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## **RIS** Discussion Papers

### **India's Outward Foreign Direct Investments in Steel Industry in a Chinese Comparative Perspective**

**Nagesh Kumar**

and

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**RIS-DP # 148**



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# India's Outward Foreign Direct Investments in Steel Industry in a Chinese Comparative Perspective

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*Abstract:* Indian and Chinese enterprises have emerged as important outward investors in recent times with their involvement in a number of prominent Greenfield investments and acquisitions. The theory of international business posits that the ownership of some unique advantages having a revenue generating potential abroad combined with the presence of internalization and locational advantages leads to outward FDI. Conventional MNEs based in the industrialized countries have grown on the strength of ownership advantages derived from innovatory activity that is largely concentrated in these countries. It examines the case of steel industry that has become an important sector of overseas activity for Chinese and Indian companies with a string of major acquisitions of foreign MNEs for acquiring footprints and natural resources in order to identify the sources of ownership advantages and strategies of outward investments from emerging countries.

JEL code: O1, L61

Keywords: FDI outflows from emerging markets, steel, India, China

## 1. INTRODUCTION

An important trend of the past decade is the emergence of significant outflows of foreign direct investments originating in developing countries. In particular, outward foreign direct investments (OFDI) from emerging countries such as China and India besides Brazil and South Africa have

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grown in salience over the past few years and represent evolution of a new set of corporate players on the global stage based in these countries, as highlighted in the literature (Wells 1983, Lall 1983, Kumar 1998, 2008; Aykut and Ratha 2004, UNCTAD 2005, 2006, 2007; Goldstein 2007; among others). These new players, or emerging multinational corporations (E-MNEs) are undertaking OFDI, securing raw materials supplies, and access to technology and brands, among other strategic assets, for acquiring global footprints.

In particular, magnitudes of outward FDI from India have grown very rapidly over the past few years with her share in outward FDI from developing countries rising from 2 per cent to 6 per cent between 2004 to 2006. Furthermore, India's share at 6 per cent is impressive compared to China's 9 per cent share in 2006 considering the fact that Chinese economy is nearly 2.5 times that of India. Outward FDI normalized by gross fixed capital formation (GFCF) for India was higher at 5 per cent compared to 1.9 per cent for China in 2006 (Kumar 2008).

It is of interest to examine the emerging trends, motivations, entry modes, and sources of strength or ownership advantages of the E-MNEs, in terms of the theory of internationalization of firms. For such an analysis, steel industry represents an important industry for a study for two reasons. Firstly, the epicenter of the steel industry has shifted to Asia led by fast growing production and consumption in China, India and other Asian countries. Secondly, steel industry has attracted some of the prominent acquisitions in recent times involving E-MNEs, for instance, acquisition of Corus and NatSteel by Tata Steel, among others. Furthermore, it will be interesting to compare the performance of Indian enterprises in a Chinese comparative perspective, as Chinese steel industry has grown rapidly to assume a dominating position in the world with a number of enterprises undertaking OFDI. Against that backdrop, this paper summarizes emerging patterns in O-FDI from India in a Chinese comparative perspective in steel industry. Rest of the paper is structured as follows. Section 2 summarizes the government policy and emerging broad patterns in OFDI activity in India and China to provide a background for the further analysis. Section 3 focuses on the steel industry discussing the emerging patterns in global steel production and consumption. It then compares the OFDI activity of two

major outward-oriented enterprises each from India and China in terms of their motivations. Section 4 concludes the paper with a recapitulation of key findings.

## **2. OUTWARD FDI FROM INDIA IN A CHINESE COMPARATIVE PERSPECTIVE**

This section briefly summarizes the similarities and contrasts between trends and patterns of Indian and Chinese outward FDI in terms of the government policy, sectoral focus of OFDI, and enterprise characteristics.

### **2.1. Increasingly Supportive Government Policy**

The government policy towards outward FDI in India has evolved over time in view of relative scarcity of foreign exchange in three distinct phases, viz. restrictive policy during 1978-91, permissive policy during 1992-2002, and a liberal policy since 2003 (Nayyar 2007). The early policy restricted outward investments to only minority participation by Indian companies by way of export of capital goods rather than cash outflows in view of high opportunity cost of capital and foreign exchange scarcity. Cash remittances for outward investments have been allowed only since 1992 when the policy was liberalized as a part of economic reforms since 1991. The limits on investment under automatic approval have been gradually raised from \$2 million in 1992, to USD 50 million in 2000, to US\$ 100 million in 2002. In 2003 companies were allowed to invest under automatic route upto 100 per cent of their net worth. This limit was raised further to 200 per cent of net worth in 2005, to 300 per cent of net worth in 2007, and finally to 400 per cent of net worth in 2008 to facilitate large acquisitions as the foreign exchange reserves of India built up (Kumar 2008). Recognition of the outward FDI for competitiveness of enterprises has also resulted in creation of financing facility for outward investments by Indian companies through the Export-Import Bank of India. Since April 2003, Indian commercial banks have also been permitted to extend credit to Indian companies for outward investments. From 2005, Indian firms were allowed to float special purpose vehicles in international capital markets to finance acquisitions abroad facilitating the use of leveraged buy-outs in international financial markets. India has concluded bilateral investment promotion and double taxation avoidance agreements with 63 countries.

A similar transformation in attitude from restrictive to active promotion has characterized the Chinese government's policy towards outward FDI. The first concrete step was taken for promoting overseas investments in 1985 when the Government released the regulations allowing all economic entities and not just trading companies to have overseas ventures. Internationalization of Chinese large state-owned enterprises was also promoted in China's coastal regions so as to take advantage of international resources and international division of labor. China's coastal-oriented export-led development strategy opened up 14 coastal cities in 1988 and 4 special economic zones. Chinese large state-owned enterprises were for the first time authorized to invest overseas and this was linked with the government's political and economic agenda of expanding China's trade. However, the Asian financial crisis of 1997 led to stricter requirements for approval of overseas investments leading to a slowdown of FDI outflows in the late nineties. The turnaround came with China's accession to the WTO in 2001 when Premier Zhu Rongji announced the "going abroad" strategy in the 10<sup>th</sup> five-year plan (2001-2005) and increasing outward FDI became the declared policy of China in order to utilize the growing trade surplus. The government now actively promotes outward FDI as an integral part of China's economic development strategy. In fact, approval for outward investment clearly requires that the FDI outflow should be technology-acquiring, resource-seeking, market-seeking and foreign exchange-generating (Cheng and Stough, 2007). China's Export-Import Bank, like its Indian counterpart, is also providing loans to firms for outward investments for resource development and infrastructure. Fiscal incentives are also provided to firms that use Chinese machinery, plant, and equipment in their overseas ventures. China has also signed bilateral investment treaties with 103 countries and double taxation treaties with 68 countries to support the international expansion of Chinese enterprises.

To sum up, the government policy of the two countries has evolved from a restrictive attitude to more liberal and even promotional policy towards OFDI based on a recognition of their role in the country's external competitiveness and with accumulation of foreign exchange reserves. It is only in this decade that the Indian and Chinese companies could undertake large acquisitions and Greenfield investments abroad. The liberalization of

government policy, however, provides only a necessary but not a sufficient condition for OFDI to take place. As per the theory, a firm needs ownership of certain unique assets to be successful abroad.

## **2.2. Sources of Ownership Advantages for Outward FDI**

The theory of international operation of the firm – which has evolved over the years with the contributions from Hymer (1976), Caves (1971) and Dunning (1979) among many others – posits that the ownership of some unique advantages having a revenue generating potential abroad combined with the presence of internalization and locational advantages leads to OFDI. Enterprises based in the industrialized countries have emerged as MNEs on the strength of ownership advantages derived from innovatory activity that is largely concentrated in these countries. Very little is known about the sources of the strength of enterprises based in developing countries, such as India, that enables overseas investment.

Kumar (2007, 2008) has argued that the main source of the advantage enjoyed by Indian enterprises was their ability to develop cost effective processes and products. This frugal engineering capability has resulted from Indian enterprises' evolution in a low country setting and hence dealing with highly price conscious and demanding customers. As the volumes in India lay at the bottom of the pyramid, the companies focused on innovations for developing affordable yet functionally efficient products. Indian pharmaceutical and chemical enterprises developed cost-effective processes of known chemical entities and have emerged as the most competitive suppliers of generic medicines globally. Similarly, Indian automobile producers have developed cost effective vehicles as epitomized by world's cheapest car Nano. Another source of their ownership advantage lay in their accumulated learning, organizational and managerial know how that enables them to manage operations across different cultural environments. Long production experience in India gives to Indian companies not only skills and organizational capability to manage large operations but also experience of managing in multicultural settings, given the cultural diversity of the country. This managerial capability also gives them the confidence of managing the acquired facilities besides Greenfield projects. Finally, Indian firms are able to raise capital for leveraged buyouts due to their generally healthy balance sheets and robust credit ratings

enjoyed as a result of their grooming in an environment of prudential regulations, their listing at global stock exchanges and best practices in accounting and corporate governance.

### 2.3. Enterprise Characteristics and Ownership Advantages of Indian and Chinese Investors

A recent study by the Boston Consulting Group (BCG, 2008) has identified 100 companies (Global Challengers) from 14 rapidly developing economies (RDEs) that are globalizing and are likely to emerge as global players. The BCG list is dominated by China and India with 41 and 20 companies in global 100 respectively. The next country in the list viz. Brazil has only 13 companies. According to the key characteristics of Chinese and Indian companies summarized in Table 1, on average Indian companies are much smaller in scale compared to their Chinese counterparts but have much higher proportion of international sales at 47 per cent compared to just 17 per cent in case of Chinese companies. A striking difference is the fact that all the 20 Indian companies are publicly traded companies and none of them is state owned while 29 of 41 Chinese companies are state owned. A greater proportion of acquisitions (78%) by Indian companies was in developed countries compared to those by Chinese companies (68%). Therefore, profile of an Indian company emerges to be one of a fast growing and rapidly internationalizing company that is publicly traded and privately managed compared to larger state owned enterprises of China.

**Table 1: Key Characteristics of Indian and Chinese Globalizing Companies**

	India	China
No. of companies in BCG 100	20	41
Average size, US\$ billion	3.9	14.5
CAGR, %	31	26
Share of international sales, %	47	17
Operating profit margin, %	16	14
CAGR of total share holders return, %	38.2	27.7
Public traded (quoted)	20 out of 20	34 out of 41
State owned	None	29 out of 41
M&A deals by sample companies	26	17
Proportion of matured markets in M&A deals	68	78

*Source:* Compiled from Boston Consulting Group (2008).

Another study suggests that the bulk of the Chinese outward FDI is concentrated in Hong Kong (64 per cent), Cayman Islands (15.6 per cent) and Virgin Islands (3.5 per cent) which may be driven by the round tripping considerations to take advantage of tax preferences for foreign investors prevailing in China. In terms of motivations, Chinese outward investments are dominated by outward investments made by three state owned oil companies viz. CNPC, CNOOC and SINOPEC which are driven by natural resource seeking motive, although some manufacturing companies such as Lenovo, TCL, Nanjing Auto are beginning to make acquisitions for technology and brands (Hagiwara 2006). The natural resource seeking investments are outward investments but they do not lead to internationalization of operations.

In India's case, most of the outward investments are undertaken generally by private enterprises seeking to internationalize their operations through horizontal acquisitions and Greenfield investments. That observation is consistent with that emanating from a recent study of Indian OFDI finding it to have evolved with three distinct phases with the current phase dominated by the motivation of Indian companies to acquire scale and global footprints. Hence it is largely directed at acquiring strategic assets such as brand names (as in the case of Tata-Tetley or White & Mackay), established marketing networks (as in pharmaceutical industry), or access to customers (as in the case of Novelis or Corus in the western world), or access to clients (in IT industry), or technology (as in the case of wind turbines and technology by Suzlon, or for complementary product range as in Tata-Daewoo/ Jaguar-Land Rover), etc. In contrast the early investments were seeking markets for adapted low cost products in poorer countries (in the first phase) or trade supporting ones in pharmaceuticals and IT software in the Second Phase in the evolution of Indian enterprises (Kumar 2008).

The ownership advantages required for different motivations of OFDI will be different. For instance, a horizontal FDI establishing manufacturing base would require ownership assets in the form access to technology, capital, managerial know how and organizational capacity. For natural resource seeking investment will require skills and expertise

in mining and exploration and capital. In the case of Chinese enterprises, their large scales of operation and accumulated expertise is a source of ownership advantage. Their government ownership provides them access to capital and other resources. The locational advantages will determine where the investment will be made. In the case of strategic assets seeking investments or market seeking investments, the bulk of the investments may be made in developed countries having firms with strategic assets and markets. The natural resource seeking investments will be made in natural resource rich countries such as Australia, Canada, African countries among others.

#### 2.4. Sectoral Focus of Indian and Chinese OFDI

Table 2 summarizes the sectoral distribution of OFDI stocks of the two countries to get an idea of their focus. The sectoral breakup for Indian OFDI stocks is available for upto 2004 only which suggests that manufacturing accounted for nearly half of total OFDI stock of India. Services also had a substantial (40 per cent) share of OFDI stock with information and communication (ICT) services sector being the most important. The extractive sector was virtually non-existent upto 2000. However, by 2004 its share had gone up to 11.4 per cent. In China's case, services comprising largely trading and business services besides finance accounted for 71 per cent share in 2006. Extractive sector also had a considerable proportion with a 21 per cent share. Manufacturing had a rather small share of 8.31 per cent in 2006. While the importance of services and manufacturing was declining, that of extractive sector was rising. Thus a comparison of sectoral composition of OFDI by the two countries suggests that Indian enterprises were undertaking OFDI in manufacturing and services to pursue a strategy of horizontal expansion or internationalization of operations seeking global footprints, locating manufacturing bases across the borders. The OFDI of Chinese enterprises on the other hand seem to be motivated by vertical integration seeking access to natural resources and raw materials and trading of finished goods produced in China. The proportion of horizontal manufacturing bases is rather small. It remains to be seen whether OFDI by Indian and Chinese steel enterprises as reported later fits into this overall pattern.

**Table 2: Sectoral Distribution of OFDI Stocks of India and China**

(million US\$)

	India			China		
	2000	2004	2006	2000	2004	2006
Extractive	65.18	1044.60	n.a.	n.a.	6785.60	18718.32
% share in total	1.47	11.44			15.15	20.65
Manufacturing	1776.38	4423.98	n.a.	n.a.	4538.07	7529.62
% share in total	40.04	48.44			10.13	8.31
Services	2595.37	3663.61	n.a.	n.a.	33453.59	64382.97
% share in total	58.49	40.12			74.71	71.04
Total	4437.00	9132.00	12964.00	27768.00	44777.26	90630.91

*Source:* Authors based on data collected from Indian and Chinese Government sources and UNCTAD.

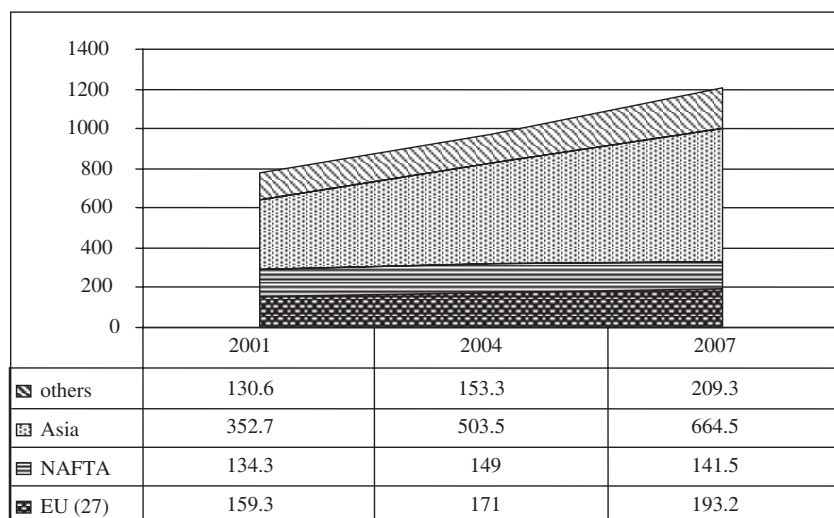
### 3. INDIAN AND CHINESE OUTWARD INVESTMENTS IN THE STEEL INDUSTRY

#### 3.1. Emerging Patterns in Global Steel Industry

Traditionally, iron and steel have been considered as the core sectors of the economy since their consumption is an important indicator of the stage of development of an economy. The development experience of countries regarding the relationship between GDP and steel consumption shows an inverted U-shape. The steel intensity of GDP increases with per capita income in the initial phases of development owing to the building of infrastructure like railways, roads and bridges, water and gas works, electricity generation and distribution, plant and machinery and ports and buildings. As the country advances economically, the industrial product mix changes and there is an added demand for steel due to the consumption of automobiles and other consumer durable goods. However, beyond a certain threshold level of income, further increases in GDP do not translate into higher demand for steel due to saturation of infrastructure and a greater weight of the services sector in the economy. In view of this the epicenter of the steel industry has been gradually shifting away from the EU and North America towards Asia led by strong demand and production in China and India (as shown in Figure 1).

**Figure 1: Global Production of Finished Steel**

(million metric tonnes)



**Source:** based on International Iron & Steel Institute (2008), *World Steel in figures 2008*, Brussels.

Steel production is based on process know how and requires relatively large investments. Although the basic technology of steel making is matured and may be available on-the-shelf, some application technologies such as for special steels and alloys for special applications are more closely held. The other characteristic of the steel industry is its scale intensity. The third characteristic is its highly raw material dependent nature. Steel production requires abundant access to iron ore, coal, and energy. These factors namely increasing consumption in the emerging markets, technological maturity, scale economies and raw material intensity are leading to some consolidation of the industry. Arcelor-Mittal merger followed by Tata Steel-Corus mergers are part of the trend of consolidation of the industry. Steel companies are acquiring upstream companies to utilize their cheap sources of raw materials or downstream producers to get access to consumers across borders. The steel industry has seen record mergers in the recent past including a number of mega-deals worth over \$1 billion. According to Bloomberg, steel companies were involved in 270 M&As worth \$33 billion in 2005 which rose to 347 M&As valued at \$95 billion in 2006. According to an OECD

(2007) study, the mining and processing of raw materials saw the biggest amount of cross-border M&As in the OECD in 2006, followed by the telecommunication, financial and the media and entertainment sectors. In 2006, China and India ranked among the top 10 steel-producing countries of the world (see Table 3), with China being the largest producer accounting for 34 per cent of the world's output. Another trend observed from Table 3 is the fact that steel production in the advanced countries such as the US, Germany, Italy, France was stagnating, while that in emerging countries such as China and India was increasing.

**Table 3: Major Steel-producing Countries, 2007**  
(Million Metric Tonnes)

Country	2007	2006
China	1 489.2	1 423.0
Japan	2 120.2	2 116.2
United States	3 98.2	3 98.6
Russia	4 72.4	4 70.8
India	5 53.1	5 49.5
South Korea	6 51.5	6 48.5
Germany	7 48.6	7 47.2
Ukraine	8 42.8	8 40.9
Brazil	9 33.8	10 30.9
Italy	10 31.5	9 31.6
Turkey	11 25.8	11 23.3
Taiwan, China	12 20.9	12 20.1
France	13 19.2	13 19.9
Spain	14 19.0	14 18.4
Mexico	15 17.6	15 16.4
Canada	16 15.6	16 15.5
United Kingdom	17 14.3	17 13.9
Belgium	18 10.7	18 11.6
Poland	19 10.6	19 10.0
Iran	20 10.1	20 9.8
<b>World</b>	<b>1344</b>	<b>1251</b>

**Source:** International Iron & Steel Institute (2008), *World Steel in figures 2008*, Brussels.



The rise of China and India has led to significant changes in the global steel industry in the past two decades. India is still in the stage of low steel intensity and its per capita steel consumption is very low compared to international standards. China is rapidly catching up with the western levels of per capita consumption of steel (Table 4).

**Table 4: Apparent Per Capita Steel Consumption**

(kilograms finished steel products)

	2001	2002	2003	2004	2005	2006	2007
<b>European Union (27)</b>	329.4	327.0	328.6	349.9	335.0	378.9	392.0
<b>NAFTA</b>	319.9	324.3	306.8	344.7	320.4	353.1	317.8
<b>Central and South America</b>	90.3	83.9	85.9	98.0	94.4	105.6	119.0
<b>Africa</b>	29.1	31.2	29.2	29.3	32.0	34.5	35.8
China	123.5	148.5	185.4	211.4	252.7	273.6	307.3
India	26.8	28.4	30.1	31.6	35.2	39.6	43.4
Japan	575.2	562.4	575.2	601.1	609.6	617.4	625.9
South Korea	814.0	924.3	956.0	990.3	984.4	1,044.2	1,135.5
<b>Asia</b>	104.2	116.6	130.9	143.7	159.4	167.9	183.5
Australia and New Zealand	268.2	298.1	308.3	327.0	321.2	315.8	340.7

*Source:* International Iron & Steel Institute (2008) *World Steel in figures 2008*.

With per capita levels of steel consumption approaching those of developed countries, it is not surprising that China now accounts for more than one-third of the world steel consumption (Table 5). India's steel consumption is much lower, merely one-tenth of China's. However, looking at the annual growth rates or in terms of GDP elasticity of steel, we find that India comes next only to China. The demand for steel in India is going to rise in the coming decades rapidly as the country catches up with industrialization and development. Therefore, major steel groups from across the world have announced major programmes of investment in expanding production capacity e.g. POSCO, Arcelor-Mittal, Tata Steel, Vedanta Resources, among others.

**Table 5: Country-wise Steel Consumption and Elasticity of Steel**

	2005 Share of world steel consumption (%)	1995-2005 GAGR (%)	1990-2006 GDP elasticity of steel
Brazil	1.7	3.4	1.88
China	31.1	13.7	1.15
India	3.1	5.3	0.95
Japan	7.7	-0.2	-0.67
USA	10.2	0.3	0.23

*Source:* Tata Services (2006).

### 3.2. Indian Steel Industry

The economic reforms of 1991 freed the steel industry from the shackles of government control by delicensing private investment in steel and abolishing administered prices. The new steel policy not only deserved the integrated steel plant from the public sector but in a turn-around from past policies, started the privatization of public sector steel companies by divesting their shares in the stock market. The liberalization process set in motion by the reforms also did away with restrictions on private domestic and foreign investments. FDI was allowed into this sector with foreign equity participation up to 51 percent subject to the restrictions that foreign equity has to cover not only the cost of imports of capital goods but also foreign technology agreements till a specified limit. All these policy changes opened up new opportunities for growth for Indian steel enterprises and new plants were set up with latest technology and large production capacities such as Essar Gujarat and Jindal Strips.

As far as the market structure of the Indian steel industry is concerned, the market for finished steel has three large players – the Steel Authority of India (SAIL), Rashtriya Ispat Nigam Limited (RINL) and Tata Steel - which account for about half the supply of steel (Sengupta, 2004). These three enterprises do not compete with each other directly due to differentiations arising from product mix and location. Even though the freight equalization scheme has been dismantled to a large extent, these differentiations would enable them to enjoy monopolistic privileges in separate markets for specified products. These are large enough to influence market prices where as the large number of small and medium producers supply steel at market-

determined prices. The pricing decisions of these large steel enterprises are in turn determined by import prices and the open market price movements. Thus, the international environment has a significant impact on the functioning of the domestic market in an integrated open economy and outward-orientation strategies become imperative for enhancing competitiveness.

India's comparative advantage lies in its availability of good quality iron ore at only \$10 per tonne for plants with captive mines and \$20 per tonne for iron ore purchased from the market which is much cheaper than the cost of \$30-40 per tonne prevailing in developed countries. The captive access to raw materials has become a source of advantage in the scenario of rising costs of iron ore supplies. Even though the cost of labour is much lower in India in the range of \$1-1.5 per labour hour as opposed to \$30-40 per labour hour in the developed countries, productivity of Indian labour is low ranging between 80-190 tonnes per man year against a high of 300-500 tonnes per man year for developed countries owing to the lack of technical upgradation of steel plants, outdated production processes, overmanning and low skill development (Sengupta, 2004). The energy costs of steel making in India are relatively high, being 33 percent of total costs compared to 20 percent in developed countries. To overcome these constraints, the Indian steel industry is in the process of technological and organizational restructuring in order to compete effectively with foreign firms (Sengupta, 2004). Some enterprises have done very well in terms of modernization and achieving efficiency. Tata Steel, for instance, had emerged as one of the most competitive steel producers in the world even before it acquired Corus and other enterprises in East Asia.

### **3.3. Emerging Patterns of Outward FDI from India and China in Steel Industry**

Given the scale economies in the steel industry, it is dominated by a few large enterprises in different countries. In India, Steel Authority of India, (SAIL, a public sector company), Tata Steel, Essar Steels, JSW Steels and Ispat Industries are prominent players in the industry. Similarly in China, Sinosteel, Baosteel, Capital Steel, are the key enterprises in the steel industry. In order to examine the OFDI activity of steel enterprises in the two countries, we gathered information on OFDI activity of two major enterprises from

each country. In India's case the largest producer viz. SAIL is an entirely domestic market focused enterprise hence, the two companies selected are Tata Steel and Essar Steel in India (both private sector players), and Sinosteel and Baosteel in China (both state owned enterprises, SOEs). One contrast is immediately obvious viz. Chinese state owned companies being very active in international markets while their Indian counterpart viz. SAIL being confined to the domestic market one. This is to be explained in terms of the fact that while Chinese SOEs are required to ensure the natural resource security, Indian SOE does not feel compelled to do so in view of domestic mineral resources.

The emerging patterns in OFDI activity of the selected companies is summarized in Tables 6 and 7 respectively. Table 6 suggests that of the 6 major overseas investments made by Tata Steel, two are Greenfield market-seeking investments developing production facilities in Vietnam and South Africa respectively. One is natural resource-seeking investment of minority nature in Australian coal mining project. The key outward investments are acquisitions of NatSteel in Singapore, Millennium Steel in Thailand, and Corus in UK. Of these NatSteel and Corus were motivated by the urge to achieve scales and global footprints which require access to strategic resources such as brand names, access to customers, marketing networks and finishing plants close to the customers. NatSteel operates in 9 Southeast and East Asian countries. Corus has global operations and is the second largest steel company in Europe. Through these acquisitions and Greenfield investments made in some countries, Tata Steel now has footprints in about 40 countries across the globe and has emerged as the sixth largest steel producer in the world. Tata-NatSteel-Millennium-Corus acquisitions bring together Tata Steel's low cost production bases and their access to natural resource endowments in India, with the access to processing technology and consumers. There are some indications that such a restructuring and production networking is taking place. Apparently Tata Steel and NatSteel plants in different Southeast Asian countries are being covered by a scheme of regional production network involving pallets going from India to the NatSteel plants and special steels to come from NatSteel's Southeast Asia plants to India. This way the synergy or the locational advantages of India emanating from the iron ore deposits will be available to the NatSteel plants

**Table 6: Outward Investments made by Leading Indian Steel Companies**

Name	Country	Value (US \$ million)	capacity (million m.t.)	Year	Motivation	Entry
<b>Tata Steel's Overseas Subsidiaries/ Affiliates</b>						
Corus Steel PLC	Plants in U.K./ Netherlands and global presence	12100.00	14	2007	Seeking global footprints	acquisition
Millenium Steel Plc.	Thailand	175.0	-	2005	Market seeking	acquisition
NatSteel Asia Pte.	Singapore with operations in 9 East Asia countries	283.7	2	2004	Seeking global footprints	acquisition
Joint venture with Vietnam Steel Corporation	Viet Nam	-	4.5	2007	Market seeking	greenfield
Tata Steel KZN Pty Ltd.	South Africa	ZAR 650 million	135,000 m.t. of high grade ferro chrome	Under construction	Market seeking	greenfield
Carborough Downs Coal Project	Australia	5 % stake	58 million m.t. of raw coal	-	Natural resource seeking	acquisition
<b>Essar Steel's Overseas Subsidiaries/Affiliates</b>						
Algoma Steel	Canada	1500	2.4 million m.t.	2007	Seeking global footprints	acquisition
Minnesota Steel	USA	-	1.4 billion m.t. of iron ore	2007	Natural resource seeking	acquisition
Essar Vietnam Steel Corporation	Vietnam	-	2 million m.t.	Under construction	Market seeking	greenfield
Essar Steel Caribbean	Trinidad and Tobago	-	2.5 million m.t.	Under construction	Market seeking	greenfield

**Source:** compiled from websites of companies and business news.

and their specialization for some special steels to Tata Steel, will be exploited for mutual advantage. There are also other economies of specialization and production networking. Tata-Corus, for instance, is expecting to save US\$ 450 million a year from sharing technical ideas and joint procurement of raw materials. Essar Steel's acquisitions of Algoma Steel in Canada was also driven by a similar motivation of acquiring global footprints. Essar is building two Greenfield plants in Vietnam and Trinidad and Tobago respectively as a part of horizontal market seeking strategy. It has also undertaken acquisition of a mining company in the US as a part of natural resource seeking strategy.

It would appear therefore, that Indian steel companies' overseas activity is motivated predominantly by internationalization of operations or acquisition of global footprints or the horizontal expansion objective.

The Chinese enterprises have undertaken many overseas investments as listed and summarized in Table 7. Although more details of the magnitude of investments and capacity etc. are not available from the company websites, the motivations are clear from the activities listed. For both Sinosteel as well as Baosteel, the major motivations for outward investments have been development of natural resources and trading of their products. The Chinese companies seem to have practiced a division of labour between them regarding the geographical coverage. Sinosteel's major focus has been on Australia and Africa, while Baosteel seems to be focusing on Brazil and other western countries. Sinosteel's multiple investment proposals in Australia have attracted concerns. Sinosteel won permission in April 2008 to acquire Midwest, an Australian iron-ore company, but later applications have been stalled. An estimated US\$ 40 billion of Chinese acquisition proposals are waiting for approval of Australia's Foreign Investment Review Board (*The Economist*, 12 July 2008: 68-9). There are hardly any investments in the direction of horizontal expansion abroad or internationalization of their operations.

To sum up the emerging patterns from the above discussion, Indian enterprises in steel industry are seeking to internationalize their operations through OFDI through horizontal expansion while Chinese enterprises are mainly undertaking OFDI to secure their supply of raw materials for

**Table 7: Outward Investments made by Leading Chinese Steel**

Name	Country	Activity	Motivation
<b>Sinosteel's Overseas Subsidiaries/ Affiliates</b>			
Sinosteel International Holding CO., Ltd.	Hong Kong	To manage business and capital operation of overseas organs of Sinosteel.	Holding company
Sinosteel Australia Pty Ltd	Australia	Operation & Management of the Channar mining Joint Venture Project, discovering investment opportunities for resource development in Australia and trading.	Natural resource seeking
Sinosteel Australia Mining Pty., Ltd.	Australia	Participate in the exploration, investigation and developing of other iron ore resources.	Natural resource seeking
Sinosteel Uranium SA Pty., Ltd.	Australia	exploration and mining development of Uranium and other minerals.	Natural resource seeking
Sinosteel South Africa Pty.,Ltd.	South Africa	Resources development, International cooperation, Commodity trading	trading
ASA Metals Pty., Ltd.	South Africa	Chrome ore & Charge Ferrochrome Producing ; Chrome ore & Charge Ferrochrome Trade; Chrome resource development	Natural resource seeking
Tubatse Chrome Minerals Pty. Ltd.	South Africa	Chrome mining	Natural resource seeking
Sinosteel India Pvt Ltd.	India	Metallurgical resource and project development, trade and logistics, technology service and equipment supply	Natural resource seeking
Sinosteel Germany GmbH	Germany	Trading of metallurgical raw materials and steel products, metallurgical equipments, metallurgical & mining machineries, spare parts etc. and logistics.	Natural resource seeking
China Sinosteel (Singapore) Pte., Ltd.	Singapore	complete plant and technology know-how Import / Export, strategy on investment and / or finance the joint-venture for the exploitation of natural resources and specific project cooperation, trading or re-export trading, and facilitate with warehouse and ocean transportation services.	trading
Sinosteel Brasil Metallurgical Trading Ltd.	Brazil	Metallurgical trading	Natural resource seeking

*Table 7 continued*

*Table 7 continued*

Sinosteel Gabon Company Ltd.	Gabon	prospecting, exploration, mining, process and export of minerals, logistic and project management.	Natural resource seeking
PT. Sinosteel Indonesia	Indonesia	developing processing & trading of metallurgical mineral resources; trading and logistics of main & auxiliary metallurgical raw materials, products, and spare parts; supply of metallurgical equipment and related engineering technical service.	Natural resource seeking
PT. Sinosteel Indonesia Mining	Indonesia	Supporting services for general mining and large-scale trading	trading
Sinosteel (Cambodia) Co., Ltd	Cambodia		trading
Sinosteel Corporation Vietnam Representative Office	Vietnam	Representing Sinosteel Corporation and its subsidiaries, assist Vietnamese steel factories and other clients in business, oversight of Laotian and Kampuchean businesses	Holding company
Sinosteel Corporation Turkey Representative Office	Turkey	Marketing, Project follow-up, After-sales Service, Information Collection, Consultation, and Promotion. Liaison, Coordination, Service for current existing projects.	trading
<b>Bao Steel's Overseas Subsidiaries/ Affiliates</b>			
Baosteel Trading Europe GmbH	Germany	trade and investment in Europe, Africa and Middle-East.	trading
Howa Trading Co., Ltd	Japan	trade in steel product, equipment, spare parts and materials	trading
Baosteel Singapore Pte Ltd	Singapore	trading of steel products in Singapore, Malaysia, Indonesia, Philippines, Thailand, Vietnam, other ASEAN countries and Southern Asia including India, Pakistan, and Bangladesh.	trading
Bao-Trans Enterprises Ltd.	HongKong		Holding company
Baosteel America Inc	USA	sole agency for steel import & export business of Baosteel Group in North, Middle and South America.	trading
Baosteel Do Brasil LTDA	Brazil		
Baovale Mineracao S.A.	Brazil	Mining	Natural resource seeking

**Source:** compiled from websites of companies and business news.

expanding production of steel in China in a vertical manner. In that sense, the overseas expansion of Chinese steel enterprises can be described as outward investment but it is not really leading to internationalization of their operations being confined to generally natural resource seeking and trading activities rather than horizontal expansion abroad.

#### 4. CONCLUDING REMARKS

Growing outward FDI from emerging economies such as India and China has attracted global attention not only for their expanding magnitudes but also because of their involvement in acquisitions of large global enterprises based in developed countries. This paper examined the emerging patterns of OFDI activity of Indian enterprises in steel industry which has seen major acquisitions and Greenfield investments in recent years in a Chinese comparative perspective. Even though the government policy has taken a similar evolution in the two countries viz., turning increasingly supportive of OFDI from an earlier restrictive attitude, the motivations and characteristics of outward-oriented enterprises emanating from the two countries appear widely different. Indian enterprises active abroad are typically privately managed enterprises seeking to globalize their operations compared to much larger state owned enterprises in China going abroad to secure their natural resource supplies, although there are many exceptions to this general pattern. This stylized fact is corroborated by the case study of steel industry, where the leading Indian enterprises have undertaken Greenfield investments as well acquisitions of established global firms in the western world to acquire global footprints, Chinese enterprises in the industry have focused their outward investments primarily to raw material seeking activities. A part of the reason could be resulting from their different ownership patterns. The Chinese enterprises being state owned ones may be directed by the state to work for long term natural resource security of the country (just as Indian state owned oil company ONGC, does). The Indian privately managed firms may be driven by the ambition of managers to evolve into global enterprises to put their accumulated managerial expertise in the industry and their access to low cost primary production base to good use. Indian enterprise in that sense fit the description of a managerial firm *a la* Robin Marris (1964). More work with detailed firm level data is clearly needed for understanding the characteristics and motivations and hence impacts of OFDI activities of emerging MNEs in different sectors.

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