

Chinese FDI in Europe: analysis from individual company data

Yunnan Shi, CREM - University of Rennes 1, France
Françoise Hay, CREM - University of Rennes 1, France
Christian Milelli, EconomiX - University of Paris 10, France

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1. Introduction

Over the last decade, the surge of Chinese firms, as global investors, has been increasing. Indeed, they are very dynamic and exert sizeable influence in many dimensions of global business. As a result, they are already challenging the activity and prospects of many incumbent multinational companies. The stakes are high.

The economic and financial crisis has not spared China in 2008 and 2009, even if it has been a great resilience and quickly found the path of sustained growth. The impact of the crisis on the Chinese economy is limited essentially to the real sphere; the financial sphere and public finances are not directly affected. The main channel of transmission of the crisis on the Chinese economy has therefore been the foreign trade, hit by the decline in demand on the two first export markets, the European Union and the United-States: Chinese exports thus contracted by 16% in 2009. The Chinese authorities have not hesitated at the first signs of the crisis in 2008 to develop a plan to revitalize budgetary resources but the bulk of the revival is passed by allowances for credit - priority to industrial investment which grew by 30% in 2009 - that allowed a rebound of the economy with a rate of growth of 9.1% for 2009. Chinese outward FDI increased 132% in 2008 and 6.5% in 2009.

This paper aims to conduct an assessment of Chinese FDI and their relation to multinational activity across Europe, due to its momentum and also because some of them are quite strategic. Furthermore, it exemplifies the nature of the South – North relationships in a changing world and in the context of the global economic crisis.

The beginning of the new Millennium saw the rise of Chinese investments in Europe. They represent a new wave of investment from Asia after the Japanese wave of 1980s and a South Korean wave of lesser importance in the 1990s. Many observers questioned the sustainability of this phenomenon, while others feared being stripped of technology and know-how, although clearly the amounts involved were (and remain elsewhere) limited, when this was not the risk of invasion. Aggravating factor in the Chinese case, investors are often supported by their State, a Communist regime.

These new investors are perceived and regarded as similar to other foreign investors. The rush of the national agencies of foreign investment to open representative offices in China is a clear illustration. But the economic crisis, which came to change the

global landscape, dotted weaknesses of the developed countries by accelerating the rise of emerging countries as China. What about their companies and their foreign investment projects? This question led us to see how the Chinese investments in Europe after the onset and the worsening of the economic crisis have evolved. Are they slowed or otherwise stimulated? Have the main features that had been highlighted in the previous period evolved? If yes, how?

Within the frame of an empirical research, the paper intends to analyse the specificities of Chinese investments in Europe and the capability of Chinese firms to be successful while they run risks in an economic world not shaped for them, at first, as decision-maker.

Many comments and quoted examples of this paper come from a proprietary database including 549 Chinese groups (321 from mainland China and 228 from Hong Kong) having made investments in Europe.

This paper consists of three parts:

First, we analyse the main characteristics of Chinese investments in Europe at a micro level. For that purpose, we use the method of analysis in multiple correspondences (AMC). This method allows to create a synthetic visual representation of complex data. All the observations (Chinese establishments in Europe) and variables (their characteristics: country of setting-up, mode of entry, sector, etc.) selected are projected on the same plan. The main axes of the plan represents synthetic factors which best give an account of the dispersal of the points of clouds. This representation thus gives a synthesis of the distances between the observations and between the modalities of variables (for example: creation, repurchase or joint venture for the variable mode of entry). We do not try to study the causalities from correlations between variables, but to create the convergences and the peculiarities of the observations.

Second, we will match the strategies followed by Chinese companies in Europe with the standard framework of strategies followed by multinational firms in general. Are there similarities to those described by this pattern, or are Chinese firms preserving their specificities compared to large multinational firms? We also show possible changes in characteristics and strategies of Chinese firms in Europe after the triggering of the global crisis.

After all, we will put in perspective and discuss the expansion of Chinese affiliates across Europe along with their specificities and in the context of the world economic crisis.

2. Characteristics of Chinese setting-up in Europe

The used data are the ones collected by our own care, from various sources of information as the agencies of promotion of the foreign investment (French Agency of the International Investments, Invest in Germany, Invest in Sweden Agency, etc.), Thomson Financial, the Embassy of People's Republic of China or articles of the specialist newspapers as Financial Times. We listed approximately 900 setting-up realized by the companies of the mainland China and those of Hong Kong. Some of

them are ancient, dating 1980s, but most of them (in particular in case of the mainland China) were realized after year 2002. As for the countries of setting-up, we limit to the countries of Western Europe, Northern Europe and Central Europe; we exclude Russia and other countries of the ex-USSR in particular for the following reason: the investments in these countries have for almost exclusive purpose the exploitation of energy resources.

a. Variables and chosen modalities

For each setting-up, we held six variables among which five are qualitative and one quantitative:

- Country of origin (O): this variable contains two modalities: the mainland China (O-cn) and Hong Kong (O-hk). We have maintained a difference between firms from Hong Kong and those from mainland China. This is based on several raisons: 1) before 1997, date of return of Hong Kong to China, the city-state was a British colony; 2) since 1997, Hong Kong has a status of autonomy to the mainland China; 3) finally, sector positioning and strategies of Hong Kong firms stand clearly in firms from mainland China.
- Year of setting-up (Y): the beginning year is 1980 when some Hong Kong groups began to invest in Europe. But for the need of the analysis, we made groupings for years before 2002: before 1995 (Y-94), from 1995 till 1999 (Y-99), years 2000 and 2001 (Y-01). This variable thus contains 11 modalities (3 before 2002 and 8 from 2002 until 2009);
- Mode of entry (M): the main modes of entry to Europe are on one side the creations (M-cr) and on the other side the acquisitions (M-ac), even if joint ventures and the extensions are also the modes chosen as the setting-up. But these last two modes being relatively marginal, we included the JV in the acquisitions, and the extensions in the creations, for their relatively close characters respectively. This type of grouping is often recommended by the method of the AMC;
- Country of destination (D): France (D-fr), Germany (D-de), the United Kingdom (D-uk) and Italy (D-it) are the countries of the first choice of the Chinese investors in Europe. For other countries, we grouped them according to the geographical zones: Scandinavian countries (D-sc), alpine countries (D-ac), Benelux (D-bl), the Iberic peninsula (D-ip), and country of central Europe (D-ce). We included Ireland in the United Kingdom, and we did not hold Turkey. This variable thus contains 9 modalities;
- Function of investment (F): certain investments correspond to mono-function setting-up: the production, including the exploitation of mines (F-pm), the research and development (F-rd), the regional seat (F-hq), the sales (F-sl) and the diverse services (F-ds), but the others fulfil two or several functions. In this last case, we established the following hierarchy: R&D → production → regional seat → sales → diverse services, in order to hold one function for each setting-up. This variable thus contains 5 modalities;
- Sector (S): we grouped together certain sectors to preserve most setting-up possible. We distinguish then the following sectors: food-processing industry

(S-fo), automobile (S-au), biotechnology and chemistry (S-bc), electric and electronic equipment (S-eq), industry of the information (S-ii), the materials (S-ma), the steel industry and the work of metals (S-sm), the mechanical industry (S-me), textile-clothing-mode (S-mo), telecommunication (S-te), transport-logistics (S-tl), construction and building (S-cb), leisure (S-le), financial services (S-fi), the other services (S-os), and a raw materials sector (S-rm) which groups the oil, the gold and the cement. This variable thus contains 16 modalities.

b. Results of the AMC and the interpretation of axes

The table below that describes the weight of each modality in its variable belongs to reveal a number of selected population highlights:

- firms in mainland China have performed more investment operations than firms from Hong Kong;
- investment operations in Europe of Chinese firms for the period considered have an acceleration in 2003, and their number is clearly more important in the second period;
- number of acquisition operations is more important than the creations in the modalities of entry;
- the weight of the UK (30%) is manifest in the variable country of destination;
- three functions, namely production, diverse services and sales are essentially modalities taken by the variable function;
- finally, three sectors, equipment, transport and logistics, and telecommunications are very widely at the top of the sectoral distribution.

Variable	Modalities	Number	%
O	O-cn	439	55.8
	O-hk	348	44.2
Y	Y-01	33	4.2
	Y-02	21	2.7
	Y-03	37	4.7
	Y-04	71	9.0
	Y-05	95	12.1
	Y-06	66	8.4
	Y-07	110	14.0
	Y-08	88	11.2
	Y-09	115	14.6
	Y-94	93	11.8
M	Y-99	58	7.4
	M-ac	416	52.9
D	M-cr	371	47.1
	D-ac	31	3.9
	D-bl	59	7.5
	D-ce	62	7.9

	D-de	127	16.1
	D-fr	147	18.7
	D-ip	32	4.1
	D-it	50	6.4
	D-sc	45	5.7
	D-uk	234	29.7
F	F-ds	258	32.8
	F-hq	45	5.7
	F-pm	257	32.7
	F-rd	74	9.4
	F-sl	153	19.4
S	S-au	55	7.0
	S-bc	36	4.6
	S-cb	15	1.9
	S-eq	108	13.7
	S-fi	54	6.9
	S-fo	17	2.2
	S-ii	30	3.8
	S-le	43	5.5
	S-ma	21	2.7
	S-me	51	6.5
	S-mo	78	9.9
	S-os	26	3.3
	S-rm	51	6.5
	S-sm	25	3.2
	S-te	86	10.9
	S-tl	91	11.6

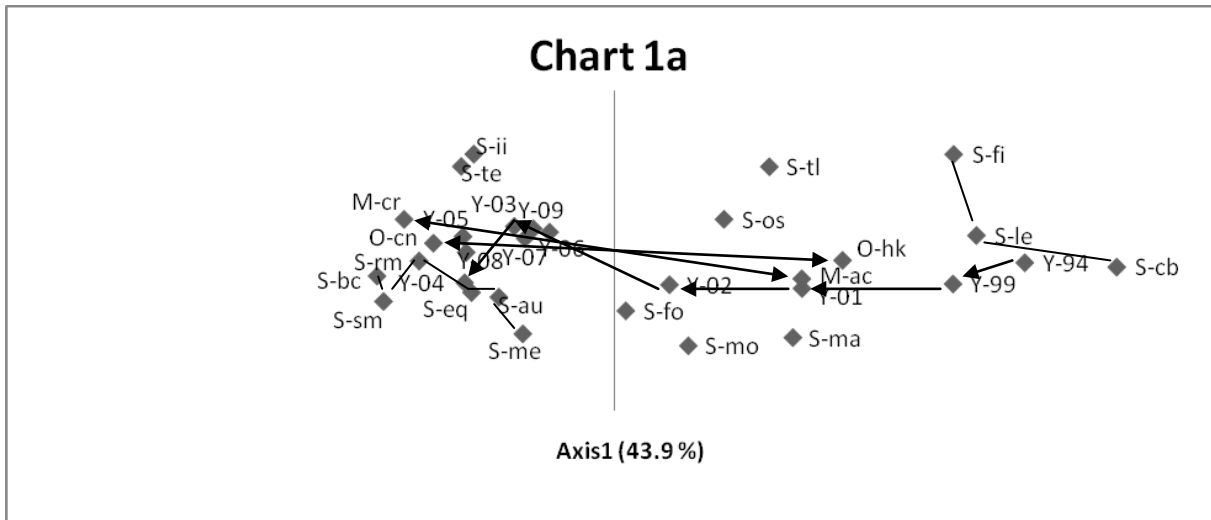
The AMC was made on these six variables with the software XLSTAT. The results lead us to hold the first 3 axes which supply together about 62% of the information (43.9% for the axis 1, 14.2% for the axis 2 and 4.2% for the axis 3).

For the interpretation of the first axis, we held 31 modalities (on the total of 45 modalities) which contribute together to 75.4% of the variance of the axis. These modalities concern 4 variables (country of origin O, year of setting-up Y, mode of entry M and sector S), because the contribution of each of these variables exceeds the average contribution of a variable, i.e. $100\% / 6 = 16.7\%$.

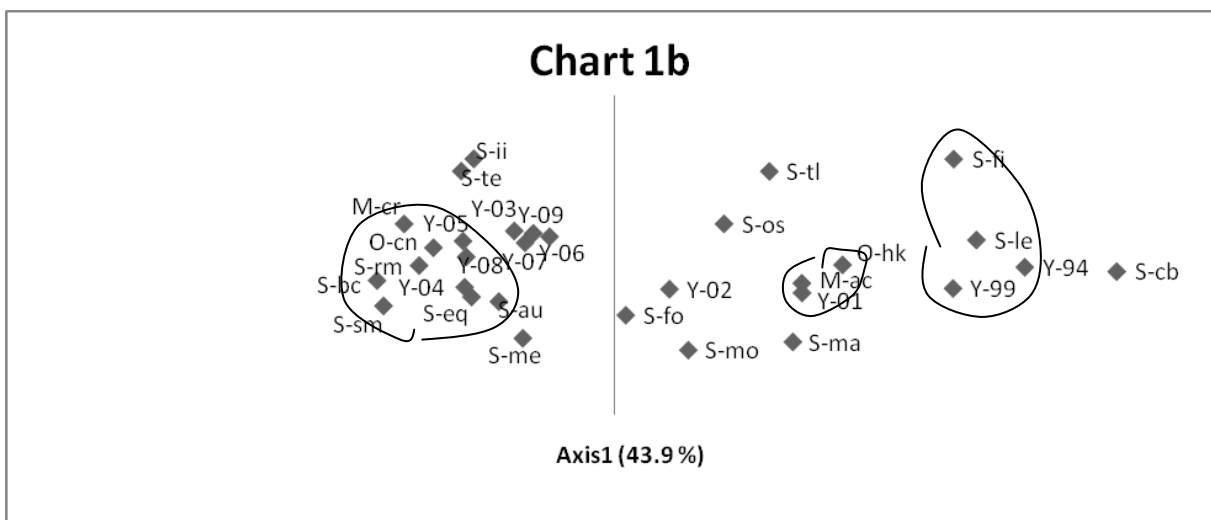
Chart 1a lets us view trivial results relating to each selected variable:

- *Country of origin*: opposition between O-cn (mainland China) and O-hk (Hong Kong) is well marked;
- *Mode of entry*: net opposition between M-cr (creations) and M-ac (acquisitions) is also marked;
- *Year of setting-up*: the chronological order is respected until year 2004 and on the period 2006-2008; but his order is inverted from 2005 to 2006 and from 2008 to 2009. This means that Chinese investment in Europe was making a difference between these two periods and the rest of the time.

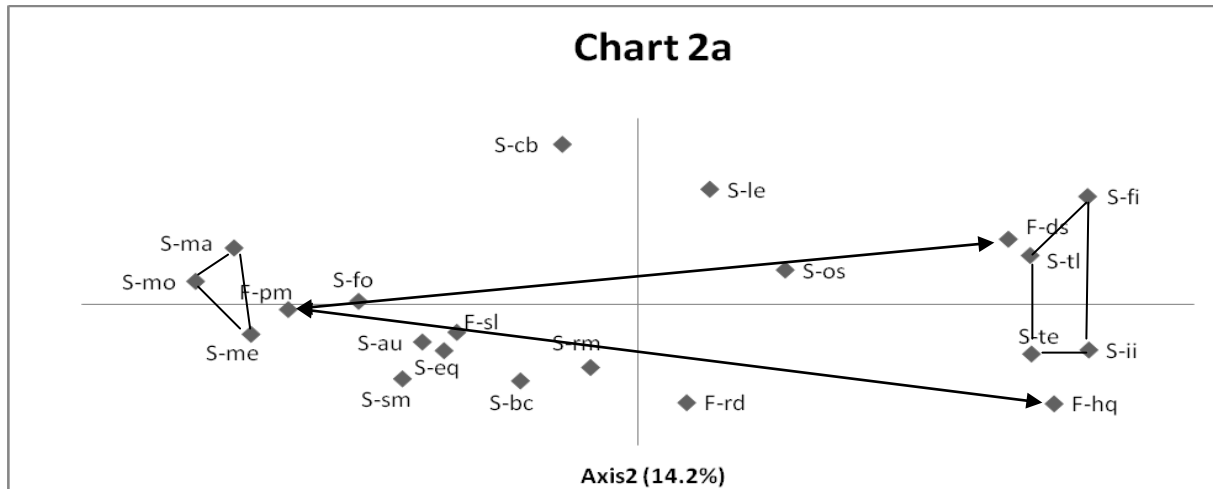
- *Sector*: there is an opposition between, on one side, sectors such as S-bc, S-sm, S-rm, S-eq, S-au and S-me, and, on the other side, sectors such as S-cb, S-le and S-fi. It is thus an opposition between the industries and the services.



By considering all these 4 variables in Axis 1 (**Chart 1b**), we can say that there is a strong association between the modalities O-hk, M-ac, Y-94, Y-99, Y-01, S-le and S-fi, and between the modalities O-cn, M-cr, Y-04, Y-05, Y-08, S-bc, S-sm, S-eq and S-au. This means that the investors of Hong Kong, especially those that came to Europe in the 90s, by choosing the acquisition as mode of entry and by investing in the services such as leisure activities and finance. The investors of the mainland China, came in Europe later, in particular after 2002, by choosing rather the creation as mode of entry and by investing in the industries such as the chemistry, the steel industry, the equipments or the automobile, etc.



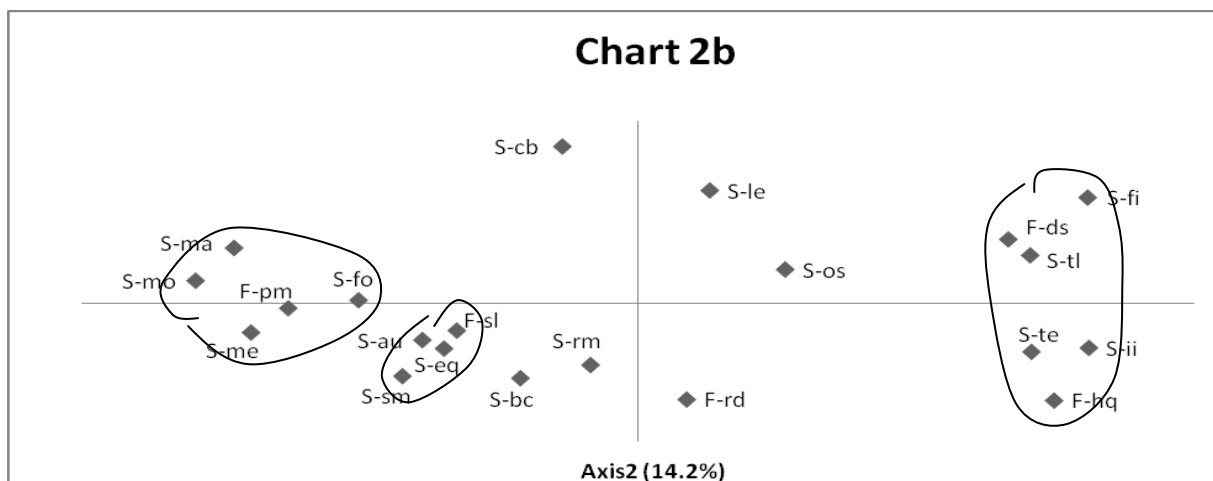
Then, we held 21 modalities which contribute to 81% of the variance of the axis 2. They are the modalities of 2 variables: function of investment F and sector S (**Chart 2a**).



At the level of the function, the net opposition between F-pm (production) and F-sl (sales) on one side, and F-hq (regional seats) and F-ds (diver services) on the other one, seems significant.

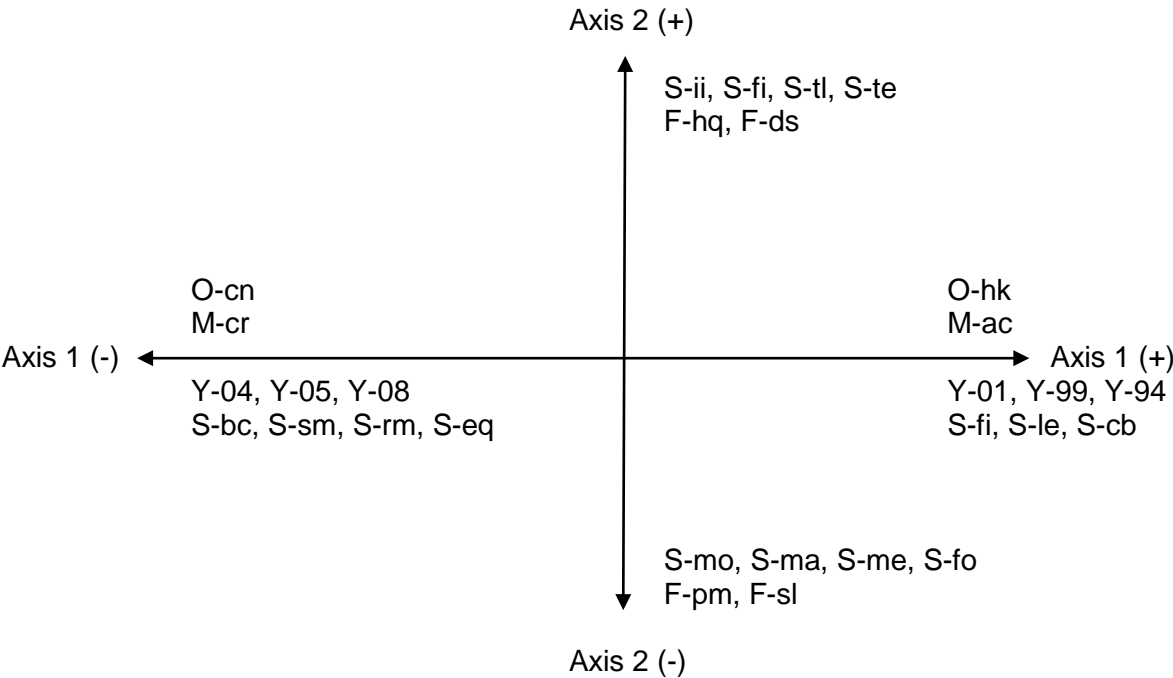
At the level of the sector, there is opposition between sectors S-mo, S-ma and S-me on one side, and sectors S-ii, S-fi, S-tl and S-te on the other one. It is still opposition between the industries and the services.

By considering both variables in Axis 2 (**Chart 2b**), we can see a strong association between the modalities F-pm, S-ma, S-mo, S-me and S-fo, between the modalities F-sl, S-au, S-eq and S-sm, and between the modalities F-hq, F-ds, S-tl, S-fi, S-te and S-ii. This means that the investments of Chinese firms in Europe affect the functions of production and sales in almost all industries, while they are functions of head office and various services in banking and financial sector, information industry, telecommunication services, and transport and logistics.



Finally, 41 modalities contribute to 98% of the variance of the axis 3. They are the modalities of 4 variables: year of setting-up Y, function of investment F, sector S and country of destination D. But since the 3 first variables have already allowed to interpret the first 2 axes, it is not necessary to interpret this axis 3 which supplies only 4.2% of the information.

So, we can summarize the interpretation of 2 axes by the plan below which shows that the axis 1 is an axis of the year of setting-up, the country of origin and the mode of entry, and that the axis 2 is the one of the sector and the function:



The only variable which did not contribute to the interpretation of these two axes is the country of destination D. And by taking into account all the modalities of all the variables, we obtain the cloud of the modalities for the main plan (**Chart 3**).

Chart 3 shows that the cloud of the modalities has the shape U, and the extremities of this cloud are quite occupied by the modalities of the variable S, what is normal because this variable allows the interpretation of both axes. This means that, compared to other variables, the sectors created more difference in the Chinese setting-up in Europe.

But this cloud allows especially to associate the modalities of various variables. For example, there is a very strong association between the modalities O-hk, M-ac and Y-01 (association N°1), between the modalities O-cn, Y-05, Y-08, S-rm and D-ce (association N°2), and between the modalities Y-04, D-fr, D-de, F-sl, S-au and S-eq (association N°3). Each association can be widened, towards D-uk, Y-99, Y-94 and S-le for the association N°1, towards Y-03, Y-06, Y-07, Y-09, M-cr, D-ip and F-rd for the association N°2, and towards D-it, F-pm, S-sm, S-me and S-fo for the association N°3.

supporting and resource-seeking, are discernible if the meaning of resources is made extensively, be natural or intangibles resources as long as created or expanded ones.

Trade-oriented investment is a significant part of Chinese investment in Europe and quite consistent with the theory of international trade. This dynamic encompasses the openness of new markets and the enlargement of existing ones through the establishment of local sales, distribution networks, or manufacturing facilities.

a. The theoretical considerations

M. Porter (1990) argues that each country can have a competitive advantage over others in some particular sectors, and that this advantage can be obtained through export or/and direct investment abroad with the latter being not regarded as substitutable to export, but rather a complement or a support to the former. Trade-oriented investment which is an important motivation for the coming of Chinese companies in Europe fit quite perfectly this scheme.

Thus, to size a competitive advantage, a firm has three options (generic strategies): **i/** cost leadership; **ii/** differentiation of products; **iii/** focus of the activity. This last one has two alternatives: it can be made either by low cost (cost focus) or by differentiation (focused differentiation) (**Table 1**).

		Competitive advantage	
		Cost	Differentiation
Competitive scope	Broad target	Cost leadership	Differentiation
	Narrow target	Cost focus	Focused differentiation

Table 1. Generic strategies
Source: from *The Competitive Advantage of Nations*, Porter 1990.

Let's give more insight about the foregoing strategies:

i/ The advantage drawn from cost control come first for Chinese firms in Europe. Based on production costs which are significantly lower than those in Europe (lower wage costs, longer duration of work), "China made" products enjoy an undeniable competitive advantage. Chinese firms in Europe extensively employ workers coming from China as expatriates - few have previous experience in other foreign affiliates - or hire local employees of Chinese origin to lower the wage costs. When one sees their entry modes in Europe, *greenfield* investments are still the main route: they consist of subsidiaries on a small scale to minimize transaction costs in an unknown context. In addition, they often select and settle in zones providing good infrastructures or favourable welcome. The result is a gradual process of setting up, which is quite different from the route followed by several Indian companies in Europe.

ii/ The advantage of product differentiation is not still significant for Chinese firms. The main reason lies in the fact that it is relevant in sectors where qualities of

products are relatively similar and where firms to compete with others and expand their market share, propose a product with different specificities (horizontal differentiation) rather than to offer a product of higher intrinsic quality (vertical differentiation). As a consequence, when Chinese firms directly compete in Europe with European firms in sectors like telecommunications or car industry where local standards have to be endorsed, their unique cost advantage cannot be sustainable. In such a case, the Chinese company can switch to the strategy based on product differentiation and therefore buttresses its competitive advantage.

Thus, even if Huawei succeeded by setting up affiliates in Europe, thanks to its low cost advantage, it had to invest in research and development in order to increase the quality of its products and/or to adapt them to the preferences of local customers. It was also necessary to upgrade after-sales service. To date, Huawei is caught up with European competitors like Alcatel-Lucent on product quality with prices relatively closed to those of direct competitors. Nevertheless, the strategy of product differentiation - fast delivery of products and services, effective after-sales service - has been adopted by the Chinese firm.

iii/ Lastly, the advantage of focus activity is also largely used by Chinese firms in Europe. Generally, the firms having invested there are specialized ones. And when they are member of a diversified company it is often a subsidiary unit specialized in a sector or even a product. As a result, the company needs to focus on this activity in order to be successful. Indeed, there is little evidence of strategies of diversification of activity followed by Chinese firms in Europe.

Overall, the strategy of cost focus is still privileged by Chinese firms.

However, the Chinese firms installed in Europe present also specificities and strategies which do not correspond to the framework of the theoretical model. Their motivations behind their inroads in Europe can be very different from those to settle elsewhere. The related strategies can also be very different.

Resource-seeking - such as advanced technology, managerial expertise, cutting-edge manufacturing know-how, and well-established brands - is another salient motive underlying the arrival of Chinese enterprises in Europe. There are two types of countries which would be the main target countries for China's resource-seeking direct investment: countries with abundant natural resource endowments and countries with technological leadership (Yang, 2005). The European countries belong in general to the second type.

Contrary to the previous motive (trade-supporting), two main modalities are concurrently used: partnerships and acquisitions. The former is due to accumulated experience in the home market derived from the institutional context: indeed, up to the economic reforms the unique entry mode for foreign enterprises in mainland China was through joint-ventures. The latter is due to the ongoing globalization which makes organic growth strategies too time-consuming particularly when you are latecomers on the global stage.

In Europe, three types of strategies followed by Chinese firms can be proposed: **i/** vertical integration; **ii/** development of innovative products starting from an internal competence; **iii/** seek of a position of leader in a segment or a niche of the market. These three types of strategy can be described as follows:

i/ During last decades, many Chinese firms led operations of subcontracting or partnerships with European companies, which gave them the idea to go further as

their know-how increased and that their financial base was consolidated. Much of them wish to be freed from a statute of subordination. They are not satisfied any more to carry out the standardized productions, but aspire to be directed towards activities with strong added value, which implies to collect a more significant part of the chain of value towards the downstream. For that, they invest directly on the European market, either by organic growth or by acquisition of companies if opportunities arise. In certain cases, they are acquisitions of former subcontractors or partners because of their financial vulnerability.

ii/ These last years, the Chinese firms learned much from their Western competitors. They often knew to improve the techniques of the latter to design new products adapted to a consumption of mass and production costs minimum. Some Chinese firms are able to modify the curve of experiment while combining high-tech products, differentiation and production at low costs, contrary to the firms of the industrialized countries for which high-tech rhyme with top-of-the-range and high selling prices (Zeng & Williamson, 2007). For example, Haier, specialized in the apparatuses electric household appliances, knew to conquer the market of the cellars with wine for private individuals, which is a segment initially reserved to the rich customers. More particularly, the Chinese equipment suppliers of telecommunication, with this strategy, started to penetrate the European market at the beginning of the millennium to become direct competitors of the Western firms of the sector like Cisco, Alcatel-Lucent, Ericson-Marconi, Nokia-Siemens or Nortel.

iii/ This type of strategy is adopted by companies having substantial part on their market of origin, jointly with a technical know-how. Compared to the two preceding strategies, this strategy is followed little by the Chinese firms in Europe. It is the case of the chemist China National BlueStar, which started an external strategy of growth at the international level to acquire competences and know-how. In 2006 and 2007, the group carried out three significant acquisitions in France and in United Kingdom: Adisseo, a French company specialized in the design and the manufacture of nutritional additives, vitamins, methionine and enzymes intended for the animal feeds; Rhodia Silicones, French company, one of the principal world silicone producers, which operates in the elastomers (moulding, ancillary medical, car industry), anti-adherence (packing, adhesives), and textile coating (technical airbags, fabrics and linen room); and Fibres Worldwide, an English company established in Grimsby where it produces carbon fibre precursors, of which the transformation into carbon has multiple uses (rackets of tennis, skis, brakes of cars of Formule 1, wind mills...).

In conclusion, the characteristics of Chinese FDI outward seem not to be representative of all developing countries. They strive to take advantage of European weaknesses - which they have somehow contributed to create - and seek to tap the local skills and know-how resources.

b. The impact of the crisis

For two last years (2008 and 2009), the investments in Europe of Chinese firms continued their growth after a recoil operated in 2006 (**Figure 1**). The progression of investment projects of mainland China since 2002 is clearly visible both in absolute value as relative to those of Hong Kong. If at that time the number of Chinese

investments in Europe is distributed equitably among those originating from mainland China and Hong Kong, seven years later, the ratio was 3/4 for the mainland China and 1/4 for Hong Kong. This finding is not only due to the crisis because it is already visible in 2006, before its bursting. However, if the number of Chinese investment in Europe has continued to increase in 2008 and 2009, this increase is lower than in the rest of the world, especially in countries and geographical areas concealing mineral, energy and agricultural raw materials.

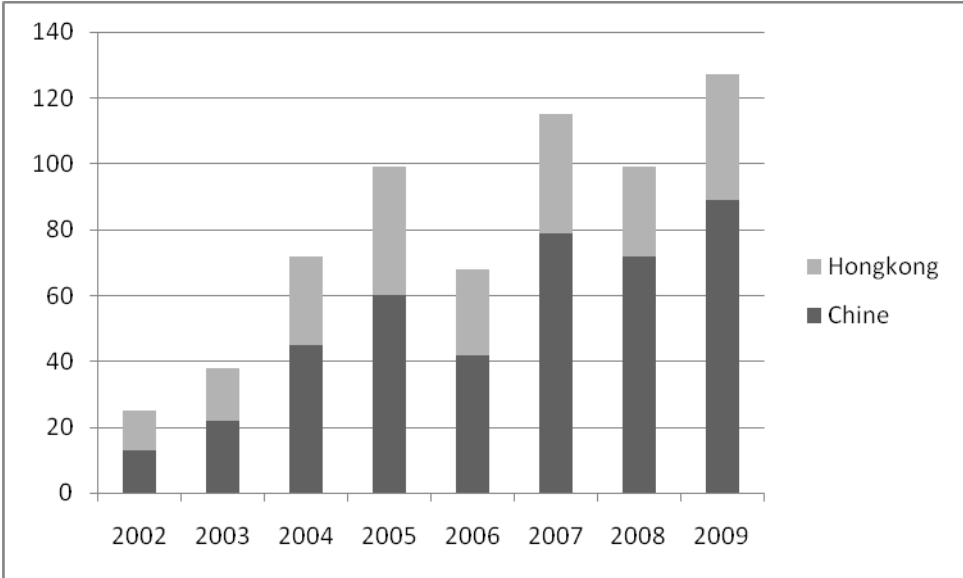


Figure 1. Evolution of Chinese investment in Europe, 2002-2009 (vertical axis = number of operations)
Source: Proprietary database.

But Chinese investment projects initiated during the crisis are more thoughtful, better prepared, and being more focused on geographic and sectoral plans. These new investors are, moreover, very discreet to not bring about protectionist reflexes or xenophobic sentiments in a Europe which plunges into crisis.

1/ Lower amounts: Investments in the years 2008-2009 have mobilized amounts smaller than those observed before the crisis due to constrained financial resources mobilization. This is translated by creations of smaller subsidiaries, by acquisitions of companies with amounts devalued by the crisis, or by a desire to avoid acquisitions of emblematic or large-sized enterprises which could likely wake up protectionist or even xenophobic sentiments. The amounts of the Chinese investments are not known. On the basis of a sample of 145 transactions for the period 2008-2009, the amounts committed are less than \$10 million in 42% of cases and less than \$50 million in three-quarters of the cases.

2/ The increase of mergers and acquisitions: The gap persists between the mainland Chinese profile where dominate creations (52% of cases) and Hong Kong profile where acquisitions remain majority (60% of cases) (**Table 2**). It remains nonetheless that the acquisitions of Chinese origin grew during the period to reach 42% of cases (China and Hong Kong confused), and this translates the mobilization of substantial financial resources and a strong commitment policy. There are often operations

conducted by former subcontractors, suppliers or partners of European companies involved in a joint venture. The inner workings, know-how and production lines have more secrets for them. If they are able to provide liquidity and resume their debt, the challenge is not negligible since it often concerns companies that experienced Western leaders have failed to improve. These acquisitions occur usually by maintaining on-site activity possibly coupled with a replication activity in China or a relocation of the production company combined with the ownership of trademarks and patents.

		Mainland China		Hong Kong	
		2002-2007	2008-2009	2002-2007	2008-2009
Creations	Number (%)	136 (62%)	97 (52%)	31 (25%)	21 (30%)
Acquisitions	Number (%)	67 (31%)	65 (35%)	90 (73%)	42 (60%)

Table 2. Main investment modalities of Chinese firms in Europe

Source: Proprietary database

3/ Premium to the size of the market is maintained and even reinforcing in crisis: the United Kingdom, France and Germany focus to 60 percent of Chinese investments since 2008. The other highlight lies in attractiveness increased of the United Kingdom, not only for investors of Hong Kong, but also for those of the mainland China (**Table 3**).

	Mainland China		Hong Kong	
	2002-2007	2008-2009	2002-2007	2008-2009
UK	16%	23%	27%	33%
France	20%	19%	16%	17%
Germany	19%	17%	14%	13%

Table 3. Main investment countries of Chinese firms in Europe (%)

Source: Proprietary database

4/ Sectoral distribution contrasted: The number of sectors of activity covered by Chinese investors certainly increased during the crisis. Equipment – with an equal share for electrical and electronic equipment, mechanical and automotive equipment - still occupy a central place in the investment flows from mainland China. This sector is drawn by the automobile construction (one-third of the investment is made to the United Kingdom), electrical and electronic equipment (mainly in France, Italy and Spain) and mechanics (Germany, France and Italy).

But the crisis affected also the sectoral distribution of Chinese investments via the emergence of new activities (**Figure 2**):

- The place of Chinese investments orbiting around of information industry and communication technologies is now significant. It is due to new investments in software companies of the mainland China, especially in the United Kingdom. The most active investors in the sector are: eBaoTech, Neusoft and Bleum.
- Investments in the telecommunications sector are substantial and the Germany hosts one third. Huawei Technologies, which moved its European

headquarter from London to Düsseldorf conducts more than half of the investment.

- Investment in renewable energy originating from mainland China, which were practically non-existent before the crisis, occupied since 2008 a significant part (11% of Chinese investments in Europe). The importance of these investments must however be tempered by the fact that they relate primarily to commercial activities. They were stimulated by the effects of the crisis as well in China than in the rest of the world. 41% of these investments are in Germany and 22% in France. Suntech Power and Yingli Green are the most active investors and some Chinese investors are looking to establish European assembly units.
- The importance of investments in the banking and financial sector is linked to British attraction despite the crisis: over three-quarters of these investments are localized there. The Bank of China is one of the most active investors.

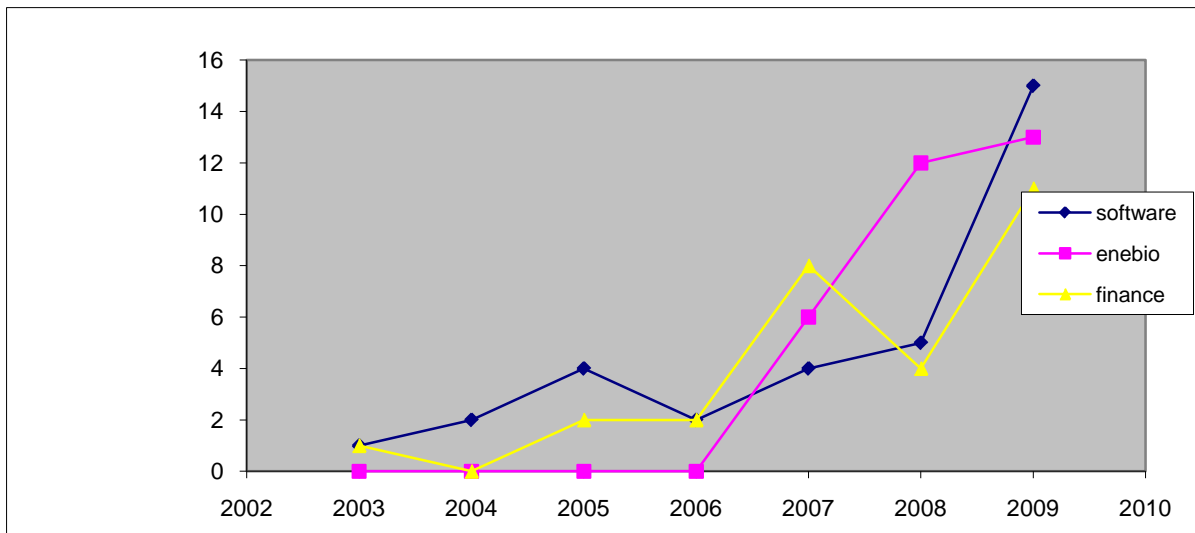
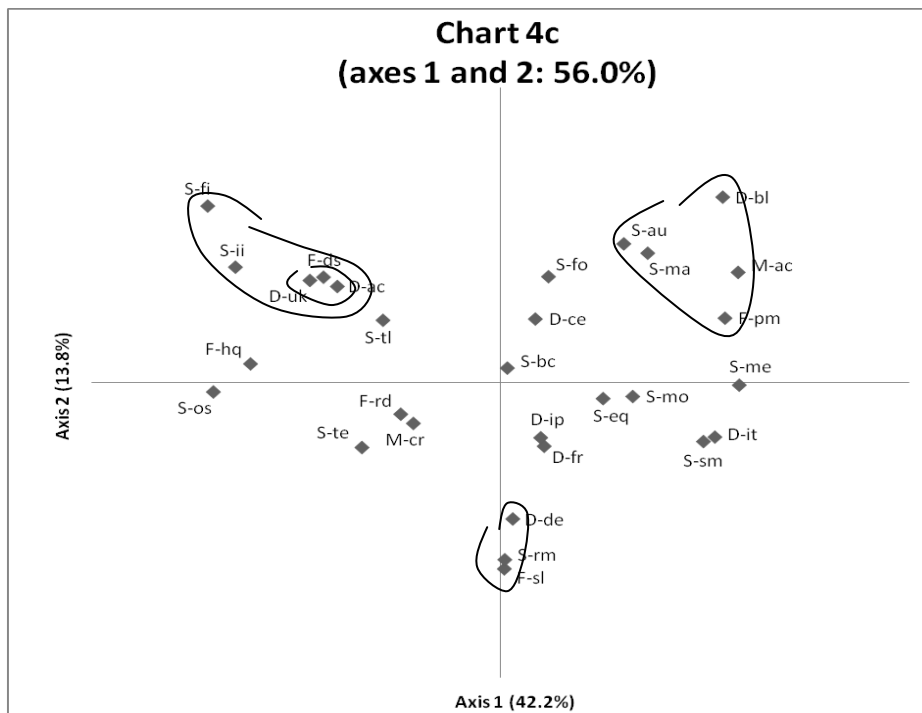
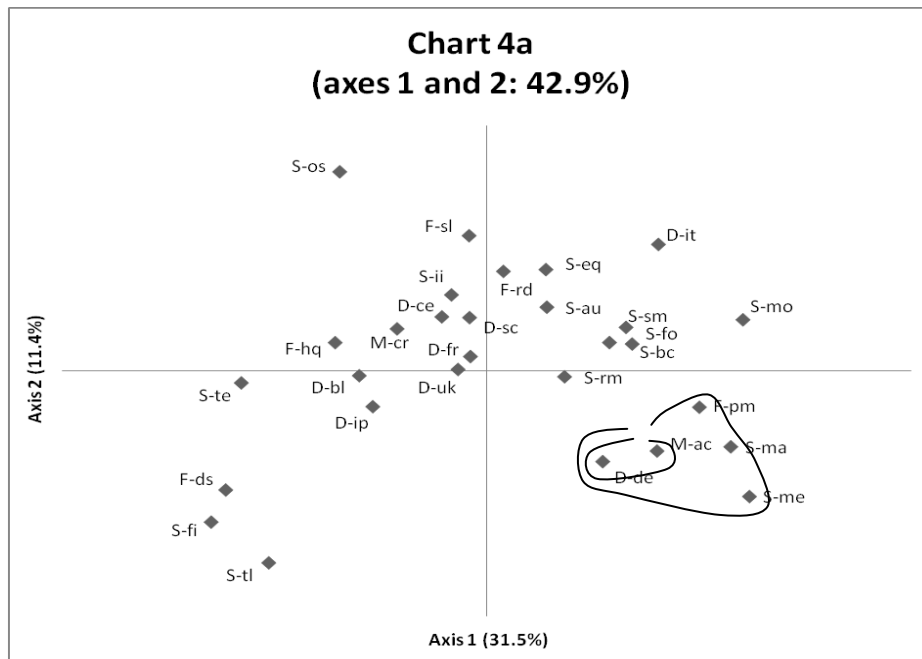


Figure 2. Emergence of new activities for Chinese investment in Europe
Source: Proprietary database.

In order to describe more synthetically the difference in the behavior of Chinese investors in Europe before and after the crisis and to highlight the impact of the crisis, we conducted factorial analyses by separating the two periods: before the crisis (2002-2007) and after the crisis (2008-2009). The results of analyses for the mainland China are illustrated by two graphs (**Chart 4a** for the period 2002-2007 and **Chart 4b** for the period 2008-2009).



These two charts show clearly different characteristics of mainland Chin's investment in Europe before and after the crisis. On the first chart, there is the strong association between M-ac, D-de, F-pm, S-ma and S-me. It means that in the earlier period Chinese firms had bought out a lot of German firms in materials and mechanical industry and in producing on the spots. However, the modality M-cr is close to the centre of the chart and it is not strongly associated with a sector or with a particular country.

On the second chart, there are three significant associations between M-ac, D-bl, F-pm, S-ma and S-au, between D-uk, D-ac, F-ds, S-ii and S-fi, and between D-de, S-rm and F-sl. So, in two recent years, Chinese firms have bought out Benelux firms in

materials and automobile industry and in producing on the spots. In the same time, Chinese investment is often made in UK and in Switzerland in computer (software) and financial services on one side, and in Germany in renewable energy on the other side. It confirms therefore recent finding made on Chinese investment in new sectors of activity (computer service, financial service, renewable energy) since the triggering of the crisis.

4. Concluding remarks

After going to Asia, South America (Hay and Milelli, 2005), and Africa (Kurlantzick, 2006), Chinese companies are now arriving in Europe as they wish to enlarge their market share. They strive to take advantage of European weaknesses - which they have somehow contributed to create - and seek to tap the local skills and know-how resources. Because this turn of events is only recent, it is probably too early to attempt to draw the full conclusions. The transfers of production lines to China have nonetheless already made their marks and this represents a challenge that Europe's both private firms and public authorities will have to take up. However, the delocalization of European companies to low-production cost countries had already started long before China foreign investment drive. After considering that Chinese acquisitions may protect some businesses from being closed down - 'downsizing' can be particularly disruptive in local depressed areas - and that research activities are generally maintained locally, it must be acknowledged that Chinese investments have so far had only a mild if not rather positive impact on Europe's employment levels.

Determining the interaction between FDI and trade is a tricky issue. On the one side, there is indeed a growing body of literature that has identified the conflicting associations between FDI and trade - see Blonigen (2005) for a recent review - on the other, some argue that against the current international economic background, the character of FDI is becoming increasingly blurred. As a matter of fact, almost 40 per cent of all world trade in 2004 was intra-firm while two-thirds of exports came from affiliates of multinational enterprises. In short, it is obvious that FDI has now turned into the dominant vehicle for international trade. In the case of Chinese FDI in Europe, once the special features mentioned previously - such as the transfer of manufacturing lines to China and the prevalence of commercial offices - are taken into account, it then becomes possible to forecast a deepening of European countries' current trade deficit with China along with a increased pressure on European wages.

However, the increasing internationalization of Chinese firms will give them a strong incentive to request from their government the enforcement of intellectual property rights and a wider opening up of their domestic market: Chinese enterprises are indeed allowed to supply customers in China with only a limited range of goods and services. The ultimate motive is self-interest as the Chinese are fully aware they cannot expect to be welcome in foreign countries' markets as long as their own remains closed to others, even more so when foreigners already view the Chinese as threatening competitors.

The global economic crisis little affected Chinese investors in Europe. Two explanations can be advanced: the support of public authorities and investment

diversified at the sectoral level. In some cases, the crisis has even strengthened the position of Chinese investment.

The importance of the Chinese public investors is striking. According to information from the Chinese Ministry of Commerce¹, companies under public control have invested nearly \$36 billion in 2008 and have contributed to 64% of Chinese direct investment abroad. Moreover, it is established that 86% of State firms directly placed under the control of the SASAC² have establishments abroad. It follows that Chinese firms benefit from access to financial resources, which are lacking their competitors in the industrialized countries, particularly in the period of crisis.

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¹ Cf. *State firms increase overseas investment*, China Daily, 18 September 2009.

² State-Owned Assets Supervision & Administration Commission.

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