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ORIGINAL ARTICLE

NEW APPROACH OF RELATIONSHIP BETWEEN GOVERNANCE AND FINANCIAL PERFORMANCE: THE CASE OF START-UP IPOS IN FRENCH

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Abstract:

> The study of the relationship between corporate governance and financial performance is an ambiguous theme. Several studies have focused on this topic by establishing a solid link between the firm performance and its ownership structure. However, empirical findings did not reach a consensus on the determinants of this relationship. This paper aims to investigate the impact of institutional ownership on the firm performance using a sample of 100 French start-ups for a period from 2004 to 2008. Our findings reveal that market liquidity affect significantly the relationship between institutions' shareholding and firm performance.

KEYWORDS:

Ownership structure, corporate governance, firm performance, liquidity, institutional shareholder activism.

1. INTRODUCTION

The increasing presence of institutional investors in firms' capital raises the question on the responsibility of these actors in the dynamics of corporate governance and its impact on firm financial performance. The significance of the relationship between governance and financial performance is not obvious (Bhagat and Bolton (2008), Ronald (2007), and Sanja and Brian (2007)). Nevertheless, although literature has not identified and demonstrated such relationship, we cannot conclude that it does not exist. Indeed, determining the factors affecting the performance is quite complicated and consequently it is not evident to find a meaningful relationship through a few studies on corporate governance. Therefore, the scarcity of empirical studies on corporate governance dealing with the case when institutional investors are large shareholders represents a motivation to carry out a research in this field. In this paper, we propose a new approach to the study of governance-related financial performance. In this perspective study, we show that the relationship between institutional ownership concentration and financial performance is a trinomial relationship. So, we identify another variable which coordinates the effect of the institutional ownership concentration on performance ((Jackie, Yiping, and Jacques, (2008), Marcia et al. (2006), and Springer (2008)). Thus, we relax the assumption of trade-off between liquidity and control, and we assume that liquidity is a new form of activism, which coordinates the behavior of institutional investors to undertake the measures necessary to intervene in the management of the company to improve financial performance. It is important to note that this is not the change in the ownership structure that prevails on performance but it is the action of the ownership that enhances the performance. Our contribution in research of the relationship between governance and financial performance is to identify the factor that

drives the link between performance and institutional ownership. Thus, we believe that liquidity is a source of information (Gregoriou et al. 2003) for institutional investors who have the ability to interpret the information reflected in the stock price (Gompers et al. 2003). On the one hand the liquidity helps to develop an opinion on the current and expected firm performance as well as on the strategic policy of managers (Arnold et al. 2006); on the other hand it is a way to reduce the information asymmetry between managers and institutional investors. The observation of this information reflects market's assessment of managerial decisions by investors. Given that liquidity is the most important determinant of investment, we think there is a relationship between institutional ownership and market liquidity. The main objective of this paper is to measure the influence of market liquidity (new form of activism) on the relationship between institutional ownership concentration and firm financial performance. Indeed, theoretical and empirical studies suggest that the relationship between the governance mechanisms and corporate performance can be positive, negative or absent. Therefore, we attempt to investigate how governance affects performance. The rest of the paper is organized as follows. Section 2 develops research hypotheses. Section 3 presents the research methodology and data collection. Section 4 presents research results. Section 5 concludes and develops further research perspectives.

2. HYPOTHESES DEVELOPMENT

Studies by Kahn and Winton (1985), Lee, Mucklow and Ready (1993) and Maug (1998) argue that liquidity decreases the monitoring activity of shareholders since it give them the possibility to leave the firm more easily. Bhide (1993) and Admati, Pfleiderer and Zechner (1994) show how liquid markets undermine the management efficiency by providing investors with an easy exit. In addition, Holmstrom and Tirole (1993) argue that market liquidity and information are extremely important elements of good corporate governance. In companies that adopt bad practices of information disclosure, managers benefit from their informational advantage to pursue their own control interests, which will ultimately lead to an increase in agency costs for shareholders. While the agency problem worsens, insiders such as executives or owners of control can easily exploit the wealth and the rights of small shareholders, and for this reason that poor corporate governance practice is associated with information opacity. The improvement of transparency and disclosure practices ultimately leads to better corporate governance since information revelation practices can be regarded as effective mechanisms for the protection of outsider shareholders' rights. Best transparency practices and information disclosure help shareholders to better understand managerial behavior and contribute to the reduction of the information asymmetry. Reflect the financial market, investors not only want to pay a higher price to buy stock shares of companies with better disclosure of information, but they are also more willing to trade in the capital market. There is an abundance of studies on the effects of corporate governance on equity prices. To the best of our knowledge, no study of them has yet investigated the impact of liquidity on corporate governance. The relationship between information disclosure practices and governance has been well highlighted by the previous literature. Lowenstein (1996) argue that good information disclosure is an effective mechanism to ensure that managers run the firm correctly suggesting that companies with better information disclosure have efficient governance. La Porta e al. (1998), Ho and Wong (2001), Mitton (2002), Patel and Dallas (2002), Botosani (1997) and Lang and Lundholm (1999) suggest that financial transparency plays a crucial role in corporate governance since information disclosure can reduce the information asymmetry between managers and investors and thereby reduce the cost of equity capital. Hauswald and Marquez (2006) develop a theoretical model that argue that promoting greater financial transparency and information disclosure policies attracts new investors and consequently increases corporate control by the market. Nevertheless, there are few studies that focus on the impact of corporate governance on the stock market liquidity (Butler et al. (2002)). If the assessment of corporate governance is reflected in the stock market liquidity, investors will take a measure of price-protection expanding the diffusion of the firm's stocks to offset potential losses of informed investors' activities. Thus the quality of governance or the effectiveness of managers is reflected by the degree of market liquidity, i.e. the ease of trading in shares on the market. In this perspective liquidity is a factor to assess decisions and corporate strategies. Welker (1995) proposes that the bid-ask spread is an increasing function of the risk of asymmetric information and this perceived risk depends on the information disclosure practices. He documents a negative relationship between information revelation and the bid-ask spread. So can we assume that the liquidity level reflects the quality of corporate governance? In this perspective Wei-Peng et al. (2005) confirm that a better market liquidity resulting from the informational reliability induces good corporate governance and vice versa. So, a better disclosure policy reduces information asymmetry and agency costs borne by investors. However the liquidity degree depends on the level of ownership concentration. According to Holmstrom and Tirole (1993), the concentrated ownership reduces the incentive for investors to control managers, decreases the amount of information available

about the firm and reduces liquidity. Empirical studies in the U.S. market do not however confirm these results.

Liquidity is an essential characteristic of the stock market as well as efficiency. While efficiency refers to the speed with which information is integrated in the stock price, liquidity refers to the ease with which buyers and sellers deal promptly with minimal impact on stock prices.

A liquid stock market is it a prerequisite for effective corporate governance?

The causal empiricism suggests that a liquid market provides the opportunity for shareholders to sell the shares owned when they receive adverse information about the firm's governance. Bhide (1993) argues that liquid markets are an obstacle to successful governance. Findings in Coffee (1991) confirm this idea. However, although financial markets become more liquid and efficient, shareholders should increase their monitoring activity because the threat of takeover becomes less frequently used as a mechanism to correct managerial failure by large institutional shareholders. Recently the Wall Street Journal has noted that individual investors have also accumulated a minority stake to influence the management of the company. There seems to be no clear evidence for the hypothesis that high financial market liquidity may reduce monitoring by outside shareholders. Maug (1998) emphasizes that stock market liquidity hinders the effective corporate governance and argues that the tradeoff between liquidity and control does not exist. It is easy to accept the argument that in a liquid stock market is less costly to sell a large stake. However, a liquid market makes it easier for investors to accumulate large stakes without substantially affecting the stock prices. The last point is extensively discussed in relation to takeover threats by Kyle and Villa (1991). The stock market liquidity has two opposing effects on corporate governance. On the one hand, market liquidity facilitates the control of the firm because it stimulates the existence of large shareholders that can rectify the failure of managers. On the other hand, market liquidity also allows large shareholders to easily sell their shares when they expect a fall in stock prices rather than intervening in the management of the company. Which one of these effects is dominant is a matter to be determined empirically. The information generated by the transaction may increase the incentives of institutional investors to start the growing activities of value that are privately costly. This information makes the liquidation value of the stake of insiders more sensitive to the activity. This insight requires that firms make an effort to encourage the activism of institutional investors. The information revealed by the liquidity allows the assessment of executives' activities and the firm's performance. Liquidity in all cases is a key regulator of the intensity and frequency of monitoring. The attention paid today to the role of institutional investors in corporate governance can be explained by their growing weight in capital markets as well as by the renewal of their behavior. This renewal qualified by institutional activism has significantly accelerated since the late 1980s (Brav et al., 2008). Liquidity is the ultimate power of the investors because it coincides with the ability to bring down the stock prices, thus it weighs directly on the sustainability of strategies based on the financial markets. Stock markets are now exerting an influence on firms' managers because their evolutions reflect the assessment of firm strategies. The market valorization reflects the opinions of investors about the policies adopted by the firm and its growth opportunities and future performance. The capital market also participates in determining the cost of capital and sanctions the decisions taken by managers or at least reduces their flexibility. The success of this control requires that the information incorporated in the signals transmitted by the market must be reliable. This raises the question of the efficiency of capital markets. The existence of speculative bubbles and inconsistent behaviors or mimicking contradicts the efficiency hypothesis. More generally, it raises questions about the nature and origin of the information incorporated in stock prices. Logically, small shareholders have no incentive to invest in corporate valuation, only larger shareholders have the ability and motivation to collect and process relevant information since the capital market seems to be an alternative to activism. Coffee and Bhide (1993) assume that market liquidity allows potentially active shareholders to exit and not engage in monitoring and corporate governance. What seems not to have been widely recognized is the possibility that market liquidity itself could be a form of shareholder activism. An exception, Palmiter (2002) suggests that large shareholders may be able to affect managerial decisions by the threat (real or implicit) to sell their shares and drive down stock prices. If the exit of a large shareholder has a negative impact on prices, then the presence of a large shareholder, who could potentially enjoy an informational advantage to liquidate partially or defend his possession, can help to discipline managers and improves corporate governance. Wintoki,, Linck, and Netter (2008) suggest that the corporate ownership structure is important for financial performance. Standard theoretical predictions about the relative efficacy of different ownership structures are based on the principal-agent model. According to this model, a monitoring problem arises with the separation of ownership and management. When owners do not control the corporations, managers are able to pursue their own economic interests. Dispersion of ownership reduces the ability of shareholders to remove bad managers, and also reduces the

ability of shareholders to monitor the managerial activity. The incentives and opportunities to monitor the managerial decisions depend on two factors: the concentration of ownership and the category of shareholder. The appropriate characteristic to the ownership structure is the division between outsiders and insiders. Insiders are owners or others who for some reasons have access to inside information and also the power to make changes in the company. In addition to the problem of monitoring vis-à-vis the management of the company, there are potential conflicts of interests between sub-groups of owners. These conflicts occur between shareholders and managers, between bondholders and shareholders, between small and large shareholders and between outsiders and insiders. The agency theory cannot answer the question of whether the net impact of the ownership concentration on the expected performance is positive or negative. Therefore, the net effects should be determined empirically. Empirical studies on this topic analyze the ownership concentration and the shareholding of insiders. The results are inconclusive although that the majority of studies find no link or a positive relationship between ownership concentration and performance, but a non-monotonic relation between the shareholding of insiders and performance. These studies assume that ownership structure is exogenous. This hypothesis is challenged by Cho (1998), who finds empirical evidence suggesting that performance affects ownership structure, and not the opposite.

Main hypothesis: Market liquidity has a positive effect on the relationship between institutional ownership and firm performance.

Some authors argue that the separation between ownership and management would entail a conflict of interests between insiders and other shareholders and to avoid such conflicts the two functions should be accumulated. The alignment of interests depends positively on the shareholding of managers. Other authors argue the existence of a nonlinear relationship between ownership concentration and firm value. The value destruction appears at a high level of ownership concentration.

Secondary hypothesis 1: Institutional ownership has a neutral effect on firm performance.

Several studies clarify the relationship between liquidity and efficiency of corporate governance. Bhide (1993) suggests that a liquid market is an obstacle to effective control because it reduces the costs of exit for unhappy shareholders. Maug (1998) develops a theoretical model to study this negative effect of liquidity against a positive effect which consists in the reduction of the problem of free exit of small shareholders (greater liquidity makes the holding of large stakes less costly). The model suggests that the positive effect dominates the negative effect. Therefore a more liquid market makes governance more effective. The key variable behind the capacity to assume the monitoring of managers is the information. These studies provide no evidence on the relationship between liquidity and governance and between liquidity and performance. The question of how the effects of performance and liquidity effects are interrelated is an important research question. There is no clear way to calculate the impact of the lack of liquidity on corporate performance or cost of capital. The relationship between market microstructure and corporate finance has become an important research area to explore. The market microstructure theory predicts that informational advantage will be reflected by market liquidity and higher transaction costs. Thus, the effect of control is expected to be offset by costs related to reduced liquidity. According to the agency theory, the effectiveness of a particular ownership structure depends on its ability to deal with conflicts increasingly posed by the separation of ownership and management. Several researchers have used the concentration of insiders as a proxy for adverse selection component of the price range but the impact of ownership structure on the liquidity level has not been directly tested. Seyhun (1986), Sarin, Shastri and Shastri (2000) show that the current liquidity decreases with concentrated ownership. They find that the loss of liquidity in the case of higher ownership of insiders ensues from adverse selection costs. In the case of institutional ownership, the loss of liquidity ensues from higher inventory costs. Holmstrm and Tirole (1993) derive a theoretical model where market liquidity and ownership concentration are negatively related. The model shows that when a large owner reduces his ownership, liquidity increases because additional stocks will be available for transaction. Demsetz (1968) demonstrates that the most important determinant of market liquidity is the number of shareholders. Therefore, the concentrated ownership of insiders would mean less number of shares available on the market and therefore leads to a reduced liquidity. There is no clear postulate about the relationship between institutional ownership and stock liquidity. Heflin and Shaw (2000) and Hamilton (1978) find a negative relationship between institutional ownership and liquidity measured by the bid-ask spread. Similar result was found by Kothare and Laux (1995) for NASDAQ stocks. There are also research findings that suggest a non-significant relationship between institutional ownership and liquidity (Fabozzi, 1979). It is clear that the a priori relationship between liquidity and institutional ownership is not defined theoretically as well as empirically. Bolton and Von Thadden (1998a and 1998b) develop a model of corporate control. They analyze the determinants of control structure. The comparative static analysis of the model shows that the

optimal concentration of the ownership structure is positively related to the market liquidity. When securities are highly liquid, the emergence of a major shareholder for the purpose to rectify managerial misbehavior is easier than in an illiquid market. The anticipation of a more intensive monitoring in an illiquid market leads other shareholders to sell their shares until the price internalize levels ex-post control. They conclude that the emergence of a major shareholder to ensure the monitoring function is facilitated by the liquidity of the securities. This evidence suggests that the liquidity can cause institutional ownership and not vice versa.

The literature on market microstructure reveals that institutional investors play an important role in monitoring. Thus, a relationship between institutional ownership and the liquidity of the firm's securities may exist. The influence of institutional investors on the current liquidity may be further strengthened by the influence of their transactions on stock prices (Lakonishok, Schleifer and Vishny, 1992). Hayong (2006) examines the relationship between ownership and liquidity by showing a strong correlation between the variables of ownership (the holding of shares by insiders, the holding of shares by institutional, institutional blockholders and insider blockholders). The market microstructure theory suggests a negative relationship between liquidity and ownership of investors who have privileged access to information. A critic sent to this theory since it did not classify investors into insiders and outsiders and that concentrated ownership has a negative impact on liquidity even in the absence of asymmetric information because that there will be fewer transactions. There are no clear theoretical predictions on the net impact of liquidity on institutional ownership. The theory suggests that large institutional investors have a potential informational advantage because they have more resources to collect and analyze information. Institutional ownership is indirect and the best investment policy is to hold diversified portfolios. The latter argument suggests that the liquidity can cause institutional ownership.

In this paper, we explore the relationship between measures of liquidity and institutional ownership concentration by testing the following hypothesis:

Secondary hypothesis 2: Market liquidity negatively influences institutional ownership.

Amihud and Mendelson (1986), Jacoby, Fowler and Gottesman (2000), Glosten and Milgrom (1985) show a direct link between liquidity and cost of capital. They note that liquidity has a significant impact on the evaluation of securities.

Amihud, Mendelson and Uno (2000) find that the increase of the number and categories of investors affects positively the market liquidity. Such increase is also associated with augmentation in stock prices. Brennan and Subrahmanyam (1996), Chordia, Roll and Subrahmanyam (2000), and Datar, Naik and Radcliffe (1998) find a significant relationship between liquidity (as measured by bid-ask spread or trading volume), capital return and risk control. More recently, some studies have also studied the relationship between the liquidity risk and current returns. Chordia, Subrahmanyam and Anshuman (2001) find a negative relationship between returns and the variability of trading volume. Brennan et al. (1998) also show a negative correlation between the historical profitability and liquidity. Findings in Pastor and Stambaugh (2003) reveal a positive relationship between the systematic risk of liquidity and stock returns. Tatsuo (2005) and Gerald et al. (2006) show that the growth of the firm is highly sensitive to liquidity.

Secondary Hypothesis 3: The capital market liquidity has a neutral effect on firm performance.

3. DATA SOURCES AND METHODOLOGY FOR SELECTING INDICATORS TO MEASURE VARIABLES

3.1. Data sources

Our sample covers a number of start-ups listed on the Paris stock market between 2004 and 2006 (see Table 1) since during this period there was an importance presence of institutional investors in the capital of these start-ups (see Table 2). We restricted the sample to exclude financial firms since the behavior and the capital structure of these firms are very different than those of other industries. Thus, our sample consists in 100 companies representing 61% of all startups listed during this period. Our data were collected from different sources depending on their nature (accounting, listing or issuance characteristics. Market data (stock quotes, market capitalization, ask price, bid price, high prices, low prices, market-to-book ratios, market capitalization, trading volume, price index (benchmark) and the number of shares ... etc.) were extracted from the DataStream database. Accounting data (ROA, ROE, net income, operating income, book value, market value ...etc.) were obtained from the Worldscope database. In case of lack of certain accounting and market data, they were completed from the Diana database. From the annual reports

of each firm we extracted data on the ownership structure after the IPO (institutional shareholders, the first five and the twenty largest institutional shareholders whether insider or outsider). Information about selected firms was collected from IPO prospectuses.

3.2. Methodology for selecting indicators to measure variables

3.2.1. Measure of liquidity

Several proxies can be employed to measure the liquidity. In this paper, two measures are used. The first one uses the trading volume. It is the speed of turnover of securities employed by Krigman et al. (1999). This measure refers to the number of shares outstanding traded during a day compared to the total number of shares admitted to listing. The second one consists in the bid-ask spread.

The turnover used as a proxy for the stock liquidity is defined as follows:

$$TURNOVER_{i,i} = \frac{1}{D_{i,t}} \sum_{d=1}^{D_{i,t}} \frac{TURNOVER_{i,,d,t}}{N_{i,d,t}} \tag{1}$$

Where D_{it} is the number of trading days of the start-up i in the month t $TURNOVER_{i,d,t}$ is the number of shares of the start-up i traded on the day d and in the month t . N is the number total shares admitted to trading during the day i, and month t .

The second measure of liquidity is the price spread. Reese (1998) emphasizes that the use of this measure as a proxy may be biased, because operators do not adjust their estimates on the range Bid-Ask as quickly as the market changes. This measure is based on the closing ask and bid price, calculated as follows:

$$BIDASK_{it} = \frac{1}{D_{it}} \sum_{d=1}^{D_{i,t}} \frac{2(P^A_{i,d,t} - P^B_{i,d,t})}{(P^A_{i,d,t} + P^B_{i,d,t})} \tag{2}$$

Where D_{it} is the number of trading days of the start-up i in the month t. $P^A_{i,d,t}$ and are respectively the closing Ask price and the closing bid price of the company i on the day d and in the month t .

3.2.2. Measure of ownership structure

In economic and financial literature there are different ways to measure the concentration (or dispersion). However, the difficulty faced by studies on the ownership structure and control is the absence of a single appropriate measure on the degree of ownership concentration. This ambiguity arises because the ownership structure reflects the number of shares held by an investor. We measure ownership structure with reference to the criterion used by Wruck (1989) who defines as "blockholder" a shareholder who owns a block of shares exceeding the threshold of 5% of the firm's capital. By level of concentration (CONC, below), we mean the percentage of shares (α) of the n largest shareholders.

$$CONC_i = \sum_{K=1}^{n} \alpha_{i,k} \tag{3}$$

where k represents the kth shareholder classified in descending order of importance. We use this variable to determine the significance of the top five (TOP5) and the top twenty (TOP20) shareholders. And the variable (INST) measured by the percentage of shares held by institutional shareholders, which is the ratio of number of shares owned by each class of institutional investors and the total number of shares outstanding (Randi, 2004)

3.2.3. Performance Measurement

The measurement of long-term performance is a complex and controversial issue. We use several methods to measure the performance: Buy-and-Hold Return (BAHR), Return on Equity (ROE), and the Return on Assets (ROA). The first method we use to measure long-term performance is based on the calculation of buy-and-hold return for T periods, with $T = 3$ years. Roll (1983) demonstrates that the Buy-and-Hold Return is an unbiased estimator of the performance. Barber and Lyon (1997) note that Buy-and-Hold Return is the appropriate measure to study the behavior of long-term investor. They criticize the use of

the method of long-term cumulative abnormal returns. Indeed, they argue that the cumulative abnormal returns measure can be used to study the performance in the short-term, but it is a biased estimator for the long-term performance. The Buy-and Hold is the return received by investors when selling their possessions to the market, to eliminate some bias caused by the daily or monthly abnormal return. It is computed on the basis of closing prices from yesterday closure using the formula as indicated by Ritter (1991).

$$R_{i,t} = \prod_{i=1}^{T} (1 + r_{i,t}) \qquad (4)$$

Where $r_{i,t} = \dfrac{1}{D_{i,t}} \displaystyle\sum_{d=1}^{D_{i,t}} \dfrac{P_{i,d,t} - P_{0,d,t}}{P_{0,d,t}}$, $P_{i,d,t}$ is the closing price of the start-up i on the day d and in the month t and

$P_{i,d,t}$ is the closing price of the start-up i just before the day and the month t.

We use the same method of Evan (2000) to calculate the profitability index (benchmark) over the same period as expressed by the following formula:

$$RI_{i,t} = \prod_{i=1}^{T} (1 + w_{i,t}) \qquad (5)$$

Where $, w_{i,t} = \dfrac{1}{D_{i,t}} \displaystyle\sum_{d=1}^{D_{i,t}} \dfrac{I_{i,d,t} - I_{0,d,t}}{I_{0,d,t}}$ where $I_{i,d,t}$ is the price of the index i on the day d and in the month t and $I_{o,d,t}$ is

the price of the index i of the previous day for each start-up's industry. So the formula of the Buy-and Hold Return is defined by the following equation:

$$BHAR_{t,t} = \left[\prod_{t=1}^{T} (1 + r_{i,t}) - 1 \right] - \left[\prod_{i=1}^{T} (1 + w_{i,t}) - 1 \right] \qquad (6)$$

The average abnormal returns adjusted for the period t is defined by:

$$BHART_t = \frac{1}{n} \sum_{i=1}^{n} BHAR_{i,t} \qquad (7)$$

With n is the number of start-ups composing our sample.

The second method is the Return on Equity (ROE): This ratio measures how efficiently the company uses the equity to generate additional revenue. It shows the share of profits arising from the use of resources provided by shareholders.

$$ROE = \frac{NI}{E} \qquad (8)$$

Where NI :Net Income;E : Equity

The third measure of the firm performance is the Return on Assets (ROA). It is an accounting ratio that does not includes the concept of risk. The utility of this ratio in financial decision making is limited while it is very important for the corporate control or financial analysis. The financial analysis helps to make an overall assessment on the current and future situation of the company. This financial ratio measures the efficacy of the firm activity from a financial standpoint.

$$ROA = \frac{NI}{TA} \qquad (9)$$

Where NI : Net Income;TA : Total Assets

We seek not only to confirm the relationship between these different variables but to show the role of liquidity in the relationship between governance and financial performance.

4. REGRESSION RESULTS

Table V shows that the Turnover (Model 1) does not influence the relationship between the institutional ownership concentration and financial performance despite the significance of the model at 5% level. We note that the coefficents associated with Turnover and institutional ownership are not significant which leads us to accept the null hypothesis and reject the model explaining the influence of

liquidity on the relationship between financial performance and institutional ownership. By contrast, liquidity as measured by the bid-ask spread has a significant influence on the relationship between ownership and financial performance measured by the ROE (Return on Equity). In the model 2, we connect the ROE to the Bid-Ask spread and institutional ownership (Inst) is significant at 5% level. Nevertheless, the coefficient associated with Inst is not significant at 5% level (coefficient = -0.0028, t-statistic = -0.759, p-value = 0.449). However, the coefficient related to the Bid-Ask Spread (model 2) is significant at 5% level (coefficient = 0.019, t-statistic = 1.663, p-value = 0.009). This result may be partially explained by the endogeneity of liquidity. So we can demonstrate the positive effect of the lack of liquidity on the relationship between institutional ownership and financial performance. If we replace the variable *Inst* by Top5, the model that expresses the influence of liquidity on the relationship between performance and institutional ownership concentration becomes significant at 5% level. The coefficient of Top 5 is significantly negative at 5% level (coefficient = -0.003, t-statistic = - 0.685, p-value = 0.052). The coefficient related to the Bid-Ask spread is significant at the 5% level (coefficient = 0.02, t-statistic = 1.681, p-value = 0.095) which allows us to reject the null hypothesis and therefore accept the model explains the effect of liquidity on the relationship between the institutional ownership concentration and financial performance. The capital market liquidity outweighs the cash liquidity and hence investors with their powers expressed by the concentration and low information asymmetry act in the favor of the firm. In the case of Top20 (high concentration) the model is not significant. This result is important since it emphasizes the important influence of the liquidity on the relationship between the institutional ownership concentration and financial performance. This relationship is meaningful only in the presence of the liquidity as a coordinator of the effect of institutional ownership on financial performance. Moreover, this evidence eliminates the complexity of causality between these two variables by suggesting that the effectiveness of monitoring depends on two key factors: the level of concentration and the category of shareholders. Our findings suggest that it is very worthwhile to focus on the interaction between the liquidity and the institutional ownership concentration. The tradeoff between liquidity and control is measured by the level of liquidity, which will influence the behavior of institutional investors according to the firm's situation, since they have informational advantages which allow them to rationally assess the firm performance. If the liquidity is sufficient to initiate an exit strategy that involves plenty of control, in this case the performance does not improve, since it is a bad event that induces the reduction in stock prices given the transaction volume of these institutional investors. By contrast, if the liquidity and the performance are considered inadequate, investors step up their control and discuss with managers in order to find solutions to improve financial performance.

The negative effect of the liquidity is explained by Bolton and Von Thadden (1998) by the fact that the liquidity provides an easier exit and hence the lack of control. However, they omitted in their interpretation that the choice of any strategy by institutional investors depends on the liquidity level and firm performance. Our findings reveal that the negative effect of liquidity does not confirm the hypothesis of trade-off between liquidity and control, but means the intensity or the frequency of control may improve financial performance. The degree of market liquidity determines the behavior of institutional investors to act passively or actively (Noe,, 2002). These results suggest that the relationship between financial performance and institutional ownership concentration largely depends on the interaction between the two mechanisms of governance (activism and moderate ownership concentration). Our findings reject the hypothesis of the trade-off between liquidity and control and suggest that institutional investors play an important role in the control. In addition, we document a significant influence of the liquidity on the relationship between financial performance and institutional ownership concentration.

[Insert Table 5]

Our results also show that the institutional ownership structure has a neutral effect on financial performance (Emma, 2003).

[Insert Table 6]

Table 7 shows that the turnover and institutional ownership are positively correlated. The model is significant at 10% level and the regression coefficients are significantly different from zero at the 10% level which allows us to reject the null hypothesis. However the coefficients associated with Turnover are not significant suggesting the absence of a correlation between these two variables. However, this result does not exclude the existence of the relationship between institutional ownership and market liquidity which may be nonlinear. Sarin et al. (2000) confirm that the liquidity level depends on the fraction of capital held by institutional investors and that the effect of institutional ownership on liquidity cannot be measured only by the ownership concentration but also by the presence of this category of investors. Lee et al. (2000) show that there is no clear justification of the use of the Turnover as a proxy for liquidity. They confirm the weak

correlation between the Turnover and others liquidity proxies.

When the liquidity is measured by the bid-ask spread, the relationship between these two variables is negative. The Fisher test (F-statistic = 4.79) confirms that the model is significant at 10% level (model (2)). Moreover, the coefficients associated with this variable are significant at 10% level. The significance of this model demonstrates the negative correlation between market liquidity and institutional ownership concentration. This result is consistent with findings in Randi (2004). According to Bolton and Von Thadden (1998), the high liquidity level encourages the exit of investors instead of engaging them in a process of control. However, they ignore that this high liquidity level can increase the acquisition of new shares by the investors. Large shareholders tend to increase their holdings in a more liquid market.

The key variable behind the capacity to assume corporate monitoring is the informational advantage. The theoretical implication of asymmetric information for the capital market equilibrium is the essential matter of the market microstructure literature. The market microstructure models describe how the fear of dealing with someone having informational advantage is reflected in stocks liquidity through higher implicit transaction costs.

[Insert Table 7]

The results reported in table 8 show that both models are significant at 1% level. Thus, we can reject the null hypothesis according to which the capital market liquidity affects significantly the firm performance. Indeed, our findings reveal that the coefficient associated with the market performance (BHAR) is negative but non-significant for the both models suggesting that liquidity has no effect on firm performance. In other words, the activism itself has no impact on firm performance as demonstrated by recent literature on activism. Tatsuo (2005) investigates the relationship between liquidity and firm performance in a sample of Japanese start-ups. He shows that liquidity has no impact on performance measured by the Tobin's Q.
[Insert Table 8]

5. CONCLUSION

In this paper we presented the theoretical foundation of the new approach and the formulation of hypotheses as well as the logical reasoning of suggested relationships. We conducted our study using a sample of IPOs listed in the Paris stock market between 2004 and 2006. Our choice for this sample is justified by the importance of the IPO event for the company and the massive participation of institutional investors in the capital of those companies. This institutional ownership increases the power of corporate control and reduces the managerial opportunism and the information asymmetry. The role of capital markets as a monitoring mechanism is not new. The objective was to find a tool that allows an assessment of the managerial performance. The dominant assumption of capital market is without doubt its efficiency. If this hypothesis is satisfied, liquidity can reflects the quality of corporate governance. This paper extends the study of the governance-performance relationship to move from two-dimensional to three-dimensional approach. We elucidated the relationship between financial performance and the interaction between liquidity and institutional ownership. Our findings reveal a positive effect of control mechanisms on financial performance. Future studies can focus on the determination of the coefficient of interaction between liquidity and ownership concentration that determines the frequency and intensity of control.

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Table 1. Industry breakdown of the sample

Panel A: Industry breakdown of the sample (N = 100)

Industry	Number	%
Biotechnology	06	6
Manufacturing & service	31	31
IT Services	04	4
Health care	07	7
Software	10	10
Technology	21	21
Telecommunications	13	13
Media	08	8
TOTAL	100	100

Table 2. Descriptive statistics of the ownership structure of our sample between 2004 and 2006

Panel B: ownership structure on the Euronext Paris between 2004-2006.

Measures of ownership structure	Mean	Median	Std. Dev.	Min	Max
Inst en %	36.54	33.5	18.59	1	100
Top5 en %	26.16	24.65	20.83	0	82.33
Top20 en %	17.69	0	27.09	0	88.89

Table 3. Descriptive statistics of the liquidity of our sample between 2004-2006.

Panel C: Liquidity on the Euronext Paris between 2004-2006 (N = 100).

Variables	Mean	Median	St. Dev.	Min	Max
Turnover in %	4.62	4.76	1.02	1.13	6.84
Bid-Ask Spread in %	1.96	1.93	0.94	0.04	4.42

Table 4. Descriptive statistics of the financial performance of our sample between 2004 and 2006

Panel D: Descriptive statistics of the financial performance (N=100).					
Variables	Mean	Median	St. Dev.	Min	Max
BHAR%	-22.27	-25.16	50.09	-136.72	157.70
ROE en %	9.66	7.61	8.05	0.66	46.51
ROA en %	17.43	13.40	15.15	0.62	86.19

Tables 5. These tables present the regression results of institutional ownership, performance and liquidity measures. Where the concentration (CONC): INST is the percentage of equity held by institutional investors, top5 and top 20 are respectively the proportions held by the five and the twenty largest institutional shareholders (see equation 3). Liquidity: The Turnover is the ratio of trading volume over the total number of securities admitted to trading (see equation 1). The price range equals the

difference between Ask prices and Bid prices reported to the average of Ask prices and Bid prices (see equation 2). Performance: ROE (Return on Equity) is the ratio of net income over equity (see equation 4). T-statistics in parentheses, a, b and c indicate respectively significance at the level of 10%, 5% and 1%. The p-value (p-()).

Model 1: ROE = α_0 + α_1 TURNOVER + α_2 CONC + ø

Explanatory variables	Dependent variables		
	ROE Coefficients	ROE Coefficients	ROE Coefficients
Intercept	4.32 (20.263)[b] p-(0.000)	4.355 (22.206)[b] p-(0.000)	4.382 (24.171)[b] p-(0.000)
Inst	0.0052 (1.272) p-(0.206)		-
Top5	-	0.0063 (1.293) p-(0.198)	-
Top20	-	-	0.0061 (1.409) p-(0.161)
Turnover	0.011 (0.905) p-(0.138)	0.010 (0.833) p-(0.406)	0.014 (1.102) p-(0.273)
R² F-statistic	0.026 1.322	0.027 1.351	0.030 1.508

Model 2: ROE = α_0 + α_1 BID-ASKR + α_2 CONC + ø,

Explanatory variables	Dependent variables		
	ROE Coefficients	ROE Coefficients	ROE Coefficients
Intercept	1.875 (9.57) p-(0.000)[b]	1.848 (10.252)[b] p-(0.000)	1.853 (11.130)[b] p-(0.000)
Inst	-0.0028 (-0.759) p-(0.449)	-	-
Top5	-	-0.003 (-0.685)[b] p-(0.052)	-
Top20	-	-	-0.004 (-0.973) p-(0.332)
Bid-Ask	0.019 (1.663)[b] p-(0.099)	0.020 (1.681)[b] p-(0.095)	0.018 (1.544) p-(0.125)
R² F-statistic	0.032 1.578	0.031 1.523	0.035 1.786

Table 6. This table presents regression results for the relationship between institutional ownership concentration and financial performance: BAHR (Buy-and-Hold ratio) is the average adjusted abnormal returns (see equation 7), ROE (Return on Equity) equals net income divided by equity (see equation 8) and ROA (Return on Assets) is defined as net income reported to total assets (see equation 9). Institutional ownership: INST is the percentage of capital held by institutional investors, and TOP 5 and TOP 20 are respectively the proportions held by the five and the twenty largest institutional shareholders (see equation 3). T-statistics in parentheses, a, b and c indicate respectively significance at the level of 10%, 5% and 1%. The p-value (p-()).

Model 1: Inst= $\alpha_0 + \alpha_1 BHAR + \emptyset$

Model 2: Top5= $\alpha_0 + \alpha_1 ROA + \emptyset$

Model 3: Top20= $\alpha_0 + \alpha_1 ROE + \emptyset$

Explanatory variables	Dependent variables					
	Model 1		Model 2		Model 3	
	Coefficients		Coefficients		Coefficients	
	Intercepte	BHAR	Intercepte	ROA	Intercepte	ROE
Inst	36.589	0.002	35.19	0.077	34.06	0.256
	(13.265)[c]	(0.041)	(9.152)[c]	(0.465)	(8.66)[c]	(0 .817)
	p- (0.000)	p-(0.967)	p-(0.000)	p-(0.642)	p-(0.000)	p-(0.414)
Top5	26.61	0.019	23 .307	0.107	22.840	0.344
	(11.506)[c]	(0.466)	(7.544)[c]	(0.765)	(6.960)[c]	(1.319)
	p-(0.000)	p-(0.641)	p-(0.000)	p-(0.445)	p-(0.000)	p- (0.190)
Top20	17.843	0.009	18.344	0 .040	19.419	-0.184
	(6.876)[c]	(0.193)	(5.066)[c]	(-0.257)	(5.244)[c]	(-0.624)
	p-(0.000)	p-(0.847)	p-(0.000)	p-(0.796)	p-(0.000)	p-(0.533)

Table 7. This table presents regression results for the relationship between liquidity and institutional ownership concentration. Concentration (CONC): INST is the percentage of equity held by institutional investors, and TOP20 and TOP5 are respectively the proportions held by the five and the twenty largest institutional shareholders (see équation3). Turnover is the ratio of trading volume and the total number of securities admitted to trading (see equation 1). The price range equals the difference between Ask prices and Bid prices reported to the average of Ask prices and Bid prices (see equation 2). T-statistics in parentheses, a, b and c indicate respectively significance at the level of 10%, 5% and 1%. The p-value (p-()).

Model 1 : TURNOVER = $\alpha_0 + \alpha_1 CONC + \emptyset$

Variables	Explanatory variables					
	Coefficients		Coefficients		Coefficients	
	Intercepte	Inst	Intercepte	Top5	Intercepte	Top20
Turnover	4.42	0.0055	4.44	0.007	4.52	0.0058
	(24.34)[a]	(1.35)	(27.13)	(1.41)	(35.30)[a]	(1.34)
	p-(0.000)	p- (0.179)	p-(0.000)	p (0.159)	p-(0.000)	p (0.183)

Model 2: BID-ASKR = $\alpha_0 + \alpha_1 CONC + \emptyset$

Variables	Explanatory variables					
	Coefficients		Coefficients		Coefficients	
	Intercepte	Inst	Intercepte	Top5	Intercepte	Top20
Bid-Ask	2.37	-0.012	2.28	-0.014	2.12	-0.011
	(12.04)[a]	(-2.33)[a]	(10.68)[a]	(-2.18)[a]	(12.67)[a]	(-2.03)[a]
	p-(0.000)	p(0.000)	p-(0.000)	p- (0.000)	p-(0.000)	p- (0.000)

Table 8: This table presents regression results for the relationship between liquidity and financial performance. Performance: BAHR (Buy-and-Hold ratio) is the average adjusted abnormal returns (see equation 7), ROE (Return on Equity) equals net income divided by equity (see equation 8) and ROA (Return on Assets) is defined as net income reported to total assets (see equation 9). Turnover is the ratio of trading volume and the total number of securities admitted to trading (see equation 1). Liquidity: the price range equals the difference between Ask prices and Bid prices reported to the average of Ask prices and Bid prices (see equation 2). T-statistics in parentheses, a, b and c indicate respectively significance at the level of 10%, 5% and 1%. The p-value (p-()).

Modèle 1 : TURNOVER $= \alpha_0 + \alpha_1$ PERFORMANCE $+ \, \emptyset$

	Explanatory variables					
Variables	Coefficients		Coefficients		Coefficients	
	Intercepte	BHAR	Intercepte	ROA	Intercepte	ROE
Turnover	4.59	-0.001	4.54	0.004	4.50	0.012
	(40.68)[c]	(-0.775)	(28.85)[c]	(0.657)	(27.95)[c]	(1.010)
	p-(0.000)	p-(0.440)	p-(0.000)	p-(0.512)	p-(0.000)	p- (0.314)

Model 2: BID-ASK $= \alpha_0 + \alpha_1$ PERFORMANCE $+ \emptyset$

	Explanatory variables					
Variables	Coefficients		Coefficients		Coefficients	
	Intercepte	BHAR	Intercepte	ROA	Intercepte	ROE
Bid-Ask	1.94	-0.0005	1.77	0.018	1.76	0.017
	(18.68)[c]	(-0.308)	(12.08)[c]	(1.609)	(12.07)[c]	(1.614)
	p-(0.000)	p- (0.758	p- (0.000)	p- (0.110)	p- (0.000)	p- (0.011)

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