

Multinational Enterprises from Emerging Markets

by

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Introduction

A major success of recent G8 meetings has been the movement towards increased attention to the poverty prevailing in less developed countries. Of particular note are the new policy initiatives generated by the G8 towards increased aid for the poorer countries in Africa. What then is the current research agenda regarding the methods of integrating less developed economies into the world economic system? The answer to this question, in my view, can be found by an examination of the role of multinational enterprises (MNEs). Currently the world's largest 500 MNEs dominate world trade and investment. In terms of foreign direct investment (FDI) the world's largest firms account for 90% of the world total. In terms of trade they account for approximately half of world trade as they often have a hundred or more foreign subsidiaries around the world. These data are well known to scholars in international business; see Rugman (2000) and (2005).

In this paper the basic theme is that it is through activities of this set of very large MNEs that less developed countries can be best integrated into the world's economic system. The basic logic for this position is explained below in the next section where more details are provided about the nature and scope of the world's largest 500 MNEs. This is followed by data showing that these firms perform mainly on an intra-regional basis (rather than globally) and by data examining the specific activities of the relatively small set of large MNEs from emerging economies. These data are then integrated with the basic theory of MNEs to examine how MNEs from emerging economies can succeed in the world economy and act as flagship firms leading economic development.

Recent research in international business shows that FDI and the activities of MNEs are a two-way street. In terms of MNEs the traditional view is that North American, European, and Japanese build upon their strong home-region, firm-specific advantages and expand these into other regions through networks of overseas subsidiaries (Rugman (1981, 1996). More recently it has been found that the foreign subsidiaries of MNEs in emerging economies help to improve the host-country macroeconomic infrastructure. In turn, this leads to the emergence of local MNEs which benefit from the upgraded infrastructure. In many ways this process mimics the Canadian history of MNEs. It has been shown that Canada relied upon inward FDI (mainly from the United States) for many years until in the 1980s it developed a set of world-class Canadian-owned MNEs. This transition and the emergence of world-class Canadian MNEs has been examined in Rugman (1985, 1987).

A similar transition to a two-way system of both inbound and outbound FDI is possible in many of the world's less developed economies. There is evidence that it is already taking place in India, Korea, Singapore, Taiwan, and even in China itself. The manner in which western MNEs have upgraded the macroeconomic infrastructure of these economies leading to the emergence of new MNEs from these host economies is discussed by Rugman and Doh (2007).

One difficulty in this research is that data are only available on publicly traded companies which are required to issue annual reports to provide information to shareholders. Thus, the list of the world's 500 largest firms is confined to those providing such information. Indeed, the rankings are done by size, namely, the annual consolidated sales of each company. While for western economies the list captures virtually all large companies, in many less developed countries, there are missing firms. These include private companies, family-owned firms linked by informal networks, state-owned enterprises, and others failing to disclose information about

their activities and performance. However, the number of very large firms (with sales of twelve billion dollars or more) excluded in this manner is probably relatively small. This approach does exclude small and medium-sized enterprises of which there are many in less developed economies. Again, the influence of such small and medium-sized firms is not a significant determinant of economic development. Many of these firms, especially the more entrepreneurial ones, need to grow and are then bought up by the larger MNEs, both foreign and domestic. To summarize, the world's largest 500 MNEs dominate world business. Logically the set of the world's largest MNEs from emerging economies, along with the foreign MNEs in such emerging economies, will dominate business in these countries. The MNEs often serve as flagship firms which operate at the centers of large business networks and clusters, so another aspect of this is to examine the ways in which less developed countries can build manufacturing and/or service-based clusters which will both attract foreign MNEs and also, in time, generate their own MNEs. We now turn to a more specific analysis of the data on the world's largest 500 MNEs and those in emerging economies.

The World's Largest Multinationals

The focus of this paper, then, is to identify and analyze the set of MNEs registered and based in the world's emerging markets. To do this I take as the relevant population the world's 500 largest firms, ranked by total revenues, as compiled annually in the *Fortune* Global 500. This entire set of 500 firms (most of which are MNEs) was analyzed in Rugman (2005). In that study the focus was on an examination of data on the regional sales of MNEs from the "broad" triad markets of Europe, North America, and the Asia Pacific, which accounts for nearly all of the 500 firms. The total number of MNEs from the "core" triad of the EU, United States, and Japan in

2001 was 428 of the 500. In this paper attention is paid the MNEs from emerging markets in the list of the 500, which numbered 32 in 2001 (and 44 in 2004).

The paper will proceed to identify this set of 32 (or 44) MNEs from emerging markets. As most of these are from the Asia Pacific, the substantive theoretical analysis of their performance will focus upon a set of Chinese MNEs. The 16 Chinese MNEs already in the 2004 list of the world's 500 largest firms provide perhaps the most interesting challenge to theories of international business, international economics, and explanations of foreign direct investment. In order to apply the relevant theory I shall adapt the basic firm and country level matrix (Rugman 1981) to analyze the performance of China's MNEs.

China is the home to a set of large firms which can now be classified as MNEs. An MNE is defined as a firm with some foreign sales and some foreign production, usually 10% or more. The foreign production takes place in a wholly-owned foreign subsidiary, and an MNE is also defined by having a foreign subsidiary in three or more countries (Rugman 1981). Using these definitions basically all the firms in the *Fortune* Global 500 are MNEs. In the list of the world's largest 500 companies, ranked by sales for 2001, Rugman (2005) found that there were 11 Chinese MNEs. In 2004, there were 16 Chinese firms in the list of the world's largest 500. These large MNEs are discussed here as the basic set of firms which will determine the success of China in developing MNEs. This theory and analysis can be generalized to all MNEs from emerging markets.

The Regional Aspects of Multinational Enterprises

The performance of the world's 500 largest MNEs has been examined in Rugman (2005). The world's largest 500 firms, ranked by revenues, account for approximately 90% of the world's

stock of FDI. They also account for over half of the world's trade, (Rugman 2000). Recent research has shown that the vast majority of these large MNEs operate on an intra-regional basis. This information is summarized in Table 1. The geographic basis for the broad regions of the triad are developed and explained in Rugman (2005). Of the world's largest 500 firms a total of 379 provide data on the geographic dispersion of their sales across the three broad regions of the triad. As shown in Table 1, the 75 MNEs from Asia have an average of 77.9% of their sales in their home region. This is somewhat above the average for the 379 MNEs which is 74.6%. Otherwise the 75 Asian MNEs have an average revenue of \$27.4b which is only slightly less than the average for North American MNEs for \$28.8b and the \$31.1b for the European MNEs. In summary, the regional performance of Asian MNEs parallels that of the regional nature of business of their competitor MNEs from North America and Europe.

Table 1 here

The asymmetric pattern of classifications reported in Tables 1 is based on the data for year 2001, in Rugman (2005). Some criticisms of this book have been advanced to the effect that these data present a snapshot and do not reveal a trend towards regionalization. In fact, in Rugman (2005) it was demonstrated that these data were consistent over the time period for which firms reported their geographic distribution of sales, basically starting with fewer than 200 of the largest 500 in the late 1990s. Indeed, for 2002 data, the same pattern emerged as for 2001. To further address the nature of the longitudinal data, consider Table 2.

Table 2 here

Table 2 reports data for the world's 500 largest firms in years 2001, 2003, and 2004. In the most recent years more firms report the geographic dispersion of their sales. For example,

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back in 1998 less than 200 firms reported such data, so the set of firms in Table 2 for year 2001 differs from the set in Table 1, as fewer of these remained in years 2003 and 2004. More specifically, Table 2 is based on the data for year 2004 instead of 2001, as in Table 1. The reason we take 2004 is that this is the year with most firms reporting data on geographical sales. Based on the set of firms with 2004 data, we then find the regional sales of the firms for three years. Thus only 291 firms are present in this data set for 2001, based on the 2004 listing (as some firms left the 2001 list by 2004).

It can be seen from Table 2 that, in the year 2001, data on geographic sales were available from 291 firms. Of these 291 firms only 8 can be classified as global, with over 20% of sales in each region of the triad. Another 33 are bi-regional (of which 6 are host-region oriented). The remaining 250 firms are home-region based. These firms average 77% of their sales in their home region. Basically, the same data apply in year 2003. There are 8 global firms and 41 bi-regionals (of which 8 are host-region oriented). Again, 288 of the 337 firms for year 2003 are home-region oriented. These 288 firms again average 77% of their sales in their home region. Finally, for year 2004 there are 7 global firms and 33 bi-regionals (of which 7 are host-region oriented). The vast majority (271) of the 311 firms for year 2004 are home-region oriented. Of these 271 firms, their average home-region sales are again 77%. The conclusion to be drawn from Table 3 is that the world's largest 500 firms operate predominately on an intra-regional basis, not globally, and that this picture is consistent over time.

Multinationals from Emerging Markets

In this section data are reported on MNEs from emerging markets. Table 3 lists 32 such MNEs for year 2001. Table 4 lists 44 MNEs from emerging markets for 2004. In Table 3 the 32 MNEs

from emerging markets are mainly from Asia Pacific. Only two are from Europe, the Russian firms (Gazpron and Lukoil). Another 3 are from the Americas (Pemex and Carso Global Telecom from Mexico, and one oil firm from Venezuela). In contrast, there are 12 firms from the Republic of Korea. Another 12 are from China with another 2 from Taiwan, one from Singapore, and one from Malaysia.

Table 3 here

Relatively few of the set of 32 MNEs from emerging economies in year 2001 provide data on the geographic dispersion of their sales. Using the 2001 data and the methodology in Rugman (2005), the following facts emerge. First, five South Korean firms provide data which show that all of them are home-region oriented. For example, POSCO has 91.9% of its sales in Asia Pacific, while Hyundai Motor has 81.6% of its sales in Asia Pacific and 18.1% in North America. The remaining three Korean firms are close to being bi-regional, but need to be classified as home-region based since more than 50% of their sales are in Asia Pacific. These include Samsung Electronics, which has 60.6% of its sales in Asia Pacific; 20.8% in North America; and 18.3% in Europe. Then LG Electronics has 60.4% of its sales in Asia Pacific; 23.6% in North America; and 11.7% in Europe. Finally, Hyundai (different from Hyundai Motor) has 56.3% of its sales in Asia Pacific; 24.2% in North America, and 10.5% in Europe.

Only one of the 34 multinationals from emerging markets is a global firm. This is Flextronics of Singapore. It has only 19.8% of its sales in its home region, but 44% in North America, and 36.2% in Europe. This firm is clearly an exception. In contrast, all other multinationals from emerging economies reporting data on regional sales are home-region based.

Some of the most extreme examples come from China, although the data are sketchy. China Telecommunications has 100% of its sales at home. The Bank of China has 98.41% of its sales in Asia Pacific, and Sinopec has 90% or more in the Asia Pacific region. A related firm, Cathay Life, from Taiwan has 100% of its sales in its home region. The pattern of dependence on sales in the home region for Asian MNEs is followed by Pemex of Mexico, which has 91.7% of its sales in North America.

Table 4 updates the MNEs from emerging markets for year 2004. The number has increased to a total of 44. There are now three from Russia, with one from Turkey and another from Saudi Arabia. There are still two from Mexico. Otherwise the MNEs from emerging markets are all from the Asia Pacific, including India. There are 16 from China, and again two from Taiwan, one from Singapore and one from Malaysia. There are 11 from Korea. In addition there are now five firms from India which we will include in the Asia Pacific category. Data on the regional sales of these MNEs for 2004 has not yet been compiled, but it is highly unlikely to be any different from that of 2001. Due to the emergence of a large number of multinationals from China in recent years the remainder of the paper will focus on this group.

The data on the regional sales of these 46 MNEs from emerging markets for year 2004 data in Table 4 shows much the same picture as for the 2001 data in Table 3. There are now 25 firms providing some evidence that they are home-region based. Only five firms are bi-regional (mostly the Korean firms, plus Flextronics). However, Flextronics is no longer a global firm, as its sales to North America have fallen to 13.83%. It is now like Samsung Electronics, which is a bi-regional firm, with over 20% of its sales in each broad-triad region, but over 50% in its home region. Overall, the data show that the firms from emerging markets are mainly home-region based.

Before exploring the implications of the data on emerging economy multinationals, the next section reviews the relevant theory needed to analyze MNEs from such emerging markets.

Table 4 here

Theory: The FSA/CSA Matrix of MNEs

The literature in international business analyzes the growth and foreign expansion phase of MNEs. The starting point of this theory of the MNEs, (Rugman 1981, 1996), is the proposition that an MNE goes abroad to further expand on its firm-specific advantage (FSA). The FSAs are proprietary to the firm, and they can be technology based, knowledge based, or they can reflect managerial and/or marketing skills (Rugman and Verbeke 2003). Further, the large MNEs often serve as ‘flagship’ firms at the hub of large business networks where key suppliers, distributors, and businesses in the non-government infrastructure all come together in a cluster to help promote foreign sales (Rugman and D’Cruz 2000).

There are two building blocks in the basic matrix used in international business to analyze the nature, performance, and strategies of MNEs (Rugman 1981, 1996). First, there is a set of firm-specific factors that determine the competitive advantage of an organization. We call these firm-specific advantages (FSAs). An FSA is defined as a unique capability proprietary to the organization. It may be built upon product or process technology, marketing, or distributional skills. Second, there are country factors, unique to the business in each country. They can lead to country-specific advantages (CSAs). The CSAs can be based on natural resource endowments (minerals, energy, forests) or on the labor force, and associated cultural factors.

Managers of most MNEs use strategies that build upon the interactions of CSAs and FSAs. They do this so that they can be positioned in a unique strategic space. The CSAs represent the natural factor endowments of a nation; they are based on the key variables in its aggregate production function. For example, CSAs can consist of the quantity, quality, and cost of the major factor endowment, namely resources.

The FSAs possessed by a firm are based ultimately on its internalization of an asset, such as production knowledge, managerial, or marketing capabilities over which the firm has proprietary control. FSAs are thus related to the firm's ability to coordinate the use of the advantage in production, marketing, or the customization of services (Rugman 1981).

Using Porter's terminology, the CSAs form the basis of the global platform from which the multinational firm derives a home-base "diamond" advantage in global competition (Porter 1990). Tariff and non-tariff barriers to trade and government regulations also influence CSAs. Building on these CSAs, the firm makes decisions about the efficient global configuration and coordination between segments of its value chain (operations, marketing, R&D, and logistics). The skill in making such decisions represents a strong, managerial, firm-specific advantage (FSA).

To help formulate the strategic options of the MNE, it is useful to identify the relative strengths and weaknesses of the CSA and FSAs that they possess. Figure 1, the CSA/FSA matrix, provides a useful framework for discussion of these issues.

Figure 1 here

In Figure 1, quadrants 1, 2, and 3 can incorporate the major strategies. Quadrant 1 firms are generally the cost leadership ones; they are generally resource-based and/or mature, internationally-oriented firms producing a commodity-type product. Given their late stage in the product life cycle, production FSAs flowing from the possession of intangible skills are less important than the CSAs of location and energy costs, which are the main sources of the firm's competitive advantage. Quadrant 2 firms represent inefficient, floundering firms with neither consistent strategy, nor any intrinsic CSAs or FSAs. These firms are preparing to exit or to restructure. Quadrant 2 can also represent domestically-based small and medium-sized firms with little global exposure. Firms in quadrant 4 are generally differentiated firms with strong FSAs in marketing and customization. These firms usually have strong brands. In quadrant 4 the FSAs dominate, so in world markets the home-country CSAs are not essential in the long run. Quadrant 3 firms generally can choose to follow any of the strategies listed above because of the strength of both their CSAs and FSAs.

It is useful to note the following two points. First, if the firm has a conglomerate structure it should be more useful to situate each division or product line individually, recognizing that different units of the diversified firm would use different generic strategies. Second, changes in the trading environment, such as the EU 1992 single-market measures, or the EU 1999 single currency, or the United States-Canada Free Trade Agreement and NAFTA, will affect the relative CSAs of the firm. To the extent that CSAs are improved, the firms will tend to move to quadrant 3, and, to the extent that the CSAs are hampered, the firm or some of its product lines may move to exit, as in quadrant 2.

The Theory of MNEs in Emerging Economies

We can analyze the role of Chinese MNEs as an example of emerging economy MNEs in general. A case can be made that the recent economic development of China is almost entirely due to FDI. The opening of the Chinese economy to foreign MNEs, first in the Special Economic Zones (SEZs) in the 1980s, followed by the opening of most coastal cities in the 1990s, has introduced some market-based efficiency to a previously totally command economy. While China is still dominated by state-owned enterprises (SOEs) and collectives, by 2005 foreign-owned firms accounted for one-third of production and 50% of exports (Thun 2005). The foreign MNEs operate on a world-class basis of competition, and they have developed efficient supply networks. Much of the privatized sector of small and medium-sized enterprises (SMEs) in China has affiliated to the MNEs. Together the MNEs and SMEs are now driving forward the economic development of China. The inefficient and protected SOEs are beginning to reform and are starting to adopt more market-based strategies in the face of this new type of MNE-led domestic competition. Through this process, efficiency-based thinking is spreading from the coastal cities throughout China. In this sense foreign MNEs are the agents of economic development for China.

This raised the question: when will China generate its own MNEs? The answer is—not for 10-20 years. While 11 China firms are in the *Fortune* top global 500, the evidence we have suggests that none of them are truly internationalized. Indeed, these large China firms are mainly SOEs, and they have well over 95% of their sales within China (although only partial data are available for eight firms). They are still largely in the protected banking, natural resources, and telecom sectors; they show few signs of developing any proprietary FSAs which would allow them to compete internationally even on an intra-regional basis.

When the Chinese SOEs do go abroad they build on CSAs in natural resources or they try to acquire technology. However, they are not doing well through acquisition. Lenovo bought an

obsolete IBM line of business; Baosteel bought up iron ore supplies in Brazil; Shanghai Motors bought the technologically laggard Rover of the UK; Haier bought Thomson TV and has found it difficult to upgrade it. Overall, all of these Chinese acquisitions reveal a search for the technology, management, and strategy skills missing in Chinese SOEs. The objectives appear to be to secure natural resources and market access, but, in fact, no useful technologies have been acquired. The Chinese MNEs still lack the internal managerial capabilities to integrate foreign acquisitions to develop anything resembling dynamic capabilities. They suffer from a Penrose effect of a lack of top management talent. This competitive disadvantage in management will take about a decade to remedy, before Chinese SOEs are competitive with Western MNEs.

Related work by Nolan (2004) finds that Chinese firms have failed to develop FSAs and are lagging well behind Western firms, especially in their lack of technology. Nolan finds no evidence that Chinese firms can develop knowledge of the systems integration skills that characterize successful Western MNEs. The Chinese firms are protected, resource based, labor intensive, low technology, and inefficient firms. The potentially efficient SMEs are now linking to foreign MNEs, rather than to the inefficient and uncompetitive Chinese-owned SOEs. Japanese and Korean MNEs have developed FSAs whereas Chinese firms have not. Basically there are no Chinese MNEs; they are just Chinese home firms.

The World Bank (1993) categorized eight Asian countries into three groups: first, Japan; second, the first-generation, newly industrialized countries (Republic of Korea, Hong-Kong, Taiwan, and Singapore); third, the second-generation, newly industrializing countries (Malaysia, Indonesia, and Thailand). Even though those Asian countries have experienced fast-growing and export-oriented economic growth, they have different MNEs based on country-specific advantages (CSAs).

Debrah, McGovern, and Budhwar (2000) show that Singapore's CSAs lie in skilled labor, advanced technology, advanced physical infrastructure, and advanced commercial infrastructure, while Indonesia and Malaysia have advantages in cheap (unskilled) labor and natural resources. The three other first-generation countries (and Japan) have similar advantages to Singapore.

Nelson and Pack (1999) explain the successful growth of the Republic of Korea and Taiwan by using technology assimilation. They argue that individual firms had strong incentives to improve their FSAs in efficiency to enable them to export rather than to engage in rent seeking in the domestic market. Brouters, O'Donnell, and Hadjimarcou (2005) show that emerging market firms achieve higher level of export performance when they mimic the product strategies of Western MNEs in triad nation markets rather than when they enter emerging markets or when they develop other product strategies in triad nation markets.

Due to geographical, cultural, institutional, and historical similarities the internationally successful Korean and Japanese firms can be models for Chinese firms. For example, as discussed earlier for Chinese firms (Haier, Lenovo, etc.), Korean MNEs have acquired foreign technologies (but not really strong FSAs) by acquisition; for example, Samsung Electronics acquired Harris Microwave Semiconductor in 1993, and LG Electronics purchased 57.7% of the stock of Zenith Electronics in 1995.

Japanese firms are linked to firms in the new industrialized Asian countries as markets for final electrical and electronic products and as customers for Japanese made components. The first generation newly industrialized countries developed their technological capabilities relying on Japanese firms' FSAs. Korea and Taiwan electronic firms acquired technology mainly through licensing and contracting arrangements with Japanese firms such as Sony, Sanyo, Matsushita, etc. in 1970-1980. (Hobday 1995).

Asia's and China's Multinationals

In Table 5 we identify the country home base of the 45 Asian MNEs providing data on their sales in each region of the triad. This list is dominated by the 37 MNEs from Japan which average 74.6% of their sales in Asia, 14.8% in North America, and 7.3% in Europe. While there are 11 Chinese MNEs in the dataset analyzed by Rugman (2005), none of them report their geographic sales across each region of the triad. The only firm from China-Taiwan reporting has 100% of its sales in Asia. I would anticipate that the other 11 MNEs from China would also have close to 100% of their sales in Asia.

[Table 5 here](#)

Table 6 lists the 11 Chinese firms in the top 500 for 2001, arranged by industry group. We also show the 16 Chinese firms for 2004.

[Table 6 here](#)

In order to explore this, Table 7 reports data on the regional sales of the 8 Chinese MNEs providing some data on the geographic dispersion of their sales. In Table 7 we can see that China Telecom and China Southern Power have 100% of their sales in Asia (indeed, virtually all of these within China itself). The Bank of China has 98.4% of its sales in Asia. The other five Chinese firms have over 90% of their sales in Asia. Overall these 8 large Chinese firms, most of which have the potential of being classified as MNEs, average 93.1% of their sales in Asia. I do

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not see that this number will fall below 90% for many years. Indeed, it is likely to be at least 10-15 years before the largest 15 Chinese firms have intra-regional sales close to the world average of about 75%. Until then the Chinese MNEs will continue to experience strong sales within China itself, with a gradual increase in foreign sales, but mostly within the Asian region.

Table 7 here

Country-Level Data on Trade and FDI Performance

Table 8 reports the ratios of trade and the FDI stock to the GDP across the three broad regions of the triad. The overall interpretation of Table 9 is that the Asian economies are more heavily involved in the international economy through their trade performance rather than through their FDI performance. While Asia is very close to the overall average ratio of 24% trade to GDP it is considerably below the average ratio of FDI stock to GDP. As can be seen in Table 8 Asia averages 11.65% as against the overall total average of 19.96%. These data refer to inward FDI stocks. In a similar manner the Asian outward FDI stock to GDP is 10.48%, under half that of the overall average of 22.08%. For the outward trade ratios, again the Asian performance, at 22.44%, is close to the overall average of 24.04%. Perhaps the most significant point in Table 9 is that the outward FDI stock performance of Asian countries is significantly below that of North American and European countries. This particular statistic is unlikely to improve in the near future (3-5 years) because it takes a long time to increase the FDI stock.

Table 8 here

Table 9 shows that the developed countries provide over 90% of the outward stock of the world's FDI but that they receive considerably less of the inward stock at 74.82%. In contrast, the less developed countries (which include China) receive nearly one-quarter of the world's inward FDI stock, but contribute under 10% of the world's outward stock. China is a microcosm of the less developed countries in this respect: China receives much more inward FDI than it generates in outward FDI.

[Table 9 here](#)

Conclusions

The best way to integrate less developed countries into the world economy is through the promotion of market-based reforms which promote business activity. The most useful type of business activity is that generated by MNEs. A sequential process is required. First, less developed countries need to engage in internal market reforms to attract FDI. As western MNEs build subsidiaries in the host economies of less developed economies, they help to improve the macroeconomic infrastructure. The foreign MNEs provide transfers of technology, training for more skilled workers, new managerial and marketing skills, the development of high-quality supply chains, and in general improved network linkages. In time this leads to the emergence of local MNEs. Thus, the second phase of economic development policy for less developed countries is to facilitate the development of indigenous MNEs. Ultimately such emerging economy MNEs need to develop their own world-class, firm-specific advantages. There is some evidence that this is occurring in Asia where MNEs from countries such as Korea and Singapore are now world class. The Chinese MNEs still have a long way to go before they acquire knowledge-based, firm-specific advantages. There are also successful MNEs from India, but

there is little publicly available information reported on these firms. The remaining challenge for economic development is the pace at which MNEs develop in Eastern Europe, the Middle East, and Africa. So far, no data are available providing evidence that these areas are generating a set of world-class MNEs.

With reference to MNEs from China, based on the foregoing theoretical and empirical analysis, the following three major conclusions can be drawn about the nature, extent, and future of outward FDI by Chinese MNEs. First, the theoretical literature indicates that MNEs expand abroad based upon a complex interaction between firm-specific advantages (FSAs) and country-specific advantages (CSAs). The successful MNEs from North America, Europe, and Japan, in general, and (this is somewhat of a simplification), expand abroad in order to exploit FSAs which they have developed in their large internal home markets. The activities of their foreign subsidiaries, to an overwhelming degree, tend to replicate for local distribution the FSAs developed in the home market. This explanation of MNEs was developed in Rugman (1981), and is still true today on the 25th anniversary republication of that book (Rugman 2006). Only to a minor extent do MNEs go abroad to gain access to knowledge and technology. In this respect a few Japanese MNEs doing asset-seeking FDI in North America are the main exceptions to the rule whereby the knowledge and technology is usually developed in the home market. Similarly, only a small set of Western MNEs go abroad to exploit natural resources. These are MNEs in the energy, mining, and forestry sectors. They go abroad to exploit host country CSAs, but they retain proprietary control over managerial and marketing FSAs, where the latter are identified with their home countries. The implication of this for China is that its MNEs are likely to develop by exploiting China's CSAs in cheap, unskilled, and skilled labor. It is highly unlikely that Chinese MNEs will go abroad in any significant numbers over the next five to ten years on

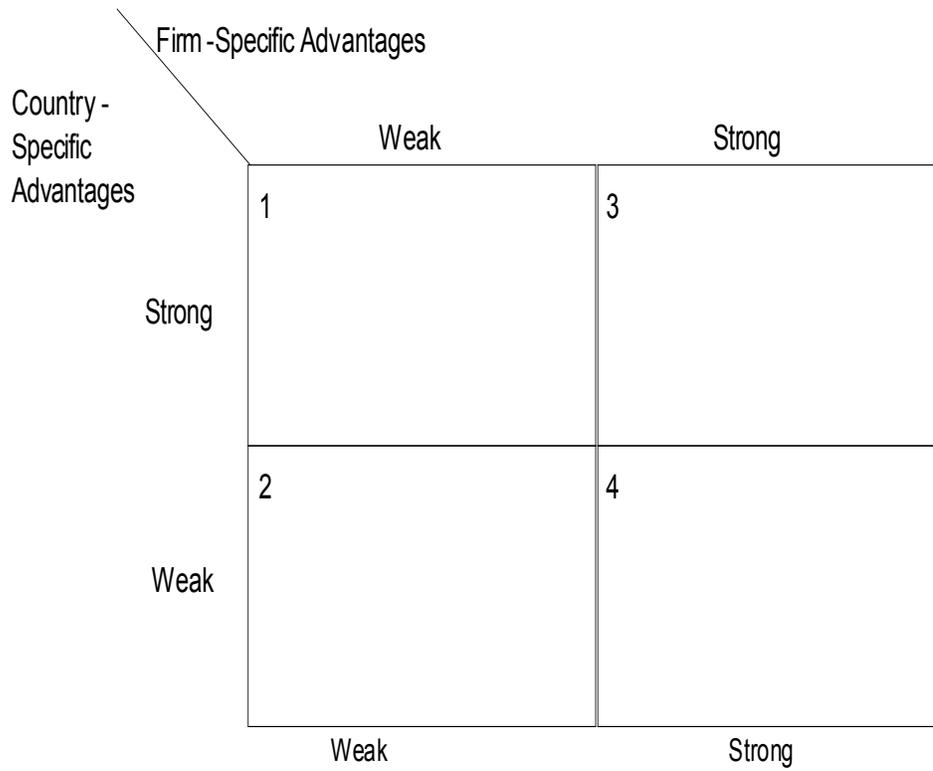
the basis of FSAs. In general China lacks firms with FSAs in knowledge and systems integration, especially in comparison to Western MNEs in the world's top 500.

Second, as Chinese MNEs develop and go abroad their primary geographic focus will be within the Asia Pacific region. Here their main competitors will be from other Asian MNEs based in Japan, Australia, South Korea, Singapore, and other Asian Tigers. The empirical evidence on the performance on the world's largest 500 MNEs, as summarized in Rugman 2005, shows that the great majority of these firms operate on an intra-regional basis. Of the 380 firms providing data on geographic sales, the largest set of 320 average 80% of their sales in their home region. These firms have an even higher proportion of their foreign assets in their home region. There are extremely few "global" firms, and only three dozen bi-regionals. The Chinese MNEs are highly unlikely to become global or bi-regional firms in the next ten to twenty years. However, this is not a problem since there is no evidence showing that global and bi-regional firms are more profitable than the home region MNEs.

Third, the major impact of the growth of Chinese outward FDI, and the development of Chinese based MNEs, will be to enhance the internal efficiency of the Chinese economy. Only the best Chinese firms will succeed abroad. Thus a prerequisite for international success is domestic efficiency. As the Chinese government has supported the establishment and improvement of domestic markets, so economic efficiency within China has improved. The key agent for change in China has been the unrestricted entry of foreign direct investment. Over the last ten years Western MNEs have greatly improved efficiency of the Chinese economy. They have established clusters and business networks with links to new and regenerated Chinese businesses. Indeed, many small to medium sized Chinese firms are now affiliated in business networks with foreign multinationals. In contrast, the old state owned enterprises (SOEs) have

been slower to engage in the realities of market driven efficiency. Consequently many of these SOEs are poor candidates for internationalization. As they go abroad their domestic monopoly protection, with its resulting inefficiency, will serve them badly in competitive foreign markets. Only the newer and more entrepreneurial firms in China will succeed internationally. The role of the Chinese government is to facilitate continuous improvements in the domestic market system. The government should continue to improve basic infrastructure, but a faster pace of liberalization in the service sector, especially financial services, is required to develop a competitive Chinese business system. As China's economy improves the most efficient firms will be able to expand abroad. Initially they will build on China's CSAs, but eventually they will start to generate home grown FSAs in knowledge and technology. Then Chinese MNEs will be on an equal footing with foreign MNEs in the world's list of the 500 largest firms.

Figure 1
The CSA/FSA Matrix



Source: Adapted from Rugman (1981).

Table 1 Intra-regional Sales of the Largest 500 Firms

(Units: Billions of US dollars, %)

	<i>Number of MNEs</i>	<i>Average Revenue</i>	<i>Intra-regional Sales (%)</i>
<i>Total</i>	379 (500)	29.2 (28.0)	74.6
<i>N. America</i>	186 (219)	28.8 (28.5)	78.6
<i>Europe</i>	118 (159)	31.1 (29.0)	66.4
<i>Asia</i>	75 (122)	27.4 (25.8)	77.9
<i>Emerging Economies</i>	5 (34)	23.3 (21.8)	70.4

Source: Authors' calculation based on Alan M. Rugman, *The Regional Multinationals: MNEs and Global Strategic Management*, Cambridge: Cambridge University Press, 2005. Data are for 2001.

Notes: Values in parentheses are for entire set of the largest 500 MNEs in 2001. Only 379 MNEs' intra-regional sales can be identified. The emerging economies only include Brazil, China, Malaysia, Mexico, Republic of Korea, Russia, Singapore, and Venezuela.

Table 2 The Regional Sales of the Largest 500 Firms

	Total	<i>Home Region</i>		<i>Bi-Regional</i>		<i>Host Region</i>		Global	
		No. of Firms	% intra-regional sales	No. of Firms	% intra-regional sales	No. of Firms	% intra-regional sales	No. of Firms	% intra-regional sales
2001	291	250	0.77	27	0.42	6	0.24	8	0.34
2003	337	288	0.77	33	0.43	8	0.29	8	0.33
2004	311	271	0.77	26	0.41	7	0.29	7	0.34

Notes: 1) The data for 2001 and the methodology for this table are based on Alan M. Rugman, *The Regional Multinationals* (Cambridge University Press, 2005).

2) Data come from *Fortune Global 500*, 2004. Among the 500 largest firms, data for 350 firms are available for 2003, but data for only 337 firms are sufficient to find their regional category. The number of firms whose data are insufficient to include in these tables are: 21 for 2001; 13 for 2003; and 18 for 2004. Of the 350 firms for year 2003, 312 firms and 329 firms are listed in the *Fortune Global 500* for 2002 and 2005 respectively.

Table 3 The World's 32 Largest MNEs in Emerging Markets, 2001

(Unit: Billions of US \$)

Company Name	Industry	Country	Revenue	NA	EUR	AP
State Power	Electricity	China	48.4	na	na	na
PDVSA	Gas	Venezuela	46.3	na	na	na
China National Petroleum	Gas	China	41.5	na	na	na
Sinopec	Gas	China	40.4	na	na	>90
Pemex (q)	Gas	Mexico	39.4	91.74	3.68	na
Samsung Electronics	Electronic	Korea	36.0	20.84	18.30	60.63
Samsung	Trading	Korea	33.2	na	na	na
SK	Gas	Korea	33.0	na	na	na
Hyundai Motor	Motor	Korea	30.9	18.13	0.25	81.61
LG Electronics	Electronic	Korea	23.1	23.63	11.71	60.40
China Telecommunications	telecom	China	22.3	na	na	100.00
Hyundai	Motor	Korea	21.7	24.19	10.49	56.33
Gazprom	Gas	Russia	20.1	na	na	na
Ind. & Comm. Bank of China	bank	China	19.8	na	na	na
LG International	Trading	Korea	19.5	na	na	na
Bank Of China	bank	China	17.9	na	na	na
Petronas	Gas	Malaysia	17.7	na	na	na
Samsung Life Insurance	Insurance	Korea	17.5	na	na	na
China Mobile						
Communications	telecom	China	17.4	na	na	na
SK Global	Trading	Korea	17.2	na	na	na
Sinochem	chemical	China	16.2	na	na	na
Korea Electric Power	Electricity	Korea	15.7	na	na	na
Flextronics International	Electronic	Singapore	13.1	43.95	36.21	19.84
China Construction Bank	bank	China	13.1	na	na	na
	food,					
COFCO	cereal	China	13.0	na	na	na
KT	telecom	Korea	12.3	na	na	na
Lukoil	Gas	Russia	12.1	-	35.51	-
Carso Global Telecom	telecom	Mexico	11.9	na	na	>90
Cathay Life	Insurance	Taiwan	11.6	-	-	100.00
Chinese Petroleum	Gas	Taiwan	10.8	na	na	na
Agricultural Bank of China	bank	China	10.7	na	na	na
POSCO	Steel	Korea	10.2	2.94	-	91.90

Source: Authors' calculation based on Alan M. Rugman, *The Regional Multinationals: MNEs and Global Strategic Management* (Cambridge: Cambridge University Press, 2005) and Annual Reports.

Note: Rank refers to rank in the *Fortune* Global 500, based on total revenues for year 2001.

Table 4 The World's 44 Largest MNEs in Emerging Markets, 2004

(Unit: Billions of US \$)

Company Name	Industry	Country	Revenue	NA	EUR	AP
Sinopec	Gas	China	75.1	na	na	>90
Samsung Electronics	Electronic	Korea	71.6	23.18	21.76	54.61
State Grid	Electricity	China	71.3	na	na	>90
China National Petroleum	Gas	China	67.7	na	na	na
Pemex	Gas	Mexico	63.7	>58.05	na	na
Hyundai Motor	Motor	Korea	46.4	25.08	11.59	63.33
LG Electronics	Electronic	Korea	37.8	25.24	15.60	51.16
SK	Gas	Korea	37.7	na	na	na
Petronas	Gas	Malaysia	36.1	na	na	>90
OAQ Gazprom	Gas	Russia	35.1	0.00	100.00	0.00
Indian Oil	Gas	India	29.6	na	na	96.08
Lukoil	Gas	Russia	28.8	na	>21.97	na
China Life Insurance	Insurance	China	25.0	na	na	na
China Mobile Comm.	telecom	China	24.0	na	na	na
Ind. & Comm. Bank of China	bank	China	23.4	na	na	na
UES of Russia	Electricity	Russia	22.6	na	>99.47	na
Samsung Life Insurance	Insurance	Korea	22.3	na	na	na
China Telecommunications	telecom	China	21.6	0.00	0.00	100.00
POSCO	Steel	Korea	20.9	2.21	na	93.75
Korea Electric Power	Electricity	Korea	20.9	na	na	na
Sinochem	chemical	China	20.4	na	na	>90
Shanghai Baosteel Group	Steel	China	19.5	na	na	>90
China Construction Bank	bank	China	19.0	na	na	na
China Southern Power Grid	Electricity	China	18.9	na	na	100.00
Sabic	chemical	Saudi Arabia	18.3	na	na	na
Bank Of China	bank	China	18.0	na	na	>98.41
Hutchison Whampoa	telecom	China	17.3	13.81	33.62	52.57
Hon Hai Precision Industry	Electronic	Taiwan	16.2	na	na	na
PTT	Gas	Thailand	16.0	na	na	>90
Flextronics International	Electronic	Singapore	15.9	13.83	40.86	45.31
Koc Holding	Manufacturing	Turkey	15.6	na	na	na
Hanwha	chemical	Korea	15.4	na	na	na
Agricultural Bank of China	bank	China	15.3	na	na	>90
Chinese Petroleum	Gas	Taiwan	15.2	na	na	na
KT	telecom	Korea	14.9	na	na	na
Reliance Industries	Gas	India	14.8	na	na	>78.24
CFE	Electricity	Mexico	14.5	na	na	na
Bharat Petroleum	Gas	India	14.4	0.00	0.00	100.00
COFCO	food, cereal	China	14.2	na	na	>90
Hindustan Petroleum	Gas	India	14.1	0.00	0.00	100.00
Samsung	Trading	Korea	13.9	3.04	3.97	93.00
SK Networks	telecom	Korea	13.8	na	na	>82.01
China First Automotive Works	Motor	China	13.8	na	na	>90
Oil & Natural Gas	Gas	India	13.8	na	na	>91.33

Source: Authors' calculation based on Fortune Global 500(<http://money.cnn.com/magazines/fortune/global500/>) and Annual Reports.

Table 5 Regional Sales of Asian MNEs

(Units: Billions of US dollars, %)

	<i>Number of MNEs</i>	<i>Average Revenue</i>	<i>Regional Sales</i>			
			<i>N. America</i>	<i>Europe</i>	<i>Asia</i>	<i>Unidentified</i>
<i>Total</i>	45 (112)	32.4 (25.8)	16.0	7.6	73.2	3.1
<i>Australia</i>	4 (6)	13.9 (14.1)	21.9	7.2	68.8	2.1
<i>Japan</i>	37 (88)	35.9 (27.9)	14.8	7.3	74.6	3.3
<i>Korea</i>	2 (12)	26.3 (21.2)	21.2	5.4	69.0	4.5
<i>Malaysia</i>	0 (1)	n.a. (17.7)	n.a.	n.a.	n.a.	n.a.
<i>Singapore</i>	1 (1)	13.1 (13.1)	46.3	30.9	22.4	0.4
<i>Taiwan</i>	1 (2)	11.6 (11.2)	0.0	0.0	100.0	0.0
<i>China</i>	0 (11)	n.a. (25.0)	n.a.	n.a.	n.a.	n.a.

Data are for 2001.

Source: See Source in Table 1.

Notes: See Notes in Table 1. n.a. stands for not applicable.

Table 6 List of Chinese MNEs in the World's Largest 500

(Units: Billions of US dollars)

<i>Year 2001</i>		
<i>Industry</i>	<i>Company Name</i>	<i>Revenue</i>
Banking (4)	Industrial & Commercial Bank of China	19.8
	Bank of China	17.9
	China construction Bank	13.1
	Agricultural Bank of China	10.7
Utility (3)	State Power	48.4
	China Telecommunications	22.3
	China Mobile Telecommunications	17.4
Natural Resource Manufacturing (2)	China National Petroleum	41.5
	Sinopec	20.4
Other Manufacturing (2)	Sinochem	16.2
	COFCO	13.0
Total (11)		21.9
<i>Year 2004</i>		
<i>Industry</i>	<i>Company Name</i>	<i>Revenue</i>
Banking and Insurance (5)	China Life Insurance	25.0
	Industrial & Commercial Bank of China	23.4
	China construction Bank	19.0
	Bank of China	18.0
	Agricultural Bank of China	15.3
Utility (4)	State Grid	71.3
	China Mobile Telecommunications	24.0
	China Telecommunications	21.6
	China Southern Power Grid	18.9
Natural Resource Manufacturing (3)	Sinopec	75.1
	China National Petroleum	67.7
	Shanghai Baosteel Group	19.5
Other Manufacturing (3)	Sinochem	20.4
	COFCO	14.2
	China First Automotive Works	13.8
Other (1)	Hutchison Whampoa	17.3
Total (16)		29.0

Source: Rugman (2005) *The Regional Multinationals: MNEs and Global Strategic Management*. Fortune Global 500 (<http://money.cnn.com/magazines/fortune/global500/>).

Table 7 Regional Sales of Eight Chinese MNEs

(Units: Billions of US dollars, %)

<i>Company Name</i>	<i>Revenue</i>	<i>Regional Sales</i>			
		<i>N. America</i>	<i>Europe</i>	<i>Asia</i>	<i>Unidentified</i>
<i>Sinopec</i>	75.1	n.a.	n.a.	> 90.0	< 10.0
<i>China Telecom</i>	21.6	n.a.	n.a.	100.0	0.0
<i>Sinochem</i>	20.4	n.a.	n.a.	> 90.0	< 10.0
<i>China Const. Bank</i>	19.0	n.a.	n.a.	> 90.0	< 10.0
<i>China Southern Power</i>	18.9	n.a.	n.a.	100.0	0.0
<i>Bank of China</i>	18.0	n.a.	n.a.	> 98.4	< 1.6
<i>Hutchison Whampoa</i>	17.3	14.0	33.0	53.0	0.0
<i>Agri. Bank of China</i>	15.3	n.a.	n.a.	> 90.0	< 10.0
<i>Total</i>	20.1 (29.0)	n.a.	n.a.	93.1	5.2

Source: 2005 Annual Report for each company: data are for 2004.

Notes: Values in parentheses are for all 16 Chinese MNEs in largest 500 MNEs in 2004. Only six of them report their regional sales. n.a. stands for not applicable. If values are larger than 90%, 90% is used for calculation.

Technical Notes:

- 1) Sinopec - Annual report notes that Sinopec has less than 10% of sales and investment in foreign areas, and it does not need to report its geographic sales following international financial reporting standards (IFRS).
- 2) China Telecommunications - Annual report shows that all the group's operating activities are carried out in the PRC.
- 3) Sinochem - Based on Sinochem's sales composition, exports makes up 10%. Sinochem's regional sales would be larger than 10%.
- 4) China Construction Bank - Annual report explains that the company follows IFRS, but it does not specify geographic segment data. It is possible to presume that China Construction Bank has less than 10% of foreign sales and assets.
- 5) China Southern Power - The website of China Southern Power shows that the company covers Guangdong, Guangxi, Guizhou, Yunnan and Hainan, which is also connected with the power grid in middle China, Hong kong, and Macao. It is possible to presume that the portion of home region sales and assets are 100%.
- 6) Bank of China - Annual report explicitly shows that the portion of sales from China, Hong Kong, and Macau is 98.41% and that of assets is 94.5%.
- 7) Hutchison Whampoa - Annual report shows the value of geographic sales.
- 8) Agricultural Bank of China - The values are not explicitly noted in the annual report, but it is possible to predict that the domestic sales would be larger than 90% from the geographic data on deposit, borrowing, etc.

Table 8 Inward and Outward FDI Stocks and Trade as a Percentage of GDP

<i>Region</i>	<i>Inward</i>		<i>Outward</i>	
	<i>FDI (Stock)</i> <i>(% of GDP)</i>	<i>Trade</i> <i>(% of GDP)</i>	<i>FDI (Stock)</i> <i>(% of GDP)</i>	<i>Trade</i> <i>(% of GDP)</i>
<i>America</i>	15.83	13.34	15.57	16.34
<i>North America</i>	14.65	12.68	15.96	16.16
<i>South America</i>	30.51	21.54	10.71	18.53
<i>Asia-Pacific</i>	13.02	24.46	11.13	22.49
<i>Asia</i>	11.65	24.66	10.48	22.44
<i>Oceania</i>	34.72	21.30	21.43	23.29
<i>Europe, Africa, and Middle East</i>	29.50	35.95	37.15	33.89
<i>Africa-Middle East</i>	18.77	34.26	4.70	32.20
<i>Europe</i>	30.80	36.16	41.10	34.09
<i>Total</i>	19.96	24.05	22.08	24.04

Sources: FDI data are from UNCTAD (2004, electronic edition) *World Investment Report*. Trade and GDP data are from The World Bank (2005, electronic edition) *World Development Indicators*.

Notes: All data are for 2002. Central America countries are included in North America; Caribbean countries are included in South America.

Table 9 Stock and Flows of Inward and Outward FDI

(Units: Billions of US Dollar)

Panel A. Inward FDI				
	<i>Inward Stock</i>		<i>Inward Flows</i>	
	<i>Value</i>	<i>Percent of Total</i>	<i>Value</i>	<i>Percent of Total</i>
<i>Developed countries</i>	7,214.5	74.82	565.8	80.76
<i>Less developed countries</i>	2,288.7	23.74	129.9	18.54
<i>Least developed countries</i>	138.9	1.44	4.9	0.70
<i>Total</i>	9,641.1	100.00	700.6	100.00

Panel B. Outward FDI				
	<i>Outward Stock</i>		<i>Outward Flows</i>	
	<i>Value</i>	<i>Percent of Total</i>	<i>Value</i>	<i>Percent of Total</i>
<i>Developed countries</i>	6,416.3	90.77	603.2	93.82
<i>Less developed countries</i>	650.4	9.20	39.6	6.16
<i>Least developed countries</i>	1.8	0.02	0.1	0.02
<i>Total</i>	7,068.5	100.00	642.9	100.00

Sources: These data come from UNCTAD (2004, electronic edition) *World Investment Report* and UNCTAD (2002) *The Least Developed Countries Report: Escaping the Poverty Trap*.

Notes: All data are for 2002. In this table, Mexico, South Korea, and Turkey are moved from the UNCTAD “less developed” category to the “developed” category. There are 33 developed countries, 82 less developed countries, and 31 least developed countries.

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