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Emerging Paradigm of Internationalization of China's Private-Owned Enterprises: Theoretical analysis and case study*

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Abstract

The upsurge of the outward direct investment (ODI) made by the Chinese firms in recent years is one of the main concerns among academic researchers and policy consultants targeting emerging market economies. In this paper, the focus for analysis is the internationalization and ODI initiated by Chinese private-owned enterprises (POEs). Starting with a check of key factors that shape the general environment for Chinese enterprises' ODI and internationalization, the main theme of the paper is to assess conventional western theories on firm's internationalization compared with the reality found amongst Chinese POEs. The conclusion is that the conventional western theories do not satisfactorily explain the realities found in China. An alternative framework is suggested, the SIL model, as a more convincing explanation for the ODI and internationalization of the Chinese POEs. The SIL model is a revised version of John Dunning's eclectic paradigm taking into account the Chinese POE's experience. It accounts for the way in which the POEs focus on a market seeking orientation in the early stages of "going out".

***Keywords*:** firm's internationalization, ODI, private enterprises, eclectic paradigm, and SIL model.

JEL Classification: F2, F21, F23, G34, O53

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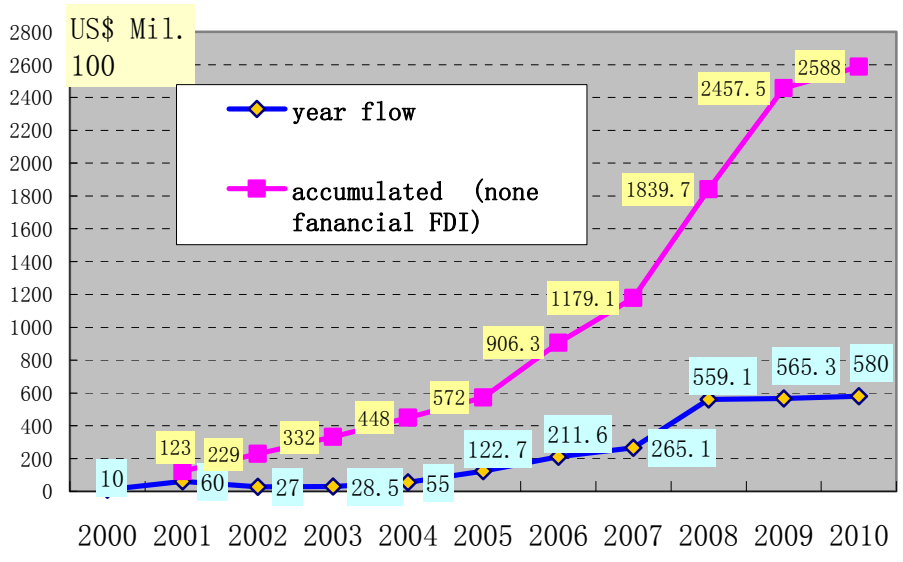
I. Introduction

The internationalization of Chinese firms and overseas direct investment from China has been attracting increasing attention from researchers in international economics and policy makers in host countries as well. Main factors accounting for this increasing concern are at least two. One is a rapid increase of outbound FDI from China. Official statistics shows that the annual ODI made by Chinese firms reached over US$ 55.9 billion in 2008, nearly 19 times more than in 2003. (see figure 1). As a result, China has jumped from the thirteenth to fifth in the world ODI league table in only 4 years, i.e. from year 2005 to 2009 (see figure 2). At the same time, ever quick economic growth and increasing pressure on RMB Yuan's appreciation act as dual accelerators that drive the Chinese firms seeking opportunities abroad. Another factor accounting for this increasing concern is an active involvement of the Chinese firms in the global cross-border M&A (merge and acquisition) activities. Several M&A activities targeted by Chinese firms in earlier time had even attracted attention of congressmen in the US and Russia respectively and eventually blocked acquisition attempts in the name of protecting national strategic industries.[i] While the latest case, the global giant in automobile manufacturing, the US Ford, sold its Swedish Volvo to a small Chinese private owned cooperation, Geely, in 2008 had caused worldwide attention.[ii]



[i] For example, the US governmental agency had blocked the acquisition attempt for UNCOL (**Union Oil Company of California)** from a Chinese state-owned enterprise, China Offshore Oil Cooperation (CNOOC), with the huge pressure from congressmen in 2005. The American cooperation was eventually merged with Chevron Corporation. Russian parliament had also tried to block a similar acquisition attempt from a Chinese oil giant in 2002.

[ii] The acquisition price seems astonishingly low. It is only $1.8 billion. But Ford had paid $6.45 billion to acquire Volvo in 1999.

Fig. 1. Increasing ODI from China 2000-2010

Note：none financial (banking) investment only.

Source: Ministry of Commerce and State Statistics Bureau, China, 2009，

News Bulleting from Chinese Ministry of Commerce, Xinhua news Agency, 2011

http://policy.caing.com/2011-01-18/100218387.html

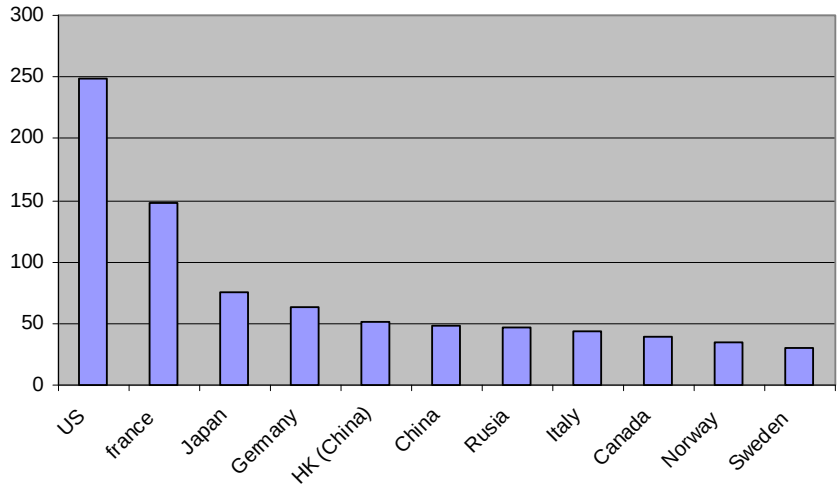


Fig.2 ODI flows: China *vs.* the major ODI countries in 2009（in US$ Bil.）

Source: UNCTAD (2010)

In the late 1990s economists recognised that China was emerging as a major trading nation (Naughton, Barry, 1996). Towards the end of the first decade of this new century, 21st century economists have to accept the reality that China is becoming a major ODI nation. The main concern a decade ago for international economic researchers regarding China's emerging as a major trading nation used to be the possible shocks China brings to the world trade regime formed before that. The main concern currently is to understand the motivation and pattern of the Chinese firms' internationalization and to provide a reasoned theoretical explanation for its focus, rate and impact etc..

Objectively speaking, almost all economists and commentators in international economics and business study currently take the emerging Chinese multi-nation enterprises (CMNE) as the same ones that originated from a normal developing countries and then try to check them as "third world MNEs" following Lecraw's earlier points of view. As we know, that since Lecraw (1977) created the concept "the third world MNEs" (TWMNEs), researchers have focused on the

difference between the ‘new kind of MNEs’ and the conventional ones, i.e. those from industrial countries. The differences have been spiked out in terms of ownership advantages, motivation, geographical orientation and mode of overseas activity. The majorities of writers follow the way of Dunning (1977, 1983) and suggest that the key to understanding lies in identifying the advantages available to the firms for their launch of internationalization. More specifically there are some who suggest that firms seek “adaptive advantage” (Wells, 1983; Lall, 1983). This view was supported by Tolentino (1993) and Dunning (with Narula, 1996).

Most research on Chinese ODI and firms’ outbound expansion so far appears to adopt this approach, and a general tendency is to see Chinese firms as undifferentiated, being more a lease similar to those in a normal market economy. In reality, however, the Chinese firms are very different one kind from another as originated from an institutionally transition economy. Variety in ownership is a general characteristic with the Chinese firms. Even in China’s official business registration system, firms are explicitly classified into 14 categories, according to their ownership status. The 14 categories can be roughly regrouped into 3 types in accordance with their dominant ownership features: a) state-owned enterprises (SOEs), b) foreign-invested enterprises (FIEs) and c), private-owned enterprises (POEs), (see attachment, table 1). The behaviour of firms in these three types is often very different when making investment decision, especially ODI decisions. SOEs, for example, usually are influenced or even controlled by government in their ODI decisions. They often have to take responsibility for implementing state strategies, and their ODI activities usually are backed by state owned commercial banks. The POEs’, in contrast, behave more like firms in a normal market economy, although even here there are some policy supports towards such firms if the interests of the firms coincide to the strategic expectations of provincial or even central government. However, generally they operate as agents seeking profit maximization. Considering these fundamental realities, it is logically inappropriate to research Chinese firms and their ODI behaviors in the same way done with those in a normal market economy. It is obvious that only one group out of the three different groups of firms is suitable to be checked in the way done with the firms in a normal free market economy. That is POEs. In this paper, our focus shall be put on Chinese POEs’ ODI and internationalization.

II. POEs' and Internationalization: Contextual factors

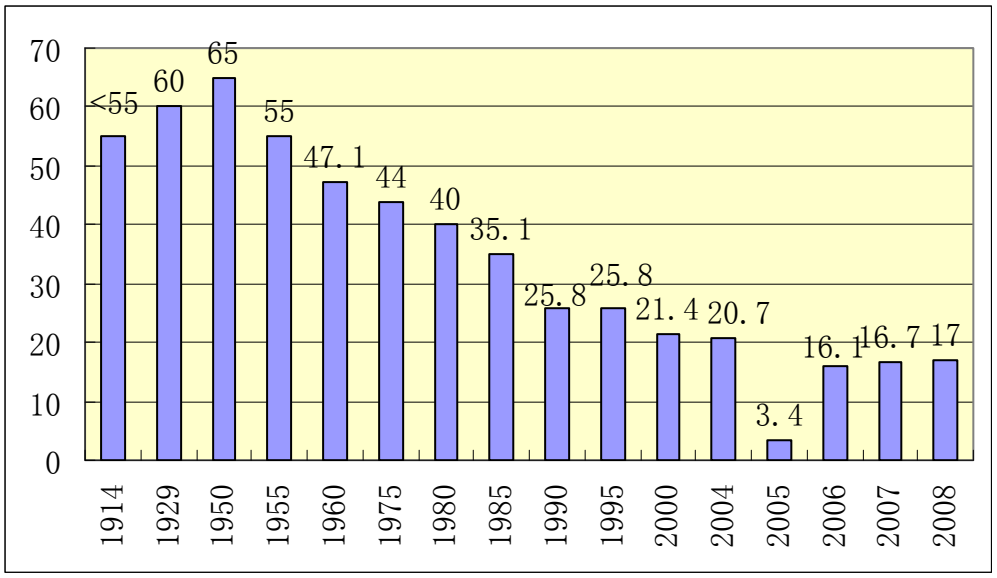
Being rooted in an emerging market economy with unfinished institutional transition, the Chinese POEs are surviving and competing in a unique context, so are their ODI activities and internationalisation. It is impossible to analyse them in depth and make correct judgement on the future trend of their ODI expansion without paying attention to this critically important context. The uniqueness of the context for the Chinese POEs in their internationalisation originated from both international environment and domestic background of the development stages of social economy. The basic contextual factors could be checked from five macro visual angles at least.

The First one is the historical visual angle with the worldwide FDI (foreign direct investment) flow and firms' internationalization. Historically, the modern flow of the FDI, internationalization of firms and emerging of the MNCs (multi-national companies) can be seen as the one process in three different forms. Singer Company, a US sewing machine manufacturer, is generally identified as one of the pioneers in worldwide MNCs history. Its success in building an overseas manufacturing and distribution base in Scotland in 1868 is usually deemed as a symbol of the start of MNCs history and the modern flow of the FDI and internationalization of firms as well. Since then, the evolution process of the three forms joining together can be seen in three phases. Firstly, from the 19th century to 1950s, a single-nation-dominance phase can be roughly seen. The dominant nation is the US. Specifically, firms based in the US dominated the whole process. Statistics show that the share of global FDI made by US firms was over 55% in 1914 and climbed to over 60% before the great depression. (see fig.3). Secondly, from the late 1950s until 1989 could be looked as a phase of "big-three" dominance. The firms dominating the ODI mainly came from the US, the EU (European Union) and Japan. The share of the US FDI dropped from 55% in 1950s to 44% in 1975, 35.1% in 1985 to about 25% in 1990. The shares of both other big industrial countries, e.g. G7 countries, and the rest of the world had substantially increased their shares in the world outward FDI during the same time. (See fig.4). The third phase from 1990 to the present could be looked as a period of the worldwide competition。With the end of the "cold war" and the beginning of forms of market-based activity in the former central planed economies, there were very significant opportunities for FDI, initially by western firms but more recently by firms from the BRIC economies India, China, Russia and Brazil. The share of non-G7 countries in

FDI has increased substantially.(see fig.4).

Fig. 3 Changing US shares in the world total FDI flow (1914-2008)

in percent

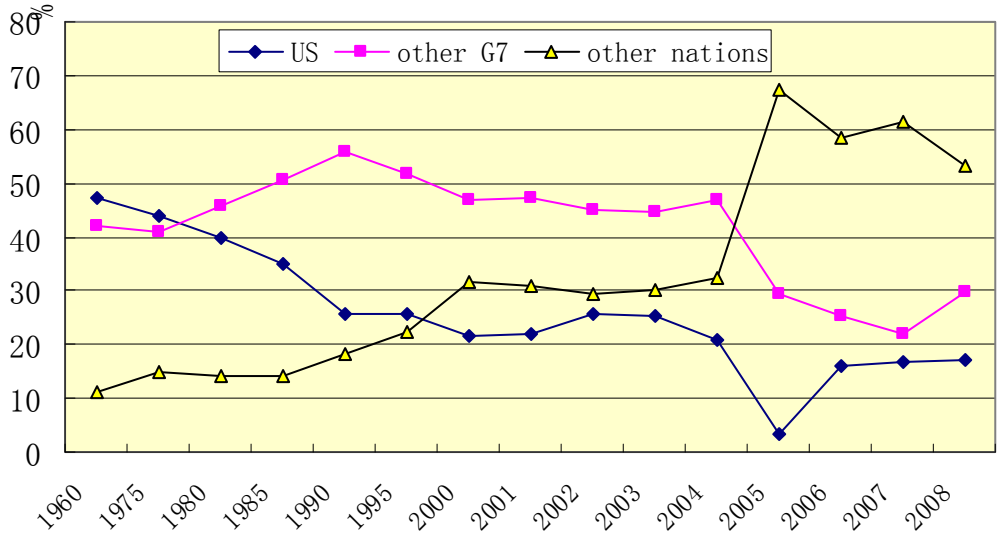


Source: OECD, UNCTAD (related year).

These three phases indicate a growing appetite for FDI, which can be seen as a struggle for position and long term advantage. Firms that have the interest, ability and opportunity to engage in this activity now find increasing competition for available resources. In the wake of the world recession from 2008 new long term opportunities arise for firms in nations whose banking systems have been relatively unaffected by a lack of credit. Chinese firms are likely to be in a good position to take up FDI opportunities as the currency remains strong and banks are willing to provide investment, so long as they can remain unaffected by the loss of consumer confidence. The period from 2008 – 2015 could reinforce the potential for firms in some of the BRIC economies to gain a significant international position.

Fig.4 changing share of the major ODI nations, 1960-2008

In Percent



Source: OECD, UNCTAD (related year).

The second macro visual angle is that of the globalization. Thomas Friedman (2006) divided the history of globalization into three periods. He considered "3 versions" which imitate how IT software products are classified. Version 1.0 spans the period from 1492 to 1800. The dominant factors of the globalization during this period had mainly been the maritime power of nations and imperialism. Version 2.0 (from 1800 till 2000), was the period when the MNE was the dominant force. Version 3.0 (from 2000 until today), is the period when the dominant factors influencing globalization are the internet, personal computers and e-commerce. The most important effect of the current period, according to Friedman, is the loss of domination by MNEs. Small firms or even individuals can partake in globalization and compete with giant companies in this new period of globalization. The current period of the globalization gives opportunities to small firms that were unconsidered even ten years ago. Chinese POEs such as AliBaba, have taken up the opportunities presented. The issue is to what extent are Chinese firms embracing the opportunities created by the internet and e commerce.

The third macro visual angle is that of the forms of firm's internationalization**.** Traditionally, firms engaged in ODI mainly take two forms; one is called as "Greenfield investment", another, the cross-border M & A (merge and acquisition). More recently, along with the quick progressing of the internet technology, firms have outsourcing and contract manufacturing as a way of achieving sustainable growth and profitability. The concept of the "born global"

business is not applicable in many fields, but it offers considerable opportunities for individuals and firms who have a viable business model and idea that can be securely adapted to a e commerce platform. It offers the possibility to creative entrepreneurs to leapfrog the limitations of local and physical constraints.

The fourth macro visual angle is that of the economic strength of China as an emerging ODI nation .The economic strength of China is more likely to be sustainable than almost any other country during the latest world economic recession triggered by financial crises in 2008. The uninterrupted growth of the last three decades has provided huge reserves for investment. Recent research (Zhao, 2007), suggests that the social economy of China has reached the stage of high-mass consumption as defined by Rostow (1960). According to Rostow (1960, 1978), the social economy in a typical industrial country experiences five stages in a way of evolution. They are “traditional society”, “pre-condition for taking off”, “taking off”, “driving to maturity”, and “high-mass consumption” respectively. His empirical study suggested that the USA entered the fifth stage, that of high-mass assumption, in the second decade of the 20th century. He identified two characteristics as the main indicators for a country that enters this stage.

i) Popularization of durable consumption goods. Rostow argued that the deciding factor in mass consumption was the popularisation of the private car.

ii) Change in the social structure. Rostow thought that the most important factor was the rise of a significant middle class of professionals able to influence social and political outcomes.

The Japanese economic historian, Hiroshi Takeuchi (1993) suggests that the Japanese social economy reached this stage (he called it a “consumption revolution”) by the 1970s. Three durable goods were keys. These were called the “three Cs”: colour TV sets, air conditioners and cars. Zhao’s research (Zhao, 2007) identified three indicators supporting the idea that the Chinese social economy is entering the high mass consumption stage. The three indicators are:

i. Popularisation of high-grade durable consumption goods, including colour TV sets,

air conditioners, cars and digital products.

ii. Ownership of property (houses and flats).

iii. Leisure consumption. In China there has been a shortening of the working week to five days, and an increase in paid holidays. This has stimulated leisure consumption. Official statistics shows that domestic tourism increased from 744 million to 1.9 billion from 2000 to 2009. Chinese citizens going overseas for tourism increased from 10.47million to 47.66 million during the same time.

In addition to these indicators of change Zhao (2007) suggested that the Chinese state has induced a key transformation in society. This is a transformation from a driving concern with production to consumption. This has been allied with a change from a stress on simple industrial efficiency to a stress on "construction of harmonizing society".[i] This includes the importance of quality of life issues and environment protection. The figures show that consumption had caught up and overtaken investment in the few years before recent world financial crises.[ii]

The development of a mass consumption social economy is based on increases in personal wealth and ability of investment. This is likely to have a positive effect on outward investment by Chinese POEs.

The fifth macro visual angle is that of the governmental strategy and policy orientation towards internationalization of home firms. The Chinese government plays a significant role in the economy. To assess internationalisation trends of Chinese firms without considering governmental strategic policies would be mistaken. The Chinese government has declared a clear policy which was published in March 2000 and was called, "the 'going-out' for development strategy". The strategy includes encouraging Chinese enterprises to engage in trans-national investment where appropriate. The main objective was to promote the expansion of Chinese MNCs. The idea was to

[i] Calling for the creation of a "harmonious society" was laid out and endorsed formally as a political doctrine by the Chinese Communist Party (CCP) at a plenary session of the party's Central Committee in October 2006. It signaled a shift in the party's focus from promoting all-out economic growth to solving worsening social tensions. (news report, "China's Party Leadership Declares New Priority: 'Harmonious Society'", *Washington Post*, October 12, 2006. http://www.washingtonpost.com/wp-dyn/content/article/2006/10/11/AR2006101101610.html)

[ii] According to the official figure provided by the State bureau of Statistics, the contribution of the consumption demand to China's GDP growth had used get a share of 38.6%, overtaken that of investment （37.7%）in 2007. But it dropped to 37.3% in 2010 after government's launched a large amount stimulus package since 2009.

make use of foreign and domestic markets and resources simultaneously.[i] With the launch of the strategy and related policies, government agencies began to be much more relaxed about Chinese POEs. From being restrictive the Chinese government has become more encouraging and supportive in tone.

The implications of these contextual factors identified from different macro visual-angles are not difficult to get. The contextual factors identified from the first macro visual angle imply that firm's internationalization and ODI flow are the trend of our time, no countries and firms with certain degree of importance can avoid to involve or to be involved in the process. The relevant Chinese firms need to decide how to best capitalise on their interest in the competition for international position. The factors found from the second and third visual angle suggest that even SMEs and some individual enterprises may need to assess how they can gain advantage from internationalisation. The factors identified from the fourth and fifth macro visual angles suggest that there is likely to be an increasing supply of investment and support from governmental policies for outward investment by Chinese enterprises, including POEs.

III. POEs**' Internationalization: the Old theories and New Realities with Chinese POSs**

Within the contextual factor outlines above there are also a number of factors at both the industry or sector level and firm level influence the behavior of firm's internationalization and decide the pattern and volume of ODI flow of a specific country like China. Of them include the factors which could ensure the internationalization and overseas investment of a specific firm; even a specific industry or country is successful, and then give real promotion to firm's internationalization. Analysis of these factors in depth needs to check some important theoretical thinking on firm's internationalization and outward FDI.

Academically, most theoretical work on the ODI & firm's internationalization so far can be roughly grouped into three categories according to the visual angle or main concern the related researches target. They are those targets the issues at macro level of an economy, i.e. national economy, those does the issues at sector level, and those does the issues at firm level respectively. There are quite a few different points of view backed with certain empirical work in each of the

[i] See Zhao, Wei. *"Going-out" of the Chinese Enterprises: the Orientation of the Government Policy and Analysis of Typical Cases (in Chinese), Economic Sciences Press, Beijing 2004.*

three categories grouped above, but the influential ones are limited.

A) The theories covering the issues at macro level of an economy.

The core question at this level is whether a specific economy as a whole or national economy has the ability to engage in overseas investment. If so, how strong the ODI waves shall be.

Representative and one of the most influential theories at this level is that of "the investment development path (IDP)", which was developed by Dunning (1982) as an expansion of his micro level analysis. According to his theory, the flow of FDI by a country would go through four periods linked with its growing strength (normally indicated as growth per capita GDP). It was thought that no ODI would be likely in a country with below US$ 400 per capita GNP. ODI would be expected, however, to overtake inward FDI above US$ 4000 per capita GNP.

Dunning's theory of IDP could provide some explanation with Chinese FDI. It is at such a high level, however, as to only offer understanding at the national level. Besides, even if at national, its power in explaining the net FDI flow (inflow minus outflow) in Chinese case is yet to be proved as China have been the second biggest FDI host country since 2005. The net ODI flow in China has still been negative figures so far. The latest year, year 2008, China attracted $95.2 billion FDI but made $55.9 billion ODI, the net ODI flow is negative $39.3 billion. (see figure.3) .

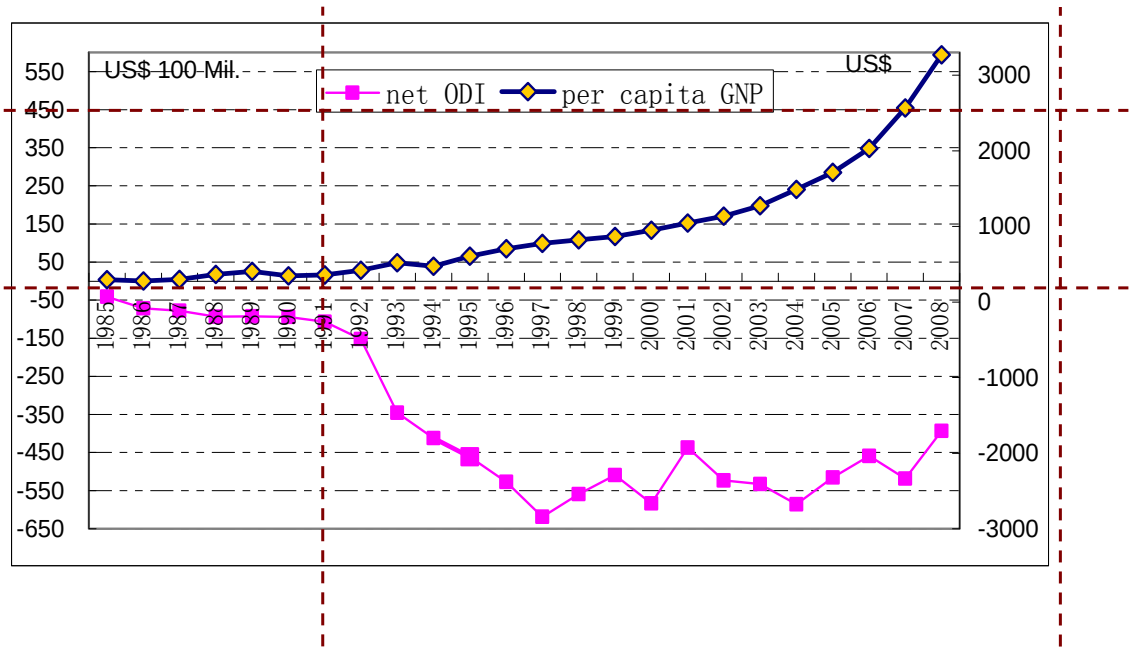


Figure: China's Increasing per capita GNP and Change changing ODI flow, 1985-2008

Source: MOFCOM, *Statistical Bulletin of China's Outward Foreign Direct Investment* related years; China State Bureau of statistics database. [i]

B) The theories covering the issues at Industrial sector level.

The core question at this level is what kind of industrial sectors are more likely to engage in ODI. Representative theory in this category is that of "marginal industry expansion" created by Kiyoshi Kojima. Based on the empirical research of the ODI and internationalization of the Japanese industries in 1960s and 70s, Kojima (1977) suggested that "the outward direct investment for a nation should start from the industry that has already lost its comparative advantage".

Objectively speaking, nonetheless, it is hard to find a Chinese industrial sector that has reached this marginal situation. One of the reasons is that there are huge less developed areas in China. Most manufacturing industries in the advanced coastland areas could, in theory, exploit the inland areas as soon as they lose comparative advantage in coastal areas. So this approach does not merit further consideration.

C) The theories covering the issues at firm level.

The basic question explored at this level is what sort of firms has the ability to successfully engage in ODI. Four key theories that deal with this question include:

i. Monopolistic advantage theory (Hymer, 1960; Kindleberger, 1969). According to this theory, firms invest outside of the home country when they have monopolistic advantages.

ii. Product life-cycle theory (Vernon, 1966, 1979, 1986). According to this theory, firms undertake FDI at a particular stage in their life-cycle. The firm creates production sites close to relevant markets as the products mature and demand in new markets increases.

iii. Internalization theory (Buckley & Casson, 1976, Buckley, 1988). This argument suggests that it is in the interests of firms to internalizing when the transaction costs of market operations are high.

[i] Also see Dong Jiang (2010), fig.5.2,

iv. The eclectic theory or "OLI paradigm" (Dunning, 1976). According to this theory, three factors could possibly explain the approach to internationalization taken by a specific enterprise. There are three key possible advantages to firms in consideration of engagement on international direct investment: ownership advantages, location advantage and internalization advantages. Assessment of these factors helps answer the question why firms begin investing abroad, why firms select particular destinations, and why firms select one particular method of market entry over another (Dunning, 1988).In Dunning's approach ownership advantage is defined as "any kind of income-generating asset that allows firms to engage in foreign production". Three types of ownership advantages have been suggested: first, monopolistic advantages; second, technology and knowledge advantages; third, other types of advantage such as learning or management capabilities or advantages.

Excepting theories abstracted as above, there are several other ones created with the cases of developing countries. All main theories with certain influence regarding the key elements the firms can rely in their internationalization can be summed up with following table.

Table 1. Main theories and the key elements stressed regarding outward FDI at firm level

	Theory	Creators	Key advantages
Based on cases of industrial countries	Monopolistic Advantage Theory	Stephen Hymer, 1960	Technology innovation, manufacturing process, brand names, organizational talents, marketing skill, etc.
	theory of Product Life Cycle	Raymond Vernon, 1966	original products, know-how
	Theory of Internalization	Peter, Buckley & Casson (1976); Rugman (1981)	Firm-specific advantages (FSAs) in knowledge and other types of intermediate products.
	eclectic theory of international production	Dunning (1981)	location advantages, internalization and ownership advantages

Based on cases of developing countries	Choice of technology via small-scale	Wells (1977)	Lower cost via small-scale production, domestic brand, inexpensive marketing strategies
	Local winner	Lall (1983)	Localized technology advantage

Chinese POEs do not appear, generally, to have clear ownership advantages. For example, few Chinese POEs have exclusive intellectual property rights, patents, know-how and extraordinary management or marketing skills. Even official investigations have suggested that most Chinese firms lack an ability to innovate. In SOEs this is a a matter of concern, with 75% of the top 28,000 SOEs not having one person engaged full time in R&D (Political Consultant Committee of P R China, *Inspection Report*, 2006[i]). The situation amongst POEs is even worse. An earlier investigation led by a high rank official shows that out of 100 POEs only 11 have certain independent R & D abilities, all others have no real research ability at all, and rely on outside R&D sources (Huang, Mengfu, 2007).

IV. POEs' Internationalization：Theoretic Explanation Based on Case Studies

It seems as though we have now encountered a dilemma situation between old theories and new realities faced by Chinese POEs. On the one hand, it is hard to find any obvious advantages stressed by representative theories on firm's internationalization, especially those covering the issues at sector and firm levels, among Chinese POEs, on the other hand, however, the it has already been an real existence that Chinese POEs have already made substantial ODI in the past decades and are increasingly doing this currently. Conclusion is not difficult to get that is the old theories can not explain new realities. The way out of this dilemma situation undoubtedly is to create new theory in accordance with the new realities faced by Chinese firms in the peculiar context of China as an emerging market economy.

A temptation of creating new theory with the aim of adapting to Chinese context and realities needs to take two basic elements into account. One is the characteristics of factor endowments of

[i] A report cited by Xinhua News Agency, "Inspection shows that 75% of Chinese firms have no professional research person," Xinhua News Agency, 5th July 2006.
http://sientechina.china.com.cn/chinese/diaocha/1266293.htm

China, and other the practice, especially the successful cases in their preliminary exploration of internationalization and outward direct investment.

i. Factor endowments in China.

The most important feature of the Chinese economy is the existence of a huge inland area of potential demand. There is also a large supply of labour. Because of this Kojima's theory of "marginal industry expansion" (1977) is inappropriate in the Chinese situation. In China if an industrial sector reaches a marginal situation in the East coast area, there is space for expansion inland. So there is no need to consider ODI. In addition, the uncompetitive and largely inelastic supply of cheap labour means that China is an ideal country to develop and maintain the comparative advantage in labour intensive sectors.

ii. Experience of POEs in internationalizing and institutional transformation.

To understand the way in which firms have succeeded in becoming international enterprises a detailed analysis of case studies is likely to provide the best insight. Although it is hard to make estimation about how many percent of the POEs' ODI and internationalization is successful owing to the fact that there are neither official statistics on it no mechanism of reporting firms' failure in ODI initiatives Nonetheless, it is not difficult to identify some good cases among those who have already involved in internationalization and ODI substantially in the last decade.

Out of thousands of POEs that have already involved in certain amount of ODI and business internationalization, following three are the representative ones in the sectors of manufacturing industry they engage in and can be taken as typical cases to check in depth.

Case 1: Lenovo Group.

Lenovo，being also known as "Lianxiang Group" in Chinese，was the largest PC manufacturer and distributer in the Chinese domestic market even before it merged with IMB's PC division in 2004. Lenovo paid US$ 1.25 billion for the PC division, including 650 million US dollars in cash and Lenovo's shares valued at 600 million US dollars. This catapulted the firm into international markets making it into a major MNE almost overnight. Its approach of internationalization could be called as "trading capital for brand and oversea market". Two characteristics are identifiable in Lenovo's internationalization: one is related to its strategic target of internationalization. The

strategic target Lenovo set for its internationalization is erecting its brand in PC manufacturing, which in turn serves the target of the expansion in the global PC market. Another is related to its way of inputting capital. It is generally believed that Lenovo is overwhelmingly relying on huge capital investment in pursuing its strategy of internationalization. These characteristics had been shown clearly in its two most important actions of internationalization so far. The first one is its competing into the sixth "TOP" (The Olympic Plan) in 2004. It became the one of the top commercial donators of the International Olympic game in 2004. The agreement signed with the IOC (International Olympic Committee) shouldered the Lenovo the responsibility of funding the IOC US$65 million and supplying its IT equipments for the XX Olympic Winter Games in Turin, Italy, in 2006 and the XXIX Olympic Games in Beijing in 2008. In return, Lenovo can use the logo of IOC's worldwide partners to promote its brand and sales in the global market during the four-year tenure. The second important action is its acquisition of the PC Business of the IBM (International Business Machine) during the winter through spring of 2004 to 2005. Lenovo has eventually paid US$ 1.25 billion for all the PC business of IBM, including 650 million US dollars in cash and Lenovo's shares valued at 600 million US dollars.

Lenovo took an active stance in buying position internationally. It recognized the need to develop and maintain a good reputation for its brand in international markets and was prepared to invest in order to achieve that, in the hope that sales would follow.

Case 2: Huawei Group.

Huawei is one of the world's major providers of telecommunication equipment. Staring from a small tech-development company with a registered capital of less than 100 thousands YMB Yuan (less than US$ 12,000) in 1988, it has become one of the biggest Chinese MNCs currently. Its business spans the whole chain of the industry, from research and development to manufacturing, from marketing to after sales maintenance. Huawei's internationalization approach can be called as that of "International Strategic Partnership approach". It has developed two types of partnership.

First one can be called as the way "via joint ventures". That is building joint ventures with strategic partners to provide telecommunications equipments. The joint ventures usually cover a

business chain for a particular telecom product. Two joint ventures with big MNEs which representative the approach taken by Huawei are with Siemens and Motorola. They focus on TD-SCDMA (telecommunications equipment) with Siemens and UMTS products with Motorola.

Second one can be called as “management learning”. Since 1997 Huawei has paid management consulting companies to learn how to deal with managing an international company. The consultants used include IBM, the Hay Group, PwC &FhG. As a result of this investment, Huawei has developed into a global company. By 2006 it had eight regional headquarters with more than 100 branches world wide. There were 28 overseas training centers. Ooverseas employees were over 60% of the total workforce. It had 12 R&D centers in the US, India, Sweden, Russia and China. So the approach taken by Huawei was a management learning and seeking motivation to drive the firm to better international performance.

Case 3: Wanxiang Group.

Wanxiang is a medium-sized POE in the motor vehicle parts industry. Wanxiang has successfully internationalized itself in the last two decades. The approach of the Wanxiang’s internationalization can be called as that of “via outsourcing ladders”. It was mainly through outsourcing business that brought the firm into the process of internationalization and made it access to several good opportunities in its pursuing MNC strategy.

Wanxiang’s gradualism process of internationalization and ODI can be divided into four stages.

The first stage was exporting products as an outsourcing contractor. In 1984 Wanxiang gained its first overseas contract (for auto gimbals) from a US company as an OEM (original equipment manufacturer). It grasped the opportunity and expanded its export of products to the North American market over the next ten years.

The second stage was to make sales abroad. By the early 1990s it had sufficient funding to build a small branch in the USA. This enabled Wanxiang to open sales branches in the USA.

The third stage was to engage in M&A activity to grow internationally. It took advantage in 1998 and 2001 of a financial crisis in the USA to buy firms. It acquired a medium-sized auto-parts dealer, and a Nasdaq-listed major brakes maker (Universal Automotive Industries Inc.). These

firms also were the main buyers of its outsourcing products. So Wanxiang gained a sales network and some brands, patents and equipment. These acquisitions changed Wanxiang's position from a simple contract manufacturer into the second party in the chain of outsourcing.

The fourth stage was expansion to become a significant MNE. It began to expand its business in other industries and other countries. By 2008, Wanxiang had 18 facilities in 8 countries and engaged in business in several industries.

From the three cases above, some common features can be identified.

The first common feature from all these firms is the ability of mass produce and supply product at low unit cost. All three enterprises have this ability. Lenovo had been the largest PC manufacturer in China since 1990. Huawei has been a leader in providing next generation telecommunications networks since around 2000. Its products and equip-system in telecommunication are adopted by more than 1 billion users in more than 100 countries. In 2006, 70% of its turnover was in oversea markets. Wanxiang is also a leading supplier of car parts in China and in other markets. Annual turnover reached RMB￥11.8 billion (approximately US$1.5 Billion) in 2006.

The second feature is that overseas expansion was based on success in the Chinese market and backed with quick expansion of the domestic manufacturing and distribution. All those firms growing from nearly nothing to giants in the related sector took very short time. To Lenovo or Legend, it took 12 years, i.e. from 1984 to 1996,[i] in developing from nearly nothing to a leading company in the Chinese market, and another four years, 1996 to 2000, became one of the top 10 in world's best managed PC venders, and its share price dramatically increases and became a constituent stock of the Hang Seng Index - HK flagship high-tech stock.

The third common feature is that the sectors these enterprises are engaged in still have great potential for growth in the Chinese market. The PC market in China, for example, is potentially largest PC market in the world. China currently provides more than half of the world's production of laptop PCs, and almost a third of all desktop PCs. At the same time, the Chinese PC market is the largest in the world and the quickest growing.

[i] Lenovo founded with an initial capital of RMB ￥200,000, (US$25,000) by Liu Chuanzhi and his colleagues engage in computer science research in 1984.

In the telecommunication and auto vehicle industries, the domestic market is huge. The rapid growth in domestic markets is due to consumer demand in China. The demands of 1.3 billion people give Chinese firms great opportunities to make the best use of “home-market effects”.

All these common features obviously point to an important concept in economics. That is “the economies of scale”. All these cases show that economies of scale are the most important element the Chinese POEs can rely on in their outward expansion and ODI. Only with this element most POEs have a clear advantage over their foreign competitors. This element actually plays key role in POEs’ internationalization.

Accordingly, looking with the view of the key elements or advantages stressed by various theories on ODI at firm level being summed up earlier, economies of scale undoubtedly is the similar advantage that the Chinese POEs can make use of in launching their internationalization and ODI strategies.

V. SLI Model: a feasible pattern of internationalization for the Chinese POEs

In the case of the Chinese POEs discussed above, although the two forms of economies of scale, e.g. internal and external economies of scale, are available to them simultaneously for internationalization, the latter seems more important than the former. It is true that there are do internal economies of scale that can be extracted from quick expansion of single firms. As we have already seen that all the three POEs had experienced quick expansion from very beginning till latest time. This means all of these POEs had enjoyed increasing economies of scale resulted simply from the extensive expansion of production size. But their ever quick expansions rely on the expansion of the whole sectors. In this sense, the external economies of scale generated from high-speed growth of main sectors are more important. As a matter of fact, all the three sectors, from personal computers to automobile manufacturing, to telecommunication, have grown up as the world number one sectors in China in less than three decades. This undoubtedly provided substantial opportunities for firms engaged in the related sector to harvest the benefits in terms of scale economies.

The great advantage that Chinese POEs have had in the period 2000 – 2008 has been the ability to gain economies of scale. The ability of POEs to lower the unit cost of products originates mainly

from these scale economies. The economies of scale, especially the external economies of scale, enjoyed by most Chinese POEs mainly related to two phenomena. One is the agglomeration of manufacturing industries in China; another, nearly inelasticity supply of cheap labor force.

Being benefited mainly from the elements that reflected by above two phenomena, a specific manufacturing sector can grow quickly and top the world in terms of production size. As a matter of fact, China has already topped the other economies in production of hundreds of manufacturing products. One official bulleting in earlier time shows that there had been 172 categories of manufacturing goods made in China topped the world in terms of annual output by 2006. It is exactly that year when China's manufacturing output, being calculated in current exchange rate, took over that of Japan and got the second largest position after the US.[i] Related research and estimation suggest that more and more sectors in China's manufacturing industry have gown into the world largest ones. Such sectors consist of both traditional one and new one, the largest manufacturing sectors include the following several;

- Textile and clothing-dying industry. Its output topped the world since 2005 and shares over one third of that of the world since then;
- Garment industry. China shares a quarter in world market currently. "made in China" in this industrial sector shares 17.5% of the global "value chain" and one half of retail value. Currently.
- Shoe and foot wearing manufacturing. It has topped the world for more than a decade.
- Home electricity product industry. China has topped the world in manufacturing 7 categories of home-use electricity products and got a share of over one-third of the world in each of the seven products including micro-oven (more than 80%),vacuum cleaner(over 40％), rice cooker(about 90%), refrigerate (about 1/3), air-conditioner (1/3) and washing machine(about 1/3).
- Automobile manufacturing. China has overtaken that of the US and become the largest automobile maker with a total output of 18 million cars and trucks in 2010.

Besides, in the manufacturing of parts and equipments of "new energy" industries, China has also formed a substantial ability only in few years. Its output of batteries required in solar energy has already topped the world with a shared of over 40% of the world output in 2009.

Theoretically, the economies of scale in all major manufacturing industries are not difficult to estimate. It can be done with multi approaches as we described separately (see appendix). The preliminary check with one sector out of the above several, the automobile industry, shows that

[i] Xinhua News Agency, "Made in China's growth rate kept the world champion in successively 20 years", *People's Daily*, overseass edition, 5th May 2008.

sector did get substantial economies of scale during the 11 years up to 2008. (see appendix 1). It is exactly during those years that the automobile manufacturing sector in China had experienced a near explosive expansion in terms of not only the whole vehicles but the part manufacturing.

It is obvious that both the Chinese firms and foreign invested ones can naturally enjoy the benefits of the external economies of scale in all these sectors. They also have greater opportunities to grow themselves into the world-class giants and reap the benefits of internal economies of scale as well in China than other countries.

As we had mentioned earlier, the 'OLI paradigm created by Dunning is an eclectic framework which brings all elements that are key for firm's internationalization together. Separately checking, all the three elements had already been identified out and stressed by earlier researchers on firm's internationalization and ODI. Dunning's innovation comes mainly from his way of thinking. He took a synthesizing view and brought about a new framework. This framework is still very useful in analyzing the behavior and approaches of almost all sorts of firms in pursuing outward FDI and internationalization currently.

Looking into the cases of the Chinese POEs which have been successful in becoming MNEs with an eclectic framework, nothing is new except that they substitute the ownership advantages in Duning's sense for economies of scale, especially external economies of scale. The other two elements in Dunning's eclectic paradigm, i.e. location advantage and internalization, are basically same here in the case of POEs as they both are enterprise specific.

It is reasonable to suggest a new version of the OLI paradigm for Chinese enterprises. This could be called the SLI paradigm. Here S is the scale economies that can be relied by firms in making ODI; **L** is the location advantage and **I** is the internalization advantage. The key advantages relied by firms pursuing internationalization strategies can be compared with the following table.

Table 2. Advantages of the two eclectic paradigms compared

Advantages in OIL pattern		Advantages in SIL pattern
Ownership advantages	Trademark, production technique, entrepreneurial skills, returns to scale)	Two forms; external one plays key role
Location	existence of raw materials, low wages, special taxes or tariffs	Same
Internalization	partnership arrangement such as licensing or a joint venture	Partnership in the form of outsourcing

Considering one of the contextual factors we identified earlier, the outsourcing, as a ladder being available to the Chinese POEs in their internationalization, the third key factor, internalization advantage, in SLI model, needs to be reinterpreted. It can be redefined including the partnership via the form of outsourcing.

VI. Concluding Remarks

Conclusion can be drawn out naturally as following.

-- The five factors we identified from macro visual angles imply that it has already been a general and even irreversible trend for an emerging economy like China to involve in ODI with an increasing pace as every contextual factor is throwing stimulation or pressure on the ODI flow and drive Chinese firms going abroad.

-- Traditional theories developed mainly with the experience made by the firms in pioneering industrial economies only have limited inspiration in the study of the Chinese firms' ODI and cannot be used simply in explaining Chinese cases, especially the Chinese POEs' practice of internationalization. The basic reason behind this contradiction is that the realities the old theories being educed are totally different from that faced by Chinese POEs currently. New theory needs to be created in order to explain the behavior and approaches of the Chinese POEs' internationalization. This requires case studies with POEs that have already made successful exploration of ODI and internationalization so far.

-- Study of representative cases that successfully launched ODI and internationalization

among Chinese POEs chosen from three typical industrial sectors in China shows that they share a common feature at sector level, it is economies of scale. All the three Chinese originated MNEs had made full use of huge domestic market and lower cost of none-capital factors of production in their expansion. All of them had enjoyed the benefit from economies of scale, especially the external economies of scale extracted from the quick expansion of the whole sectors.

-- Economies of scale, especially external economies of scale, can be fitted into the framework of the eclectic paradigm being suggested by Dunning and taken as a peculiar advantage the Chinese POEs can make use in their internationalization and ODI initiatives. Looking in this way, the road of ODI and internationalization the Chinese POEs cut so far can be called as the SLI paradigm. It is a renewed version of OLI paradigm.

It is also expectable that by relying on scale economies and low cost in the process of mabufacturing, the Chinese POEs can utilize the advantages of expanding into MNEs. The strategic objectives of POEs' as MNEs need to be adjusted in the light of the resources available, the capability and capacity of the organization, and their economic interests. This takes time to identify. So the whole process of internationalization may take place in several stages. Three stages are predictable for most POEs in pursuing their specific internationalization strategies with making use of the advantages in a SLI paradigm.

In the first stage, the strategic objective of internationalization for the most POEs is to gain market share and revenues. This can be done by making full use of Chinese scale economies. It is possible for most POEs to both have products "made in China" and "distributed by Chinese firms".

In the second stage, POEs commonly need to adjust their objective from market-expansion into brand development. This means creating a reputation for their brands which is valued by customers.

In the third stage, some POEs will find it natural and easy to transfer their resource and attention to R&Ds.

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Appendices

A- 1. Scale economies in Chinese automobile industry: a simple measuring[i]

There is not generally accepted approach to measure economies of scale of an industrial sector so far. Nonetheless, indicators of both output-scale elasticity and scale efficiency are increasingly used in case studies in recent years. Parametric method need to set production function, and then choose corresponding index to get the econometric regression results based on the production function. Normally, according to the elasticity coefficient, we could judge whether scale is efficient or not. If the total output elasticity is greater than one, it indicates that the scale of economy is efficient, otherwise, it is inefficient. According to the form of production function it could be also divided into C-D production function method, CES production function method and super logarithmic model method. Represented by Data Envelopment Analysis (DEA and Data Envelopment order),the nonparametric method was put forward by Charnes, Coopor and Rhodes

[i] This calculation is mainly made by YY Han and Jing Wang under author's guidance.

in 1978,and its principle is keeping the Decision unit (DMU, Decision Making Unit) of an input or output unchanged, and each decision unit is onto the DEA production frontier surface. Then we could estimate the relative efficiency through comparing the deviation degree between each Decision Making Units and DEA frontier. It does not need to set parameters and not need to set specific production function. Using this method, the scale efficiency refers to the gap of the real scale and optimal scale and it reflects the estimated object or decision unit is whether in the most appropriate investment scale.

Domestic research on industry scale economy evaluation usually made by comparing with foreign economy. More specially, we use nonparametric method to evaluate the scale efficiency of automotive industry. DEAP2.1 software and multi-stage analysis are used to estimate scale efficiency. Following is the detail of using this method to estimate of China automobile industry economies of scale and economies of scale effect.

Data description

The objective of this section is to examine the scale efficiency in the automobile industry with DEA approach based the data from CSMAR and DRC net. Since there is still unavailable standard for this study, we also classified and compared several groups by selecting different kinds of input-output indicators.

In the first step, scale efficiency has been calculated covering the period 2003-2008. In order to have a deeper understanding of Scale Efficiency in the automotive industry, the automotive industry is subdivided into five sectors according to the classification in CSMAR database. The five sectors are vehicles manufacturing (C3721), automotive modifications manufacturing (C3722), electric cars manufacturing (C3723), bodies and trucks manufacturing (C3724), automotive components and parts manufacturing (C3735). Considering BCC-DEA model with IRS (increasing returns to scale), number of employees and fixed assets are deemed as the input variables, output is measured by both using profit and gross industrial output value.

Table A-1. Measuring scale efficiency in automotive industry, 1999-2008

	A1		B1		A2		B2		AB	
year	SE	RS	SE	RS	SE	RS	SE	RS	SE	RS
1999	0.987	IRS	0.297	IRS	0.987	IRS	0.298	irs	0.869	IRS
2000	1	_	0.404	IRS	1	_	0.404	irs	1	_
2001	0.676	IRS	0.989	IRS	0.777	IRS	0.996	irs	0.777	IRS
2002	0.764	IRS	1	_	0.892	IRS	1	_	0.892	IRS

2003	0.682	IRS	1	_	0.877	IRS	1	_	0.877	IRS
2004	0.695	IRS	0.973	IRS	0.748	IRS	0.975	irs	0.748	IRS
2005	0.778	IRS	0.987	IRS	0.778	IRS	0.987	irs	0.658	IRS
2006	0.979	IRS	0.975	DRS	0.979	IRS	0.975	drs	0.916	IRS
2007	1	_	0.984	DRS	1	_	0.984	drs	1	_
2008	1	_	1	_	1	_	1	_	1	_

Notes: scale efficiency and return to scale is simplified as SE, RS respectively. IRS= Increasing return to scale.

Source: Based on data in CSMAR, 1999-2008.

Result in table A-1 shows that

- There had been increasing scale efficiency in Group A subsector during the calculating years.
- The scale efficiency even reached to nearly optimum level (SE=1) towards the end of calculating duration although it shows a U-shaped change in group B.

A-2. Table 1: classification of the Chinese enterprises officially

		Number of firms , ,000	**Share (%)**
	Total	**3250**	**100**
1	State-owned	179	5.5
2	Collectively-owned	343	10.5
3	Shared partnered	107	3.3
4	State-owned pooling	3	0.1
5	Collectively-owned pooling	6	0.2
6	State-collective jointed	3	0.1
7	Other jointed	5	0.1
8	State-owned exclusively companies	1	0.3
9	Other Companies LTD.	345	10.6
10	Shared ltd	61	1.9
11	Private-owned enterprises	1982	61
12	Other domestically-invested firms	54	1.7
13	Firms invested from H.K., Macao and Taiwan	74	2.3
14	Foreign invested	78	2.4

Sources: China State Statistics Bureau, 2006

A-3. **Table 2 Distribution of China's outward FDI flows by industrial sectors, 2004-2009**

(millions of US $)

	Industry	2004	2005	2006	2007	2008	2009
A	Agriculture, fishery, forestry, husbandry,	288.66	105.36	185.04	271.71	171.83	342.79
B	Mining	1800.21	1675.22	8539.51	4062.77	5823.51	13343.09
C	Manufacture	755.55	2280.40	906.61	2126.50	1766.03	2240.97
D	Power and other utilities	78.49	7.66	118.74	151.38	1313.49	468.07
E	Construction	47.95	81.86	33.23	329.43	732.99	360.22
F	Transport,warehousing & postal service	828.66	576.79	1376.39	4065.48	2655.74	2067.52
G	IT	30.50	14.79	48.02	303.84	298.75	278.13
H	Wholesale and retailing	799.69	2260.12	1113.91	6604.18	6514.13	6135.75
I	Residential & catering trade	2.03	7.58	2.51	9.55	29.5	74.87
J	Finance	--	--	3529.99	1667.80	14048	8733.74
K	Real estate	8.51	115.63	383.76	908.52	339.01	938.14
L	Leasing & business service	749.31	4941.59	4521.66	5607.34	21717.23	20473.78
M	Science research, service & geo-survey	18.06	129.42	281.61	303.90	166.81	775.73
N	Water, environment & public facility management	1.20	0.13	8.25	2.71	141.45	4.34
O	Residential service& other services	88.14	62.79	111.51	76.21	165.36	267.73
P	Education	--	--	2.28	8.92	1.54	2.45
Q	Public health & social welfares	0.01	--	0.18	0.75	0	1.91
R	Cultural, sports & entertainment	0.98	0.12	0.76	5.10	21.8	19.76
S	Public management & social organization	0.04	1.73	--	--	--	--

Total		5497.99	12261.17	21163.96	26506.09	55907.17	56528.99

Source: 2009 Statistical Bulletin of China's Outward Foreign Direct Investment, MOFCOM.

Table 3. The top 50 non-financial Chinese TNCs ranked by foreign assets, 2009

No.	Name of Enterprises	status of ownership
1	China National Petroleum Corporation	Central SOEs
2	China Resources (Holdings) Co., Ltd.	Central SOEs
3	China Petrochemical Corporation	Central SOEs
4	China National Offshore Oil Corporation	Central SOEs
5	China Merchants Group	Central SOEs
6	China Ocean Shipping (Group) Company	Central SOEs
7	China Mobile Communications Corporation	Central SOEs
8	China State Construction Engineering Corporation	Central SOEs
9	Aluminum corporation of China	Central SOEs
10	Sinochem Corporation	Central SOEs
11	Huawei Technologies	POE
12	China National Cereals, Oils& Foodsuffs Corp.	Central SOEs
13	Legend Holdings Ltd.	POE
14	China Power Investment Corporation	Central SOEs
15	China Unicom Corporation	Central SOEs
16	Shum Yip Holdings Company Limited	Local State-Owned
17	Yunnan Copper Co., Ltd	Local State-Owned
18	China Minmetals Corporation	Central SOEs
19	Hunan ValinIron & Steel(Group) Co.Ltd	Local State-Owned
20	GDH Limited	Local State-Owned
21	China National Aviation Holding Corporation	Central SOEs
22	China Shipping (Group) Company	Central SOEs
23	CITIC Group	Central SOEs
24	China Poly Group Corporation	Central SOEs
25	SinoSteel Corporation	Central SOEs
26	China Huaneng Group	Central SOEs
27	Shenzhen Investment Holdings Co.,LTD	Local State-Owned
28	Yanzhou Coal Mining Company Limited	Local State-Owned
29	Guangzhou Yuexiu Holdings Limited	Local State-Owned
30	SINOTRANS Changjiang National Shipping (Group) Co.	Central SOEs
31	China Metallurgical Group Cop.	Central SOEs
32	China National Chemical Corporation	Central SOEs
33	China Communications Construction Company Ltd.	Central SOEs
34	ZTE Corporation	POE
35	China Norh Industries Group Corporation	Central SOEs
36	Shougang Corporation	Local State-Owned
37	Shanghai Baosteel Group Corporation	Central SOEs

38	Changsha Zoomlion Heavy Industry Science & Technology Development Co. Ltd	Local State-Owned
39	State Grid Corporation of China	Central SOEs
40	China Nonferrous Metal Mining & Construction (group) Co., Ltd.	Central SOEs
41	Shanghai Automotive Industry Corporation	Local State-Owned
42	China Electronics Corporation	Central SOEs
43	China Telecom	Central SOEs
44	China International Marine Containers(Group) Ltd.	POE
45	CSSD Venture Capital Co., Ltd	POE
46	China Aerospace Science and Technology Corporation	Central SOEs
47	China Railway Construction Corporation Limited	Central SOEs
48	Jiangsu Shagang Group	Local State-Owned
49	China National Gold Group Corporation	Central SOEs
50	Jinchuan Group Ltd.	Local State-Owned

Source: Statistical Bulletin of China's Outward Foreign Direct Investment, 2009, MOFCOM, 2010.