Where do "impatient" mutual funds invest? A special friendship for large proximate markets and companies with strategic investors

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Abstract

The article proposes to analyze the investment behaviour of international mutual funds by adopting a perspective of economic geography. The main argument is based on the centrality of these investors in both the development of financial markets and international capital flows. In particular, the objective of the paper is to question the presence of "impatient" mutual funds (investors whose portfolios' turnover is less than a year) in the capital of large listed corporations. Where do "impatient" mutual funds invest when they decide to internationalize their portfolios? Is the presence of "impatient" funds in companies can be in particular explained by geographical criteria or by the institutional framework? The paper proposes to test these questions for a sample of 22,996 international mutual funds in a dynamic perspective (2005-2009), one of the originality of the article being to offer an analysis of the investment behaviour of mutual funds before and after the U.S subprime crisis. The paper seeks to explain the presence of "impatient" investors taking into account i) the geographical origin of investors and the size of their portfolios; ii) countries where mutual funds are invested and their relative size in terms of market capitalization; iii) the legal regime of countries; iv) the presence of strategic investors as shareholders in companies.

Keywords: geography of finance, mutual funds, impatient investors

JEL classifications: G11, G15, G20, P10

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1. Introduction

Since June 2007, global finance is facing a crisis of great magnitude. The subprime financial crisis, initially regarded as a crisis of the U.S. housing market, soon spread to the international financial system showing the globalization of equity markets. The evolution of global market capitalization over the period (2007-2008) clearly illustrates the importance of this financial crisis: by the end of 2007, the world's market capitalization was 62.747 billion dollars against 32.575 billion dollars by the end of 2008, accusing a decrease of 50% and reflecting the magnitude of the global crisis of confidence on stock markets. The subprime crisis has showed the interconnection of international stock markets and has impacted market capitalizations worldwide in a systemic way: between 2007 and 2008, the *NYSE-Euronext* (USA) has decreased by 41.2% its capitalization against 50.2% for the *NYSE-Euronext* (European), 51.5% for the *London Stock Exchange*, 61.4% for the *Shanghai Stock Exchange*, 49.9% for the *Hong Kong Exchanges* or 40.3% for the *Nasdaq.* On those international equities markets, a type of investor, mutual funds, also called investment managers, is today dominant in terms of the assets managed: mutual funds today manage 75% of the financial assets under management of institutional investors.

Institutional investors have become dominant shareholders within national and international stock markets and are now considered as key actors in the Anglo-Saxon model of capitalism because of their common expectations regarding standards of disclosure and transparency and their requirements for shareholder value (Clark, 1999; Hawley, Williams, 2000; Hebb, 2006; Clark, Wojcik, 2007; Bauer et al. 2008). They have come to dominate Anglo-Saxon stock markets and the practise of corporate governance especially among the largest firms (O' Sullivan, 2000; Clark, Wojcik, 2007) and they are now accused of contributing to the financialization of economies and strategies of listed groups (Williams, 2000; Froud et al., 2000). A majority of the studies have emphasized the high expectations of institutional investors in the "finance-driven" capitalism: institutional investors expect increased returns on invested capital in a shorter time period and are said to be "impatient" and mobile actors (Martin, Minns, 1995; Froud et al., 2000; Aglietta, Rebérioux, 2004; Pike, 2006, Goyer, 2006). In particular, the study of Dupuy, Lavigne, Nicet-Chenaf (2010), led on the international largest equity investors, showed that U.S. institutional investors are the most volatile and "impatient" actors worldwide confirming the very short-term nature of the American model.

This article focuses on the mutual funds industry and particularly on "impatient" mutual

funds, i.e investors whose portfolio turnover is less than one year and who are thus "short-termist" actors. These investors have been singled out in the economic and financial press and are regularly accused of favouring volatility in equity markets. They often sell their stocks before companies have paid dividends and play on differences in stock prices to extract a short term profit. In particular, the paper questions the identity and the type of host countries receiving the investments of those "impatient" mutual funds. Where do "impatient" mutual funds invest internationally: do they invest on the same markets or in different geographical areas? In other words, is geography crucial to understand their behaviour of investment? What are the determinants of their decisions to internationalize their portfolios of assets?

Our study, led on a sample of the largest international 22,996 mutual funds, show that the geographical and institutional contexts are fundamental for understanding the behaviour of investment of "impatient" mutual funds: in this respect, our study validates the findings of works in economic geography and in the law and finance literature. The paper is organized in the following manner. Section 2 introduces theoretical aspects on the importance of geography in global finance and recalls the influence of the institutional framework (law and the quality of its enforcement) for understanding the behavior of investment of mutual funds. Section 3 presents the sample of 22,996 international mutual funds and empirical results on their global behaviour on stock markets between 2005 and 2009. Section 4 presents the methodology used to introduce geographical and institutional criteria and to test the preference of "impatient" mutual funds towards some stock markets. In particular, we demonstrate that "impatient" mutual funds prefer investing in large stock markets characterized by the same legal tradition and by the presence of strategic investors in the capital of companies.

2. When geography matters to explain investors' behaviours

The paper is at the intersection between two research programs: the geography of finance and the law and finance literature. Indeed, the paper seeks to demonstrate that geographical and institutional factors have a significant role in explaining the allocation of mutual funds' portfolios.

2.1 The geography of global finance

The paper contributes to a growing and recent literature on the economic importance of

geography to understand global finance (Clark, Wójcik, 2003; Clark, 2005; Clark, Wójcik, 2007). The main argument in favour of global finance geography of is about the impressive development of stock markets, the importance of capital flows and the weight that represent institutional investors in those flows (Martin, Minns, 1995; Clark, 2005; Morin, 2006; Pike, 2006; Clark, Wójcik 2007). A large number of works have highlighted the growth of a pension fund industry and more generally of a financial services industry developed around institutional investors (Clark, 1999; O'Sullivan, 2000; Clark, Hebb, 2004; Aglietta, Rebérioux, 2004; Lavigne, 2004; Clark, Wójcik 2007; Dupuy et al., 2010). A majority of the studies have emphasized the high expectations of institutional investors in the "finance-driven" capitalism and their demand for shareholder value. In particular, Bauer et al. (2008) have demonstrated the convergence of European systems of corporate governance toward the Anglo-Saxon expectations of short-term shareholder value.

As argued by Clark and Wojcik (2007), global finance comes from certain origins and it flows to certain destinations. In this paper, we refer to the works that question the behaviour of mutual funds and in particular the specific destinations of their flows. Many works have shown that proximity plays an important role in determining investors' portfolio choices: investors prefer geographically proximate investment for their portfolios (Falkenstein, 1996; Coval, Moskowitz, 1999; 2001; Huberman, 2000; Glassman, Riddick, 2001; Portes, Rey, 2005). In particular, the study of Falkenstein (1996) led on mutual funds equity holdings for 1991 and 1992, reveals that mutual funds prefer investing in stocks with high visibility and low transactions costs and are averse to small firms, low price stocks and stocks with low idiosyncratic volatility. If this study gives evidence of mutual fund's ability to select stocks, it says few things concerning the geographical dimension. Coval and Moskowitz (1999), on their part, have questioned the effect of distance on domestic portfolio choice and demonstrated a preference for investing close to home with U.S. investment managers having a local equity preference for locally headquartered, small and highly levered firms for which they have a better knowledge and an easier access to information.

In particular, our study refers to four recent studies that have demonstrated the importance of geography to understand the mutual funds' behaviours.

In their study of 2001, Coval and Moskowitz document a geographical link between mutual funds' investments and their performance. In particular, their study shows that mutual fund managers earn abnormal returns in their geographically proximate investments. The authors explain those substantial anormal returns by the information mutual funds may have acquires about local companies: mutual fund managers have access to private information of

geographically proximate firms. Their study also concludes that to the extent that a company is held by nearby investors is positively associated to its future expected returns, testifying an informational link between geography and the decisions of investment.

Clark and Wojcik (2002) have asked how and where portfolio managers should invest in Europe while considering a basic question: should investment strategies be based upon industries or countries? They demonstrate that geography matters to explain mutual funds managers' decisions: country based strategies remain fundamental because markets differ in terms of corporate governance. In particular, they notice important differences between Anglo-Saxon markets and continental European markets that influence the investment process. Their study also questions the relationship between European stockholder ownership with the volatility of corporate stock market prices. They document a negative relationship between European stock price volatility and ownership concentration, proving once again the importance of geographical space. In the same vein, the study of Clark, Wojcik and Bauer (2005) has shown a negative relationship between the quality of corporate governance and stock price volatility. Clark and Wojcik (2007) have also led a study on portfolio managers, the issue being whether they are better placed to pursue a passive-index strategy or an active investment strategy in the specific case of the German industry. They have demonstrated that closed ownership structures promote higher volatility in quoted market prices and that the incursion of global portfolio managers into European stock markets has had significant effects on corporate governance. Indeed, some of Europe's largest companies have responded to investor activism with large changes in corporate governance to be more consistent with the expectations of global financial markets.

Finally, the work of Dupuy *et al.* (2010) has investigated the geography of finance through a study of the behaviour of 11,910 international large equity investors. In particular, they have tested the relationship between a type of equity investor, its portfolio turnover and its geographical origin measured through its attachment to a specific model of capitalism. They have demonstrated that the U.S investors are the most volatile and "impatient" investors in the world and have analyzed the proximity of investors from different countries with American investors. Their study shows that the U.S market-based model is clearly the most active in terms of portfolio turnover management confirming that this country is the archetype of the "finance-driven" capitalism. Dupuy et al (2010) have demonstrated that differences in frequency of trading securities are largely explained by the geographical origin of investors testifying that geography is important for understanding the behaviour of key actors on global stock markets.

2.2 Law and finance literature

The recognition that geography matters leads implicitly to assert that the institutional framework (laws and their enforcement) is important for understanding the behaviour of actors. In particular, large number of academic works has emphasized this importance of legal systems to understand differences between countries in terms of stock market development, financing of companies or standards of corporate governance (La Porta, Lopez-de-Silanes, Shleifer, Vischny, 1998; 2000, 2002; La Porta, Lopez-de-Silanes, Shleifer, 1999).

It is now well recognized that laws and the quality of their enforcement are determinants of i) the level of development of financial markets; ii) the number of listed companies on stock markets; iii) the ownership concentration in publicly traded firms; iv) the rate of Initial Public Offerings (IPOs); v) or dividend policies to name just a few examples. The academic works focusing on the legal approach consider that differences in legal protection of investors explain why firms are financed differently in different countries.

Some national systems are relatively similar in some respects to allow a classification of national legal systems into regimes or "families of law" (La Porta *et al*, 1998). David and Brierley (1985), La Porta et al (1998, 2000) have explained that commercial legal systems of most countries derive from families including on the one hand the English common law, and on the other hand the French and German families deriving from the Roman Law, Scandinavian countries forming their own tradition. Those 3 families of traditions have spread around the world through a combination of conquest, imperialism, voluntary adoption… England and its former colonies (United States, Canada, Australia, New Zealand) and many countries in Africa and South East Asia have ended up with the common law system based on the British Company Act: legal rules are made by judges, based on precedents and inspired by principles such as fiduciary duty (Coffee, 2000; Jonhson et al, 2000). Civil law tradition, also called "Romano-Gemanic" tradition, is the oldest and the most widely distributed around the world (La Porta et al, 1998). In civil law systems, rules are made by legislatures and judges are not supposed to go beyond the statutes. The French civil law tradition, was written under Napoleon in 1807, extends to Belgium, Italy, French Caribean Islands, Netherlands, part of Poland, western regions of Germany, Sub Saharan Africa, Indochina, Oceania, Luxembourg, Portugal, Spain, some Swiss cantons and South America. The German tradition, based on the Bismarck's code of 1896, extends to Austria, Czechoslovakia, Greece, Hungary, Italy, Switzerland, Yugoslavia, Japan, and Korea.

For the legal origins tradition, contemporary levels of financial development are determined by a country's colonial history: countries colonized by Great Britain that have

adopted the legal institutions of British common law (that provides better protection to minority shareholders) have larger financial systems than French colonies that have adopted the French civil code (Haber, North et Weingast, 2008, La Porta et al. 1998).

La Porta et al (2000) have demonstrated on a sample of 49 countries that common law countries afford the best legal protection to outside investors regarding a large number of criteria (one share one vote, proxy by mail, cumulative voting…) whereas civil law countries are characterized by the worst legal protection to shareholders. In particular, civil law countries exhibit the lowest aggregate anti-director right score, an index that measures how strongly a legal system favours minority shareholders against managers or controlling shareholders in the corporate decision process. Anti-director right is an index, ranging from 0 to 6, that is formed by adding one when 1) the country allows shareholders to mail their proxy to vote; 2) shareholders are not required do deposit their shares prior to the General Shareholders' Meeting; 3) cumulative voting is allowed; 4) oppressed minorities mechanisms are in place; 5) the minimum percentage of share capital to call an extraordinary shareholders' meeting is less than or equal to 10%; 6) shareholders have pre-emptive rights that can be waived only by a shareholder's vote (La Porta et al, 1998). Common law countries afford the best legal protection to shareholders as they allow investors to vote by mail, never block shares before shareholders' meeting and generally require little share of capital to call an extraordinary shareholder meeting.

If common law countries protect investors more than countries of civil law traditions, German civil law and Scandinavian countries have the best quality of law enforcement, knowing that laws can be enforced by market regulators, courts or market participants. The French civil law system has the worst quality of law enforcement. Concerning law enforcement, La Porta and Lopez de Silvanes (1998) use indicators to question if a system gives enough investor protection, specifically for company and bankruptcy. They refer to five indicators and to an estimate of the quality of a country's accounting standards: efficiency of the judicial system; rule of law, corruption, risk of expropriation, and likelihood of contract repudiation by government.

La Porta et al (2000) have also demonstrated, in the vein of Shleifer & Vischny (1997), that companies in countries with poor protection have more concentrated ownership of their shares: under a context of poor investor protection, ownership concentration is extremely high and becomes a substitute for legal protection. By far, the highest concentration of ownership is to be found in civil law countries (the average ownership by the three largest shareholders

is 54% compared to 20 % for the U.S. system)[1]. In countries with poor shareholder protection, the largest firms have controlling shareholders (family, State…) demonstrating that concentration of ownership is an adaptation to poor legal protection. Mutual funds' managers, who are most of the time minority shareholders, can only exchange stocks that are not held by strategic entities (like Families, State…). Dahlquist, Pinkowitz, Stulz and Williamson (2003) have shown the relationship between the degree of presence of insiders and the presence of mutual funds that depend on the level of liquidity.

3. The mutual funds' industry: an industry geographically concentrated

The study covers a sample of 22,996 international mutual funds. The data come from Thomson Reuters, Thomson One Banker Ownership Equity (TOBO), database which lists international capital flows and registers investors' equity portfolios across international stock markets. Before focusing on investment destinations of "impatient" mutual funds, we first present data on the geographical origin of these funds and on their global investment behavior.

The mutual funds industry is geographically concentrated as two geographic areas (North America and Europe) concentrate 89.19% of the global funds in 2009. Over the period of analysis (2005-2009), that integrates the U.S subprime crisis, there is a decline in the share of Europe in the origin of mutual funds' managers: if 29% of mutual funds were coming from Europe in 2005, they were only 23% in 2009, showing the real decline of Europe in the origin of those funds On the contrary, there is a strong growth in the number of funds in two geographical areas that are Asia and Latin America: 2% of mutual funds were of Asian origin in 2005 against 4% in 2009 and 5% of investors were of Latin American origin in 2005 against 24% in 2009. As for the weight of the North America area, it remains very stable over the period and concentrates 65% of all mutual funds: the number of North American funds hasn't change during the financial crisis. If we now turn to the country level, five countries (United States, United Kingdom, Canada, Germany and France) account for 82% of the assets of the mutual funds' industry, attesting again for the high concentration in this industry.

[1] *In the world, as a whole, the average ownership of the three largest shareholders is 46% and the median is 45%. Dispersed ownership in large public companies is simply a myth.. Even in the United States, the average for the 10 most valuable companies is 20%, La Porta et al, 1998, p 1146.*

Table 1: Origin of mutual funds by countries

	Ranking 2005	Equity Assets 2005 ($MM)	2005	Ranking 2009	Equity Assets 2009 ($MM)	2009
1	United States	5 509 465,89	61,6%	United States	5 581 482,32	61,60%
2	United Kingdom	1 115 891,32	12,5%	United Kingdom	912 602,43	10,07%
3	Germany	430 523,83	4,8%	Canada	357 756,73	3,95%
4	Canada	353 183,08	3,9%	Germany	306 273,00	3,38%
5	Sweden	234 269,52	2,6%	France	269 871,18	2,98%
6	France	215 515,19	2,4%	China	231 292,78	2,55%
7	Japan	164 024,32	1,8%	Japan	180 234,74	1,99%
8	Switzerland	120 996,49	1,4%	Sweden	137 610,82	1,52%
9	Ireland	92 278,20	1,0%	Switzerland	135 735,71	1,50%
10	Belgium	64 697,28	0,7%	Brazil	128 132,60	1,41%
11	Bahamas	61 956,22	0,7%	Hong Kong	93 357,87	1,03%
12	Italy	60 340,22	0,7%	Mexico	83 619,81	0,92%
13	Singapore	59 616,74	0,7%	Singapore	76 759,25	0,85%
14	Netherlands	56 240,58	0,6%	Netherlands	44 803,54	0,49%
15	Hong Kong	46 384,88	0,5%	India	43 411,83	0,48%
16	India	42 827,08	0,5%	Belgium	42 231,91	0,47%
17	Spain	40 069,59	0,4%	Bahamas	41 907,91	0,46%
18	Denmark	38 686,33	0,4%	Ireland	41 663,34	0,46%
19	Norway	31 135,53	0,3%	Australia	36 821,48	0,41%
20	Luxembourg	27 435,76	0,3%	Denmark	35 764,42	0,39%
	Total	**8 946 846,39**	**100%**	**Total**	**9 061 015,31**	**100%**

We now turn to the question of internationalization of mutual funds' portfolios according to their geographical origin (see table 2). The thesis of portfolio diversification has taken mutual funds to other markets around the world but overall, they invest as a priority in their geographic area especially when they originate from areas characterized by the presence of developed financial markets. For instance, North American funds invest 92% of their assets in the North-America region and European funds invest 57 % of their assets in Europe.

Table 2: Where do Mutual Funds (MF) invest: a regional preference?

Geographic areas	African MF	Asian MF	European MF	Latin American MF	North American MF
Africa	**25%**	0%	0%	0%	0%
Asia	2%	**46%**	2%	4%	0%
Europe	31%	18%	**57%**	28%	7%
Latin America	1%	1%	5%	**24%**	1%
North America	41%	34%	36%	44%	**92%**
Total	100%	100%	100%	100%	100

Our study does not address the question of home bias (i.e the share of the total portfolio invested in domestic assets). Instead we focus on countries where mutual funds prefer investing according to their geographical and institutional origin and to their portfolios' size. In other words, we question the characteristics of the countries that attract mutual fund and

especially "impatient" mutual funds. Dahlquist, Pinkowitz, Stulz and Williamson (2003) have shown that there is a relationship between the degree of presence of insiders (or strategic entities) in ownership structures of companies and the presence of mutual funds. We have analyzed the ownership structures of the 35 countries composing our sample while considering on the one hand the percentage of stocks owned by institutional investors and on the other hand the percentage of stocks owned by strategic investors (like State, family…). This finally allows considering two groups of countries: those originating from the Common law tradition and exhibiting a higher level of institutional investors in their ownership structures and those originating from the Civil law tradition and characterized by the presence of strategic entities in their ownership structures (see table 3).

Table 3: Ownership structures of large companies in different geographical areas.

	North America	Australia	South Africa	Asia	Europe
Institutional investors	**60,20%**	**56,84%**	**52,53%**	39,39%	44,53%
Strategic investors	39,98%	43,16%	47,47%	**60,62%**	**55,47%**

The aggregate data for the five geographical areas reveal two polar models in terms of ownership structures. On one side, the North American model is characterized by the dominance of institutional investors in the capital of companies; on the other hand, the Asian model is marked by the weight of strategic investors in the capital of corporations.

4. "Impatient" mutual funds: where do they invest?

We now turn to the following question: in which countries do "impatient" mutual funds invest? In our econometric analysis we consider the U.S. market as a localization reference and we study the investment behaviors of mutual funds[2] compare to three variables that are: the size of market capitalization of the different countries; mutual funds' portfolios size and the presence of strategic investors in the host country.

[2]

4.1 When impatient mutual funds are friend with some host countries

The empirical study offers two steps of analysis. First, we question the degree of relationship between investors' portfolio turnover (endogenous variable), their choices of location in 35 countries (see appendix 1) and their portfolios' size[3]. Secondly, we analyse the relationship between the portfolio turnover of mutual funds and four exogenous variables: 1) the presence of strategic investors in the capital of companies; 2) the market capitalization of the host country; 3) the degree of legal protection for shareholders (measured by the anti-director index, see La Porta et al, 1998); 4) a factor of institutional proximity: is there a connection in the legal tradition between the country of origin of the investor and the host country ? The objective is clearly to analyze whether the choice of location of mutual funds are influenced by these four variables when deciding to internationalize their portfolios.

With this intention, we extract two variables from the Thomson database: the amount of investors' portfolio ("Equity asset") and their portfolio turnover level (low, high, moderate)[4]. A low turnover means that mutual funds change their portfolios on average every 4 years, a high turnover means that the investor turns its entire portfolio in less than a year, a moderate turnover corresponds to a holding period of between one year and 4 years. To include theses qualitative variables in our empirical study, we have consolidated the three levels of turnover (high, moderate and low) into a type of variables to enable a binary encoding[5]: "High" (high against not high). If investor's turnover is high the variable has the value "zero" and in all other cases (low, moderate) the variable has the value "one". We consider as "impatient" investors those with a high turnover of their portfolios and we refer to "patient" investors to describe investors with a low or moderate turnover portfolio.

As for the methodology and the data analysis, we refer to a first binary probit model, which allows testing the probability of being an "impatient" investor j rather than a "patient" investor[6] to invest in country i. The sample consists of *j* mutual funds indexed by j = 1,…, 22996 and where index *i* represents the country (i =1,…,35) in which mutual funds invest. We thus consider Y_i, endogenous variable, coded (1,0) and associated with these events:

[3] A check by the portfolio size (second exogenous variable) is always done in the following econometrics tests.

[4] See Appendix 2 for a presentation of the characteristics of variables.

[5] For the variable "High": If investor's turnover is high the variable has the value "zero" and in all other cases.(low or moderate) the variable has the value "one.

[6] The choice of this method is required because we have qualitative variables that are of binary type.

$\forall i \in [1,N]$, y_i = 0 if the event « have a high turnover » happens for mutual funds j investing in the country i

= 1 if the event « have a turnover different from high » happens for mutual finds investing in the country i

With the probit model, we assess the probability of occurrence of the event "to have a high turnover" considering the two exogenous variables (x_i: the host country i. x_2: equity asset of investor's portfolio).

We use a second binary probit model, which allows testing the probability of being a "patient" investor j rather than an "impatient" investor[7] to invest in country i. We thus consider Y_i, endogenous variable, coded (1,0) and associated with these events:

$\forall i \in [1,N]$, y_i = 0 if the event « have a low turnover » happens for mutual funds j investing in the country i

= 1 if the event « have a turnover different from low » happens for mutual finds investing in the country i

We assess the probability of occurrence of the event "to have a low turnover" considering the same two exogenous variables (x_i the host country i : x_2: equity asset of investor's portfolio).

The two models are estimated by the maximum likelihood method while considering the U.S market as a reference. The results with endogenous variable "high" are presented in table 4 and those with endogenous variable "low" are presented in table 5. In the tables, the first coefficient column indicates marginal effects that measure model's sensitivity at changes in turnover relatively to the U.S market. Column prob (z) measures the probability associated with theses significance's test.

In the first estimation (table 4) the z statistic indicates that numerous coefficients are significant at the level risk of 1% ($P[|Z|>z] < 0.000$). The model shows that there are two types of investors' strategies in relation to the U.S. market: being an "impatient" investor rather than a "patient" investor decreases the probability to prefer the following countries for theirs investments when they decide to internationalize: Canada; Mexico, Australia, Japan, Korea, South Africa, Taiwan, China, Denmark, Greece, Ireland, Norway, Portugal. Being an "impatient" investor rather a "patient" investor increases the probability to prefer the following countries for theirs investments: Argentina, Brazil, India, Thailand, Austria, Belgium, Finland, Italy, Netherland, Sweden and United-Kingdom.

[7]The choice of this method is required because we have qualitative variables which are of binary type.

Table 4: "Impatient" investors' localization strategies check by the equity asset (variable High). (Probability of the characteristics Y = 1, with the United States as a reference)

Number of observations: 22996	Iterations completed : 5		
Log likelihood function -13314.27	Degrees of freedom 35		
Chi squared =1277.76	Pseudo R-squared 0..0458		
Prob[ChiSqd > value] =0.000000			
Variables	**Marginal Effects**	**z**	**P[:Z/>z]**
Equity Asset	0.00003	8.44	0.000
Argentine	0.2288	2.70	0.007
Brazil	0.1717	18.25	0.000
Thailand	0.0989	4.44	0.000
Italy	0.0683	5.78	0.000
Austria	0.0544	4.40	0.000
India	0.0473	3.72	0.0000
Finland	0.0462	4.43	0.000
United Kingdom	0.0424	5.38	0.000
Netherlands	0.0336	3.51	0.000
Sweden	0.0237	2.15	0.031
Belgium	0.0232	2.37	0.018
Japan	-0.0703	-8.14	0.000
China	-0.0661	-6.11	0.000
Australia	-0.0616	-6.57	0.000
Taiwan	-0.0574	-4.74	0.000
Ireland	-0.0536	-6.57	0.000
Greece	-0.0449	-3.71	0.000
Canada	-0.0441	-6.12	0.000
Norway	-0.0409	-3.54	0.000
South Africa	-0.0408	-3.24	0.001
Korea	-0.0353	-2.70	0.007
Denmark	-0.0349	-2.99	0.003
Portugal	-0.0251	-2.03	0.043
Mexico	-0.0222	-1.71	0.087
Spain	-0.0129	-1.31	0.192
Indonesia	-0.0241	-1.21	0.225
France	-0.0163	-1.51	0.131
Honk-Kong	0.0147	1.25	0.212
Luxembourg	-0.0087	-1.10	0.272
Chile	-0.085	-0.45	0.650
Germany	-0.0065	-0.61	0.545
Singapore	-0.010	-0.95	0.342
Switzerland	0.0004	0.05	0.957
Russia	-00153	-1.13	0.260

In the grayed parts the variables are not significant

dy/dx is for discrete change of dummy from 0 to 1

However, the marginal effects, which indicate different sensibilities according to countries, make it possible to order countries. For instance, investments in Japan and several Asian countries (China, Taiwan) are characterized by high and negative elasticities demonstrating that investors have very different behaviors from Portugal, Spain or Denmark (lowest positive elasticities). Investors are thus less inclined to choose Asian markets than these European markets. In the same way, investment in Brazil and Argentina are characterized by high and positive elasticities but positive and low for Netherland, Belgium or United-Kingdom: investors are thus more inclined to choose Latin-American markets than European markets. We have conducted the same analysis with endogenous variable "low" (see appendix).

If we can determine the list of countries preferred by "impatient" mutual funds, the model says few things about the determinants of this location. We make the assumption that these strategies of location can be determined by four variables: the size of the markets (which is an indicator of market liquidity), the percentage of capital of companies held by strategic investors; the legal origin of law and the degree of protection of shareholders. In particular, we have created those four additional variables in our databse to introduce the influence of the market capitalisation (MACA)[8], the presence of strategic investors (BH), the difference between legal origin of law (LO) and the level of anti director rights (AD)[9].

- To introduce the influence of the host country's size market capitalization on the decision of investment of mutual funds, we use four qualitative variables: MACA0, MACA1, MACA2, and MACA3. MACA1 is use when mutual funds invest only in a broad size market[10], MACA2 is use when they invest only in a weak size market and MACA0, only in intermediate size markets. MACA3 is our benchmark and implies that when investors are present in all type of markets[11].
- To introduce differentiated strategies from mutual funds according to the presence (or not) of strategic entities in the capital of companies, we have created three qualitative variables: BH0, BH1, BH2. BH1 is used when mutual funds only invest in markets where there is a strong presence of strategic shareholders[12]; BH2 is used when they invest only in markets where there is a weak presence of strategic

[8] Source
[9] Source La Porta et al (1998, 2000).
[10] If mutual funds invest only in a market the variable has the value "zero" and if not the variable has the value "one".
[11] See appendix 1: List of the markets classified by categories.
[12] If mutual funds invest only in markets where there is a strong presence of strategic shareholders the variable has the value "zero" and if not the variable has the value "one".

investors and BH0, our benchmark, when they invest in the two kinds of markets[13].

- The variable MO measures an institutional distance between the host country and the country of origin of mutual funds. We consider two situations: when mutual funds invest in markets where the legal origin of the law is the same than the law on its market and when mutual funds invest in markets where the legal origin of law is different than the law on its market. If the share of investments realized by mutual funds in countries where the legal origin of law is the same as in their country of origin is superior to 50% the variable then takes value "1" and "0" in the other cases. With LO we measure mutual funds' tendency to prefer investments in countries where the legal origin of law is the same than the legal tradition of law in its country. and its capacities to master it (law).
- Finally we consider the variable "AD", an anti-director index (ranging from 0 to 6) which measures how strongly the legal system favours minority shareholders against managers or dominant shareholders in the corporate decision making process. There are two cases: when mutual funds invest in country where the index value is included between [0; 2.5] and when mutual funds invest in country where the index value is higher. If the share of investments realized in countries where index value is low (weak protection), is superior to 50% the variable AD takes value "0" and "1" in the other cases. With AD we measure the mutual funds tendency to prefer counties where shareholders protection is high.

Then we consider once again Y_i, endogenous variable, coded (1,0) and associated with these events:

$\forall i \in [1,N]$, yi = 0 if the event « have a high turnover » happens for mutual funds j investing i the market i

= 1 if the event « have a turnover different from high » happens for mutual finds investing in the market i

In this specification, index *i* can represents strategic shareholders' presence in markets (i =1, 2): BH1, BH2; the size of markets (i =1, 2,3) in which mutual funds invest: MACA0,

[13] Strong presence is when there is more than 35% of strategic holders, weak presence is when there is less than 35%.
of strategic holders.

MACA1, MACA2[14]; markets with the same legal origin of law and market with a high shareholders protection. Then with this Probit model (table 6), we assess the probability of occurrence of the event "to have a high turnover" considering the five exogenous variables ($x_{i:}$ invest in only one type of markets (BH1, BH2), x_2: equity asset of mutual funds, x3: market capitalization, x': difference between the legal origin of law and x5: level of anti-director rights). We use this second binary Probit model which allows testing the probability that an "impatient" investor j rather than a "patient" investor[15] invest in markets categorized by the five variables.

Table 6 : investors's localization strategies (variable High)

Number of observations: 24529	Iterations completed : 4		
Log likelihood function -14789.342	Degrees of freedom		
Lr Chi squared =186.95	Pseudo R-squared 0..0063		
Prob[ChiSqd > value] =0.000000			
Variables	**coeff.**	**z**	**P[:Z/>z]**
Equity Asset	0.0000439	6.86	0.000
BH1	0.086794	3.10	0.0000
BH2	-0.006534	0.20	0.838
MACA2	-0.18158	-4.15	0.000
MACA1	0.25001	6.28	0.000
MACA0	-0.1350	-4.68	0.000
MO	0.0773	4.63	0.000
AD	-0.1135	-3.64	0.000
Constant	0.54978	10.79	0.000

In the grayed parts the variables are not significant

In this model, each variable (without BH2) has a significant coefficient. This Probit model shows that being an "impatient" investor rather than a "patient" investor increases the probability to prefer markets with a strong presence of strategic investors (BH1 has a positive significant coefficient: 0.086794). However "impatient" investors are indifferent when there is a weak presence of strategic holders (BH2 coefficient is not significant). The model also shows also that being an "impatient" investor rather than a "patient" investor increases the probability to prefer large stock markets (CAMA1 has a positive significant coefficient 0.25001) while being an "impatient" investor rather than a "patient" investor decreases the probability to prefer small and intermediary stock markets (CAMA0 and CAMA2 have significant coefficients but negative). Concerning the variable MO, we can indicate that

[14] MACA3 and BH0 are used each time as benchmark in our studies.

[15] The choice of this method is required because we have qualitative variables which are of binary type.

"impatient" investors prefer markets where they can master the law (MO has a positive and significant coefficient: 0.0773). As far as the variable AD is concerned, we can indicate that being an "impatient" investor rather a "patient" one decreases the probability to prefer a market with a weak shareholders protection (the variable AD has a significant but negative coefficient).

With the marginal effect (Table 6), which indicates different sensibilities according to variables, it is possible to classify the five variables by order of importance for investors.

Table 6 : investors's localization strategies (variable High)
marginal effect after probit Y=pr(High-no) = 0.76

Variables	Marginal effects	z	P[:Z/>z]
Equity Asset	0.0000151	6.87	0.000
BH1	0.03039	3.1005	0.0002
BH2	-0.002252	0.20	0.838
MACA2	-0.0597	-4.36	0.000
MACA1	0.09031	6.28	0.000
MACA0	-0.04553	-4.78	0.000
MO	0.02672	4.35	0.000
AD	-0.03806	-4.35	0.000

In the grayed parts the variables are not significant
dy/dx is for discrete change of dummy from 0 to 1

Marginal effects indicates that markets size (an indicator of market liquidity) plays a crucial role for "impatient" investors (elasticity equals to 0.09031), and after by order, shareholders protection (variable AD has an elasticity equals to -0.03806), presence of blockholders (variable BH1 has an elasticity equal to 0.03039), institutional distance (variable MO has an elasticity equal to 0.02672), finally, variable Equity asset play a minor role ((variable has an elasticity equal to 0.0000151).

5. Conclusion et discussion

Our study provides new insights into the mutual fund industry and offers evidence of mutual funds' ability to select stocks. In addition, our findings contribute to a growing literature on

the importance of geography. Being an "impatient" investor rather than a "patient" investor increases the probability to prefer large stock markets and markets with a strong presence of strategic investors; Being an "impatient" investor rather than a "patient" investor decreases the probability to prefer a market with a weak shareholders protection. Those results clearly demonstrate the importance of the institutional framework: the variable "institutional distance" explains the behavior of investment of international mutual funds.

APPENDIX 1

In the second estimation (table 5), the z statistic indicates that few coefficients are significant at the level risk of 1% (P[:Z/>z] <0.000). The explanatory capacity of the model is weaker for patient investors.

However the model shows once again that there are two types of investor strategies in relation to the U.S. market: being a "patient" investor rather than a "impatient" investor decreases the probability to prefer the following countries for theirs investments: India, Russia, Brazil, Honk-Kong, Canada and Netherland. Being a "patient" investor rather an "impatient" investor increases the probability to prefer the following countries for their investments: Australia, Portugal, China and Ireland. Also we can say that investors are less inclined to choose Indian or Russian markets than Canadian markets. In the same way, investments in Australia are characterized by high and positive elasticities but positive and low for China. Investors are more inclined to choose Australia than China for instance.

Table 5: investors's localization strategies check by the equity asset (variable Low)
(Probability of the characteristics Y = 1, with the United States as a reference)

Number of observations: 22996	Iterations completed : 5		
Log likelihood function -8759.0379	Degrees of freedom 35		
Chi squared =349.40	Pseudo R-squared 0..0196		
Prob[ChiSqd > value] =0.000000			
Variables	**Marginal Effects**	**z**	**P[:Z/>z]**
Equity Asset	-.000003	-4.01	0.000
India	-0.0586	-7.98	0.0000
Russia	-0.0523	-5.94	0.000
Brazil	-0.0329	-5.62	0.000
Honk-Kong	-0.272	-3.50	0.000
Canada	-0.219	-4.27	0.000

Netherlands	-0.0158	-2.36	0.019
Australia	0.0251	3.31	0.001
Portugal	0.0239	2.35	0.019
China	0.0142	1.66	0.097
Ireland	0.0120	1.88	0.060
Argentine	0.0478	1.59	0.113
Thailand	-0.0131	-1.01	0.312
Italy	-0.0023	-0.28	0.779
Austria	-0.0002	-0.03	0.979
Finland	-0.0001	-0.02	0.981
United Kingdom	0.0012	0.22	0.0824
Sweden	-0.0053	-0.68	0.495
Belgium	0.0095	1.31	0.191
Japan	0.0018	0.29	0.775
Taiwan	-0.0004	-0.05	0.957
Greece	0.0030	0.32	0.749
Norway	0.0076	0.83	0.404
South Africa	0.0151	1.53	0.126
Korea	0.00002	0.00	0.998
Denmark	0.0074	0.82	0.410
Mexico	-0.0017	-0.17	0.868
Spain	0.0043	0.60	0.551
Indonesia	-0.0029	-0.21	0.833
France	-0.0126	-1.62	0.105
Luxembourg	0.0041	0.71	0.477
Chile	-0.0240	-1.62	0.106
Germany	-0.0108	-1.38	0168
Singapore	-0.0005	-0.08	0.940
Switzerland	0.0076	1.25	0.212

In the grayed parts the variables are not significant

dy/dx is for discrete change of dummy from 0 to 1

APPENDIX 2

Countries	Market capitalization	Size of apitalizations
Etats-Unis	11732768,30	
Japon	3220481,10	
China	2438008,10	
United- Kingdom	1851913,00	
France	1492150,00	
Russia	1321628,04	
Germany	1106804,50	
Canada	1002464,40	
Spain	946460,30	Large Markets
Swisterland	862638,00	
Australia	675121,30	
India	645269,70	
Brazil	590189,60	
Italy	520513,30	
Korea	494291,80	
South Africa	491249,00	
Hong Kong	468601,60	
Netherland	388013,30	
Sweden	252490,00	
Mexico	232393,00	Intermediate Markets
Taiwan	191705,20	
Singapore	179948,50	
Belgium	167687,80	
Finland	154355,00	
Norway	145906,34	
Chili	122348,28	
Denmark	131585,30	
Thailande	103128,24	
Indonésia	98762,90	
Greece	90270,40	
Austria	72450,10	
Portugal	68681,30	Weak Markets
Argentina	52212,00	
Luxembourg	66468,50	
Irelande	49311,50	

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