



## Determinants of the IPO Decision: French Context

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### Abstract

*This work provides an analysis of factors that may influence the decision of going public. Our study examined a sample of 152 IPO French companies, between 2005-2010, including 41 companies that have made a transfer of market during the same study period. The results show that French firms that are generally younger, with relatively high borrowing costs, with reduced level of information asymmetry, with high profitability and with high levels of disclosure, are not likely to go public. Thus, the French companies that are characterized by a high MTB ratio are motivated to be admitted to listing. This ratio implies the existence of periods of heavy activity, reflecting the good timing of the IPO.*

**Key words:** IPO timing, Financial and economic pre-IPO factors, MTB ratio, market transfer

### Introduction

Pagano et al (1998) found that rebalancing the capital structure is the major reason behind the IPO decision. Brau et al (2005) showed that firms introduce stock market to strengthen their market reputation. The research question of this study is: What are the determinants of the IPO decision? To answer this question, the basic financial and accounting data for selected companies are analyzed using a model of simultaneous equations for endogenous dummy variables.

Our work differs from the previous studies to focus on firms making a transfer market. Unlike previous studies, we found it interesting to consider the case of the transfer market instead of considering private firms. Our choice is justified by the fact that these companies do not intend to go public while those who were already planning to be listed on a stock market. Indeed, we find more appropriate to use two samples of firms that have the same intention, namely: being part of a stock market. Nevertheless, these two groups can be differentiated by the nature of the objectives and the reasons why they decided to go public. Our work is organized as follows: firstly, we present the theoretical basis that will lead us to formulate our research hypotheses. Next, we describe our study sample, the source of the data collected and the definitions of the different variables constituting our regression model. Finally, an analysis of the results will be in the last part of this study.

## **1. Study background and research hypothesis**

### **1.1: Financial flexibility and bargaining power with banks**

Rajan (1992) argues that the IPO increases financial flexibility of the firm, strengthens its bargaining power with bankers and financial creditors (Yosha (1995)) and, therefore, reduces the cost of credit. Huyghebaert and Hulle (2005) point out that high growth firms tend to be risky. The owners of these companies rely on external funding to finance major investments rather than using their own funds. They argue that an IPO allows the firm to improve its financial flexibility by generating additional sources of capital to finance growth and expansion. Bancel and Mittoo (2009) also found support for the model of Huyghebaert and Hulle (2005), given that most CFOs agree with the idea that the increased financial flexibility is a major advantage of the IPO decision, but this advantage is less valued by technology firms and firms that tend to evaluate the financing of growth.

The literature suggests that firms riskier are more likely to go public (Pagano (1993)) and that these companies generally pay higher interest rates on existing loans. Indeed, the total interest expense divided by total debt is used as a measure of financial flexibility of the company. Thus, firms with relatively high interest costs are financing through the use of more attractive financial market. The idea here is that a company paying higher interest rates is more motivated to go public. The cost of credit is weakening after IPO and credit availability increases (Perevozchikov (2006)). We propose, therefore, that firms with high credit costs are more likely to go public.

*H 1: Firms with high costs of credit are more likely to go public.*

### **1.2: The external control**

External control is considered an advantage in some models of IPOs, but as a cost in others. Several theories suggest that the company's commitment to meet regulatory requirements and disclosure of stock exchanges, increases transparency and reduces agency costs between managers and shareholders. Jensen and Meckling (1976) show, first, that the increased transparency and market control facilitate better corporate governance, when there is a separation between ownership and control. On the other hand, Maksimovic and Pichler (2001), Campbell (1979) and Yosha (1995), show that greater transparency is very expensive since it obliges the company to disclose crucial information that could be advantageous for competitors. Pagano and Roell (1998) suggest that the level of monitoring is higher in the pre-IPO period, since a small group of investors better control companies more closely than many small investors. The advantages of external control are also likely to be very varied from one firm to another.

The ratio of information disclosure (corporate taxes divided by total sales) may be a proxy for the level of disclosure within the company. The idea is that companies would pay less in corporate taxes. The IPO requires to disclose more financial information resulting in the payment of taxes with higher levels. Mayur & Kumar (2010) found that there is a negative relationship between this ratio and the listing probability. Therefore, it is expected that a positive relationship between the level of disclosure and the probability of going public.

*H 2: There is a positive relationship between the level of disclosure and the probability of the IPO.*

### **1.3: Risk sharing and diversification**

A company that goes public can also offer to its original shareholders, an opportunity for diversification (Pagano (1993)). To share its risk, the prudent manager seeking adequate

portfolio diversification. Albornoz and Pope (2004) reported that the owners of a firm with low number of shareholders tend to have a significant investment in their business and, hence, are over-exposed to risk. Therefore, to minimize the risk associated with this situation, they diversify risk by going public. Some studies have postulated that the bridging of risk and diversification are factors that explain the decision of the IPO. Huyghebaert and Hulle (2005) have argued that companies with significant investments for future growth tend to be risky. Therefore, owners of these high-growth firms will not invest much of their personal wealth in their businesses. So they rely on external funding to finance their major investments. Pagano (1993), Zingales (1995), Stoughton and Zechner (1998) and Chemmanur and Flughieri (1999) argue that the desire of the owner to sell or diversify their assets, is an important reason for their decision to go public.

According to Fisher (2000), if diversification is an important motive for going public, this variable should be positively correlated with the probability of listing. This author considers the level of intangibles a good indicator of risk and predicts a positive correlation between this variable and the probability of an IPO. Consistent with this prediction, he finds a positive and highly significant relationship between the level of intangible assets and the likelihood of an IPO. We postulate therefore that the positive relationship between the intangibility of assets and the likelihood of going public implies better diversification of risk. The IPO allows better risk diversification and therefore riskier firms with high intangible assets are more likely to go public.

***H 3: The riskiest companies with high intangible assets, are more likely to go public***

#### **1.4: Reduced cost of capital**

The tax benefits of debt help reduce the overall cost of capital. However, a company cannot continually reduce its overall cost of capital using debt. When the debt level rises, increases the risk of creditors by requiring a higher interest rate and refusing the loan to all companies, once their debts have reached a particular level (Bancel & Mottoo (2009)). This drives these companies to go public.

Furthermore, the excessive amount of debt makes the position of the shareholder very risky. This effectively increases the cost of capital. Thus, to some extent, the overall cost of capital decreases with debt, but beyond this point, the cost of capital begins to increase.

According to Scott (1976) and Modigliani and Miller (1963), firms decide to go public when outside capital minimize their cost of capital. Thus, Kim and Weisbach (2008) suggest that most firms raise new funds in the listing, and these funds are used for several purposes including reducing debt. Generally, we expect that firms with higher leverage are more likely to go public. Our hypothesis states that firms with high leverage are more motivated to go public.

***H 4: Firms with high leverage are more motivated to go public.***

#### **1.5: The profitability**

Predictions about the relationship between profitability (measured by return on assets (ROA) is equal to the benefits before interest, taxes, depreciation and amortization / total assets) and the probability of the IPO, are ambiguous. On the one hand, high cash flows make a society less dependent on outside investors and soften its funding constraints. According to hierarchy theory, companies refrain from external financing because of excessive agency costs and therefore prefer to fund their investment through internal resources. High cash flows should therefore reduce the likelihood of an IPO. On the other hand, high profitability could be a credible signal of the quality of a company, thereby overcoming the adverse selection (Diamond (1991)). Thus, profitable firms are more likely to go public. Portfolio rebalancing motivations for listing suggests a positive relationship between the probability of the IPO and corporate

profitability. We therefore expect the existence of a significant relationship between profitability and the likelihood of going public.

***H 5: There is a significant relationship between profitability and the likelihood of going public.***

### **1.6: Financing growth opportunities**

IPOs are considered a tool to raise funds to finance growth through intensive investment firms that do not generate enough internal cash flow (Pagano and Roell (1998)). Various theories have emphasized the benefits of issuing shares to the public, instead of increasing the leverage or invest private funds to obtain external financing. For example, Diamond (1991) and Holmstrom and Tirole (1993) noted that the increase in external funding provides the ability to obtain financing at low cost without the direct intervention of intermediaries such as banks or venture capitalists. In the case of companies that will go public to finance investments and growth, one would expect that the probability of the IPO is positively related to the profitability of firms, as firms with low profitability may not be able to generate enough funds to finance investments.

One common finding is that societies with high levels of investment are more likely to go public (Holstrom and Tirole (1993), Pagano and Roell (1998)). Kim and Weisbach (2008) argue that most firms raise new funds during the IPO, and these funds are used for several purposes including financing growth. Therefore, we assume that these high-growth firms are more motivated to go public. Capital expenditures are normally used to measure current investments and a high intensity investment might then make particularly attractive for a company to use the stock market to raise funds. Thus, we use the growth in investment in fixed assets and equipment as a measure of business requirements to guide the productive investment funds for capital. This should increase the probability of an IPO.

***H 6: The high-growth firms are more motivated to go public.***

### **1.7: Choice of the IPO timing**

Alti (2006) argues that the initial public offering market is a "natural laboratory" appropriate to analyze the timing of the listing. . Alti (2006) aims to find out if the IPO took place in a rising market, characterized by a high volume of IPOs in terms of number of issuers, or a bear market. Their reasoning is that: whether issuers believe that hot markets as windows of opportunity with a cost of equity temporarily low. They should respond by issuing equity. In contrast, cold markets of the IPO are likely to keep their capital to a minimum necessary, given that market conditions are less favorable than the average. Indeed, the windows of opportunity hypothesis states that managers use their superior information to select the timing of going public, opportunistically to take advantage of favorable temporary market conditions, and seize attractive stock prices (Ritter (2003) and Ritter (1991) (windows of opportunity in high activity periods). Chun, Lynch and Smith (2002) have adopted the approach of Pagano et al (1998) and studied the factors influencing the decision of the IPO on a sample of Korean firms. They found that the IPO is timed to take advantage of windows of opportunity. Pastor and Veronesi (2003a) also study the timing of the IPO but emphasize the importance of changing valuations (eg, a high MTB ratio). All things being equal, the company decides to go public due to improved market conditions, whatever the level of its market value. The existing literature on the timing of the IPO focuses on the behavior of aggregate time series of IPO volume. Lowry (2003) studies the time series of U.S. IPO firms, showing that the main determinants of fluctuations in the volume

of IPO are changes in demand for external capital and indicators of investor sentiment. Helwege and Liang (2004) argue that firms that go public in periods of high volume of IPOs, not in any way different from those introduced in periods of low volume.

The analysis of Boehmer & Ljungqvist (2004) complete studies showing that levels of changes in assessments and market conditions influence the decisions of the IPO. These authors find that stock returns are higher than the ratios MTB. They support this emphasis on change rather than levels.

***H 7: The probability of listing increases when market conditions are favorable.***

### **1.8: Asymmetric information and adverse selection costs**

The quality of companies looking to issue new shares is affected unfavorably by the asymmetry of information between investors and issuers about the true value of the company. In other words, the withholding of information by the company may cause the phenomenon of adverse selection and moral hazard (Leland & Pyle (1977)). Thus, the cost of adverse selection is a serious obstacle faced by newly listed companies, with a short career and a low transparency. Investors are generally less informed than issuers about the true value and quality of the firm went public. Thus, asymmetric information about the quality of issuers causes an adverse selection and should be a factor influencing the decision of going public (Pagano et al (1998) and Alborno and Pope (2004)). They insisted that the asymmetry of information detrimental to the average quality of companies that are looking for a new registration and this may affect the price at which shares may be sold. By choosing a Probit model, Mayur & Kumar (2010) argue that the size of the firm emerges as an indicator of adverse selection and a major determinant of the decision of the listing. It was found that larger firms are more likely to go public. The large size helps companies to reduce the cost of adverse selection. As measured by total asset size of the firm influences the decision of going public. The rationale for this relationship is that larger firms are better able to avoid financial distress using organized market (Göktan, Kieschnick and Moussawi (2006). Chemmanur and Fulghieri (1999) also suggest that the size is as a proxy for reputation, so that an independent small firm find it difficult to be recognized by the public and investors, and liable therefore, a large cost of adverse selection when selling shares. Therefore, we expect that small firms are less likely to go public. There is, therefore, a growing relationship between firm size and the probability of going public.

***H 8: There is a growing relationship between firm size and the probability of listing.***

## **2. Sample and data collection**

### **2.1: Sampling**

Our study examined a sample of 152 IPO French companies, between 2005-2010, including 41 companies that have made a transfer of market during the same study period. This sample was obtained from the site of Euronext ([www.euronext.com](http://www.euronext.com)). We have not removed the companies that have made the transfer of market, in our sample, since the logic of market transfer does not match that of the first listing. Indeed, in our study, we need a set of companies that are going public for the first time and other companies that have decided to remain private or to go to another market.

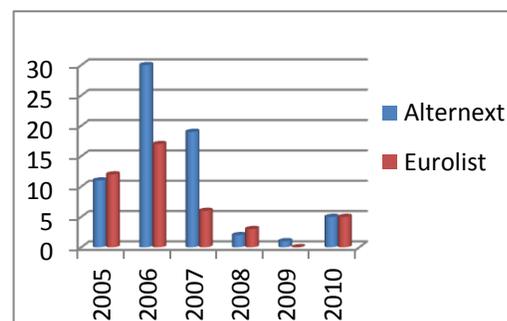
We found interesting to consider the case of transfer of the stock market, since these companies have the intention to go public. Although private companies are planning to go public after several years of their establishment, the transfer case can better reflect the determinants of a decision to go public. Indeed, the decision to go to another trading market can be attributed to the fact that the reasons why a company decided to go public for the first time, before applying for

the transfer, do not meet its needs. The following tables show the number of companies listed on the stock market for the first time and those who have made a transfer of market, broken down by year of first listing and the market transfer.

**Table1 : Number of companies listed on the stock market for the first time**

	2005	2006	2007	2008	2009	2010	Total
<b>Alternext</b>	11	30	19	2	1	5	68
<b>Eurolist</b>	12	17	6	3	0	5	43
<b>Total</b>	23	47	25	5	1	10	111

**Graph 1 : Number of companies listed on the stock exchange between 2005-2010**

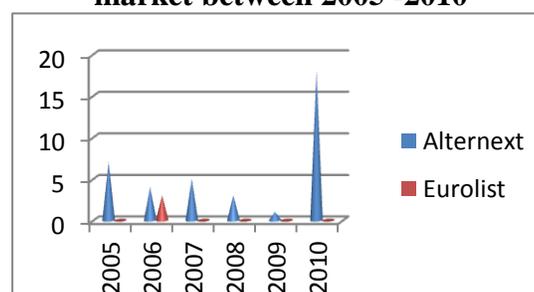


We have not considered the companies listed on the free market. Indeed, companies wishing to be listed on this market are not required to file a prospectus for submission to the Authority (AMF). We will therefore have a problem of data collection, especially since we need information delayed requiring the use of prospectus.

**Table 2 : Number of firms that have made a transfer of market**

	2005	2006	2007	2008	2009	2010	Total
<b>Alternext</b>	7	4	5	3	1	18	38
<b>Eurolist</b>	0	3	0	0	0	0	3
<b>Total</b>	7	7	5	3	1	18	41

**Graph 2 : Evolution of the number of companies that have made a transfer market between 2005 -2010**



The observation of the first table shows that the years 2005, 2006 and 2007 are considered to be periods of heavy activity, since the number of the issuers is relatively large compared to the years 2008, 2009 and 2010. Thus, from table 2, we can see that 2010 is characterized by a relative number of firms making a transfer on Alternext. However, the listing on Alternext concerns only five French companies, in the same year. It should be noted that the transfer market during 2010, mainly concerns firms that were already listed on the free market. Indeed, these companies have decided to go on Alternext for economic or financial reasons.

## 2.2: Data collection

We gathered our data from financial statements of each company. Specifically, we attempted to obtain all accounting and financial data through the use of IPO prospectuses and annual reports of French companies. Market data were obtained from the Euronext website. We have also used the prospectus listing to collect other necessary information on the history of the company and his career. These prospectuses are filed with the Financial Markets Authority and are available from the website of each company that went public.

## 3. Equations of the model to study and description of variables

### 3.1: Model overview

Several reasons can motivate a company to go public. But generally speaking, a company decides the admission to listing after reaching a certain level of maturity (Seydou Souley Mahamadou). It would be interesting to talk about and discuss a different angle. Indeed, these reasons can be correlated to the maturity of the company, deciding to be admitted to listing, and may even reflect strongly. These reasons may thus be financial, economic or fiscal. We can then explain the maturity of the firm by the level of profitability before listing, the external audit, financial flexibility vis-à-vis the banks or the degree of risk diversification. Regarding the timing hypothesis, we divided our sample into periods of high activity and low activity periods, which are determined based on the number of issuers, each year during 2005-2010. For our study, we opted for a simultaneous equation model for dichotomous endogenous variables. Indeed, this model has been no previous study on this topic. Most previous studies have used the probit model serving to identify factors that may affect the likelihood of going public.

The simultaneous equation model for dichotomous endogenous variables can be written as follows:

$$\begin{cases} \mathbf{IPO} = \beta_3 X_3 + \alpha_1 T + \alpha_2 M + \varepsilon_3 \\ \mathbf{T} = \beta_1 X_1 + \varepsilon_1 \\ \mathbf{M} = \beta_2 X_2 + \varepsilon_2 \end{cases}$$

Where;

IPO: IPO decision

T : timing of the IPO

M: Maturity of the IPO

#### Variables to explain

$$\mathbf{IPO} \begin{cases} 1 & \text{If the firm is admitted to listing for the first time} \\ 0 & \text{If the firm has made a transfer of market} \end{cases}$$

$$\mathbf{T} \begin{cases} 1 & \text{If the firm is introduced into a busy period} \\ 0 & \text{If the firm is introduced into a period of low activity} \end{cases}$$

$$\mathbf{M} \begin{cases} 1 & \text{If the firm is more mature (If the firm is less motivated to go public)} \\ 0 & \text{If the firm is less mature (If the firm is more motivated to go public)} \end{cases}$$

**Remark:** The maturity of the firm is measured by his age  
 —→ If the firm is older (and therefore more mature)  
 —→ If the firm is less old (less mature)

**Explanatory variables**

$$\text{IPO} = \beta_3 \text{FA}_{i,t-1} + \alpha_1 \text{T} + \alpha_2 \text{M} + \varepsilon_3 \quad (1.1)$$

$$\text{T} = \beta_1 \text{MTB}_{i,t} + \varepsilon_1 \quad (1.2)$$

$$\text{M} = \beta_2 (\text{FS}_{i,t-1} + \text{ROA}_{i,t-1} + \text{DI}_{i,t-1} + \text{Debt}_{i,t-1} + \text{FR}_{i,t-1} + \text{CE}_{i,t-1} + \text{CC}_{i,t-1}) + \varepsilon_2 \quad (1.3)$$

**Where;**

**IPO:** The decision of going public

**T:** Represents the timing of the IPO

**M:** The maturity of the IPO firm

**SF:** The size of the firm measured by the logarithm of total assets

**ROA:** The profitability of the firm measured by Return On Assets

**FA:** Logarithm of firm age

**DI:** Represents the level of disclosure measured by the lagged value of the ratio: Income Tax/ Total Sales

**Debt:** Lagged value of debt ratio: Total Liabilities/Total Assets

**FR:** The Firm Risk quantified by the lagged value of the ratio : Incorporeal Assets/Total Assets

**CE:** The Capital Expenditure measured by the lagged value of the ratio : Capital Expenditures/ Total Assets

**CC:** Cost of credit measured by the lagged value of the ratio: Interest Expense/Total loans banking

**MTB:** Market to Book Ratio: (Market Capitalization + Debt) / Total Assets

- **The model to be estimated is:**

$$\left\{ \begin{array}{l} \text{IPO Decision}_{i,t} = f_1 \quad \text{IPO timing}_{i,t}; \text{IPO maturity}_{i,t}; \text{FA}_{i,t}; \text{ROE}_{i,t-1} \\ (1.4) \\ \text{IPO timing}_{i,t} = f_2 \left\{ \text{MTB}_{i,t-1}; \text{CE}_{i,t-1}; \text{DV}_{i,t} \right\} \\ (1.5) \\ \text{IPO maturity}_{i,t} = f_3 \left\{ \text{ROA}_{i,t-1}; \text{CE}_{i,t-1}; \text{CC}_{i,t-1}; \text{FR}_{i,t-1}; \text{Debt}_{i,t-1}; \text{DI}_{i,t-1}; \text{FS}_{i,t-1} \right\} \\ (1.6) \end{array} \right.$$

**3.2: Definitions and measures of variables**

Like several previous studies (those of Pagano et al (1998), De Albornoz and Pope (2004), Fisher (2000), Mayur (2010), we selected a battery of indicators reflecting the timing hypothesis and the maturity to determine the factors that determine the decision of the admission to listing.

**Table 3: Variable Definitions**

Variables	Definitions
<b>Explanatory variables of the IPO decision</b>	
<b>IPO Timing (IT)</b>	Dummy variable taking 1 if the firm is introduced in period of high activity, 0 otherwise.
<b>Firm Maturity (FM)</b>	Dummy variable taking 1 if the firm is more mature (median age >10 years, company less motivated to go public), 0 otherwise.

<b>Return On Equity (ROE)</b>	Return On Equity
<b>Firme Age (FA)</b>	Logarithm of the number of years between the year of creation and the IPO
<b>Explanatory variables of the maturity</b>	
<b>Return On Asset (ROA)</b>	Return On Assets
<b>Information Disclosure (DI)</b>	The lagged value of the ratio: Income Tax/ Total Sales
<b>Debt ratio (Debt)</b>	The lagged value of debt ratio: Total Liabilities/Total Assets
<b>Capital Expenditures (CE)</b>	The lagged value of the ratio : Capital Expenditures/ Total Assets
<b>Cost of Credit (CC)</b>	The lagged value of the ratio: Interest Expense/Total loans banking
<b>Risk of the Firm (RF)</b>	The lagged value of the ratio : Incorporeal Assets/Total Assets
<b>Size of the firm (FS)</b>	The logarithm of total assets
<b>Explanatory variables of IPO timing</b>	
<b>MTB</b>	(Market Capitalization + Debt) / Total Assets
<b>Dummy Variable (DV)</b>	Dummy variable taking 1 if the company is listed on Alternext, 0 otherwise.
<b>Capital Expenditures (CE)</b>	The lagged value of the ratio : Capital Expenditures/ Total Assets

#### 4. Analysis of results

##### 4.1: Descriptive analysis

The observation of Table 4 shows that external control by IPO firms is larger, on average, compared to those who have made a transfer of market. This reinforces the idea that the listing requires the disclosure of a significant level of financial information. We note as well, that profitability measured by return on assets "ROA" and the return on equity "ROE" have a positive values for IPO firms. However, the level of profitability achieved a negative average values for the group making a transfer of market. This may be one reason why the company decided to go on another stock market. Indeed, a negative profitability may encourage any form of firm to go to another stock market in order to improve its performance.

**Table 4: Descriptive analysis for the IPO firms**

	DI	Debt	FR	DC	CE	FA	FS	ROA	ROE	MTB
<b>Mean</b>	0,1455	0,6268	0,0742	0,1205	0,1894	16,78	4,2685	0,0082	0,1981	5,3300
<b>Median</b>	0,0226	0,6392	0,0207	0,0577	0,0519	9	4,1233	0,0603	0,1988	3,3287
<b>S.D</b>	0,3618	0,3010	0,1245	0,2018	0,4325	22,73	0,7947	0,3120	0,6285	6,0501
<b>Max</b>	2,1405	1,9770	0,6635	1,5424	2,7436	139	6,4113	0,4452	2,4315	31,2654
<b>Min</b>	0,0000	0,0134	0,0000	0,0000	0,0000	0,66	2,0237	-1,8286	-2,3298	0,3497

**Table 5: Descriptive analysis for the firms that have made a market transfer**

	DI	Debt	FR	DC	CE	FA	FS	ROA	ROE	MTB
<b>Mean</b>	0,0514	0,5111	0,1056	0,1075	0,1418	21,3	4,4574	-0,1958	-0,3625	2,4264
<b>Median</b>	0,0152	0,5445	0,0230	0,0616	0,0555	13	4,4328	0,0379	0,0720	1,7275
<b>S.D</b>	0,1198	0,2239	0,3262	0,1201	0,2756	25,79	0,4287	1,5400	2,6616	2,0795

<b>Max</b>	0,7311	1,0000	2,0871	0,6198	1,3953	130	5,4221	0,4972	1,0000	9,9912
<b>Min</b>	0,0000	0,0731	0,0000	0,0018	0,0000	1	3,4228	-9,7761	-16,7754	0,5382

Concerning the debt ratio, we find that there is no great difference in the sense that the average debt is almost the same for both groups of companies. Even finding can be observed at the average cost of credit and the average risk of two groups of samples. Otherwise made, the costs of bank loans and the risk of the company before listing or before a transfer of market, take similar median value.

We note as well, that IPO firms are characterized by a higher market capitalization, given the importance of median MTB ratio, compared to that observed in the other group (firms that have made a transfer of market). This means that market capitalization is playing its full role in explaining the factors that determine the decision of listing. Indeed, the market capitalization is a good signal to attract potential investors.

Thus, the median age for an initial public offering of 9 years, which is relatively less important compared to another group company (median age = 13 years). This result is obvious, since in the context of a market transfer, the company is generally more experienced and therefore older than another listed for the first time. We see thus that the standard deviation of the firm age is high. This is due to the dispersion observed between the maximum and minimum age of the firm. Indeed, for the first group of companies, the maximum value of age attained 139 years, while the minimum is 0, 66. Same remark is observed for the group of companies making a market transfer.

#### **4.2: Multivariate analysis**

We note that the decision of the IPO is positively and significantly influenced by the effect timing and the maturity of the firm, with an explanatory power representing 0,6922. The explanation of such decision taken by the company means asking two questions: Why and When to go public? Indeed, a number of reasons driving companies to go public, including for example, those financial, macroeconomic and fiscal original. These reasons are thus highly correlated with the choice of the timing of going public.

Otherwise formulated, the timing of the IPO is a major determinant of the decision to go public, in the sense that each company found that is appropriate to be admitted in periods of high activity, in order to succeed the IPO operation. Therefore, it is necessary to question why a company decides to go public. Otherwise formulated, it is necessary to start by answering the question that why to go public?

Indeed, the answer to this question is followed by the realization of a good choice of the IPO timing, conditioned by the presence of high activity periods, allowing potential investors to have visibility into the economic and financial prospects of the company after listing period. It should be noted that our work differs from previous studies by the methodology used in our study. Indeed, most previous studies have adopted a methodology based on a probit model without identifying the factors that determine the timing hypothesis or the maturity, separately. Thus, previous studies have chosen a sample with two groups, the first is the set of firms that have admitted to listing for the first time, and the second is that companies that have decided to remain private. Nevertheless, in our study we found a need to consider the firm that made a market transfer rather than those that remained private. Our choice is justified by the fact that firms that made a market transfer are intended to be admitted on a particular stock market. Thus, the probability of IPO, which takes the value 1 represents the decision to be admitted to listing. The value 0 represents a transfer of market or the decision to stay private. In our case, the value 1

is a first IPO and 0 is a transfer of the stock market. We, therefore, found it unnecessary to consider private firms to study the determinants of the IPO decision. We feel it is more appropriate to opt for a set of firms making a transfer of market. Thus, a decision to transfer can be attributed to several factors, for example, failure to meet financial objectives in the first listing. Therefore, the transfer of market will, in some cases, the optimal solution for a company to achieve its objectives and ensure its continuity.

**Table 6: Factors influencing the IPO decision**

Variables	IPO Decision		Timing Hypothesis		Maturity Hypothesis	
	Coef	t-stat	Coef	t-stat	Coef	t-stat
<b>Timing</b>	<b>0.463877***</b>	3.81	-	-	-	-
<b>Maturity</b>	<b>0.7617187***</b>	5.16	-	-	-	-
<b>FA</b>	0.0462733	0.56	-	-	-	-
<b>ROE</b>	<b>0.056588**</b>	2.14	-	-	-	-
<b>DI</b>	-	-	-	-	<b>0.27764*</b>	1.77
<b>Debt</b>	-	-	-	-	0.022346	0.17
<b>FR</b>	-	-	-	-	0.11376	0.59
<b>CC</b>	-	-	-	-	<b>0.03899***</b>	2.52
<b>FS</b>	-	-	-	-	<b>0.13661***</b>	6.65
<b>ROA</b>	-	-	-	-	<b>0.4210087**</b>	2.37
<b>CE</b>	-	-	<b>0.673564***</b>	2.79	<b>-0.663189***</b>	-3.06
<b>MTB</b>	-	-	<b>0.0197068***</b>	2.61	-	-
<b>DV</b>	-	-	<b>0.391474***</b>	6.11	-	-
<b>N</b>	<b>152</b>		<b>152</b>		<b>152</b>	
<b>R2</b>	<b>0.6922</b>		<b>0.4528</b>		<b>0.6358</b>	
<b>F</b>	<b>83.2098</b>		<b>41.09108</b>		<b>36.1626</b>	
<b>Prob (F)</b>	<b>0.0000</b>		<b>0.0000</b>		<b>0.0000</b>	

\*significant at the level of 10% \*\* significant at the level of 5% \*\*\* significant at the level of 1%

The observation of the table shows that choosing the right timing of IPO, where the number of issuers is important in a particular period, is a major determinant of the decision of listing. Thus, the maturity of the IPO process, captured by the median age required for a company to decide to go public, involves the reasons why a firm is useful to be admitted to listing. In other words, a more mature company, deciding to go public, it reflects that it is less motivated by such a decision. Therefore, the maturity is, in turn, a major determinant of the listing decision. Otherwise formulated, at a certain age or after a well defined career path, the company finds that it is able to go public and succeed the IPO. However, if the firm is more mature, it means she is less motivated to go public. Young firms which are riskier and are characterized by a brief professional career, are more motivated to be admitted to listing, since they are less older and have the opportune time to go public.

Observing the results from a simultaneous equations model, we show that the MTB ratio is an important determinant of the IPO timing. Indeed, this ratio affects positively and significantly (at the 1%) the timing of the IPO. In other words, periods of high activities of listing are characterized by the positive and significant MTB ratio. This implies, therefore, that the right choice of timing of the IPO reflects a high market capitalization, providing a good

signal to potential investors. Thus, company managers or financial managers decided to go public in favorable conditions to succeed the IPO.

These conditions reflect, in some ways, periods in strong bullish activity. Our results are consistent with those found by Chun, Lynch and Smith (2002), in so far as, high MTB ratio increases the probability of going public. Thus, these favorable conditions of the stock market may go in the direction of the explanation given by Myers and Majluf (1984), where the good timing of the IPO is conditioned by the appearance of an overpriced stock market. Indeed, firms are going public when their performance reaches the heights, and therefore they are more likely to succeed the IPO.

As control variables, the results show that the probability to be admitted on Alternext and investment spending affect positively and significantly the timing of the IPO. This implies that the fact of being admitted on Alternext, increases the possibility to make the right choice of IPO timing. Similarly, companies with high capital expenditure, before the IPO, are more likely to choose the proper timing to go public. This means that even companies with important capital expenditure, are more likely to benefit from favorable market conditions during the listing. The results show, as well, that there are several factors that can influence the assumption of the maturity that represents, in turn, motivations of the IPO decision. Indeed, we note that there is a positive relationship between the variables explaining the hypothesis of maturity, with the exception of the variable relating to capital expenditures. The latter has a negative and significant impact on the maturity of the company. Since a more mature company implies that it is less motivated to go public, then the increase of investment expenditures, before listing, makes society more likely to go public. Therefore, investment spending increases the likelihood of listing on the French stock market. However, all other variables, having a positive and significant sign, are considered factors that do not motivate the company to go public. Otherwise formulated, the profitability, the reduction of the cost of credit, the risk diversification and the external control, are not among the reasons why the company decides to be admitted to listing.

This result is attributed, in large part to our choice of variables selected to answer the question that "why go public?" Indeed, to answer this question we used the age of the company, in the sense that older firm, and therefore more mature, implies that it is less motivated to go public. We find it appropriate to consider age as a reference to reflect the maturity of the company went public in order to define the reasons why a company decides to go public. Otherwise formulated, the less old firms deciding to be admitted to listing and have high profitability, a diversified risk, an effective external control and a reduced level of cost of credit, are more motivated to go public. All these factors are the subject of previous studies to explain the determinants of the IPO. They are considered as factors positively influencing the IPO decision. However, our study contradicts the idea spread to several previous studies, since all these factors demotivate the company to go public, because of their positive correlation with the dependent variable (the maturity of the company). Indeed, the only factor that favorably influences the IPO decision is that of capital expenditures. Our results show, well, that funding for growth opportunities is a strong reason to go public. This assertion is observed at the negative relationship between capital expenditures and maturity of the firm. Indeed, a company with high costs is more motivated to go public and, therefore, is more likely to be admitted to listing. This result confirms that found by Pagano and Roell (1998) and Kim and Weisbach (2008). The positive relationship between size and maturity of the firm means that the large size increases the costs of adverse selection during the IPO. A large size reduces, therefore, the probability of going public. This is in contradiction with the study of Mayur and Kumar (2010). We note as well, that firms that pay larger interests are not likely to go public. This result does

not favor the idea affirmed by Rajan (1992), that the listing strengthens the bargaining power with banks and increase financial flexibility and therefore reduces the cost of credit of the company.

This implies that the company characterized by high interest costs, before the IPO, find it interesting to be admitted to listing in order to obtain the benefit of reducing these costs, after the IPO. Indeed, the listing is an additional source of capital to finance its growth, while reducing the use of debt and therefore the cost of borrowing. Our results therefore contradict the idea advanced by Rajan (1992) in the sense that the IPO is not a good way to reduce the cost of bank loans.

Similarly, the positive and significant relationship between the level of disclosure and maturity of the firm means that a better external control makes the firm less motivated to go public. Our result is consistent with that found by Mayur (2010) which found the existence of a negative relationship between the ratio of the disclosure and the likelihood of the IPO. Finally, the observation of the results allows us to assert that a significant level of profitability before the IPO discourages the firm to go public. This contradicts most previous studies that have shown that the most profitable firm is more likely to be admitted to listing. Indeed, high profitability could be a credible signal of the quality of a company, allowing, thus, to overcome adverse selection (Diamond (1991)). In our case, the return on assets is considered a signal not credible that does not attract potential investors and that they reflect a lower quality of the company. This makes the company less likely to go public.

## **Conclusion**

The study provides an analysis of factors that may influence the decision of the IPO, taken by French companies during 2005-2010. This study is discussed through a simultaneous equations model. Our analysis shows that the decision of the listing is positively and significantly affected by the choice of the timing of the IPO and by macroeconomic, financial and accounting factors. Thus, the reasons why a French company decides to go public may be reflected by its maturity, as measured by the median age which is 9 years. Indeed, the observation of the results shows that the probability of going public increases with the magnitude of capital expenditures. However, unlike most previous studies, French companies that are generally younger, with relatively high borrowing costs, with reduced level of information asymmetry, with high profitability and high levels of disclosure, are not likely to go public.

Our work shows that French companies are motivated to go public in bullish periods of high activity characterized by a high MTB ratio. Indeed, the effect size of the MTB ratio on the timing of the IPO indicates a relatively strong relationship between two variables. The magnitude of the size effect, the profitability and the cost of credit on the maturity of the company implies, also, a relatively strong relationship between these variables. The positive and no significant relationship between risk sharing and the maturity of the company clearly shows that the risk aversion is not considered to be a motivation behind a decision of listing, for French companies. In addition, the study shows that large companies and with a high level of profitability are more likely to go public. The positive relationship between debt ratio and the dependent variable shows that firms are not motivated to reduce leverage. These results that characterize the French market may be useful to other countries whose socio-economic conditions are similar. However, the results of the study are subject to limits. Indeed, the indicators used in the model provide only a partial vision reflecting motivations for or against a decision taken by the company to be admitted to listing. The findings of our study could be refined by the inclusion of other

indicators. Indeed, the scope of the study could be improved by introducing post-IPO factors that can influence the IPO decision.

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