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**Investment behaviors of the key actors in capitalism:
when geography matters**

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Comportements de placement des acteurs clés du capitalisme : quand la géographie compte

Résumé

L'article s'inscrit dans une réflexion en termes d'économie géographique et se veut une contribution à l'analyse de la finance globale : plus précisément, il propose d'éclairer notre compréhension de la structure et du fonctionnement des marchés financiers internationaux. L'objectif est de s'interroger sur la géographie de la finance à travers une analyse du comportement de placement des grands détenteurs d'actions internationaux avec un focus particulier sur le comportement des investisseurs institutionnels.

Les arguments en faveur de cette étude sont multiples et clairement recensés dans les travaux académiques : d'abord, l'importance des flux financiers internationaux de capitaux et en particulier l'importance des transactions financières par rapport aux transactions sur le marché des biens et services ; ensuite, le développement d'une industrie des fonds de pension aux Etats-Unis et plus globalement d'une industrie de services financiers autour des investisseurs institutionnels ; enfin, le rôle des investisseurs institutionnels comme acteurs clés du capitalisme à travers leurs détentions d'actions dans les grandes sociétés cotées, les pratiques de Corporate Governance qu'ils impulsent ou encore leurs exigences de création de valeur pour l'actionnaire.

L'objectif de cet article exploratoire est triple. 1) Nous proposons d'abord une représentation des grands détenteurs internationaux d'actions pour contribuer à une meilleure compréhension de la structure des marchés d'actions. 2) Nous analysons ensuite le comportement de placement de ces grands acteurs (montants des portefeuilles gérés, typologie des grands détenteurs d'actions, analyse du turn-over de leurs portefeuilles et des styles de placement des différents gestionnaires) en accordant une place très particulière à l'analyse des investisseurs institutionnels internationaux en tant qu'acteurs clés du capitalisme. 3) Nous expliquons enfin le comportement de placement de ces acteurs en intégrant leur origine géographique.

Mots-clé : géographie, finance, investisseurs institutionnels, modèles de capitalisme, court-termisme, institutions

Investment behaviors of the key actors in capitalism: when geography matters

Abstract

The article investigates the geography of finance via an analysis of the investment behavior of large international equity investors. The main argument is based on the importance of financial markets and capital flows and on the central role played in them by institutional investors, the key actors of capitalism. This paper is original because it introduces geographic criteria, and thus institutional and cultural factors, for understanding the behaviour of investors. We present evidence on the diversity of models of capitalism while questioning the convergence of national economies and markets towards a pattern often termed "the Anglo-Saxon model".

Keywords: institutional investors, geography of finance, models of capitalism, financial markets

JEL : G15; G23; R00; P10

1. Introduction

This article develops a perspective of economic geography and sets out to contribute to the analysis of global finance. It proposes to shed light on our understanding of the structure and functioning of international financial markets (Clark, 2005; Pike, 2006; Williams, 2000). The objective is to investigate the geography of finance via an analysis of the investment behavior of large international equity investors. More precisely, through a study of international institutional investors, the paper contributes to the research that asserts that “geography matters”¹. We validate the thesis according to which geography of finance is an essential component of global behaviors of institutional investors (Clark, Wojcik, 2003).

There are three main arguments in favor of our study, and they are clearly identified in the literature. The first one is the sheer volume of international capital flows, and in particular the volume of financial transactions compared to the flow of traded goods and services (Clark, 2005; Morin, 2006)²; the second is the development of a pension fund industry in the USA, and more generally of a financial services industry around institutional investors (Clark, 1999; Orléan, 1999; O’Sullivan, 2000; Plihon, Ponssard, 2002; Aglietta, Rebérioux, 2004; Lavigne, 2004); the third argument is the role of institutional investors as key actors in capitalism, via their shareholdings in the big listed companies, their corporate governance practices, and their demands for the creation of shareholder value (Clark, 1999; Hawley, Williams, 2000). Institutional investors have inflected corporate governance policies towards greater transparency and effective recognition of shareholder interests. Today they are accused of contributing, via their excessive demands for profitability, to the financialization of economies and corporate strategies. Cited in support of this view is the observation that company valuation is now conducted within an ever-shorter time perspective, a phenomenon that can also be seen in the evolution of companies’ market capitalization.

This article is an exploratory one, and it has three main objectives:

1. To offer a representation of the large international equity investors, in order to contribute to a better understanding of stock markets structure
2. To analyze the investment behavior of these actors with a particular focus on the key actors in capitalism, namely international institutional investors.
3. To explain these actors’ investment behavior in terms of their geographic origin. Indeed, if all studies today recognize the importance of international capital flows, few investigate the origin of these flows (Clark, 2005)³. We therefore propose to introduce the geographic factor as a means to link international capital flows and actors to the geography of capitalism. More fundamentally, we wish to highlight the importance of cultural factors and the institutional context for an understanding of actors’ investment behaviors. In this sense, our work falls well within the academic work of La Porta *et al.* (2000) on the influence of the law for the development of financial markets and by the founding studies of Granovetter (1985) on social embeddedness.

If this article begins with an empirical study of the investment behavior of institutional

¹ We refer to the pioneers work of Krugman (1991) according to which “geography matters”.

² Transactions in the currency markets reached, in 2002, \$384,400 billion versus \$32,300 billion for goods and services transactions, a fact which confirms the domination of the financial sphere over the real one (Morin, 2006).

³ “While it is commonplace to recognize that daily global financial flows are massive and ever growing, we tend to ignore the origins and destinations of finance” (Clark, 2005).

investors, it participates more fundamentally in the theoretical debate on the convergence of models of capitalism. Indeed, are we witnessing a convergence towards the Anglo-Saxon model, said to be a “finance-driven” one (Williams, 2000; Froud et al, 2000), or can we conclude instead that “national varieties of capitalism” still persist (Hall, Soskice, 2001)?

2. Institutional investors, the key actors of capitalism

We first specify the concept of institutional investors and then try to describe their investment behaviors on global stock markets, the idea being to understand the link between financial flows and space.

2.1. Large equity investors on international markets

International institutional investors managed \$27,000 billion in assets in 2002 in the OECD as whole, with American investors alone managing \$19,500 billion, thus occupying a hegemonic position (Plihon, Ponsard, 2002). In reality, behind the term “institutional investor” there hides a multitude of actors who are nevertheless in the same business, that of financial intermediation. The category of institutional investor, defined in numerous academic works, includes pension funds, mutual funds (also called money managers, investment advisors, or third-party fund managers), hedge funds, and insurance companies. A short description of these actors is given below.

- Pension funds are financial institutions that collect pension contributions from public or private-sector employees and “put the money to work” in the financial markets, then pay it out again in the form of post-retirement income. Pension funds developed mainly in countries that finance retirement via self-funded retirement plans, especially the USA and the UK, and they hardly exist at all in continental Europe (Davis, 1995). Public pension funds are governed by American state laws, while private pension funds operate under the terms of the ERISA law of 1974. This law distinguishes between defined benefit funds, which promise the employee-saver a specified monthly benefit at retirement, and defined contribution funds, which are based on defined contributions by the employer-contributor and promise no specific monthly benefit.
- Mutual funds are collective investment vehicles that raise funds from various sources (private individuals, companies, or other institutional investors) and use them to acquire financial assets. They are managed by investment companies and their objective is to invest in a diversified portfolio of financial assets. At the end of 2003, there were close to 8,000 mutual funds in the USA managing approximately \$7,000 billion worth of assets, placing the USA first in the investment management industry (Lavigne, 2004).
- Hedge funds are collective asset management vehicles that practice alternative investment strategies. In contrast to classic mutual funds, they aim for performance that is uncorrelated with stock or bond market trends. As they are often domiciled offshore, they are not subject to regulatory or disclosure requirements. They are free to use all types of financial instruments without restriction, from classic equity and debt traded on the stock and bond markets to the most risky derivative instruments traded on the futures market, typically using a large proportion of borrowed funds to take advantage of positive leverage effects. At the end of 1997, there were about 3,000 hedge funds managing 1% of all assets managed by institutional investors (Plihon, Ponsard, 2002).
- Insurance companies offer products that aim to protect subscribers from the risk of financial loss due to the occurrence of a particular event, even if in certain countries

they may provide pension funds with portfolio management services. This sector is dominated by the USA and Japan, followed by the UK, France and Germany.

In all countries, one can observe a trend towards institutionalization, understood as the growth in financial assets managed by institutional investors. The obvious corollary of this is the erosion of the banks' share of financial intermediation. However, it is mainly in the USA and the UK where these investors have most developed. Thus, in the USA, institutional investors hold 60% of the capital of the S&P 500 companies and 25% of total American market capitalization (Hawley, Williams, 2000).

Much work has been done to characterize the investment behavior of American institutional investors (Morin, 1998; Clark, 1999; Hawley, Williams, 2000; Baudru et al., 2001; Plihon, Ponsard, 2002; Aglietta, Rebérioux, 2004; Lavigne, 2004, Dupuy, Lung, 2002). In particular, these studies made it possible to highlight:

- A concentration on one segment of the market: that of large caps, since 74% of their portfolios are invested in companies with a market cap of over \$5 billion (Lavigne, 2004)
- A concentration on one asset class: these investors, on average, allocate 65% of their portfolios to equity (Plihon, Ponsard, 2002)
- A dominant model of fund management⁴: the management of the defined contribution plans by mutual funds. This model is characterized by a high portfolio turnover rate, and an aggressive investment strategy marked by a large equity allocation and the holding of significant equity stakes in corporations (Baudru et al, 2001)
- A herd behavior: indeed, one can observe a uniformity in the behavior of fund managers, as their performance is evaluated with reference to standardized benchmarks such as the S&P 500 index. Fund managers are in competition with each other in the investment management industry: indeed, obtaining mandates is based on quarterly evaluations of managers' performance relative to that of their peers. A direct consequence of this system is the shortening of the investment time horizon, since managers must produce high returns in the short term to keep their mandates and win new ones. A more fundamental consequence is the emergence of imitative behaviors, which constitute a factor of instability on stock markets (Orléan, 1999).

These academic works on institutional investors, however, tends to neglect the geographic origin of these actors. And yet the geography of finance matters!

2.2. The geography of finance

The notion of geography of finance invites one to turn to economic geography in order to determine to what extent the work in this area can contribute to a better understanding of global finance (Clark, 2005). The main argument in favor of a geography of global finance is clearly linked to the sheer volume of capital flows and to the importance of financial markets since the early 1990s (Clark, Wojcik, 2007). It is also linked to the development of a financial services industry that occupies a fundamental place in modern capitalism: the financial system and its principal actors today dominate the real economy of goods and

⁴ The management model that is in decline is that of direct asset management, characterized by the adoption of an index-tracking strategy and a low portfolio turnover rate (Plihon, Ponsard, 2002).

services (Martin, Minns, 1995; Clark, 1999).

The economic geography research field has already addressed this question in a growing number of studies and in particular those on:

- the concentration of market actors in just a few financial centers (including London and New York) (Clark, 2002),
- the geographic embeddedness of the financial system (Harvey, 1989; Clark, O'Connor, 1997) and the inherent geographic foundations of financial capitalism (Harvey, 1989)
- the effects of financialization and shareholder value practices on spatialized social relations in Sunderland (Pike, 2006)
- the study of analysts' practices in London's corporate finance industry through the use of quantitative financial narratives used by analysts to legitimize their financial techniques (Hall, 2006).
- the importance of spatial relationship and processes of local embeddedness in the interest rate swaps industry in Australia (Agnes, 2000)

If some studies have already been carried out on the links between geography and finance, rare are those that focus on international capital flows. And if it is now recognized that these flows are massive and constantly increasing, few works address the question of the origin of these flows (Clark, 2005). The goal of this exploratory article is clearly to investigate the origin of these financial flows and to determine to what extent the behaviour of large equity investors can be explained by their geographical attachment. In other words, the objective is to investigate the geographical embeddedness of capital flows.

Indeed, the development of the financial sphere is not taking place in a globalized **space** in which national borders have been erased, but rather within a geographic space made up of discontinuities—geographical, cultural and institutional. This geographical space is a constraint for investors. Two stylized effects (the home bias and the Tesar-Werner effect) clearly show this: investors make a clear distinction between investing at home and investing abroad, and their time horizon shortens significantly as investment moves to foreign countries. Investors prefer to invest in countries that are close geographically and culturally, especially in terms of language. Numerous studies have highlighted this preference for domestic investing: for instance, Huberman (2000) demonstrates that American investors prefer to invest locally, Portes and Rey (2005) show that distance matters in international capital movements and Coval and Moskowitz (1999), on their side, examine shareholdings by American investors and conclude to a strong local preference, including within the USA. Finally, investors do not take complete advantage of the gains to be obtained from international diversification.

Then, it should be stressed that studies have focused on certain geographic markets: Falkenstein (1996) studied investors' strategies in the American market, while Kang and Stulz (1997) did the same for Japan, as did Dahlquist and Robertsson (2003) for Sweden. Only one comparative study, to our knowledge, examines asset allocation (Dahlquist et al., 2003), and reveals a home bias in funds' investment behavior, with American investors having a strong preference for American issues. These effects have also been highlighted by sectoral studies which found evidence on the preference of American institutional investors for the financial or the technological industries (Baudru, Lavigne 2001; Dupuy, Lung 2002).

3. When the geography of finance matters: behavior explained by investors' geographic origin

Four many academic works, the concept of model of capitalism is indissociable from that of geographic space. In his reference book, *Capitalisme contre Capitalisme*, Albert (1991) highlights the triumph of this system and compares two models of capitalism that he qualifies in geographic terms. He contrasts the “neo-American” model (the USA, the UK, Canada) with the Germano-Japanese or “Rhenish” model (Germany, Switzerland, the Benelux, northern Europe, and, in certain respects, Japan). If the Anglo-Saxon model stresses the central role of the stock market, the individual success and the pursuit of short-term profits, the Rhenish model highlights the role of banks in the financing of the economy. Albert (1991) shows that, despite the economic and social superiority of the Rhenish model, the neo-American model is gradually establishing itself as the reference model.

The work of Morin and Dupuy (1993) takes up this dualistic conception by contrasting the Anglo-Saxon model of capitalism (the USA, Canada, the UK) with the continental or Rhenish one (Germany, Switzerland, and, by extension, Japan). As for French capitalism, for much of its history situated midway between the Anglo-Saxon and Rhenish models, it has undertaken a deregulation of its financial market that favors the stock market over the banks. Other works also investigate the varieties of capitalism, such as the reference work by Hall and Soskice (2001), *Varieties of Capitalism*, which has become the flagship of all the studies on the diversity of capitalist economies. These works undertake the comparative study of models of capitalism on the basis of how they coordinate their activities: companies can either count on the market or rely on non-market modes of coordination.

While the object of this paper is not to inventory all the studies on the variety or the convergence of models of capitalism, we can nevertheless point out that the majority of studies lead one to relativize this notion of convergence of national models of capitalism towards a single model, that of the USA. The analysis of large international equity investors will enable us to address this issue directly. We will see whether these actors have the same investment behavior across all geographic zones, and in this sense converge in a homogenisation of models of capitalism, or whether, on the contrary, they have specific behaviors linked to particular geographic zones, and so validate the postulate of a continuing variety of models of capitalism.

3.1. The sample

We analyze the investment behaviour of the major actors of capitalism using a sample of 11,918 actors each managing an equity portfolio of over \$20 million⁵. We distinguish 11 types of investors who can invest across 7 geographic zones which are often the archetype of a model of capitalism. For example, the North American zone is seen as that of a financial market economy, while the European zone is said to be characterized by the relative preponderance of banks, families and State in the financing of companies.

Among the shareholders, we consider successively

- corporations: industrial or family holding companies, or corporations with strategic stakes in other firms

⁵ Data from Thomson One Banker Ownership (TOBO) database which lists international capital flows and presents investors' equity portfolios across all stock markets.

- public agencies: State or local governments
- individuals: direct shareholdings by private individuals
- banks and trusts
- insurance companies
- pension funds
- mutual funds (investment advisors)
- hedge funds
- private equity
- university endowment funds
- broker/dealers (called research firms) who buy and sell for third parties.

Two methodological points need to be clarified concerning this typology of actors.

Firstly, the database enables one to analyze only the direct holdings of each type of actor. Thus, the asset management subsidiaries of banks and insurance companies are not listed in the category of banks or insurance companies, but rather in that of investment advisors. We therefore measure only the traditional shareholdings of banks and insurance companies, since their asset management businesses are accounted for in the mutual funds category. Note that since the deregulation of banking, banks have moved massively into asset management as a means to reduce their risks and the cyclicity of their earnings: a study conducted in 2004 by the *Investment Company Institute* showed that the number of mutual funds sponsored by banks was 1,100 in 1991, 2,072 in 1994 and over 5,000 in 2004. Insurance companies, for their part, are subject to specific regulations. Thus, in the USA, they cannot own more than 5% of a firm's capital. Moreover, legislation encourages them to concentrate their investments on real estate and high grade debt, with the result that only 5 to 20% of their assets can be freely allocated (Plihon, Ponsard, 2002).

In the same way, the database only lists large pension funds, often defined benefit funds that are directly managed and have a conservative investment policy (Baudru, Lavigne, 2001; Plihon, Ponsard, 2002). Since the ERISA law of 1974 and the creation of 401(k) funds in 1978 in the USA, we have seen the rise of defined contribution pension funds that promise no specified payout and delegate management to mutual funds. Overall, it is estimated that American pension funds delegate over 60% of their assets to mutual funds. Our analysis therefore underestimates the financial weight of pension funds, since the management of a large portion of their assets is "outsourced" to mutual funds.

For each type of large institutional investor, we examine several variables:

- the amount of their portfolios of financial assets
- their geographic origin
- the allocation of their portfolios by geographic zone, in order to identify particular investment behaviors of the Tesa-Werner effect type
- their portfolio turnover rate, qualified as low, medium or high, and enabling one to identify the most volatile investors, in other words the investors capable of destabilising equity markets.

3.2. Evidence on the large institutional investors behaviors

The data, from September 2005, relates to 11,918 investors managing \$21.77 trillion in financial assets, or 60% of global market capitalization. Let us note immediately that 64.86% of these assets are held by mutual fund managers, a fact that confirms the key role of mutual funds in the main stock markets. The share represented by banks (5.94%), pension funds

(4.72%) and insurance companies (2.72%) is marginal, but one must recall that a big proportion of their activity – their asset management divisions – is accounted for in the category of mutual funds.

Table 1: Types of investors (in number of entities then in billions of dollars)

	Entities	%/Total	\$bn	%/Total
Investment Advisor	2 356	19,78%	14 125 200	64,86%
Private Equity	342	2,87%	108 640	0,50%
Research Firm	100	0,84%	369 555	1,70%
Pension Fund	200	1,68%	1 028 900	4,72%
Hedge Fund	715	6,00%	617 499	2,84%
Total Institutional Investors	3 713	31,18%	16 249 794	74,61%
Insurance Company	274	2,30%	587 336	2,70%
Bank and Trust	788	6,62%	1 293 240	5,94%
Total Banks an Insurances	1 062	8,92%	1 880 576	8,64%
Public Agency	67	0,56%	89 059	0,41%
Corporation	6 975	58,56%	3 337 860	15,33%
Endowment fund	16	0,13%	19 987	0,09%
Individuals	77	0,65%	201 113	0,92%
Total Strategic Investors	7 135	59,91%	3 648 019	16,75%
Total	11 910	100,00%	21 778 389	100,00%

Source TOBO, 2005

If “institutional investors” (pension funds, mutual funds, hedge funds, private equity, broker/dealers) represent only 31% of the equity investors in our sample, they manage 74.61% of the assets, a fact which confirms once more the power of these actors in the equity markets.

Concerning the origin of the large equity investors, let us note that if, in number, the shareholdings between major zones are relatively balanced, in value North American shareholders represent 61.76% of global market capitalization versus 26.93% for European shareholders and 8.64% for Asian equity investors (see Table 2).

Table 2: Distribution of investors according to their geographic origin

	number	% / Total	\$ MM	% / Total
North America	3,498	29.37	13,450,000	61.76
Europe	3,442	28.90	5,864,410	26.93
Asia	3,791	31.83	1,882,300	8.64
South/Central America	551	4.63	245,374	1.13
Australasia	288	2.42	196,024	0.90
Africa	164	1.38	96,924	0.45
Middle East	176	1.48	43,398	0.20
Total	11,910	100.00	21,778,429	100.00

A more detailed analysis realized at the country level shows that 58.99% of global assets are held by investors of American origin, a fact which again confirms the domination of the USA in global asset management (and this despite the fact that the figure underestimates their true level, because offshore subsidiaries of American firms are not included). As for the weight of Europe in the geography of global finance, large equity investors from the UK

represent 9.44% of global market capitalization compared to 5.31% for large Japanese shareholders, 3.59% for the Germans, and 3.42% for the French.

It now becomes interesting to investigate the geographic origin of the various types of investors, in order to answer the question of whether investment advisers largely come from North America, and whether banking actors are mainly concentrated in Europe. In other words, it is a matter of inquiring into the maintenance of national models of capitalism, via the associations that might be established between a particular type of equity investor and a given geographic zone.

Table 3: Distribution of investors according to their type and geographic origin

(in %) Source : TOBO, 2005.

	Africa	Asia	Australia	Europe	Mid east	North Amer	South Central America	
Bank & Trust	0.1%	21.4%	0.0%	38.5%	0.4%	38.7%	0.8%	100%
Corporation	1.2%	29.5%	1.7%	48.9%	0.8%	12.8%	5.1%	100%
Endowment Fund	0%	0.9%	0%	0%	0%	99.1%	0%	100%
Hedge Fund	0%	0%	0%	3.1%	0%	96.1%	0.7%	100%
Individual	0%	0.2%	1.7%	31%	1.3%	65.6%	0.2%	100%
Insur Comp	2.5%	38.5%	0%	28.5%	0%	30.3%	0.2%	100%
Investment Advisor	0.3%	2.4%	1%	22.5%	0%	73.7%	0.2%	100%
Pension Fund	0.1%	0.1%	0%	18.4%	0%	79.6%	1.8%	100%
Private Equity	2.8%	7.8%	0.4%	20.1%	0.7%	58.6%	9.6%	100%
Public Agency	0%	23.9%	0%	73.9%	0.6%	1%	0.5%	100%
Research Firm	0%	7.2%	0%	8.7%	0%	84%	0%	100%
	0.4%	8.6%	0.9%	26.9%	0.2%	61.8%	1.1%	100%

The data enable one to demonstrate institutional specialization by geographic zone, and support the thesis of geography of capitalism, in other words the existence of national models of capitalism. The data do indeed tend to confirm the financial market economy character of the North American zone: the majority of hedge funds, investment advisors, pension funds, private equity, and individual shareholdings are North American. For example, of the global total, 79.6% of pension funds, 96.1% of hedge funds and 73.7% of investment advisors are from the North American zone. Conversely, the Japanese model shows the importance of bank financing, insurance companies, and industrial shareholdings. As for the European model, it shows intermediate characteristics which tend to place it in the category of a rhenish model rather than a financial market economy model. Indeed, the European model remains one of State capitalism, since 73.9% of all State shareholdings are concentrated in the European zone. This model is also characterized by relatively preponderant banking and industrial shareholdings, even if once can now observe the emergence of an investment management industry. Indeed, 22.5% of all investment advisors are now concentrated in the European zone.

A fundamental dimension of our study concerns the portfolio turnover rate of large equity investors worldwide. The economic and financial presses, as well as numerous academic studies, often associate Anglo-American capitalism with a short term vision. The European or Japanese models, in contrast, are said to have a medium to long term horizon. Given this perception, it is necessary to inquire into the link that may exist between a type of investor, its geographic origin, and its portfolio turnover. The debate on this question is of great importance, both in the USA and in Europe and this phenomenon is well captured in a *Wall Street Journal* article of 30 September 2004: “*Ahead of the tape: Turn, turn, turn*”. Equity portfolio turnover has become a fundamental evaluation criterion for the financial community, and the Securities and Exchange Commission now requires that every mutual fund publish its turnover rate. A 100% turnover rate means that the entire portfolio was traded over a one-year period; a 10% turnover rate indicates a time horizon of ten years to achieve the turnover of the entire portfolio. There is no systematic historical study on the portfolio turnover of the various large equity investors. The only historical studies concern mutual fund activity. Thus, the *Investment Company Institute*, in a 2004 study, showed that since 1999 there has been an acceleration in the average turnover rate of mutual funds: 80% on average in 1999 versus 115% since then. In other words, the time horizon of mutual funds, key actors in global stock markets, is now less than one year.

But what can one say concerning the turnover of the other types of investors? Can one associate specific rates of portfolio rotation with specific types of investors and geographic zone?

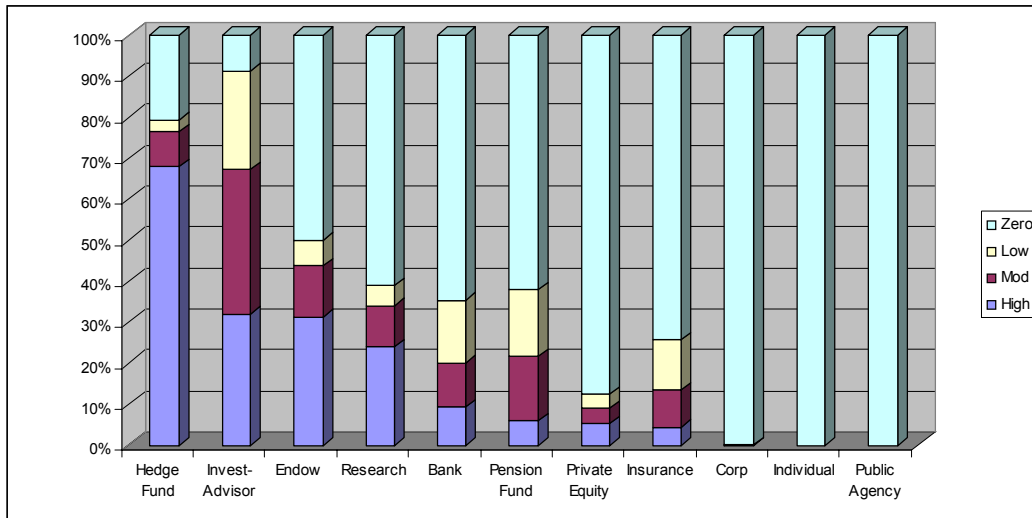
The *Thomson One Banker Ownership* database provides, for each type of investors, the annual turnover rate in terms of the following classification: portfolios with a holding period of over 36 months are termed “low turnover”; those held from 18 to 36 months are termed “medium turnover”, and those held for less than 18 months are termed “high turnover”. The data enables us to characterize the volatility of the portfolios of the large global equity investors of our sample.

Table 4: Portfolio turnover of large equity investors

	Number	%/Total
high	1,384	16.48%
medium	1,060	30.9%
low	792	29,2%
zero	8,674	23.35%
Total	11,910	100.00%

The overall picture of turnover rates reveals the prudent investment character of the majority of the actors in our sample, since 52.55% of them are characterized by a null or low turnover of their portfolios, and thus have medium to long term investment horizons.

Figure 1: Turnover of the large equity investors



The data reveal that the most volatile investors are the hedge funds (68% of them have a high turnover), followed by the investment advisors (29.8 % with a high turnover), then the endowment funds and broker/dealers. As for the least volatile actors, they are the State, individual, and industrial investors, with zero turnover. The banks, insurance companies, and pension funds occupy a middle position, having a medium to long term investment horizon.

These results show that the real liquidity of the markets is provided by a few actors who are very active in terms of portfolio rotation, with an investment horizon of less than 18 months. If the overall contribution of the relatively unregulated actors to the liquidity of the markets as a whole is limited in value (hedge funds being a good example), their presence is nevertheless essential to ensuring the markets' real liquidity. Indeed, in the absence of these actors, the liquidity of the markets would be significantly lower. In fact, the real liquidity of the markets is limited even during periods of regular liquidity: the illusion of liquidity is sustained only by the high activity rates of certain investors.

4. Towards a synthesis on the links between a type of investor, its geographic origin and its portfolio turnover?

The preceding elements enable one to confirm the existence of continental forms of capitalism, by identifying types of equity investor and specific behavior to each geographic zone. The data do not, however, furnish complete information on the international variety of shareholdings. We therefore propose a multiple component analysis to measure the links between investors' geographic origin, type of equity investor, and portfolio turnover. This analysis is complemented with a classificatory analysis that enables one to identify five classes of different type of investors (see Appendix 1).

Class 1 is the archetype of Asian zone capitalism marked by a high proportion of industrial shareholdings and a null portfolio turnover. Class 1 refers to Asian zone holdings, accounting for 79.82% of all participants in this one class but only 31.83% of the total sample. 44.76% of all Japanese investors are included in this class. Class 1 represents 98.33% of investors from Japan, 99.21% of investors from Taiwan, 99.76% of Chinese investors and 90.31% of Hong Kong investors. 92.63% of the class is characterised by (other) Industrial

Holdings, 98.24% of which feature zero turnover. It includes 4,479 investors. This class is the archetype of Asian capitalism.

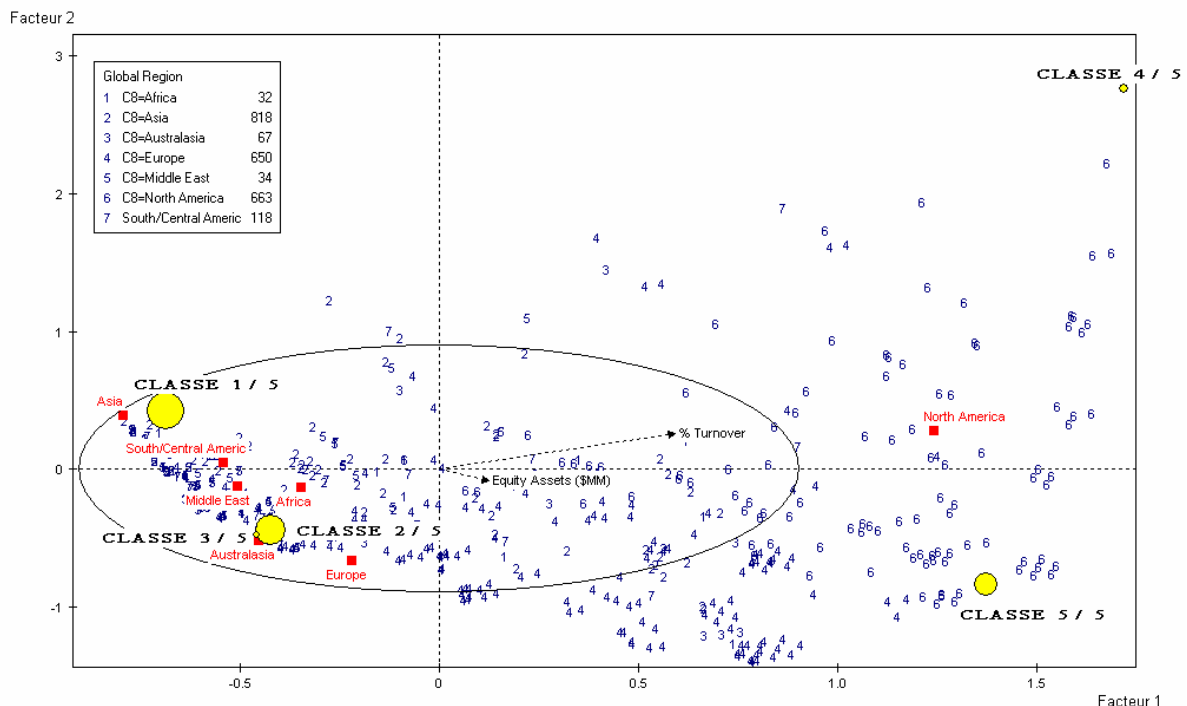
Class 2 characterizes the European zone, largely marked by the relative preponderance of industrial shareholdings, the role of banks and insurance companies. Class 2 is a neighbour to Class 1 but much more diversified. 74.19% of European investors belong to this class. It is also characterised by holdings with zero portfolio turnover (94.13%) and specifically includes holdings by various investors with mainly industrial origins (83.32%) (European: France, Germany, UK, Switzerland). Class 2 also includes very different investors, ranging from Insurance Companies to Banks. The countries whose shareholders are closer to this class are France (89.4%), Switzerland (90.87%), Germany (85.98%), the UK (73.38%) and to a lesser extent Canada (49.83%). 59.85% of all Insurance Companies and 53.3% of all Banks belong to Class 2, which covers 3,747 investors, or 31.46% of the sample.

Class 3, focused geographically on the Australian zone, is characterized by industrial shareholdings and a null portfolio turnover

Class 4 is that of the North American hedge funds, actors characterized by high portfolios turnover

Class 5, concentrated in the North American zone, brings together the investment advisors and, to a lesser degree, private equity firms. This class is the archetype of “fiduciary capitalism”, devoted to asset management and characterized by an heterogeneity of portfolios turnover. Class 5 is largely (76.78%) comprised of Investment Advisors (and to a lesser extent [8.12%] of Private Equities). The class accounts for 28.23% of low turnover investors and 35.96% of moderate turnover investors are concentrated here.

Graph 1: Classes of equity investors and geographic zones

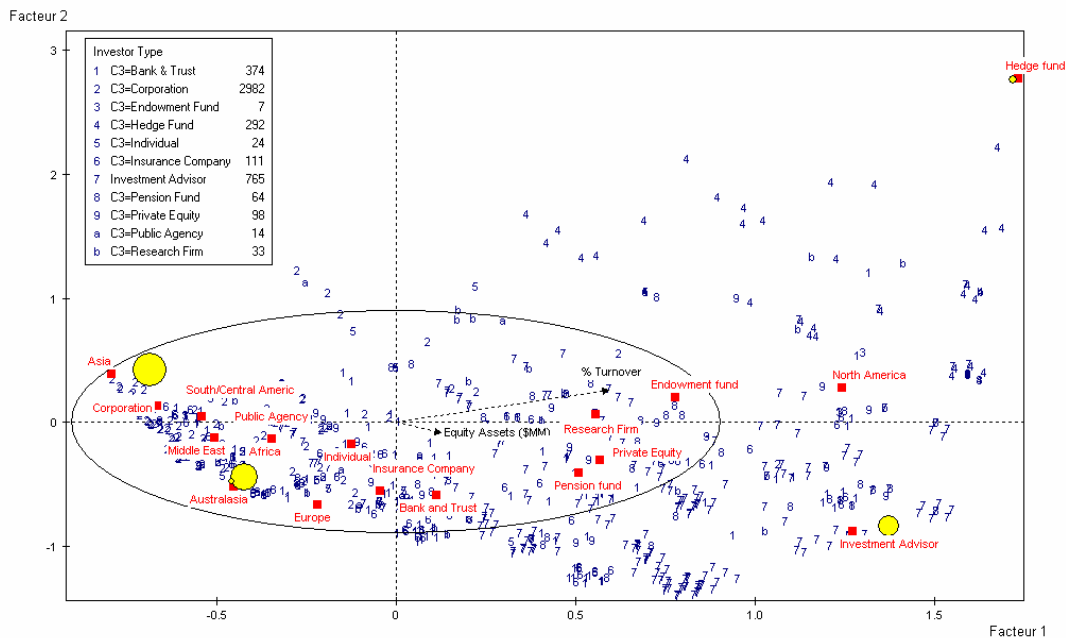


This first graph reveals a fundamental opposition between investors of the Asian class (class 1) and those of the North American zone (classes 4 and 5), with investors of the

European zone (class 2) occupying an intermediate position. The opposition between geographic zones concerns the portfolio turnover rate, in other words the stable or volatile character of the respective stock markets and, ultimately, of the models of capitalism. Indeed, if portfolio turnover is high in the North American zone, it is null in the Asian zone, with Europe being historically close to the Asian model but evolving towards investment horizons similar to those of class 5 actors. The graph enables one to measure the gradual evolution of the European zone towards the North American model of asset management. One can also observe that if class one is homogenous, class 2 equity investors are, institutionally and geographically, much more diversified.

A more detailed analysis makes it possible to associate a type of investor with a given geographic zone .

Graph 2: Type of equity investors and geographic areas



Not surprisingly, the North American zone highlights the relative preponderance of hedge funds, mutual funds, pension funds, private equity and endowment funds. North American capitalism is characterized by the co-existence featuring relatively long investment horizon (investment advisors with low and moderate turn-over) witch much more aggressive actors (hedge funds). American capitalism is clearly financial oriented but its short-term aspect is not as obvious as previously believed. The Asian zone highlights the strategic role of industrial shareholdings and the State. As for the European zone, if it remains marked by the relative preponderance of families, State, industrial shareholdings, banks and insurance companies, one must nevertheless note the evolution of European shareholder behaviour towards a rapprochement with that of their Anglo-Saxon counterparts, and in particular with the behaviours of investment advisors. It is especially banks and insurance companies that tend to adopt the same behaviour as the American mutual funds, allowing certain studies to affirm the convergence of the different models of capitalism towards the Anglo-Saxon reference.

5. Conclusion

Our results lead us to support that “geography matters” in demonstrating the existence of a link between finance and space through the persistence of different national financial systems. Clearly, our exploratory study on international financial flows reveals the maintenance of regional models of capitalism:

- first, an Asian capitalism, characterized by the relative preponderance of the State and industrial shareholdings, and by near-zero portfolio turnover
- next, a North American capitalism that highlights the relative preponderance of institutional investors, characterized by a portfolio turnover that is very high (the case for hedge funds and private equity) or low or moderate (the case for mutual funds)
- finally, the European zone, positioned in an intermediate or dualistic situation. If this zone continues to be marked by family or State capitalism, or by a strong alliance between banking and industry, and is characterized by zero or near-zero portfolio rotation rates, it must be stressed that it is gradually shifting towards the North American model. Indeed, since the mid-1990s, the European zone has been developing an asset management industry comparable to the North American mutual funds industry.

In a sense, this exploratory paper can be used to feed the debate on the geography of finance. Indeed, it highlights the national or regional specificities of models of capitalism. In other words, it underlines the fundamental importance of geography for the understanding of the investment behavior of large equity investors and, by extension, of the different models of capitalism. More generally, it argues for the taking into account of the geographic factor, the geographic space being understood as a set of institutional, cultural and social rules capable of guiding or constraining actors’ behavior. Above all, it enables one to inquire into the convergence of investment behavior on stock markets by showing the evolution of European actors’ behavior towards that of American institutional investors. For all that, it does not allow one to make a final argument for a homogenizing vision that would claim that American capitalism has established itself across all the world’s stock markets, or that the American model is characterized only by very short term investment horizons...

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Class: CLASS 1 / 5 (Numbers: 4,479 - Percentage: 37.61)

Variable headings	Characteristic modalities	% of the modality in the class	% of the modality in the sample	% of the class in the modality	Value-Test	Weight
Global Region	C8=Asia	79,82	31,83	94,30	91,85	3791
Country	C7=Japan	44,76	17,12	98,33	65,61	2039
Investor Type	C3=Corporation	90,87	58,56	58,35	58,94	6975
Turnover	C5=Zero	98,24	72,83	50,73	54,79	8674
Style	C4=Others	92,63	64,74	53,81	53,03	7711
Country	C7=Taiwan	11,21	4,25	99,21	31,15	506
Country	C7=China	9,13	3,44	99,76	28,37	410
Country	C7=Hong Kong	5,83	2,43	90,31	18,94	289
Style	C4=Employees	4,80	3,32	54,29	6,80	396

Class: CLASS 2 / 5 (Number: 3,747 - Percentage: 31.46)

Variable headings	Characteristic modalities	% of the modality in the class	% of the modality in the sample	% of the class in the modality	Value-Test	Weight
Global Region	C8=Europe	74,19	28,90	80,77	73,78	3442
Turnover	C5=Zero	94,13	72,83	40,66	38,77	8674
Style	C4=Others	83,32	64,74	40,49	29,84	7711
Global Region	South/Central Americ	12,54	4,63	85,30	26,87	551
Country	C7=France	10,81	3,80	89,40	26,31	453
Country	C7=United Kingdom	14,20	6,09	73,38	23,94	725
Country	C7=Germany	7,53	2,75	85,98	20,77	328
Country	C7=Switzerland	5,84	2,02	90,87	19,52	241
Investor Type	C3=Corporation	70,19	58,56	37,71	17,63	6975
Investor Type	C3=Bank & Trust	11,21	6,62	53,30	13,12	788
Investor Type	C3=Insurance Company	4,38	2,30	59,85	9,73	274
Country	C7=Canada	3,98	2,51	49,83	6,63	299
Style	C4=Employees	4,75	3,32	44,95	5,66	396

Class: CLASS 3 / 5 (Number: 358 - Percentage: 3.01)

Variable headings	Characteristic modalities	% of the modality in the class	% of the modality in the sample	% of the class in the modality	Value-Test	Weight
Global Region	C8=Australasia	80,45	2,42	100,00	48,43	288
Country	C7=Australia	76,54	2,30	100,00	46,96	274
Style	C4=Others	83,80	64,74	3,89	8,07	7711
Turnover	C5=Zero	88,55	72,83	3,65	7,29	8674
Investor Type	C3=Corporation	72,35	58,56	3,71	5,44	6975

Class: CLASS 5 / 5 (Number: 2,575 - Percentage: 21.62)

Variable headings	Characteristic modalities	% of the modality in the class	% of the modality in the sample	% of the class in the modality	Value-Test	Weight
Investor Type	Investment Advisor	76,78	19,78	83,91	76,68	2356
Global Region	C8=North America	74,64	29,37	54,95	55,01	3498
Country	C7=United States	69,32	26,86	55,80	52,37	3199
Turnover	C5=Mod	35,96	8,90	87,36	48,79	1060
Turnover	C5=Low	28,23	6,65	91,79	44,49	792
Style	C4=Core Value	20,00	5,00	86,55	34,99	595
Style	C4=Core Growth	17,71	4,32	88,72	33,51	514
Style	C4=GARP	18,56	5,09	78,88	31,05	606
Style	C4=Growth	10,52	2,85	79,71	23,20	340
Turnover	C5=High	25,32	11,62	47,11	22,61	1384
Investor Type	C3=Private Equity	8,27	2,87	62,28	16,44	342
Style	C4=VC/Private Equi	8,12	2,82	62,20	16,26	336
Country	C7=Canada	5,32	2,51	45,82	9,37	299

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