

Empirical Analysis of Secondary Equity Offering in France from 2005 to 2013

By

Guanyu Fu

A Thesis Submitted to

Saint Mary's University, Halifax, Nova Scotia

in Partial Fulfillment of the Requirements for

the Degree of Master of Finance.

08/2013, Halifax, Nova Scotia

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Date: August 30, 2013

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Abstract

An Empirical Analysis of Secondary Equity Offering in France from 2005 to 2013

By Guanyu Fu

September 7, 2013

The long-term performance of seasoned equity offerings has been widely examined in studies. This paper will focus on France stock market long-term performance through the liquidity characteristics and cumulative excess returns from 2005 to 2013. The purpose of the empirical study is to investigate whether seasoned equity offering (SEO) have significant effect on the liquidity and abnormal return of the stocks as well as the company's fundamental performance. The study tries to reveal the long-term potential profitability of France SEO investment. The empirical result indicates that a relationship between the liquidity index and the cumulative excess return compared to the return on capital. The high coefficient of liquidity indicates the significant impact of SEO on stock trading.

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Empirical Analysis of Secondary Equity Offering in France from 2005 to 2013

1. Introduction

1.1 The purpose of study

The purpose of the empirical study is to investigate whether seasoned equity offerings (SEO) have significant effect on the liquidity of the stocks as well as the company's fundamental performance. The study focuses on the long-term potential profitability of France SEO investments.

1.2 Background

A seasoned equity offering (SEO) refers to a new equity issue by an established publicly traded company which have excellent reputation with respect to liquidity and price stability. Although SEO does not attract as much attention as IPO, the long-term performance of seasoned equity offerings still has been widely discussed. Much work

remains to be conducted. Company cares about SEO because of its effect on liquidity and stock price. The shareholders could find counter party to increase its liquidity with lower adverse selection effect. The investors have the new chance to be a game player through right issues or public offering. Therefore, SEO become a popular way to earn higher profit with lower risk which associated with the market pricing mechanism. In France, rights offerings occupied the majority part of seasoned public offerings. 22% of all equity offerings are public offerings. Also most of them are under the standby contract with underwriters due to the current shareholders might have subscribed within a priority period. Furthermore, the average of ten consecutive daily stock prices chosen among the twenty ones are normally used as the bench price for the issue price in the public offerings at pre-issue date, Chollet, P., & Ginglinger, E. (2001). At last, time period, from 2005 to 2013, contains almost a full economic cycle. It should be comprehensive enough to explain the France SEO long-term performance. Thus, the study offers certain value for the prediction of investors.

Generally speaking firms' stock liquidity could be improved and the cost of capital could be reduced by the seasoned equity offerings. Bilinski (2012) also mention about the question of whether SEO firms achieve a liquidity gain and the sources of this gain. At the highly developed and rapid growing capital world, properly liquidity scale is strongly desired by firms. If the firm maintains too high liquidity, it will lower their profitability. If the firm maintains too low liquidity, it will put the firm at the very edge of bankruptcy and face higher financing cost. There are a lot of paper explore the role of liquidity risk in explaining SEO long-run performance. Bilinski (2012) also demonstrated Size and book-to-market matching fails to control for these liquidity

effects, generating the low long-term post-SEO performance documented in the literature. After adjusting for liquidity risk, SEO firms show normal long-term performance.

1.3 Need for study

The long-run stock performance after a seasoned equity offering has been widely documented, especially in the USA. However, there is no sufficient study to examine the SEOS performance in France. Being the fifth largest economy in the world and the second largest economy in Europe, France could be considered as a relatively good investment choice. After the significant series trembling of economy crises, companies will try to expand themselves. Therefore, seasoned equity offering is a decent approach if the company seeks internal financing which avoid worsening of the debt crises. However, the theoretical studies are more interested in the America, Australia, south Asian, London and few emerging market. To a certain degree extent, France is a typical example for seasoned equity offering analysis. It contained all the possible way to go through the secondary public offerings.

In other hand, the high quality firms are try to offer a less fraction of the firms' equity with an significantly underpriced value during IPO and to sell the additional stocks at a higher market price during the secondary public offerings. Some low quality firms try to mimic the high quality firms to gain better financing proceeds, due to the existing of the possibility of true quality status released exogenously before seasoned equity offerings. In contrast, during IPO, the low quality firms will try to sell their stock at their true value. Since as long as the true information had been released, the investors

will not give their money to them without any extra high compensation. Only the high quality firms sell their stocks at two stages. No matter from what perspective, the deeper study for the French high-end intensive industry structure will benefit the future.

1.4 Organization of paper

This paper will have five chapters. The first chapter gives a roughly introduction about the topic of SEO. The second chapter mainly describes the literature review of the effect of SEO on liquidity and company's fundamental performance. The third chapter addresses the data selection and the primary methodology to measure the liquidity and company performance. Also the variable will be introduced here. The fourth chapter discusses the result we got from previous statement and analysis the statistic relationship further more. The fifth chapter expresses the final conclusion of the research.

2. Literature Review

This chapter will introduce and explore the important element which used in this project. The further explanations start from the basic introduction of the France institution setting and the capital structure influence. After that, the two main analysis point, liquidity and stock price will be introduced. At last, the hypothesis in the paper will be addressed to prepare further discussion.

2.1 France institution setting

In the past, the France government permitted the subscribed right of priority to a seasoned equity offering. After 1973, the company got new choice of raising capital without the right of priority to a seasoned equity offering, Jeanneret.p (2005). As the benefit, the firms gain the right to choose to favor the previous shareholder with subscribed priority rights public offering manner or maximize the effort of internal financing by pure public offerings. Meanwhile, at the extraordinary general shareholders' meeting all the decisions need a majority of 2 out of 3 of the voting rights. The maximum amount to be raised could be allowed for within five years (rights), three years (without rights) or 26 months (when the type of security and flotation method is not specified), Gajewski(2002).

From the company's responsibility, Extraordinary General Meeting votes for the offering rights, the Board of Directors must publish an issuing report. It includes the amount raised, the issuing price, the type of shares, the issuing conditions and the use of the proceeds. The information disclosures give the investors better monitor environment. It enables them to give better governance for the managers' action. All the regulations are the approach to make sure the SEO proceeds and post-SEO go the way the firm designed and investor expected. If not, the company will be penalized for the off-trail action by barrier of future financing.

The French government stock authority, the Commission des Opérations de Bourse (COB), still encourages the companies to use the rights issuance process. Since this offering manner with priority right could reduce risk of the uncertainty of the stock market price. Then the community wealth could have a better protection, Jeanneret.p (2005). From the perspective of the firm, they are more likely to use the manner with the priority right in compensation of higher liquidity. Even though the flotation cost of right issuance is more expensive than the pure public offering. As most European countries, the French companies are mostly closely held companies who put more attention on the ownership, Gajewski (2002). This situation determined the managers would favor the rights issuing which prevent the shareholders from the unfavorable influence of the market fluctuation.

As Ginglinger (2013) mentioned, there is two type for right issuance, company with an underwriter (standby rights) or not (uninsured rights). When the rights issued, the exercising price already have been set at a discounted value. The rights give the shareholder to purchase new shares in proportion of their holdings at the pre-set discount

price. An underwriter is the main role in the standby rights. It plays the role of warrantor in a standby agreement that all shares of the rights offering will be sold at the offer price.

Ginglinger (2013) also mentioned French have the pure public offerings without rights. This manner has three characteristics. Firstly, current shareholders buy the shares on a pro-rata basis for ten days on average. The priority of purchase cannot be treated as a right. Secondly, all the parties have to follow the constraint on the issue price. For instance, any existing shareholder should not take part to the offering. Thirdly, the need of stabilization required the issuing price has to be fixed to avoid decreasing significantly the value of the firm.

2.2 Capital structure

Capital structure refers to difference proportion of financing way contributed. Normally, there are three ways: equity, debt, or hybrid securities. A lot of managers address that they mainly rely on external financing sources when their internal financial capacity has not been exhausted yet. In the same time, Managers are eager to break the habit of financing sources. They do not want to let any profitable investment opportunities disappear because of the lack of financing resources. They use external financing to save internal funds for less favorable periods. Debt financing represents the alternative to retained earnings. Once in a while, however, equity must be remaining at certain level to reduce the relative leverage and to keep the company's solvency and debt paying ability. Firms classified in that category may be identified by their intention of use of the SEO proceeds. They raise new equity to strengthen the assignable part of

equity in the capital structure, to repay debt or to preserve the overall financing capacity so that they may undertake every profitable opportunity in the future. Generally, the seasoned equity offerings proceeds are used to finance on-going projects, Jeanneret, P. (2005). There is a large number of empirical study illustrated the existence of relationship between company's long-term performance and capital structure. This paper will focus on the equity finance influence. As Cornett (1998) declared, in order to respect the minimum required capital standards, the involuntary issues should be differentiated from the voluntary equity issues. French Seasoned equity offerings' long-term performance will also be affected by the capital structure significantly. Cornett (1998) also believe that the assumption that long-term abnormal performance is correlated with the significant announcement and the use of the financing proceeds.

Another branch of the capital structure literature argues that capital structure choices are irrelevant to the firm value, Miller (1977). In the context, the firm value is expected to be no significant changes within post- announcements of marginal changes or adjustments in the capital structure. Seasoned equity offerings made for pure capital structure concerns are less informative than those implying the financing of a specific investment project. In further discussion, if there is no market reaction at the event announcement, the under-reaction phenomenon has no decent explanations to appear on the long run. Thus, any long-term abnormal performance might not perform as 'Capital Structure' issuers expected.

2.3 The importance of liquidity

Liquidity is an important indicator for both investors and managers' investment decisions which highly correlated with firms' health condition. Illiquid assets must be accompanied with higher returns to compensate investors for the higher trading costs they incur and higher risk they bear (Amihud and Mendelson, 1986). The long-term performance has undeniable relationship with the liquidity level. The unnecessary high level liquidity will lower the profitable scale, but insufficient liquidity level will put the firm in the very edge of the bankruptcy. The empirical evidence confirms that firms' internal required rates of return significantly related to the various liquidity variables, such as spreads (Chalmers and Kadlec, 1998), turnover rates (Datar et al., 1998), and adverse selection costs (Brennan and Subrahmanyam, 1996). In addition, Acharya and Pedersen, (2005) Pastor and Stambaugh, (2003) argues that liquidity itself is a source of risk. Highly liquidity should come with relative higher price due to its lower default risk. Liquidity is also an important determinant of the cost of capital (Amihud and Mendelson, 1986, 1989). Butler, Grullon and Weston (2005) find that SEO investment bank fees are substantially lower for firms with more liquid stocks.

We examine whether the lack of liquidity that leads to an inefficient rights market and a lesser improvement in liquidity after the SEOs. In other words, we examine whether the lack of liquidity will lead to a downward of the company's long-term performance.

3. Methodology and Data Sources

This paper tries to evaluate the French companies' long-term performance after seasoned equity offerings. However, from a certain perspective, the performance cannot be measured by a single index or ratio. Thus the paper mainly focuses on the relationship between liquidity, stock price and firm return on capital.

3.1 Data selection

The data is collected from the s&p 500 IQ database as the routine exclusive the finance company. Also we mainly focus on the target and issuer counterparty which could suit our model better to explain the post-event effect of SEO. This paper measure the liquidity with the synthetic liquidity index proposed by Butler et al. (2005).

Our sample consist of 120 company exchanged at French. It include 4 energy company, 14 materials company, 26 industrials company, 17 consumer discretionary company, 9 consumer staples company , 10 Healthcare company, 21 information technology company, 5 telecommunication Services company, 14 utilities company. The dataset exclude the financial industry which might be different from the other industry. To avoid biased, we just eliminate the specific industry.

We started our sample in 2005 which is 8year from now on. To be included in our final sample, each observation must satisfy the following criteria:

- 1) Transaction Primary Features: Public Offering - Follow-on Equity Offering
- 2) All Transactions Closed Date: [1/1/2000-1/1/2013]
- 3) Exchange Country (All Listings) (Target/Issuer): France
- 4) Day Close Price (Average) [01/01/2012-12/31/2012] (\$USD, Historical rate)
(Target/Issuer): is greater than 0
- 5) Day Close Price (Average) [01/01/2011-12/31/2011] (\$USD, Historical rate)
(Target/Issuer): is greater than 0
- 6) Day Close Price (Average) [01/01/2010-12/31/2010] (\$USD, Historical rate)
(Target/Issuer): is greater than 0
- 7) Day Close Price (Average) [01/01/2009-12/31/2009] (\$USD, Historical rate)
(Target/Issuer): is greater than 0
- 8) Day Close Price (Average) [01/01/2008-12/31/2008] (\$USD, Historical rate)
(Target/Issuer): is greater than 0
- 9) Day Close Price (Average) [01/01/2007-12/31/2007] (\$USD, Historical rate)
(Target/Issuer): is greater than 0
- 10) Day Close Price (Average) [01/01/2006-12/31/2006] (\$USD, Historical rate)
(Target/Issuer): is greater than 0

11) Day Close Price (Average) [01/01/2005-12/31/2005] (\$USD, Historical rate)
(Target/Issuer): is greater than 0

12) Daily Value Traded (Average) [01/01/2012-12/31/2012] (\$USDmm,
Historical rate) (Target/Issuer): is greater than 0

13) Daily Value Traded (Average) [01/01/2011-12/31/2011] (\$USDmm,
Historical rate) (Target/Issuer): is greater than 0

14) Daily Value Traded (Average) [01/01/2010-12/31/2010] (\$USDmm,
Historical rate) (Target/Issuer): is greater than 0

15) Daily Value Traded (Average) [01/01/2009-12/31/2009] (\$USDmm,
Historical rate) (Target/Issuer): is greater than 0

16) Daily Value Traded (Average) [01/01/2008-12/31/2008] (\$USDmm,
Historical rate) (Target/Issuer): is greater than 0

17) Daily Value Traded (Average) [01/01/2007-12/31/2007] (\$USDmm,
Historical rate) (Target/Issuer): is greater than 0

18) Daily Value Traded (Average) [01/01/2006-12/31/2006] (\$USDmm,
Historical rate) (Target/Issuer): is greater than 0

19) Daily Value Traded (Average) [01/01/2005-12/31/2005] (\$USDmm,
Historical rate) (Target/Issuer): is greater than 0

20) Shares Outstanding (Average) [1/1/2012-12/31/2012] (mm) (Target/Issuer):
is greater than 0

21) Shares Outstanding (Average) [01/01/2011-12/31/2011] (mm)

(Target/Issuer): is greater than 0

22) Shares Outstanding (Average) [01/01/2010-12/31/2010] (mm)

(Target/Issuer): is greater than 0

23) Shares Outstanding (Average) [01/01/2009-12/31/2009] (mm)

(Target/Issuer): is greater than 0

24) Shares Outstanding (Average) [01/01/2008-12/31/2008] (mm)

(Target/Issuer): is greater than 0

25) Shares Outstanding (Average) [01/01/2007-12/31/2007] (mm)

(Target/Issuer): is greater than 0

26) Shares Outstanding (Average) [01/01/2006-12/31/2006] (mm)

(Target/Issuer): is greater than 0

27) Shares Outstanding (Average) [01/01/2005-12/31/2005] (mm)

(Target/Issuer): is greater than 0

28) Industry Classifications (Target/Issuer): NOT (Financials)

29) Return on Capital [LTM] (Target/Issuer): is greater than 0

30) 7 Day Excess Return vs. Benchmark Index (Target/Issuer): is greater than 0

3.2 Hypothesis

Hypothesis 1: *Market liquidity increases more after public offerings.*

An equity offering have significant influence on the trading volume, volatility and information asymmetry, which in turn impact liquidity. Most of French firms are characterized by a high degree of ownership concentration, leading to limited share availability, fewer investors, and low trading frequency. In a closely held firm, the amount of information available is limited and block holders are more likely to trade on their private information. For these reasons we expect liquidity to decrease with block holdings. However, results for the U.S. where block holders are mainly institutional investors are mixed. Since institutions prefer more liquid stocks, empirical investigations need to take into account between liquidity and institutional holdings.

Hypothesis 2: The public offerings size is negatively related to the liquidity

Since the larger the supply, respect to the same level demand, the smaller the liquidity is. We conducted the theories from the microeconomics.

Hypothesis3: The effective spread is negatively related to the liquidity

The spread could show how large amount the prices change. From this sight, the better the liquidity, the less change the price will be taken continuously. That is due to better prediction could be attain when we have the better liquidity.

Hypothesis 3: The relative effective spread is negatively related to the liquidity

Due to the different size and condition of the company, the prices of stocks are also different. Furthermore, the higher the stock price might have larger spread. In order

to eliminate the stocks size effect, we use the same logic with the hypothesis three and divide it by the price of the variable.

Hypothesis 4: The trading volume is positively related to the liquidity

The more actively the stock on the market could be deem as the better liquidation stock. The large amount has been trading on the market, the more confident the people have. They will believe the inventory they hold could be successfully transacted as they wish.

Hypothesis 5: The turnover ratio is positively related to liquidity

It will be the same logic with the hypothesis four which consider the market movement of the stock. Here we also consider the higher frequency represent better liquidity.

3.3 Variable definition

In our model, we use two main independent variable, liquidity index and cumulative excess return. The regress tries to investigate the relationship between the long-term fundamental performance and the post-event stock performance of seasoned equity offerings firms.

To measure the liquidity index, we use the with the synthetic liquidity index proposed by Butler et al. (2005).

$$L_i = \left(\frac{1}{N}\right) \left(\frac{1}{K}\right) \sum_{K=1}^K RANK_K (X_{i,k})$$

L_i is the liquidity index, N is the number of observations; K is the element of the measurement of liquidity. N is the sample size. Rank is the function to rearrange the liquidity level. There are five elements which are effective spread, relative effective bid ask spread, trading volume, turnover rate, trading size.

Liquidity Level Index

The rank function arranges each observation from least to most liquid and record the ranking as the value. After we get all the value for the five factors, we out it into the functions below to calculate the liquidity index. For instance, the stock with the highest trading volume receives a rank of N (most liquid) which is 120 in our sample, while the stock with the lowest trading volume has a rank of one (least liquid). By computing the cross-sectional rank of each observation within our sample, we create a uniform index for each liquidity measure. It's the effective spread, relative effective spread, trading volume, turnover rate, offering size. Then, we can average the ranks of each observation across the K dimensions of liquidity. We divide this average by the number of observations, N, so that our liquidity index varies between zero (least liquid) and one (most liquid). We use K=5 with all of the liquidity measures listed above. For example, a liquidity index measure of one implies the observation has the highest volume, turnover, trade size, and lowest relative effective spreads and effective spreads. The advantage of this index is that it provides a balance between all of the liquidity measures

firms that may have high trading volume but also large spreads or that may have small spreads but also low turnovers while rewarding firms that have high measures across all dimensions.

Effective Spread

The measure quotation within the industry is defined as the difference between the two transaction price, bid and ask spread, and the midpoint of the facts. We use the serial covariance measure to defined effective spread as the following:

$$Effective\ Spread(ES) = 2 \times \sqrt{-cov(\Delta P_t, \Delta P_{t-1})}$$

Where is the change in transaction price from t-1 to t. We pick un the tick data for all transactions in each firm's stick over the period of 2005 to 2013 to estimate effective spreads. Schultz (2000) demonstrates that intra-day data could be explained well by this technique which yields a reliable metric

Relative Effective Spread

This measure is simply the effective spread divided by the average transaction price. We use the same filters as we used in the Effective Spread. This variable could deduct the data analysis bias of different stock size .type which related to the stock price. Since the higher value stock have higher bid-ask spread and the lower value stock, like penny stock have lower bid-ask spread.

$$Relative\ Effective\ Spread = Effective\ Spread / Average\ Transaction\ Price$$

Trading volume

This variable is constructed from the s&p 500 IQ database as the average yearly trading volume for last eight year of the offering. Since our sample are secondary public offering in France, but it also contain the company originally come from Unites States, Canada Brazil, Luxembourg, India, the construction of trading volume presents some problems. In dealer markets, trades are often immediately turned around by the market maker and thus are double counted, making it hard to compare with volume in auction markets. Thus, we follow the common approach of dividing trading volume by two to correct for the double counting. The trading volume effect the stock liquidity a lot by the relationship of demand and supply. Also it's negatively related with the liquidity.

Turnover Rate

This measure is defined as the total yearly trading volume over past eight years divided by the number of shares outstanding, where trading volume is appropriately scaled. The turnover rate could give a proper description of the stock market exchange circulation condition.

Trade Size

This variable is the average number of total shares offered at the event of seasoned equity offerings over all eligible trades. We treat this variable supply amount in the first place of the secondary public offerings. The larger the supply amount the less the liquidity the stock is, according to the theory of supply and demand theories.

Return on Capital

A measure of how effectively a company uses the money (borrowed or owned) invested in its operations. In this context, our goal is to exam the long-term performance of seasoned equity firms. In others words, we try exam whether the proceeds from the seasoned equity offerings bring sufficient profit. This ratio measuring the profitability of a firm expressed as a percentage of funds acquired from investors and lenders. Also called return on invested capital.

Formula: $\text{Income after taxes} \times 100 \div (\text{Equity} + \text{Long-term debt})$.

Total capital includes long-term debt, and common and preferred shares. Return on capital is really useful when the paper try to explain using it to exam the returns generated exclusively by the business daily operation itself, not the short-lived results from one-time events. What the paper discussed here is what the companies really "does" with seasoned equity offerings proceeds in their daily business and only considers income related to those core business operations.

Cumulative Excess Return

A measure of the cumulative excess return is the difference between the actual return of a stock and the market portfolio returns. Cumulative excess returns are sometimes triggered by "events." Events can include mergers, dividend announcements, company earnings announcements, interest rate increases, lawsuits, etc. all which can contribute to a cumulative excess return. A measurement of the value added of the portfolio or investment manager, or the manager's ability to "beat the market."

Here, we use the CAC 40 as the bench mark to calculate the excess returns. We define the cumulative excess returns as the formula as following:

$$CER = \sum_{N=1}^{\infty} (R_{id} - R_{md})$$

We also calculate the individual stock returns as the formula shown below:

$$\text{Returns} = (\Delta P_t - \Delta P_{t-1}) / \Delta P_{t-1}$$

Where R_{id} is the return of individual stock, and R_{md} is the market portfolio returns which calculate with the bench mark of CAC40 index.

3.4 Model description

The evolution relationship of the long-term abnormal performance around the SEO is somehow unsolved and mysterious. The market is unable to identify the firm type before the issue. In this paper, the main model we used is the Ordinary Least Square (OLS) regression of return on capital and the liquidity index, cumulative excess returns.

$$ROC = \alpha + \beta_1 L_i + \beta_2 CER$$

Where the ROC is the return on capital L_i is the liquidity index and the CER is the cumulative excess returns.

The rational question behind the equation is whether there is a significant degree of companies' long-term performance and the stock returns after they collect financing proceed from the stock market through the seasoned equity offerings.

4. Analysis of Results

Based on the context we discuss above, the results have been constructed. Excel office and stata have been used to analysis the relationship between long-term performance and the stock market performance.

4.1 Theory

The most popular statistic method recently, regression of the relative variables, has been used to discuss the relationship of the long-term performance of the stock. The data collected from the French market will be used to discuss the relationship.

4.2 Brief introduction of Tables

Table 4.1 Main statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
roc	120	10.10913	11.65803	.377	119.4
li	120	.4048229	.1297499	.116667	.777083

cer	120	-.1408955	.2372585	-1.058144	.1771393
-----	-----	-----------	----------	-----------	----------

From the STATA program, the summary of the Ordinary Least Square (OLS) regression show the numbers above. It contains the mean, standard deviation, and minimum & maximum statistical numbers. There are three variables in total. Two of them are the independent variables, CER and Li. The other one is the dependent variable, ROC. The average of the Return on capital from the sample is 10.10913% which explains that among 120 seasoned equity offerings, the average cumulative excess return is negative 0.1408955%; the average liquidity index is 0.4048229 within the range of 0 to 1. It less than 0.5 which means the SEOs company does have undesired liquidity condition. In the other words, the event of SEO has negative impact on the liquidity of the stock. The negative number of cumulative excess return demonstrates the SEOs firm might not go with the desired routine of outperform the market. However the positive number of the return on capital still give the investor the reason to believe the chance of French company will thrive again after the unoptimistic stock environment recently. The around 0.5 value of liquidity value shows the liquidity actually performed as expected. The SEOs firms have better liquidity performance than the used to be as we described in hypothesis. The highest seasoned equity offerings' cumulative excess return is 0.1771393% and the lowest one is -0.1771393%. So this result shows the SEOs average undesirable performance in the France Stock Exchange. The relative high value of stand deviation of return on capital reveals that unstable of the French companies which might due to the time period of world economy fluctuation. . Also the mean of

0.405 of liquidity index show the SEOs firm have good performance in liquidity but still have improving room.

Table 4.2 The Ordinary Least Square (OLS) regression results

roc	Coef.	Std. Err.	t	P>t	[95% Conf.Interval]	
li	19.29952	9.808139	1.97	0.051	-.1249851	38.72403
cer	9.315282	5.363793	1.74	0.085	-1.30743	19.93799
_cons	3.608726	4.585144	0.79	0.433	-5.471911	12.68936

The estimated regression result for simple linear regression model is:

$$ROC = \alpha + \beta_1 L_i + \beta_2 CER + \varepsilon$$

From the Table above, it shows the result of regression analysis of return on capital against the independent variables, liquidity index and cumulative excess returns. The regression analysis proves the Hypothesis 1 that the liquidity has a positive relationship with return on capital at 5% significant level. Thus, the research reflects that in the French Stock Exchange, the higher liquidity index constructed by five difference variable is, the higher the return on capital will be. Also the large number of ROA coefficient address how important the liquidity feature for the company. A slightly increase in the liquidity will bring the company large amount benefit which also is the main reason of firm raising capital internally in stock market though the seasoned public offerings. Evidence found from the French stock market also prove the consistence of

the stock market return and firm operational return by the positive value of the coefficient of the cumulative excess return .

In the 95% confidence level, the p-value for the liquidity index is 0.051 which is slight higher than five percent which could be deemed as not significant, but not only so. The positive coefficient is consistent with our hypothesis, so the problem might just be caused by the bias of the dataset and limited variables we used. Also we have the 0.085 p-value for the dependent variable cumulative excess return. The number is still a little but higher than what we expected, but it cannot strongly deny the existing relationship between cumulative excess returns and return on capital. The empirical analysis show the result there is highly sensitive relationship between the liquidity index and the return on capital compared to the cumulative excess return. Every 1% change will denote 19.299% increase in return on capital. Meanwhile, all the tree variable have large confident intervals which demonstrate the highly volatility of French market. The reason might be the strongly concentrated ownership control which will reduce the risk tolerance for the company. The less risk will company with less profitability.

5. Conclusion and Limitation

5.1 Conclusion

The database includes 120 SEOs French companies which used to examine the profitability in the long run. Based on the previous study of the effect of liquidity and fundamental performance on the stock price, we can have the following conclusion.

Liquidity level has more impact on the stock performance than the fundamental performance. The SEO raise the money to fund the company. Also the new stock come to the public will lower the liquidity. The double side effects make the liquidity a very important role in the stock long-term performance. A rational investor will prefer a stock with higher liquidity. Although, seasoned equity offerings will lower the liquidity at the first place. It also might bring higher profitability in the future. The higher profitability will give the investor the expectation of future higher wealth. In the context, the liquidity becomes a main determinant of the long-term performance.

In the previous study we use the measure of cumulative excess return to measure the stock profitability based on the event effect, the seasoned equity offerings. From the empirical analysis, we deem there is effect on the company's long-term performance, but not as significant as the liquidity. This explains the profitability will be negatively affected by the seasoned equity offerings, but the long-term profitability will pretty much not be shocked by the seasoned equity offerings. Meanwhile the SEO French company is worth to invest but it not the company which could generate continuously abnormal return.

The French SEOs companies' returns on capital almost are positive number. The French SEOs companies are using the process well. We have the reason to believe the French SEOs stock worth the value to be invested. Since most of the company use the proceeds from the SEO to fund their new project. If the ROA goes up, the result could demonstrate the good performance of the SEO company.

No matter from any perspective of the three factors, the French SEOs company performs well in the long run. Even though there is fluctuation and few underperform companies.

5.2 Limitation

However, there are few limitations should catch our attention. The first one is the data selection. Since we have our mainly focus, it is not also SEOs French company have been selected. Also there is the problem of data missing and confidentiality, we might not consider all the company which fit the criteria. The regression analysis might not be able to describe the real situation perfectly. The result will have the possibility of misleading.

The second is the ignorance of the cost. In order to obtain the proceeds, the companies have to pay the commission fees and have to deal with the decreasing liquidity and stock price. As the cost have the chance to take over the whole profitability of SEOs proceeds, this factor might change the result.

The third is macroeconomic situation in Europe recently. In last ten years, a lot of significant economic event have happened. Its might put the study in a very special place. The existing of economic circle might bring different result for next ten years.

The fourth is the historic data might not have prediction value based on the market efficiency theory. All the study we conducted is based on the historical data. That's because the market is not perfect efficiency normally. Once the rule not applies, the study may not explain what the paper tries to reveal.

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