waiver. However, NNPC has not responded to the request to date.[141]

According to an executive from OVL, OVL is unable to fulfill its promise of investing $6 billion for constructing a refinery. It wants to relinquish the block and it has conveyed its position to the Nigerian government (Interview with OVL[c], February 25 2013).

OVL in JDZ

Block-2 is a deep water exploration block located in the JDZ and has acreage of approximately 1,034 square km. Following the 2004 licencing round in the JDZ, OVL as a part of a consortium got a stake in Block 2. OVL's subsidiary ONGC Narmada Limited (ONL) which was incorporated in Nigeria has a13.5 per cent share in the block. Sinopec with a 43 per cent share (Sinopec has a 28.67 per cent share and its subsidiary, AP has a 14.33 per cent interest), ERHC Energy Inc. with 22 per cent, Equator Exploration with nine per cent, Amber five per cent interest, Foby five per cent and A & Hatman with 2.5 per cent stake are the other partners. Sinopec is the operator. OVL wanted to be the operator of the block but lost a bid to Sinopec (Wong, 2009). After acquiring a 3D seismic licence, Sinopec undertook surveys. A well was drilled in 2009 based on data analysed from the survey. "Though the well showed presence of hydrocarbons, the volumes were inadequate to warrant commercial development. OVL has communicated its intention of not continuing on the block to the operator and JDA of JDZ Nigeria-São Tomé & Principe as the development of the project is not commercially viable".[142]

IOCL and OIL in Nigeria

Two Indian oil companies, OIL and IOCL formed a joint venture and bid for a stake in OML142, an onshore

[140] 'Africa', Assets, ONGC Videsh Limited http://www.ongcvidesh.com/Assets.aspx?tab=0 (Accessed August 4 2012)
[141] Ibid. 140
[142] Ibid. 140

oil block and acquired an interest in the block in Nigeria in 2005 (Table 7.4). OIL also farmed into a joint venture with Suntera for OPL 205. In 2005, Suntera acquired the block from Summit Oil, a Nigerian oil company. Summit Oil allocated a 70 per cent Working and Economic Interest and a 40 per cent PI from the joint venture to Suntera. For the development of old gas and/or condensate discovery, OML 142 was converted from OML 205. The Nigerian government has formally provided the block. Plans for drilling of wells and 2D/3D seismic API have been completed.[143]

The bock is located in the Anambra basin in the Niger Delta and has acreage of 1295 square km. The Working and Economic Interest of the partners is:

Summit Oil International Limited – 30 per cent, Suntera OPL 205 JV – 70 per cent [Suntera Resources-50 per cent as Operator (effective 35 per cent PI)

OIL – 25 per cent (17.5 per cent effective PI), IOCL - 25 per cent (17.5 per cent effective PI)[144]

Essar Oil in Nigeria

OPL 226 is an offshore block located in offshore central Nigeria. It is in water depths ranging from 40 meters to 180 meters. Drilling operations were undertaken by operators in the block and it highlighted the presence of good quantities of oil and gas according to the log and well data. On March 2010, the PSC was signed for the block. Essar Oil is finalising the work program for the block.[145] Essar Oil did not bid for OPL 226. However, it acquired the block. According to an executive from Essar Oil, the block was awarded to the Essar Oil by Shell PLC. The Nigerian government asked Shell to award the block to Essar Oil (Interview with Executive Essar Oil).

The case of Essar Oil is particularly interesting because it did not bid for the block. It was awarded a block. Shell had not been developing the block for some time because it did not think that the returns from the block would be commensurate with the investment. In other words, the amount of money required to produce oil would not yield the amount of oil to cover the cost of production. It is normal practice that oil companies do not develop a block if they think that the returns will belie the cost involved. Thus, the block or well is left barren. In other words, the block is of inferior quality. It is normal practice for a government of the host country to ask the oil company to give the block to another oil company if the block has been left barren for a long period of time. Thus, when the Nigerian government directed Shell to transfer the block to Essar Oil, Shell obliged because it believed that the block was not worth retaining (Interview with Executive from US IOC). Thus, the oil block that Essar Oil has acquired has a low prospect of producing oil.

[143] JVs/PSCs/Alliances, Company, Oil India Limited http://www.oil-india.com/JVs.aspx (Accessed August 4 2012)

[144] Ibid. 143

[145] Ibid. 45

Analysis

Unlike in Angola, the 'oil for infrastructure' deal in Nigeria was unsuccessful due to the inability of the Obasanjo administration to administer the scheme. This is partly explained by politics. In the last thirty years, Nigeria has had eight different leaders. On the other hand, Angola has been ruled by the MPLA since independence and President José Eduardo dos Santos has been in power for more than thirty years. This resulted in greater uniformity in government policies and provided a durable and long established central government (Wong, 2009; Mtembu-Salter, 2009). Angola like Nigeria is also corrupt but the corruption in Nigeria is different from corruption in Angola. In Nigeria, apart from the Presidency, there are other centres of power which can influence decision making and awarding of oil blocks. All the people in power want to deepen their pockets and their political base. Moreover, a change in government brings forth a new rent seeking elite.

There was a failure on the part of Asian oil companies including Indian and Chinese oil companies that were able to enter the Nigerian oil industry under the 'oil for infrastructure' model to comprehend the political context in Nigeria. Moreover, there was a complete absence of follow-up mechanisms to implement the agreements. The combination of these factors led to the failure of the 'oil-for-infrastructure' model. According to a South Korean official, the contrast between Nigeria and Angola is: "In Nigeria we found that a change of government results in a change of business partners" (cited in Wong, 2009: 4).

Officials from Chinese NOCs aver that the 'oil for infrastructure' setbacks are highly political. They opine that given the circumstances, the only option is to wait and see what happens with the 'oil for infrastructure' agreements. They have concluded that the state governments in Nigeria are safer to work with relative to the federal government because former are more predictable in their political machinations and it is easier to work with the state bureaucracy (Salter 2009).

The suspension of the massive 'oil for infrastructure' deals by the Yar'Adua government was a major impediment in China's Nigeria policy and led to significant revaluation by China to find a the best way to do business with Nigeria. China decided that the acquisition of Nigerian oil assets by purchasing established Western companies is a much better low risk strategy rather than the cumbersome and lingering oil-for-infrastructure deals. The estimated $7.22 billion acquisition in June 2009 of AP by Sinopec bears consonance with this strategy. Thus the new strategy adopted by the Chinese NOCs is to acquire existing producers operating in Nigeria (Salter, 2009).

Moreover, Yar' Adua's administration policy of 'oil for cash' will bear consonance in Beijing. Beijing has extremely deep pockets and it is willing to flaunt its financial largesse to bid exorbitantly for oil blocks. India on the other hand, is less pleased with the new policy for it is at a distinctive disadvantage vis-à-vis China in Nigeria because of its relative lack of political, diplomatic and financial muscle. Additionally, since India is more risk averse relative to China as evidenced in the acquisition process of OML130/OPL246, the new 'oil for cash' arrangement puts India at a further disadvantage relative to China. India did not try to acquire AP and would not have been able to match China's bid of $7.2 billion to acquire AP (Interviews with Executives

from OVL, IOCL, OIL, Essar Oil, and Ashok Dhar, ORF). It would be highly unlikely that India would be able to beat China in direct or indirect competitive bidding for oil blocks in Nigeria despite the fact that India procures between 8-12 per cent of its oil from Nigeria.

Hypothesis Testing

According to Table 7.3 and Table 7.4, India is represented by OVL, IOCL, OIL and Essar Oil in Nigeria and Nigeria-São Tomé & Principe, JDZ. The first three are SOEs whereas Essar Oil is a private sector oil company. China on the other hand is represented by SOEs and their subsidiaries - domestic or foreign. CNPC, Sinopec (and its subsidiaries AP and SIPC) and CNOOC are operating in Nigeria and Nigeria-São Tomé & Principe, JDZ. Thus, condition (2) of H_O is satisfied.

With respect to condition (1) of H_O, IOCL and OIL entered into a joint venture and bid for and acquired one oil block in Nigeria. OMEL bid for two and acquired two oil blocks in Nigeria. The joint venture company also bid for one block in Nigeria-São Tomé & Principe, JDZ and acquired the block. OVL also bid for two oil blocks but lost the bid to South Korean national oil company. Essar Oil did not bid for the oil block. It was awarded the oil block. Thus the Indian oil companies bid for six oil blocks but acquired five oil blocks. Chinese NOCs on the other hand bid for 15 and acquired 15 oil blocks in Nigeria. CNPC bid for and acquired four blocks, CNOOC bid for and acquired two blocks and Sinopec bid for and acquired one oil block in Nigeria-São Tomé & Principe, JDZ. Moreover, Sinopec acquired AP in 2008 which had eight blocks in Nigeria. Thus, Chinese NOCs have bid for and acquired more oil blocks than Indian oil companies. Hence, they have greater outreach in Nigeria relative to India. This proves condition (1) a of the hypothesis.

In Nigeria, Indian and Chinese oil companies did not bid for the same blocks except for OML130/OPL246. OVL bid the maximum amount of $485 million to win the auction. However, the GOI did not allow the planned acquisition to be completed because it deemed the acquisition extremely risky due to the political risk involved. China on the other hand, did not consider the investment risky and acquired the block after the GOI directed OVL to withdraw. Henceforth, China won the auction for OML 130/OPL246. This shows that India is more risk averse than China. China has superfluous money and does not care if the investment is risky. Thus condition 1 (b) is met for oil block OML130/OPL246.

With respect to other oil blocks, the Nigerian government entered into direct negotiations with Indian and Chinese oil companies and offered them particular blocks which they accepted. Since direct competitive bidding did not occur for the blocks barring OML 130, condition 1 (b) cannot be verified. To substantiate condition 1 (b), the researcher wanted to investigate condition 1 (c) if Chinese oil companies are preferred over Indian oil companies as partners or in joint ventures to develop and explore the oil blocks. As already mentioned, the researcher was unable to meet and/or interview officials from Ministry of Petroleum resources, Government of Nigeria, the NNPC and IOCs to ascertain the argument. Thus, the researcher had to abandon this comparison.

However, the researcher decided to use the quality of the oil block or condition 1 (d) as a proxy variable to determine the difference in the relative economic power of India and China. As mentioned above, out of the 3 blocks that ONGC and OVL have acquired, only one has commercial prospects. In Block OPL 279, OVL has decided to relinquish its stake. Block 2 in the JDZ, Nigeria-São Tomé & Principe, is not commercially viable. OVL has decided not to continue to be the operator of the block and informed the JDA of the JDZ of its decision. In Block OPL 285, OVL has decided to relinquish the block because it is unable to fulfill its promise to construct an oil refinery. The blocks acquired by Essar Oil and the joint venture between OIL and IOCL are also under exploration phase. However, the block acquired by Essar Oil from Shell has little commercial prospects. Thus out of the five blocks that Indian oil companies have acquired, two do not have any commercial prospects, one has been relinquished and two are still in the exploration phase.

With respect to China, the four oil blocks acquired by CNPC are still in exploration phase. However, the prospects of commercial viability are good. CNOOC has two oil blocks in Nigeria. Block OML 130 is a commercial success. It started production in 2009 and reached its peak capacity. It has reserves of approximately 600 million barrels. CNOOC opted out of most of its 35 per cent stake in oil mining licence OML141, formerly oil prospecting license OPL 229 despite the company's successful drilling of two wells.

Sinopec has 2 oil blocks. OML138 in Nigeria is a commercial success. It started production in February 2012 and will yield 36 tbpd of oil production when the field reaches maximum output. It has the capacity to produce 180 tbpd of oil (Patel, 2012). Block 1 in Nigeria-São Tomé & Principe, JDZ is also commercially viable. Only one exploration well has been drilled to date in the block and only one discovery has been made. AP, a subsidiary of Sinopec has seven oil blocks in Nigeria. OML 124 produces 4.5 tbpd. OML 123 is also commercially viable. OML126 started producing oil in March 2005 and in 2011 it averaged 35 tbpd. Additionally, it has three identified exploration prospects and four undeveloped oil discoveries. OML137 is an exploration and appraisal property. In OPL 291, Odoko, a potentially significant prospect can be identified from the present 2D and a 3D seismic data which covers a major part of the licence area. Additionally, numerous leads can also be identified from the data. Oil block Okwok has been suspended for the time being for potential tie-back to production although the two wells produce 0.40 tbpd of light 32° API oil and 1.2 tbpd of medium 26° API oil respectively. In OPL227, four wells were drilled. All the wells encountered hydrocarbons, and there are plans to drill three exploration wells. Thus AP has two blocks which are producing oil, four blocks which have high commercial prospect and one block which is an exploration block only.

Thus, the Chinese oil companies have in total four oil producing blocks, five blocks which are commercially viable, four blocks which are in exploration phase and one block which is for exploration purposes only. Thus China has more oil blocks which are producing oil and are commercially viable relative to Indian oil blocks.

Because conditions 1(a), 1 (b) and 2 are met for OML 130 and conditions 1 (a), 1 (d) and condition 2 of H_O are met for the rest of the blocks, the hypothesis is verified. Thus it can be concluded that because China has

greater economic and political prowess relative to India, it has greater outreach in the oil industry in Nigeria relative to Indian oil companies. Moreover, because of its financial muscle, China is less risk averse. It bids for more oil blocks and also possesses better quality oil blocks relative to Indian oil companies.

Section II

This section explores the presence of Indian and Chinese oil companies in Gabon. It discusses the oil industry in Gabon, oil reserves and production and the oil blocks acquired by India and China in Gabon. It tests the hypothesis that neoclassical realism explains the difference in the way Indian and Chinese oil companies mobilise oil in the oil industry in West Africa. To prove the hypothesis, it investigates if Indian and Chinese oil companies entered into direct competitive bidding for the oil blocks and if the latter outbid the former, the number of oil blocks that oil companies from the two countries have bid for and acquired and the nature or type of Indian and Chinese oil companies that are operating in the oil industry in Gabon. If there is no direct bidding for oil blocks, the thesis examines the quality of the oil blocks to further substantiate the hypothesis. The thesis contends that since China has greater economic and political power than India, the quality of the oil blocks bid for and acquired by Chinese oil companies should be better than their Indian counterparts. This assertion is also tested in the section.

Gabon

Gabon, a former French colony, became independent on 17 August 1960. The death of the first President, Leon M'Ba, in November 1967 brought Omar Bongo to power with the backing of the French government. Under the pretext of defending national unity against ethnic fragmentation, a one-party state was established immediately after Bongo's ascent to the presidency. Prompted by the democratisation wind that swept across West Africa after the end of the Cold War, a constitutional change reintroduced the multiparty system in 1990. The president's political party, Partie Démocratique Gabonais (PDG), won 66 of the 120 parliamentary seats in the first multiparty legislative elections in September 1990 and Omar Bongo, amid much political unrest, won the presidential elections held three years later (Alves, 2008).

Since then, Bongo has astutely managed to retain and reinforce his grip on power through the expansion of his patronage network, by maintaining a policy of balancing the various ethnic groups in his government appointments and by co-opting the main opposition leaders. He won the last presidential election in November 2005 with 79 per cent of the vote (Alves, 2008). Elections were held in 2009 in Gabon and Ali-Ben Bongo Ondimba, son of Gabon's late President Omar Bongo and candidate for the incumbent PDG became the new President. However, opposition supporters question the outcome (Petlane, 2009).

Although Gabon has achieved impressive stability and economic growth relative to other countries in the region, it is characterized by misuse and abuse of power, entrenched corruption, incompetence, lack of reliable opposition to depose the rulers and an entitlement to rule on the part of the incumbent rulers. The ruling elite have handled the political party and the state as conjoined entities (Petlane, 2009). Consequently, although it has a higher GDP per capita than some of its neighbours, it is characterised by stark economic inequality and living conditions have deteriorated. Majority of the population does not have access to electricity (Dittgen, 2011).

Oil industry in Gabon

Gabon is an established oil producing country in the region. According to the World Bank, Gabon is heavily dependent on oil with oil contributing 45 percent of GDP and 60 percent of government revenue. The government in Gabon is under pressure to increase economic diversification efforts because of aging oil fields. Oil output has declined by approximately 34 percent since it peaked in 1997. Consequently, Gabon has slid in the rankings of oil producing countries in the region. It used to be the third largest oil producer in sub-Saharan Africa, but now is the sixth largest after Nigeria, Angola, Sudan, Equatorial Guinea and Congo (Brazzaville). There is lack of adequate infrastructure in Gabon. This has stymied Gabon's ability to exploit its natural resources.[146]

According to Table 7.1, Gabon has oil reserves of two billion barrels. It has the fourth-largest reserves in sub-Saharan Africa after Nigeria, Angola and Sudan. Oil reserves have declined from 2.499 billion barrels from 2001-2006 to 2 billion barrels in 2012. Table 7.2 shows that oil production in Gabon has declined steadily. From the peak of 314.8 tbpd in 2000, oil production has declined with marginal increase in production in 2005-2006 and reached 244.4 tbpd in 2011.

Gabon has both onshore and offshore oil fields. Majority of Gabon's oil fields are located in the proximity of Port-Gentil. A pattern of oil production exists in Gabon. Historically, one large field is responsible for oil production in Gabon and smaller fields provide support to the largest field. As the largest field matured and production declined, another major field would emerge to substitute for the decline in production. Rabi is the largest oil field in Gabon and led to a significant increase in output in the 1990's. It has matured and oil production reached its peak in 1997 to 217 tbpd. Production from the field has declined steadily to approximately 23tbpd since 2010. A new large field has not yet emerged to balance the reduction in oil production from the Rabi oil field because new exploration has resulted in only moderate discoveries.[147]

During 1987-2011, a NOC did not exist in Gabon because the previous NOC Société Nationale Petrolière Gabonaise was disbanded in 1987. During the same period, the Ministry of Mines, Energy, and Petroleum and the President's office were jointly responsible for the operations of the oil sector. In June 2011, the

[146] Gabon, Country Analysis Brief, US Energy Information Administration, http://www.eia.gov/countries/cab.cfm?fips=GB (Accessed January 15 2013)
[147] Ibid. 146

Gabonese government formed the Gabon Oil Company to enhance its involvement in oil production. It adopted a policy of equity oil in future awards of oil blocks. Foreign companies are allowed to operate in the oil industry in Gabon and acquire large equity stakes in E&P through PSCs.[148]

The Gabonese government is in the process of deciding new regulatory rules to ease new deep water exploration. In October 2010, the scheduled tenth oil license round was cancelled. It was expected that the round would include 42 deep water and ultra-deep water blocks focusing on Gabon's pre-salt prospects. The government's policy has changed and it is now negotiating directly to award the acreage. It is expected that the government will limit the number of foreign workers in the oil sector to ten percent and it will be mandatory that all Gabonese hold all the executive posts. These concessions were granted by the government to tackle disruptions in oil production in April 2011 caused by strikes by oil workers led by the National Organization of Oil Employees.[149]

Foreign oil companies dominate the oil industry in Gabon. Over 20 oil companies from ten different countries operate in Gabon: three French, six US, three Canadian, four South African, one Japanese, one Indian and two Chinese (Alves, 2008). Total has been operating in Gabon for more than 80 years. It is the largest operator in Gabon and in 2009, it produced 71tbpd. The second largest producers are Shell and its subsidiary Shell Gabon. Perenco, the third largest producer produces 65 tbpd from its four offshore fields. AP (a subsidiary of Sinopec), is the fourth largest producer. AP has stakes in five PSCs in both onshore and offshore oil blocks.[150] Total Gabon and Shell Gabon account for two-thirds of total production (opcit).

The Gabonese government is introducing means to expand investment to extend the life of existing fields in order to mitigate the gradual decline in oil production. The measures are bearing fruit. In the Anguille oil field which is one of the largest oil producing fields, Total has increased investment to expand production. The government has also taken measures to encourage investment from smaller companies for the development of smaller fields. It is estimated that in the short term, the decline in production from larger fields will continue to be allayed by production in smaller fields. Nonetheless, in the long-run, successful new explorations especially the prospects of deep water, pre-salt fields will play an important role in oil production in Gabon.[151]

Investors have been interested in the offshore Brazilian pre-salt discoveries in Gabon which had been untapped till June 2011. In June 2011, oil was discovered in pre-salt layers in offshore Gabon by U.S.-based Harvest Natural Resources at its Ruche-1 well. In July 2011, Harvest Natural Resources found oil again in the same well. Brazil's oil company Petrobras, which has extensive experience in pre-salt exploration in Brazil joined activities in June 2011 and acquired a 50 per cent interest in Ophir Energy's PSC. It is expected that Petrobras will employ its experience to capture the unexplored deep water pre-salt layers in Gabon.

[148] Ibid. 146
[149] Ibid. 146
[150] Ibid. 146
[151] Ibid. 146

Analysts aver that future discoveries in pre-salt fields could be instrumental in mitigating the decline in production from Gabon's large mature fields.[152]

In Gabon, 90 per cent of the crude oil produced is exported. This is because domestic consumption is minimal and in 2010, it stood at 18 tbpd. It exports Mandji blend and Rabi Light. Over the last five years, 80 per cent of Gabon's oil exports can be attributed to the two blends. Gabon exports to the US, the EU and Malaysia among other countries. In 2010, it is estimated that Gabon exported approximately 50 per cent of its total exports of 225 tbpd to the US.[153]

China and Gabon

Diplomatic credentials were formally exchanged between Gabon and China in 1974. Bilateral co-operation and trade developed gradually, encouraged by official visits exchanged over three decades of undisturbed diplomatic ties. On Gabon's side, among other official representatives, President Omar Bongo visited China at least ten times over the last three decades and personally met all the members of the Chinese leadership since the 1970s which represents a valuable political asset in bilateral relations. High ranking Chinese officials visited Gabon with President Hu Jintao visiting Gabon in 2004. China entered the oil market in Gabon in 2004 in the wake of President Hu Jintao's visit to the country. China has helped and cooperated with Gabon in various sectors like health, education, agriculture and defence (Alves, 2008).

As in Angola, Ghana, and other countries, China over the years has provided several aid packages to Gabon mostly aimed at infrastructure construction/rehabilitation. At the end of 2000, China granted Gabon a combined sum of $73 million in interest-free and concessional loans to develop a number of co-operation projects. These were the new National Assembly building in Libreville (built by the Chinese Overseas Engineering Company and completed in 2002), two medical centres (including the sending of 12 medical teams), two primary schools, a pharmaceutical laboratory in Franceville, a factory for processing kassava and two timber-processing factories near Owendo port (Alves, 2008).

Sino–Gabonese co-operation covers a wide range of areas of varying importance During Hu Jintao's first state visit to Gabon in February 2004, two co-operation agreements were signed between the two countries to provide for a $1.2 million grant for economic and technical assistance and an interest-free loan of $6 million for co-operation projects (Alves, 2008). A number of projects have taken the Sino–Gabonese lending relations to a new level. These include the construction of the Senate House in 2005 (Euro 24.5 million), the Grand Poubara hydroelectric dam (Euro 292 million), a new radio and television complex ('Cité de l'information') in 2007 (Euro 21 million), the Stadium of Sino–Gabonese Friendship for the 2012 Africa Cup of Nations (Euro 46 million) and most importantly the Bélinga project (Euro 2.2 billion) in the mining sector. The scale and impact of the project far exceeds other projects launched by China in Gabon (Dittgen,

[152] Ibid. 146
[153] Ibid. 146

2011). In January 2008, China and Gabon signed a framework agreement for an $83 million concessional loan to part fund a hydroelectric dam (Grand Poubara) linked to the Belinga mining development project. This soft loan is to be repaid over 20 years at an interest rate of three per cent and there is a grace period of seven years (Alves, 2008).

China's provision of credit lines at preferential rates and financial assistance has led to a change in scale of the Sino–Gabonese relationship and to Gabon considering China as one of its privileged partners. Repeated attempts by Gabon to obtain debt relief from traditional donors did not materialise because of Gabon's' high PCY. Preferential or interest free loans from China were a welcome alternative. Gabon's government has often used diplomatic and political means in an attempt to persuade foreign businesses to invest in the country. It seems that in the long term, if President Ali Bongo wants to gradually exit the French fold and or reduce alliance on international financial institutions, Gabon may use China backed by its investments as a preferred partner because China's expansion of its interests in Gabon is compatible with Gabon's ambition for economic diversification (Dittgen, 2011). Moreover, China like France is a permanent member of the UNSC and has extremely deep pockets.

China in the oil industry in Gabon

China is purchasing large quantity of oil from Gabon. China's presence in the oil sector in Gabon has been limited to research and exploration Since Gabon's oil sector is presently facing challenges such as the decrease in production linked to peaking out of most of its oilfields, the Gabonese government is hopeful that the growing interest from Chinese corporations will lead to an increase in revenue (Dittgen, 2011). Despite Chinese enterprises' strong interest in the oil sector in Gabon and the increasing aid and commercial assistance offered by China, Chinese NOCs still play an insignificant role in the Gabonese oil industry due to the poor performance of their concessions as most of the profitable oilfields are dominated by French and US companies (Alves, 2008) as discussed in Chapter 2.

Two Chinese oil companies are operating in Gabon: Sinopec and CNOOC. Sinopec operates in Gabon through its subsidiary AP. AP bid for five oil blocks and acquired all the five blocks. CNOOC bid for two oil blocks and acquired the two oil blocks (Table 7.5)

Table 7.5: Oil blocks bid for and acquired by Chinese oil companies in Gabon

Company	Number of Blocks	Name of Block	Type of Block
Sinopec	5	Maghena; Panthere NZE; Awoun; Kiarsseny and Etame	Onshore; Onshore; Onshore; Offshore; Offshore
CNOOC	2	BC9[a]; BCD10[a]	Offshore; Offshore
Total Bid 7; Acquired 7			

Source: All figures are from Sinopec and CNOOC unless otherwise indicated
a CNOOC will acquire a 25 per cent share from Shell in offshore exploration blocks BC9 and BCD10 (http://www.shell.com/global/aboutshell/media/news-and-media-releases/2012/upstream-deals-cnooc-and-cnpc-25072012.html - Accessed January 6 2013)

AP (Sinopec) in Gabon

AP has interests in five onshore and offshore licence areas. Three fields are on shore and two are offshore. The bulk of AP's production and operations in Gabon are in the onshore licence areas. The cumulative acreage of the onshore licence areas is 830,100 acres (3,362 square kms). It comprises three licence areas namely Panthere NZE, Maghena and Awoun which have three oil producing fields (Koula, Obangue and Tsiengui). AP is the operator for the Tsiengui and Obangue fields and Shell is the operator for the Koula field. Damier, a near-field discovery will be attached to Koula. Additionally, Autour which is on the Panthere licence is being developed.[154] The onshore and offshore blocks are discussed below:

Onshore:

Tsiengui field (Maghena licence area): The Tsiengui field was discovered in 2002. It is AP's primary onshore producing and development asset. Production started in July 2005. The field includes two licences: Awoun and Maghena. The Maghena licence has acreage of approximately 162,400 acres (657 square kms). AP is the operator and is a 92.5 per cent partner.[155]

Tsiengui West, Koula and Damier fields (Awoun license area): Awoun license first came on-stream in 2007. Shell Gabon operates the licence area and AP is a 40 per cent stake holder. The Awoun licence has acreage of approximately 274,800 acres (1,112 square kms). In 2004, Koula and Damier fields were discovered. Koula commenced production in May 2010.[156]

Obangue field (Panthere NZE license area): The Obangue field discovered in 1988 is AP's second largest onshore producing asset. Production commenced in 1998. The Panthere NZE licence has acreage of approximately 29,700 acres (120 square kms). It is immediately contiguous to the Maghena licence area. AP is the operator and a 92.5 per partner.[157]

Autour field (Panthere NZE license area): Autour field was discovered in 1987. In 2009, further appraisal was undertaken and a field development plan was established and sanctioned in 2011.[158]

Offshore:

The Gabon offshore licence areas contain E&P and development properties. They cumulatively have acreage of nearly 5,610,900 acres (22,707 square kms). Etame licence has three oil producing fields (Avouma, Ebouri and Etame) and North Tchibala, a discovery.[159]

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[154] "Gabon", Operations, Addax Petroleum, http://www.addaxpetroleum.com/operations/gabon (Accessed January 15 2013)
[155] Ibid. 154
[156] Ibid. 154
[157] Ibid. 154
[158] Ibid. 154
[159] Ibid. 154

Etame Marin has three fields. They are:

Etame field (Etame Marin licence area): The Etame field discovered in 1998 is AP's foremost offshore producing licence area. Production commenced in 2002 and has acreage of approximately 759,600 acres (3,074 square kms). VAALCO is the operator and AP has a 31.36 per cent stake. Water depths range from approximately 75 meters to 80 meters.[160]

Avouma (Etame Marin licence area): Avouma was discovered in 2004. It has been producing oil since 2007. A 16 km pipeline is used to load oil from the Avouma platform on to the Etame Marin FPSO.[161]

Ebouri field (Etame Marin licence area): The Ebouri field discovered in 2003 has been producing since 2009.[162]

Kiarsseny licence area: In January 2004, AP acquired a 47.22 per cent stake from Tullow Oil in the Kiarsseny property. Acreage is approximately 1,344,900 acres (5,443 square kms) and water depth is up to 800 meters.[163]

Additionally, AP has exploration interests in the onshore Awoun block as a non-operator and in the Etame and Kiarsseny offshore blocks. 3D seismic data was acquired recently with the objective of drilling at least three offshore and one onshore well and to test post and pre-salt objectives in dissimilar areas. As part of the exploration programme, other initiatives have been undertaken like employing advanced modeling software aimed at improving the quality of seismic data through enhanced processing and acquisition techniques and detailed regional studies.[164]

CNOOC in Gabon

CNOOC acquired two exploration blocks in offshore Gabon from Shell China Exploration and Production Company Limited, a subsidiary of Shell. The exploration blocks BC9 and BCD10 are located in water depth ranging between 1,200 and 2,100 meters in offshore Gabon. CNOOC and Shell will have a share of 25 per cent and 75 per cent respectively with Shell being the operator in these two blocks. CNOOC will bear a part of the cost for future exploration and will compensate 25 per cent of Shell's specific exploration costs in the past (Ma and Flynn, 2012).

India and Gabon

India and Gabon have enjoyed warm and friendly relations dating back to Gabon's pre-independence period.

[160] Ibid. 154
[161] Ibid. 154
[162] Ibid. 154
[163] Ibid. 154
[164] Ibid. 154

India's diplomatic drive, aid and commercial relations are dwarfed by China commensurate with China's greater economic power. India–Gabon bilateral relations are confined to the ministerial level. Ministers in charge of mining, oil and communications portfolios have visited India in 2007-2010. Mr Ali Ben Bongo (the new President) visited India in 2007 and met the Indian Defence Minister.

In 2011, the 7th CII-EXIM Bank Conclave on India Africa Project Partnership was held in New Delhi and the Deputy Minister for Foreign Affairs attended the conclave. On the Indian side, no senior minister has visited Gabon recently. In January 2011, talks were held between Mr. M. Paul Toungui, Minister of Foreign Affairs, Gabon when Joint Secretary (West), Ministry of External Affairs, GOI visited Gabon.[165]

Moreover, India's economic assistance and cooperation with Gabon are miniscule relative to China. In March 2007, an amount of $14.45 million was provided as a line of credit to construct 300 houses and four amenities in Libreville. In June 2011, another line of credit of $67.19 million was offered to upgrade broadcasting facilities in Libreville. During 2010-11, under the Indian Technical and Economic Cooperation (ITEC), Gabonese officials have been chosen to undertake training in short and medium term courses in India and for 2011-12, 15 ITEC places have been reserved. During the same period, under IAFS-I, Gabonese officials also received training in different disciplines in India. Tele-education, tele-medicine and VVIP (Very Very Important Person) connectivity has been established in Libreville under the Pan African e-network project. In April 2008, during the first India Africa Forum Summit in New Delhi, a Plan of Action was agreed with the AU. Under the plan, proposals to establish Vocational Training Centre /Incubation Centre have been completed.[166]

India in the oil industry in Gabon

OIL and IOCL in Gabon

Two Indian NOCs, OIL and IOCL formed a joint venture and acquired one oil block, Shakthi FT-2000), an onshore oil block in Gabon in 2006 (Table 7.6). As discussed in Chapter 5, OIL is an onshore upstream company whereas IOCL specialises in the downstream sector. The government in Gabon offered the block to the two Indian NOCs through a 'farm in' offer i.e. NOCs did not bid for the oil block. $12.5 million will be spent by the consortium to acquire the stake and another $50 million to develop it (Singh, S. 2007b).

The block has two oil wells. Both the wells are vertical wells inside deep forest with depth 3460 meters and 3200 meters, respectively, with the first well considered to be one of the deepest onshore well. The block covers an area of 3761 sq. km. The consortium partners are OIL and IOCL with a 45 per cent share each, and

[165] "India-Gabon Ties : Warm and Friendly", Gabon-India Ties, http://gabonembassynewdelhi.com/index.php?option=com_content&view=article&id=26&Itemid=40&lang=en (Accessed January 15 2013)
[166] Ibid. 165

Marvis Petroleum from Singapore with a 10 percent stake.[167]

Table 7.6: Oil blocks bid for and acquired by Indian oil companies in Gabon

Company	Number of Blocks	Names of Blocks	Type of Block
IOCL and OIL	1	Shakthi (FT-2000)	Onshore
Total Bid 0; Acquired 1			

Source: OIL and IOCL

The acquiring, processing and interpretation of 2D/3D and aeromagnetic surveys has been achieved. Civil works on the drilling site are being undertaken after releasing two drilling wells in December 2011. According to OIL, it was a big challenge to undertake drilling operations within the expiry of the Block Permit (21/11/2012). After the release of location in mid-December 2011, the locations were stalked in deep forest with no communication facility and OIL personnel had to walk for several miles in dark forest. Thereafter, it was a daunting task to commence drilling within 10-11 Months (Singh, B. 2012).

Analysis

As in Angola, Nigeria, Ghana and other states in West Africa covered in the thesis, Chinese financial muscle and political prowess has not only strengthened Sino-Gabon relations but allowed China to access and play an important role in the oil sector in Gabon. China has employed two instruments to gain access in the oil sector in Gabon. First is interlinking of business and diplomacy and second is infrastructure construction/rehabilitation. Chinese oil companies have so far crowded out other Indian oil companies (SOEs as well as private enterprises).

The Shakthi (FT-2000) block was offered to 2 Indian oil companies through a 'farming in' offer by the Gabonese government. The two NOCs did not bid for the oil block and have little experience in the oil sector abroad. OIL is the smallest NOC in the upstream business in India and IOCL specialises in the downstream sector. OVL, India's flagship NOC, either individually or in a joint venture with any other oil company did not bid for or try to acquire an oil block in Gabon. Neither RIL nor Essar Oil bid for the block or ask the Gabonese government to be included in the 'farming in'. Chinese NOCs (especially CNPC which specialises in onshore E&P) which are gobbling up oil blocks in Gabon and other countries in West Africa also did not did not bid for the block or were not interested in the block. Moreover, as discussed in this section, in recent years, no major oil discoveries have been made in Gabon. Thus, it can be inferred that the oil block is of low commercial value i.e. the amount of oil that can be harvested from the block is low and/or the rate of return on the investment is inadequate to warrant interest from other oil companies.

[167] Oil India starts drilling operation in Gabon, Africa" The Hindu, November 1 2012, http://www.thehindubusinessline.com/companies/oil-india-ltd-commences-drilling-operation-in-gabon-africa/article4054855.ece?ref=wl_opinion (Accessed January 16 2012)

Hypothesis Testing

According to Table 7.5 and Table 7.6, SOEs from India and China are operating in Gabon. IOCL and OIL entered into a joint venture and acquired one oil block in Gabon. On the other hand, CNOOC and Sinopec (through its subsidiary AP) bid for and acquired two and five oil blocks respectively. Thus, Chinese state owned oil companies bid for and acquired seven oil blocks. This meets conditions 1(a) and (2) of H_O. However, Indian and Chinese oil companies did not enter into direct or indirect competitive bidding for the same oil blocks. Thus, condition 1(b) of the hypothesis cannot be corroborated.

To substantiate the null hypothesis H_O, the thesis tries to examine condition 1 (d) the quality of the oil blocks that the Indian and Chinese SOEs bid for and acquired. The quality of the oil block is estimated by the amount of oil or the number of barrels of oil that it can generate. The comparison in quality of the oil blocks acquired by Indian and Chinese oil companies is not possible because block Shakthi (FT-2000) acquired by the Indian NOCs is not in the production stage. It is still in the exploratory stage. However, as mentioned above it can be inferred that the oil block is of inferior quality. On the other hand, all the three onshore blocks acquired by AP produce oil. In the offshore Etame Marin block, all the three fields are in the production stage. Kiarsseny licence area and some parts of the Etame Marin block are still in the exploration phase. Moreover, the two oil blocks acquired by CNOOC from Shell are still in the exploration stage and these two oil blocks cannot be compared with Shakthi (FT-2000). Because three out of the five oil blocks acquired by Sinopec are producing oil and one oil block is in the production stage, it can be concluded that the blocks acquired by Sinopec are of better quality relative to IOCL and OIL. Thus, condition 1 (d) of the hypothesis is substantiated.

Because conditions 1(a). 1 (d) and (2) of H_O are met, the hypothesis is verified.

Conclusion

The chapter undertook a case study analysis in Nigeria, Gabon and Nigeria-São Tomé & Principe, JDZ, where Indian and Chinese oil companies operate and have acquired oil blocks. The thesis included JDZ and discussed it with Nigeria because São Tomé & Principe is an extremely minor player in the oil industry in West Africa despite the fact that both Nigeria and São Tomé & Principe have jurisdiction over the JDZ. The chapter discussed the presence of Indian and Chinese oil companies and the number of oil blocks that India and China have in Nigeria and Gabon.

It tested the hypothesis that neoclassical realism explains the difference in how India and China mobilise an external resource, oil, in the oil industry in Nigeria and Gabon. The hypothesis is that the independent or the exogenous variable i.e. the difference in the relative power of India and China in an anarchical international system explains (a) why Chinese oil companies have operations in more countries in West Africa relative to

Indian oil companies; (b) the ability of the Chinese oil companies to outbid Indian oil companies if and when they bid for the same block, and/or (c) why Chinese NOCs are preferred as partners by oil companies while entering into joint ventures to bid for oil blocks, and/ or (d) Chinese NOCs have better quality oil blocks relative to Indian oil companies. The intervening or the domestic variable i.e. the difference in the political economy of India and China explains why China is represented by SOEs in the oil industry in West African countries and India is represented by SOEs and/or private enterprises.

The test yielded results which proved the hypothesis and the hypothesis was accepted both in Nigeria and in Gabon. In Nigeria, conditions 1(a), 1 (b) and 2 of H_O for OML 130/OPL246 and conditions 1 (a), 1 (d) and condition 2 of H_O were substantiated for the rest of the blocks, and the hypothesis was accepted. The tests showed that in Nigeria and Gabon, China was represented by SOEs. In Nigeria, India is represented by SOEs and Essar, a private sector enterprise. In Gabon, India was represented by the SOEs. This shows that the difference in the political economy of India and China or the intervening variable explains the difference in the ability of Indian and Chinese oil companies to mobilise oil externally in West Africa.

In Nigeria, Indian and Chinese oil companies did not bid for the same blocks except for OML 130/OPL246. OVL lost its planned acquisition of OML 130/OPL246 despite placing the highest bid because the GOI thought that the acquisition was politically too risky. Consequently, the block was acquired by CNOOC. This highlighted that India is more risk averse relative to China because the latter has greater financial and economic ability. Thus condition 1 (b) was satisfied.

With respect to other oil blocks in Nigeria, direct competitive bidding did not occur between Indian and Chinese oil companies. The Nigerian government entered into direct negotiations and offered specific blocks. To substantiate the difference in the relative power, the only recourse was to use condition 1 (d) i.e. the quality of the oil block. The comparison of the oil blocks acquired by India and China in Nigeria illustrated that Chinese NOCs have more oil blocks which are producing oil and are commercially viable relative to oil blocks acquired by Indian oil companies. Since Chinese oil companies bid for and acquired more oil blocks in Nigeria, condition 1 (a) was also satisfied.

In Gabon, India and China were represented by SOEs. A joint venture between IOCL and OIL acquired one oil block although they did not bid for the block. On the other hand, Chinese NOCs bid for and acquired seven oil blocks. It was not possible to compare the quality of the oil blocks acquired by CNOOC and the oil block acquired by IOCL and OIL combine because both are in the exploration stage. However, three out of the five oil blocks acquired by AP (a subsidiary of Sinopec) produce oil. Thus condition 1(d) of the H_O was met. The hypothesis was accepted because conditions 1(a), 1 (d) and (2) of H_O were met.

Chapter 8

Introduction

The concluding chapter revisits the core argument and research question before discussing the advantages of the theoretical approach. This is followed by a discussion on the analytical model and the research methodology utilised in the study. It then focuses on the findings. It provides a short analysis of competition between Indian and Chinese oil companies to mobilise oil in the oil industry in West Africa, distilling some insights and offering some policy implications moving forward. The thesis concludes by offering some direction for future research.

The debate and the research question revisited

The aim of the thesis is to provide an explanation for the difference in how India and China mobilise oil externally in the oil industry in West Africa. The thesis uses neoclassical realism as the theoretical construct to provide an explanation for the difference in India's and China's interaction. Thus the research question is 'Can and does neoclassical realism explain the difference in how India and China mobilise resources externally in the oil industry in West Africa?' The thesis uses West Africa as the region and the oil industry to gauge the difference in the manner in which India and China mobilise resources externally. With respect to India's and China's interaction in the oil industry in West Africa, the driving force is economic relations, to mobilise oil, a key resource and foreign policy has been driven by economic imperatives. In other words, economic motives are driving political and diplomatic factors. There are three differences in the interaction of India and China in the oil industry in West Africa. First, Chinese oil companies have a greater outreach or operate in more countries in West Africa relative to Indian oil companies. Second, Chinese oil companies outbid Indian oil companies in acquiring oil contracts when they directly bid for the same oil block and they have more and better quality oil blocks relative to their Indian counterparts. Moreover, Chinese NOCs are preferred as partners by African oil companies and other oil companies. Third, China is represented by SOEs in the oil industry in West Africa whereas India is represented by SOEs and/or private enterprises.

The thesis compares and contrasts India and China for various reasons. India and China with their phenomenal growth rates are surging ahead as world economic powers. India and China are emerging and rising powers in the global arena, and ceteris paribus are projected to be major superpowers by 2030. They are members of BRICS, G20 and also members of BASIC group of countries. They are also the two most populated countries in the world, sharing a long and respected history of early civilisations and a colonial past that became independent around the same time. After the end of the Second World War, they were in

the forefront of NAM and proposed the five principles of peaceful coexistence or 'Panchsheel' which has been the keystone of the foreign policies of the two countries.

India and China are also regional neighbours and share one off the largest borders in the world. India and China have a long standing border dispute which led to a war in 1962. Border skirmishes and tensions have been a perennial feature in Sino-Indian relations. Since the end of the Second World War, Sino-Indian relations are characterised by a roller coaster ride. The relations are marred by rivalry, distrust, conflict, insecurity, estrangement and containment. Since the new millennium, the relations are characterised by 'hot economics and cold politics' or 'coopetition'- economic cooperation and political competition.

India and China, the 'Asian Drivers' have turned to Africa to meet their energy security. Although oil production in India and China has increased over the time period 2001-2011, consumption has increased at a much faster pace. The shortfall in production had led to an increase in oil imports in both India and China. India is the world's fifth largest consumer of oil and imports approximately 70-75 per cent of its oil consumption. China on the other hand, is the second larger consumer of oil after the US and imports approximately 50-60 per cent of its oil consumption. Moreover the proven oil reserves of India and China have declined since 1991. The R/P ratio shows that if India and China keep producing at the present rate, they will exhaust their oil reserves in approximately 18 years and ten years respectively. However, demand is forecast to keep growing in India and China in the foreseeable future. Both countries require energy especially oil to fuel their industrialisation process and economic growth, to improve the standard of living and quality of life of their populace and catch up with the West. Both India and China rely heavily on the Middle–East for oil. The growing turmoil and political instability in the Middle-East has necessitated that India and China look for alternative sources of oil in other parts the world especially West Africa.

Africa especially West Africa has regained significance since the beginning of the new millennium not only because of oil and natural gas reserves but the quality and commercial advantages that it offers to international oil companies. African reserves are only 8 per cent of the world reserves and are less significant relative to oil reserves of countries in the Persian Gulf. West Africa accounts for 50-60 per cent of the African reserves. The proven oil reserves of Nigeria are more than the oil reserves in some important petro states like Azerbaijan and Mexico and other countries like the US, China, India, Brazil and the UK. Moreover, oil reserves in West African countries (and African countries) have expanded at a much faster rate relative to the Persian Gulf states. It is estimated that more oil reserves will be found in the offshore areas around the Gulf of Guinea. Similarly, oil production has also increased at a faster rate in the oil producing countries in West Africa. Resource nationalisation has been absent in West Africa. The major oil producing countries like Nigeria, Angola, Gabon and Equatorial Guinea among others aim to develop oil production at a rapid pace and have allowed MNCs to operate. West African countries are attractive to foreign investors not only because of the sops that are provided to them but also because of other commercial advantages like the low cost of drilling. Moreover, unlike the hard crude oil produced by Venezuela and the Persian Gulf states, the quality of the oil produced in West Africa is light sweet crude and has low sulphur content which

is sought after by oil companies due to low refining costs. The fact that apart from Nigeria and Angola, other West African countries are not members of the OPEC also makes them attractive because they do not have to follow the OPEC quotas or restrictions on oil production.

Tomes of literature have been written on China's engagement with Africa. Recently, there has been a growth in literature in India's interaction in Africa but it still lags behind literature on China and Africa. India and China have also been compared and contrasted extensively in Africa from different prisms. India's and China's engagement has also been discussed in West Africa and they have also been compared and contrasted in West Africa. Scholars have also undertaken research on India's and China's engagement in the oil industry in West Africa. Although there is an ever increasing literature comparing India and China in Africa, few scholars have tried to provide an answer for the difference in the interaction of India and China in Africa. Even fewer have tried to elucidate the divergence in India's and China's interaction in West Africa in general and the oil industry in particular.

Scholars have observed that China relative to India has greater outreach in Africa and Chinese SOEs outbid Indian SOEs and/or private enterprises because Indian enterprises do not have deep pockets relative to the Chinese SOEs. However, there is no comprehensive study of acquisition of oil blocks by Indian and Chinese oil companies in West Africa. Additionally, there is no comprehensive study of Indian oil companies in Nigeria apart from OVL. This study is pioneering and makes an empirical contribution to the existing literature because it examines the acquisition of oil blocks by Chinese and Indian oil companies in eleven West African countries and provides an explanation for why China has more outreach in the oil industry in West Africa relative to India. The study is also path breaking because it explains how and why three Indian oil companies Essar Oil, OIL and IOCL have acquired oil blocks in Nigeria which has not been discussed in the existing literature. Additionally, the thesis examines not only the bids that Chinese and Indian oil corporations place for the oil blocks and the quality of the oil blocks acquired by the oil companies from the two countries, but also tries to explain the reason why they are able to place those bids. The thesis examines the internal rate of return or the rate of return on capital/investment, the difference in the level of technology and the difference in the economic, political and diplomatic support received by the Chinese and Indian oil companies from their respective governments. It also discusses the reasons why the Chinese NOCs are preferred as partners by African oil companies and IOCs and also the relative commercial viability or relative quality of the oil blocks acquired by the two countries. Thus, the thesis provides a more comprehensive explanation for the ability of the Chinese oil companies to outbid their Indian counterparts.

Neoclassical realism: The theory

The study uses neoclassical realism as the theoretical construct to expound the divergence in how India and China to mobilise oil in the oil industry in West Africa. Neoclassical realism was coined by Gideon Rose in

1998. It is a theoretical paradigm which explains foreign policy outcomes of states. It provides a theoretically-inspired framework which expounds the foreign policies of a state over different periods in time or states facing comparable external limitations.

It incorporates elements of both neorealism and classical realism. It has three variables: the independent or the systemic variable, the intervening or the domestic variable and the dependent variable or the foreign policy outcome. The independent variable signifies the difference in the relative power in an anarchical international system. Neoclassical realists aver that the scale and aspiration of a country's foreign policy is driven by its relative material power capabilities in an anarchical international system. Thus, as the relative material power capabilities of a country rises in an international anarchical system, its aims, objectives and the ability to achieve the objectives will also rise. They further argue such power capabilities have an indirect and convoluted influence on foreign policy. This is because pressures exerted by the system must be interpreted through intervening variables at the unit level. Proponents of neoclassical realism state that it incorporates first, second and third image variables.

It has been debated recently whether neoclassical realism should be considered as a theory of foreign policy. Lobell, Ripsman and Taliaferro (2009) posit that contingent on (i) clarity of threats and (ii) clear information on policy responses, neoclassical realism can not only explain foreign policy puzzles, but is also a theory of foreign policy. They add that neoclassical realism is ‘theories of foreign policy’ because there is no single theory of foreign policy. The thesis adheres to this classification and extends neoclassical realism’s research design by incorporating the difference in the political economy of India and China to explicate the divergence in the manner in which they mobilise oil externally in West Africa.

Neoclassical realism is in an embryonic stage. It is gaining momentum as a theoretical paradigm and literature on neoclassical realism has been expanding since the 1990’s. Although tomes of literature have been written on political economy and international political economy, there is paucity of literature on neoclassical realism and political economy. In recent years, literature on neoclassical realism and political economy has increased where the latter has been used either directly or indirectly. However, much of the initial literature has focused on either structural outcomes like polarity or balancing or deviations from neorealism like under balancing.

While Mastanduno, Lake and Ikenberry (1989) were not postulating neoclassical realism, they emphasised the role of political economy as a domestic variable to achieve international objectives. However, they did not emphasise that domestic variable should be used as an intervening variable while retaining the primacy of the systemic variable. Moreover, they discuss internal mobilisation of resources by a state to increase its wealth and power. The thesis uses neoclassical realism as a theoretical construct to discuss external mobilisation. The thesis explains the difference in how India and China mobilise oil externally in the oil industry in West Africa. The rationale is regime survival as well as augmenting both absolute and relative power. Thus the thesis provides a theoretical contribution to the existing literature on neoclassical realism in general and neoclassical realism and political economy in particular.

The thesis uses political economy as an intervening variable in neoclassical realism to elucidate how India and China differ in mobilising oil in the oil industry in West Africa. The thesis asserts that the independent variable or the difference in the relative power of India and China explains why Chinese NOCs have greater outreach in West African countries relative to Indian oil companies, Chinese NOCs are able to outbid Indian oil companies in acquiring oil contracts when they directly bid for the same oil block, and/or Chinese NOCs have more and better quality oil blocks relative to their Indian counterparts and/or Chinese NOCs are preferred as partners by IOCs and African oil companies. The difference in the political economy or the intervening variable explains the third difference i.e. China is represented by SOEs in the oil industry in West Africa whereas India is represented by SOEs and/or private enterprises. Thus the thesis is path breaking and extends neoclassical realisms research design because in the past neoclassical realism as theoretical construct has been employed by scholars to explain on either structural outcomes like polarity or balancing, or deviations from neorealism like under balancing or lack of polarity.

Analytical Framework and Research Methodology

The thesis employs both deductive and inductive approaches. The researcher began with the inductive approach. The researcher observed that Chinese NOCs operate in the oil industry in West Africa and India is represented by both NOCs and private sector enterprises. Empirical evidence also highlighted that Chinese NOCs were operating in more countries in West Africa relative to Indian oil companies and the former outbid the latter if and when they directly bid for the same oil block. After studying and analysing the empirical evidence, the researcher decided to formalise a theoretical framework and decided to employ neoclassical realist analysis to explain the outcomes.

The researcher wanted to adopt a two pronged strategy to prove that Chinese oil companies outbid Indian oil companies and China has greater outreach relative to India in the oil industry in West Africa. The researcher was unable to access the detailed bids placed by Indian and Chinese oil companies for oil blocks in West Africa due to commercial confidentiality and national security. Since it was not possible to access the primary data which would shed light on the bids placed by Indian and Chinese oil companies for oil blocks in West African counties, the researcher conducted semi-structured elite interviews of employees/executives from the Indian oil companies. Due to commercial confidentiality and national security, the interviewees from the oil companies were unwilling to provide sensitive information which was pertinent to prove the hypothesis.

With respect to Chinese SOEs, West African NOCs and government officials, the researcher was only able to access data available in the public domain, and was also unable to interview the employees/executives. The researcher was able to interview one executive from a US IOC. However, the researcher was able to only confirm the information available in the public domain. Consequently, the researcher conducted semi-

structured elite interviews with industry experts, analysts, academics and a journalist. The executives from the Indian oil companies and industry experts provided information which was available in the public domain which helped in triangulating information from other primary and secondary sources.

Where the Indian and Chinese oil companies did not enter into direct competitive bidding to acquire oil blocks, two proxies were used to gauge the difference in their relative material power: first, preference as a partner in the E&P process in West Africa and second proxy variable is the quality of the oil block.

The null and the alternative employed are as follows:

H_o:

(1) The independent or the exogenous variable i.e. the difference in the relative power of India and China in an anarchical international system explains (a) why Chinese oil companies are spread more relative to Indian oil companies in countries in West Africa; (b) the ability of the Chinese oil companies to outbid Indian oil companies if and when they bid for the same block, and/or (c) why Chinese oil companies are chosen as the preferred partner over Indian oil companies by other oil companies while entering into joint ventures to bid for oil blocks, and/or (d) why Chinese oil companies have better quality oil blocks relative to Indian oil companies.

If Chinese oil companies have more oil blocks in one country and are operating in more countries than their Indian counterparts, then the hypothesis is accepted. Similarly, if the former outbid the latter for oil blocks, and/or are chosen as the preferred partner for a joint venture to bid for oil blocks in West African countries and/or have better quality oil blocks, the hypothesis is accepted. Otherwise the hypothesis is rejected.

(2) The intervening or the domestic variable i.e. the difference in the political economy of India and China explains why China is represented by SOEs in the oil industry in West African countries and India is represented by SOEs and/or private enterprises.

If China is represented by SOEs in the oil industry in West African countries and India is represented by SOEs and/or private enterprises, then the hypothesis is accepted. Otherwise the hypothesis is rejected.

H_a: not H_o

Findings

The study adopted case study pattern matching in 11 countries in West Africa to test the hypothesis. The findings of the thesis led to the acceptance of the null hypothesis: H_O. Since the empirical pattern in the 11

countries coincides with the predicted pattern, the result helps to strengthen the internal validity of the hypothesis.

The thesis discovered that in all the West African countries, China is represented by SOEs. CNOOC, CNPC and Sinopec are SOEs. On the other hand, India is represented either by SOEs like OVL, IOCL and OIL and/or private enterprise Essar Oil in the oil industry in West African countries. Thus, the difference in the political economy of India and China or the intervening variable explains one of the three differences.

The thesis established that Chinese oil companies have a greater outreach or have operations in more countries in West Africa relative to Indian oil companies. Chinese NOCs have operations in 11 countries in West Africa where as Indian oil companies are active in only two countries - Nigeria and Gabon. Chinese NOCs have bid for and acquired more oil blocks than Indian oil companies in the 11 countries in Africa. Chinese oil companies bid for 52 oil blocks and acquired 50 oil blocks. Indian oil companies bid for 12 oil blocks but acquired only five oil blocks.

In Angola, Sinopec bid for seven oil blocks and acquired those blocks in Angola. Indian NOC OVL bid for six oil blocks but did not acquire any oil block. Chinese NOCs outbid OVL in five of the six oil blocks that the latter bid for. In Cameroon, AP, a subsidiary of Sinopec bid for and acquired 12 oil blocks. In Equatorial Guinea, both CNPC and CNOOC bid for one oil block and acquired the oil blocks. In Liberia, PetroChina, a subsidiary of CNPC bid for one block and acquired the block. In Niger and Mauritania, CNPC bid for two oil blocks and acquired the blocks and CNPC bid for four oil blocks and acquired the oil blocks respectively.

In Nigeria, the three Chinese NOCs bid for and acquired 15 oil blocks. Sinopec bid for and acquired four oil blocks, Sinopec nine blocks and CNOOC bid for and acquired two oil blocks. In Nigeria, Indian oil companies bid for six oil blocks and acquired five blocks. In Gabon, two Chinese NOCs, Sinopec and CNOOC bid for and acquired five and two oil blocks respectively. Indian NOCs, IOCL and OIL did not bid for the oil block in Gabon. The state authorities of Gabon offered the block to the joint venture between the two NOCs through a ‘farming-in’ offer.

The study discovered that Chinese NOCs are preferred as partners relative to Indian oil companies in West Africa. In Ghana, although there was no direct competition for oil blocks in the Jubilee oil fields between Indian and Chinese oil companies, GNPC, the Ghana NOC preferred CNOOC as a partner over OVL for a 23.5 per cent stake in Ghana's Jubilee oil field.

With respect to other oil blocks, the Nigerian government entered into direct negotiations with Indian and Chinese oil companies and offered them particular blocks which they accepted. Since direct competitive bidding did not occur for the blocks barring OML 130/OPL246, condition 1 (b) could not be verified. To substantiate the null hypothesis $H_{O,}$ the study used the quality of the oil block or condition 1 (d) as a proxy variable to determine the difference in the relative economic and political power of India and China.

Out of the three blocks that OVL has acquired, only one has commercial prospects. However, OVL is going to relinquish that block because it is unable to keep its promise of constructing an oil refinery worth $6 billion. The blocks acquired by Essar Oil and the joint venture between OIL and IOCL are also under exploration phase. However, the block acquired by Essar Oil from Shell has little commercial prospects. Thus out of the five blocks that Indian oil companies have acquired, two do not have any commercial prospects, one has been relinquished and two are still in the exploration phase.

With respect to China, the four oil blocks acquired by CNPC are still in exploration phase. However, the prospects of commercial viability are good. CNOOC has two oil blocks in Nigeria. Block OML130/OPL246 is a commercial success. It started production in 2009 and reached its peak capacity. It has reserves of approximately 600 million barrels. CNOOC opted out of most of its 35 per cent stake in oil mining licence OML141 despite the company's successful drilling of two wells because of allegations of corruption by individuals in Sinosure, a Chinese SOE.

Sinopec has two oil blocks. OML138 in Nigeria is a commercial success. It started production in February 2012 and will yield 36 tbpd of oil production when the field reaches maximum output. Block 1 in Nigeria-São Tomé & Principe, JDZ is also commercially viable. AP, a subsidiary of Sinopec has seven oil blocks in Nigeria. OML 124 produces 4.5 tbpd. OML 123 is also commercially viable. OML126 started producing oil in March 2005 and in 2011, oil production averaged 35 tbpd. It also has three identified exploration prospects and four undeveloped oil discoveries. OML137 is an exploration and appraisal property. In OPL 291, Odoko, a potentially significant prospect can be identified from the existing 2D and a 3D seismic data which covers the majority of the licence area in addition to numerous leads from this data. Oil block Okwok has been suspended for the time being for potential tie-back to production although the two wells produce 0.40 tbpd of light 32° API oil and 1.2 tbpd of medium 26° API oil respectively. In OPL227, four wells were drilled which encountered hydrocarbons. Thus AP has two blocks which are producing oil, four blocks which have a high commercial prospect and one block which is an exploration block only.

Thus, in Nigeria, Chinese NOCs have a total of four oil producing blocks, five blocks which are commercially viable, four blocks which are in exploration phase and one block which is for exploration purposes only. Thus China has more oil blocks which are producing oil and are commercially viable relative to Indian oil blocks.

In Gabon, direct competition between Indian and Chinese oil companies did not take place. Thus it was difficult to corroborate whether Chinese oil companies outbid Indian oil companies. To substantiate the null hypothesis H_O, the thesis examined condition 1 (d) that is the quality of the oil blocks that the Indian and Chinese SOEs bid for and acquired. The researcher realised that it is not possible to compare the quality of the oil blocks acquired by Indian and Chinese oil companies because block Shakthi (FT-2000) acquired by the Indian NOCs is still in the exploratory stage. However, it can be inferred that the oil block is of inferior quality because none of the Indian or Chinese oil companies expressed an interest in acquiring the oil block.

Additionally, the block was acquired by OIL and IOCL as a 'farming in' offer and the two NOCs did not bid for the block themselves.

On the other hand, all the three onshore blocks acquired by AP, a subsidiary of Sinopec, produce oil. In the offshore Etame Marin block, all the three fields are in the production stage. Kiarsseny licence area and some parts of the Etame Marin block are still in the exploration phase. Moreover, the two oil blocks acquired by CNOOC from Shell are still in the exploration stage and two oil blocks cannot be compared with Shakthi (FT-2000). Because three out of the five oil blocks acquired by Sinopec are producing oil and one oil block is in the production stage, it can be concluded that the blocks acquired by Sinopec are of better quality relative to IOCL and OIL. Thus, it can be concluded that because China has greater economic and political power potential relative to India, it has better oil blocks compared to India.

The thesis established that Chinese oil companies are less risk averse relative to Indian oil companies in Nigeria and Gabon. In Nigeria, Indian and Chinese oil companies did not bid for the same oil blocks except for OML 130/OPL246. OVL bid the maximum amount of $485 million to win the auction for OML130/OPL246. However, the Indian government did not allow the planned acquisition to be completed because it deemed the acquisition extremely risky due to the political risk involved. China on the other hand, did not consider the investment risky and acquired the block after the Indian government directed OVL to withdraw. Henceforth, China won the auction for OML 130/OPL246.

Chinese NOCs have a very optimistic valuation of the price of oil relative to Indian oil companies. For example, IOCL has a conservative estimate of price of oil of $85-$90 per barrel. Chinese NOCs on the other have a price estimate of $110-$115 per barrel. Even with the most optimistic pricing of oil, it is difficult for Indian oil companies to match Chinese NOCs. There is a wide consensus that the Indian oil companies are more reasonable than Chinese companies in their investment decisions. However, there is also a consensus that Chinese companies take more risk.

The thesis also established that Chinese NOCs also have access to cheap capital. Indian oil companies have no access to cheap capital. In India, NOCs are asked to borrow at the market prevailing interest rate which is substantially higher than the rate at which the Chinese NOCs can borrow money from the state owned Chinese banks. SOEs in China can obtain loans from the Chinese state owned banks at a rate of 0-1 per cent. Moreover, the state banks in China lend to the NOCs because they know that the NOCs will not default on the loan. Indian oil companies can also access finance in the international market at 3-4 per cent. However, fluctuations in the currency pose a major problem. Additionally, this would require collateral from the parent company or banks and/or sovereign guarantees which Indian oil companies including the flagship Indian NOC ONGC/OVL cannot provide. Consequently, it is difficult for Indian oil companies to operate at a margin of 3-4 per cent unlike the Chinese NOCs.

Additionally, Chinese NOCs also operate at lower rate of return on investment or the internal rate of return compared to Indian oil companies. Whereas the Chinese NOCs operate at margins of 3-4 per cent in general,

the Indian NOCs operate at a margin of 10-11 per cent. Indian private enterprises like Essar Oil and RIL operate at margins close to 18-20 per cent. The IOCs operate at margins of 15 per cent. The Indian NOCs and the private sector oil companies did not have the financial resources to acquire Nexen, a Canadian oil company acquired by CNOOC for $15.1 billion. They also would not have been able to bid $7.2 billion to acquire AP, a subsidiary of Sinopec. Because of their financial muscle, Chinese bidding does not make commercial sense. Chinese NOCs are not concerned about the rate of return. They are more concerned about the size of the asset. Although Indian and Chinese oil companies possess similar level of technological capabilities, Chinese NOCs are able to pay more to acquire technology relative to Indian oil companies because of their extremely deep pockets. Moreover, Chinese NOCs have greater access to technology because they are operators in more oil blocks relative to Indian oil companies.

Moreover, although the Indian government also provides subsidies and diplomatic and political support to the NOCs in their quest for oil, Indian NOCs are unable to match the Chinese NOCs. This is because China being a permanent member of the UNSC has greater political clout relative to India. China is able to provide more subsidies and financial help to Chinese NOCs because it has greater financial muscle compared to India. China's economic power and UNSC membership with veto power enables China to establish better diplomatic relations with countries in West Africa which also helps the Chinese NOCs to the detriment of Indian oil companies. This also makes the Chinese NOCs preferred partners for African NOCs and other oil companies.

As far as the oil industry in West Africa is concerned, the signature bonus and royalty payments in some of the West African countries are too high especially in Angola, high even for the IOCs. However, China can afford to pay the high amount as evidenced by the world record breaking bids by Chinese NOCs for oil blocks in Angola. It can be inferred that India learned from the Angolan debacle and did not enter into direct bidding for oil blocks in other countries in West Africa vis-à-vis China.

The study also discovered that the European and the US oil companies are still the dominant players in the oil industry in Nigeria, Angola, Gabon, Equatorial Guinea and other countries in West Africa. The former have better quality oil blocks, more oil blocks and greater acreage despite the recent rapid strides made the Chinese NOCs. This conforms to the present literature discussed in Chapter 2 that Chinese NOCs lag behind Western IOCs globally and in West Africa.

China has been successful in forging diplomatic, political, economic and business ties with nascent democracies, authoritarian regimes and dictatorships in conflict prone and conflict ridden countries in West Africa. The US and the European countries and western oil companies have provided support to authoritarian regimes and dictators in these countries and have little moral ground to chastise China in this regard. This also conforms to the existing literature on China in Africa.

India like China also follows a policy of non-interference in the domestic affairs of the host country. The non-interference policy is the cornerstone of the foreign policies of these two countries. However, despite the

same principle, India has not been as successful as China in forging diplomatic, political, economic and business ties with countries in West Africa especially in the oil industry in countries in West Africa.

The deep and substantial inroads made by Chinese corporations have meant that despite its long-standing ties with the Africa, India has taken a backseat to China in Africa and in West Africa. This perception was strengthened when Indian and other international oil companies lost to Chinese NOCs in their quest for oil where in the latter linked business with diplomacy to acquire oil assets in Africa and West Africa. The Chinese strategy of establishing joint ventures that extend beyond the oil sector to infrastructure development, construction and others has served Chinese companies well. In many respects, India's strategies for accessing Africa's (and West Africa's) upstream oil sector are similar to those of China, offering economic and infrastructure assistance in exchange for access to oil.

Since the beginning of the new century, India's African focus has changed and has paid in delivering dividends. India's bilateral trade with Africa and countries in West Africa has increased. India's investments in Africa and in West Africa have also increased. However, compared to China's trade and investment with Africa and West Africa, India is a long way behind. It is still catching up and is in China's slip stream.

On the diplomatic front too, India lags behind China. Indian strategic thinker C. Raja Mohan avers that, "Africa has generally been neglected in India's foreign policy over the decades" and "West Africa was virtually a blind spot" (cited in Singh, S. 2007b:10-11). According to C. Raja Mohan, there is a consensus among West African countries that in the past "India got in touch with West African chancelleries only when it needed votes in international fora" (ibid.:11).

In West Africa, India is represented by only four small missions responsible for all the countries in the region - in Ghana (Niger, Togo, Burkina Faso and Central African Republic), Senegal (Mauritania, Mali, Cape Verde, the Gambia and Guinea Basu), Nigeria (Chad, Equatorial Guinea, Benin, Cameroon and Sao Tomé and Príncipe) and Côte d'Ivoire (Sierra Leone, Liberia and Guinea). Until 2003, in the Ministry of Foreign Affairs (MOFA), GOI, there was only one joint secretary to oversee the entire African continent. Thus, West Africa has been neglected in the Indian schema of things in Africa (Singh, S. 2007b).

In the new millennium, there has been a reawakening in India regarding improving diplomatic relations with countries in West Africa. India now has three joint secretaries representing three Africa divisions: Southern and East Africa, West Asia and North Africa, and Central and West Africa. The restructuring in the MOFA has been undertaken with the aim of substantially increasing India's presence and role in Africa. This has helped in sharpening India's focus and an improvement in assessing factors such as economic performance, political stability and energy issues (Singh, S. 2007b).

The recent Indian diplomatic surge in West Africa pales in significance relative to China's diplomacy in Africa. China is represented in all the countries in West Africa and 49 out of 53 countries in Africa. It has more representatives in its Foreign Ministry dealing with Africa or on issues related to Africa compared to

India. China's permanent membership of the UNSC and its new found economic muscle gives China a substantial leverage relative to India in West Africa.

India's energy linkages with West Africa are still in their formative years and the presence of other developed countries such as the US, Italy, the UK, France, the Netherlands and developing countries such as China in West Africa's energy market in the future is a reality that India has to contend with. India and China are locked in a competitive quest for energy resources in West Africa. India's trade and investment in West Africa (and in Africa) is substantial but dwarfed by China's trade with West Africa. Therefore, the fact that India and China both have energy needs that compel them to turn increasingly to energy imports and that China is far superior to India in terms of its political and financial capabilities and diplomatic and economic ties with West Africa has meant that the two countries have had to contend with each other more and more.

Policy Implications and Recommendations

As discussed in Chapter 4 and Chapter 5, and as evidenced in Chapter 6 and Chapter 7, the asymmetry in power is in China's favour vis-à-vis India. China's economic and political power enables Chinese NOCs to have greater outreach in the oil industry in West Africa, to outbid Indian oil companies for oil blocks if and when they compete directly, have more and better quality oil blocks compared to Indian oil companies and preferred as partners by African oil companies and IOCs. Under these circumstances, what can and what should India do to improve its competitive edge with respect to China not only to acquire oil blocks in countries in West Africa but in other parts of the world and in other sectors?

As evidenced, China has a multipronged strategy of economic, political and diplomatic engagement with countries in West Africa. To meet China's challenge, first and foremost, India has to put its house in order and undertake second round of economic reforms. Economic reforms are necessary to remove the fetters on economic growth in order for the economy to grow at 8-9 per cent per annum for at least two more decades. This will increase India's economic power and commensurate political clout in the international anarchical system. This will also allow the GOI to not only increase the purses of the Indian NOCs but would also be able to leverage greater political and diplomatic support for the Indian SOEs across different sectors. The formation of a sovereign wealth fund on lines similar to the CIC will increase the financial resources at the disposal of the NOCs.

In the short-term, India should have a more focused strategy. Like China, it should have a multi-pronged strategy. India should increase its political and diplomatic relations with countries in West Africa. Rather than indulging in niche diplomacy, India should engage with all the countries in West Africa and improve and strengthen diplomatic relations to provide more leverage to Indian NOCs, other SOEs and also the private enterprises. Like China, the number of officers in the Indian Foreign Service cadre focusing on countries in West Africa and in Africa should increase substantially. India should open high commissions,

embassies and consulates in all the countries in West Africa to enhance its diplomatic and political relations with these countries. There should be more state to state visits of heads of state, senior ministers and trade delegations among others.

In addition to providing more resources to the Indian NOCs and other SOEs, the Indian government should also provide more autonomy in decision making to these corporations. This will facilitate faster decision making and cut bureaucratic red tape. However, accountability should not be compromised for the sake of greater autonomy in decision making. Additionally, the Indian NOCs and other SOEs should enhance their technical and managerial competence and be at par with IOCs and other major corporations across the globe.

India should use its historical relations with African countries and goodwill that these counties have for India. India should present an alternative model of development to countries in West Africa especially countries which are fledgling democracies and countries which are in a transition phase. India should highlight its soft power by providing infrastructure, dams, electricity, schools and medicines to mention a few. Unlike China, it should play a role in human capital formation by providing education, training and vocational courses aimed at generating employable skills catering to the domestic economy of the country concerned.

Avenues for Future research

Political economy and Neoclassical Realism: A positive science

The thesis asserted and proved that political economy can be used as a domestic or intervening variable to clarify the divergence in how India and China mobilise oil externally in the oil industry in West Africa. Neoclassical realists have use political economy as an intervening variable to discuss and explain neo realist outcomes like expansion or deviations from a neorealist outcome like under balancing as discussed in Chapter 3. The thesis uses political economy in neoclassical realism to explain the different instruments that India and China use to mobilise oil, a scarce resource externally in West Africa.

The thesis compared and contrasted the political economy of India and China in Chapter 4. As discussed in Chapter 3, according to Karl Marx, capitalism and communism are two systems at the opposite end of the spectrum with a combination of the two in varying degrees and forms lying between the two. For simplicity, the thesis mentioned three different political and economic systems: capitalism where the means of production are in the hands of private enterprise as in the U.S., socialism/communism where the ownership of the means of production are in the hands of the state as in China before the economic reforms in1979 and a mixed economy system where in the state controls the means of production in the key and strategic industries and the consumer goods industry is in the hands of private enterprise as in India.

The manner in which political economy is incorporated in neoclassical realism in the thesis highlights an extremely important aspect of political economy. Political economy as the intervening variable in neoclassical realism highlights the positivistic element of political economy. First and second image variables that have been incorporated in neoclassical realism like ideas, role of the leaders and their beliefs, perceptions, the nature of the executive and the legislature among others change and have changed. For instance, beliefs, ideas, values, morals, perceptions change with time. Similarly, leaders change and a change in leadership may or may not usher change in policy.

Since there are three kinds of economic systems albeit varying in their degree of capitalism, socialism/communism and mixed economy, these three systems will remain the same. For instance, during the time period 1978-2013, China has been characterised by the same system and there is a wide consensus that it will remain so in the foreseeable future. Similarly, India has been characterised by the same system, as a mixed economy from 1947-2013 and will be so in the foreseeable future. The same can be said about the US. The US has had a capitalist economic system for a long period of time. What is evidenced is that although the relative power capabilities of the countries has changed over time, their economic systems have remained the same although there have been some changes in the composition of the systems. For instance, reforms introduced in India led to privatisation, disinvestment, deregulation, liberalisation and globalisation which removed the fetters for the private sector. This did not imply that the SOEs ceased to exist. Similarly, in China attempts have been made to increase privatisation and improve the functioning of the SOEs but this does not mean that the SOEs have and will become extinct. On the contrary, there is a wide consensus that SOEs are going to play an even greater role in the Chinese economy in the near future. Unlike the boiling point of water which is different at the poles and at the equator, the economic system remains the same although its constituent parts may undergo variations over time.

This implies that political economy can be used as an intervening variable not only to explicate the difference in the ability of India and China to mobilise resources externally as in the oil sector in this study but in other sectors like mining, heavy manufacturing, retail, transport and communications, international aviation, iron and steel, chemicals, banking and finance, shipping, pharmaceuticals, hotels and hospitality and consumer electronics to mention a few.

Not only India and China can be compared but because of the difference in the economic systems, political economy can be used as an intervening variable to compare and contrast the mobilisation of resources by India and the US, China and the US and other countries as long as the economic systems determined by their political economies are different. For instance, the manner in which the US and China mobilise resources externally is different and it can be explained by the difference in their political economy. In the oil industry in West Africa, the US is represented by private enterprises like Chevron Texaco, Exxon Mobil, Conoco Phillips and others. China as discussed in the thesis is represented by SOEs. This is because the US has a capitalist economic system where as China has a communist/socialist system. In similar vein, comparisons can be made between France, India and China, or UK, India and China, or UK and China and other

countries. Thus, political economy as an intervening variable gives rise to a multitude of combinations to compare and contrast the manner in which countries mobilise resources externally in different sectors in the economy. This can be done not only between and among countries but also in different sectors. Hence, political economy as an intervening variable in neoclassical realism can be used to explain the mobilisation of resources externally by a country or countries and extends neoclassical realisms research design.

Empirical Research

The thesis compares and contrasts the ability of India and China to mobilise resources externally in West Africa in the oil industry using political economy as the intervening variable in neoclassical realism. Further research should be undertaken to compare and contrast India and China in the oil industry not only in West Africa but also other countries and regions in Africa: North Africa, East Africa, Central Africa and Southern Africa. The research can and should be extended to compare and contrast India and China in other countries and parts of the world like Latin America, North America, Central Asia, the Persian Gulf, South East Asia and other regions and continents.

This thesis examines competition for a key and scarce resource, oil, between India and China. Research should be undertaken to show sectors in which India and China have co-operated to mobilise key and scarce resources like oil, metals and minerals, chemicals etc. For instance, India and China cooperate in the upstream oil sector in Sudan. Furthermore, the thesis highlights the fact that Chinese oil companies outbid Indian oil companies when they compete directly as in Angola or is the preferred partner for other oil companies as in Ghana and other countries in West Africa. Research should be undertaken to find cases and explain the reasons for Indian oil companies outbidding Chinese oil companies as in Libya. The research should examine what were the reasons that despite the fact that China is economically and politically more powerful than India, Indian oil company (companies) were able to outbid their Chinese counterparts. What factors enabled India to mobilise resource externally in the oil sector in Libya? Was it a domestic factor in Libya and what was that factor? That is to say that the agency is in the hands of either a first or second image variable in Libya. What was the enabling factor for India and/or what was the debilitating factor for China. This gives rise to a comparative case study analysis of India and China in Angola on the one hand and India and China in Libya on the other.

As discussed above, political economy can be used as an intervening variable in neoclassical realism to compare and contrast different countries in different sectors. Thus, further research should be undertaken with or without using neoclassical realism to compare and contrast and to highlight cases where two or more countries compete and cooperate in the same sector or different sectors. This creates a minefield for comparative case study analysis of different countries and if neoclassical realism is used, it extends its research design.

Neoclassical Realism and Foreign Policy Analysis

As discussed in Chapter 3, neoclassical realism is 'theories of foreign policy' and it explains the foreign policy outcomes of states. Although there has been a spurt in literature in neoclassical realism - both empirical and theoretical, neoclassical realism as a theoretical paradigm is still in an embryonic stage. Recently there has been a focus on explaining the foreign policy outcomes of MPs like Canada, SPs like South Korea in addition to major powers like Germany, India, China, Russia and the global hegemon, the US. Neoclassical realism is gaining steam in explaining foreign policies of all types of powers.

Foreign policy analysis literature as a part of IR has a lot in common with neoclassical realism. Both aim to explain the foreign policy outcomes of states. However, the difference between foreign policy analysis and neoclassical realism is the independent or the systemic variable i.e. the difference in the relative power of states in the anarchical international system. While foreign policy analysis employs the categorisation of states into GP, MP and SP to highlight the difference in the states behaviour, neoclassical realism employs the difference in the relative power of states in the anarchical international system. What is important for neoclassical realism is that one state has more or greater power than the other or vice-versa.

As discussed in Chapter 3, the systemic variable limits the ambitions or goals and objectives of countries and the means to achieve the objectives. As the relative power of a state increases, the state will seek more influence abroad and vice-versa. This highlights the salience of the independent variable in neoclassical realism and distinguishes it from foreign policy analysis. Further research must be undertaken to bridge or amalgamate the existing gap between neoclassical realism and foreign policy analysis.

Neoclassical Realism and Postclassical realism

Neoclassical realism shares a common ground with postclassical realism. As mentioned in Chapter 3, postclassical realism was coined by Stephen G. Brooks (1997). According to Brooks, neorealism and postclassical realism have important similarities. A major difference between neorealism and post classical realism is that while the former is a systemic and structural theory, the latter is only a systemic theory i.e. it is not concerned with polarity. Moreover, neorealism is concerned with the possibility of conflict but postclassical realism is concerned with the probability of conflict. Due to growing disenchantment with neorealism, realists like Robert Jervis, Barry Buzan, Charles Glaser, Stephen Van Evera, Stephen Walt, Stephen Krasner, Robert Gilpin and William Wohlforth have pointed out the importance of technology, geography and international economic pressures to elucidate the divergences between neorealism and postclassical realism.[168]

Like postclassical realism, neoclassical realism also uses the systemic variable as the independent variable. Apart from works by some neoclassical realists discussed in Chapter 3, much of the focus of neoclassical

[168] For a detailed analysis of the differences and similarities between classical realism, neorealism and postclassical realism, refer to. Brooks, Stephen G (1997)

realism is to use the systemic variable to explain foreign policy outcomes. Moreover, the manner in which political economy is incorporated in neoclassical realism in this study does not explain a structural outcome like polarity. Thus, further research should be undertaken to integrate material factors like technology, geography and international economic pressures pointed out by scholars above as the intervening variable into neoclassical realism.

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