
**LONG RUN OUTPERFORMANCE OF STOCK RETURN FOLLOWING
SEASONED EQUITY OFFERINGS: EVIDENCE FROM VIETNAM
STOCK MARKET**

Quang Thu Luu

Banking University of Ho Chi Minh City, Vietnam [Postal Address: 56 Hoang Dieu 2, Linh Chieu, Thu Duc, Ho Chi Minh City, 700000, Vietnam]

Tran Hoang Vu,

University of Finance and Accountancy, Quang Ngai Province, Vietnam [Postal Address: 231 Nguyen Nghiem, Quang Ngai City, 570000, Vietnam]

Abstract

The most recent studies related to firm performance after SEO within 5 years timeframe. However, longer timeframe is needed to concern related to investors loyalty invest in the firm. The performance of firm following issuing equity and of market index are compared in this study by using Cumulative Abnormal Return (CAR) method to evaluate firm performance after SEO event date. The result of this study is inconsistent with literature. The empirical results show that firm performance after SEOs tend to outperform over five-year period. The return comparing with different year, also, points out volatility is slightly decline through 5 years period. To measure the performance of firm after SEOs, the cumulative abnormal return of issuing firm is considered under yearly and monthly cumulative abnormal return base, compared with yearly and monthly cumulative return of market index, respectively.

Keywords: Stock Return, SEOs, market index, financial crisis

1. Introduction

The concept of Seasoned equity offerings (SEOs) are issuing new shares since company's shares are existed. The most recent previous researches point out significant long-run underperformance since after stock issues and stock repurchase. In the study of Loughran and Ritter (1995) and Spiess and Affleck-Graves (1995) have documented long-run underperformance in the 5 years following SEOs. Their research data of America focus on firm issuing stock during 1970-1990. The evidence is consistent with a market in which companies announce stock issues when their stock is grossly overvalued, the market does not revalue the stock appropriately, and the stock is still substantially overvalued when the issue occurs.

On the other hand, in the study of Allen & Soucik (2008) document that none of previous researchers provided a comprehensive theoretical explanation for their results. They state that when long-run is setup as twelve years instead of five years timeframe, SEOs can be clearly seen to turn around their performance particularly during years six and seven. Their results examine Australian long-run performance stock market after SEO, show that stock return underperformance of Australian market following seasoned equity offerings, data used from 1984 to 1993. The results prove that points around initial years of SEOs, SEOs non-issued firm

perform better than SEOs issued firm, and then this trend is later significantly reversed and by the sixth year issuers actually report significant over-performance. The over-performance then gradually subsides and by the eighth year the cumulative performance of issuers and non-issuers becomes approximately equal.

Equity offerings are essentially the least preferable way of attracting cash, companies will only be accepted to do so when the benefits outweigh the costs. Therefore management will only issue new shares when the market overvalues the shares relative to the beliefs of management (Frijns et al. 2006). Also, firm's SEO is a good signal for investors because of raising capital for future development.

In this paper, we are using same methodology and firm performance measurement of Allen and Soucik (2008), testing for 5 years performance following SEO. However, we use different data set. Vietnam common stock data is used for this research. Moreover, this study intends to use data set after 2008, especially from 2009 until 2017. The reason of doing this is because we want to look for the effect of economic uptrend and downtrend to firm performance SEO coincidence. Previously, literature does not provide a comprehensive theoretical explanation for complete story about this issue, therefore, this issue is needed to concern for further research related to this topic. More specific, we compare the performance of firm after SEO with market performance up to 5 years period.

Surprisingly, the empirical results is inconsistent with the literature, inconsistent with Spiess and Affleck-Graves (1995) and Allen & Soucik (2008). Our result document that significant outperformance of Vietnam firms issuing seasoned equity during first five-year period following the offer. To conclude the result, we raise questions for this difference that: why is there a different between this study compared with literature? Is there any other effects of macroeconomic like upward trend coincidentally result in firm outperformance following SEOs period? To test for the reason, we need to concern to period after world financial crisis 2007 as 20010 – 2016. This is because after the crisis, the world economy is rebuilt and result in upward trend. Also, during the crisis, firms need re-capitalization for surviving.

In section 2, discuss different finding and result of many previous study related to this topic. A discussion of data taking and analysis follows in section 3. Section 4 discuss the performance measure and methodology, section 5 presents the results and section 6 provides a brief conclusion

2. Literature Review

The topic of firm performance following seasoned equity offerings is found early in 1960 by Stigler (1964) and Friend and Longstreet (1967), and then this issue was not mentioned anymore until mid-1980s. In 1986, Masulis and Korwar (1986) and Asquith and Mullins (1986) both documenting a significant firm underperformance after conducted a new equity issue. Masulis and Korwar (1986) pointed out highly negative returns for 50% of industrial and 32% of public utility stocks in the same time, when the market recorded a significantly positive return. The result of Masulis and Korwar (1986) consistent with findings by Mikkleson and Partch (1986) and Schipper and Smith (1986). However, none of these researchers provided a comprehensive

theoretical explanation for their results. The most important landmark study of firm performance following equity issuing was conducted in 1995 by Loughran and Ritter (1995) building on foundations based on Healy and Palepu (1990), Ritter (1991) and Loughran, Ritter and Rydqvist (1994) into IPOs. They documented that the original findings of 15.7% and 33.4% five years holding period returns for IPOs and SEOs, respectively, during time when the returns on non-issuing firms matched with the issuers by firm size were 66.4% and 92.8%, in the study of Masulis and Korwar (1986).

Similarly, the findings related to long-run performance of SEOs by Loughran and Ritter (1997), observed the effect to accounting data as 23% and 40% drop in operating income-to-assets and market-to-book ratios, respectively, and a profit margin which less than halved over the four-year period following an issue. Spiess and Affleck-Graves (1995), likewise, considered differences in trading-system, offer size and firm age. Meanwhile, McLaughlin, Safieddine and Vasudevan (1996) concerned the issue concentrating on cash flows (found to decline by over 20%) and observed a larger overall performance drop related to companies having larger amounts of free cash. Likewise, Allen and Soucik (2008) observed a series of regression for a number of factors that reflect the influence on the extent of the initial underperformance. They found a negative relationship between the age and the extent of underpricing can be resulted by decreased expected uncertainty associated with older firms. The greater cost of SEO associated with underpricing of new equity offering result in greater underperformance that follow the issue.

3. Data

Monthly data return of Vietnam stock is used for evaluating firm performance following equity offerings. Different firms have their own multiple SEO dates, therefore, announced date is assigned for that month and the evaluate firm performance starting on the month after value assigned month. Using this assignment, we can easily exclude the effect of month including announcement date and easily separate into subset of data. We exclude financial firms, in addition, in the data set.

The data of firm's SEO event is observed from 2010 to 2016 period. This is because the effect of financial crisis happened in 2008 and its effect still consisting until 2009 and even in 2010. World economy is rebuilt and move uptrend since 2010. Likewise, many firms take this advantage and raising capital by SEO coincidently for further development with that uptrend. Therefore, taking period after 2010 is greater way for observing and answering the effect of economy related to firm performance following equity offerings.

Firms have several SEO announcement dates, so we focus on the period between 2 announcement dates and starting from 2010. Also, there is existing five-year period between 2 SEO announcement dates. The reason of this scenario is because we want to test for firm performance after seasoned equity offering without other effect including in data like several SEOs event following previous SEO date. As a result, there are 59 observations which is satisfied with all the requirement above, used for examining empirical result.

The market index benchmark that is used to compare with issued firm is selected from 2010 to 2015 period.

4. Performance Measure

Jennifer and Gautam (1993) document that the strategy of cumulating short-term returns over long periods not only the "true" short-run returns but also the upward bias in each of the single-period return. This happens because the uptrend bias in low-priced firms' single-period returns is substantially greater than the bias in the returns of high-priced firms. Consequently, they suggest that monthly cumulative returns used in overreaction studies contain a substantial bias, intraday and daily cumulative returns often used in event studies are likely to be even more biased. They comment using cumulative abnormal returns (CARs) to evaluate the impact of information events on stock price.

4.1 Methodology

We use the Cumulative Abnormal Return (CAR) method to evaluate firm performance after SEO event date. Raw monthly return for issuing firms and market index are calculated as:

$$r_{ISS,t} = \frac{P_{ISS,t}}{P_{ISS,t-1}} - 1$$

$$r_{Market,t} = \frac{Market_t}{Market_{t-1}} - 1$$

Where $r_{ISS,t}$: closing price of SEO firm on day t,

$r_{Market,t}$: closing value of market index.

The abnormal return, $ar_{i,t}$ is therefore a market-adjusted return.

$$ar_{i,t} = r_{ISS,t} - r_{market,t}$$

Where $ar_{i,t}$: abnormal return of issuing firm on day t, corresponding with market return

$r_{ISS,t}$: raw return of issuing firm on day t

$r_{market,t}$: market return on day t

Next, computing average abnormal return for the day t, across all SEOs as equally weighted arithmetic average of the individual abnormal returns:

$$AR = \left(\frac{1}{n}\right) \sum_{i=1}^n ar_{i,t}$$

Where n = number of SEOs in the sample

Finally, the CAR from the first assigned month after the offering until month t is calculated as the sum of the daily average abnormal returns until t.

$$CAR_t = \sum_{m=1}^t AR_d$$

To test for the significance of the resulting cumulative abnormal return we use a modified t-statistic that also accounts for the auto-covariance that may exist in the time series

$$t(CAR_t) = \frac{CAR_t \cdot \sqrt{n}}{\sqrt{t \cdot var + 2 \cdot (t - 1) \cdot cov}}$$

where var = average cross-sectional variance over the measurement period

cov = first-order autocovariance of the AR_t series

5. RESULT AND DISCUSSION

	1st yr	2nd yr	3rd yr	4th yr	5th yr
Mean	0.006642	0.007777	0.007025	-0.00335	0.004388
Median	0.007249	0.007541	0.005152	-0.00081	0.002218
Maximum	0.031695	0.018387	0.032333	0.01293	0.023197
Minimum	-0.01506	-0.00954	-0.01416	-0.01703	-0.00812
Std. Dev.	0.012414	0.009075	0.012549	0.00906	0.009148
Skewness	0.261762	-0.58183	0.248235	-0.1161	0.427009
Kurtosis	3.027347	2.170747	2.805818	2.200502	2.633381

Table 1: indicating 4 moments of data and the standard deviation of data from year one to five

In table 1, the mean return is almost stable over first 3 year. In year fourth, suddenly, there is small decline of mean return and rising back in 5th year. Meanwhile, we can find that the return volatility slightly decrease over 5-year period. The small fluctuation of volatility during examining period as it is high in first year and then slightly decrease in the second, small rising in third year and decrease in fourth and fifth year. Therefore, there is no much change in portfolio standard deviation through 5 year after SEO, even downward trend over long horizon. It seems to be that there might be no risk effect related to issuing firm performance following equity offerings.

Year Since SEO	ISSUING FIRM		MARKET	
	y(CAR _t) [%]	CAR _t [%]	y(CAR _t) [%]	CAR _t [%]
1	5.7164	7.3061	-12.193	-14.862
2	15.0675	16.6388	-3.972	-1.981
3	24.7005	25.0687	4.5239	7.7596
4	20.9094	21.0512	15.9448	14.7332
5	26.2489	26.317	0.9607	-10.542

Table 2: cumulative abnormal return of issuing firm and market index during 5-year period after seasoned equity offering. Numbers with “*”, “**” and “***” are significant at the 10%, 5% and 1% level, respectively.

In table 2, comparing cumulative abnormal return between issuing firm and market index through first 5-year period after issuing equity. In the first year, the monthly and yearly cumulative abnormal return of issuing firm is compared with monthly and yearly cumulative return of market index, respectively. The return of monthly cumulative abnormal return of issuing firm is 7.3% higher than cumulative return of market index as -14.8%; also, the yearly cumulative abnormal return of issuing firm is 5.7% greater than cumulative return of market index as -12.1%.

In the second year after issuing equity, the yearly and monthly market cumulative return is less than cumulative abnormal return as 19% and 18%, respectively.

In the third year and fourth year, there is a greater change in cumulative market return that is rising significantly, however, its return still smaller than issuing firm as 20% and 18% of yearly and monthly cumulative abnormal return in third year, respectively; and smaller gap in cumulative return in year 4th as 5% and 7% related to yearly and monthly cumulative abnormal return of firm performance following issuing equity.

The largest gap in performance in year 5th compared with previous four-year period between market cumulative return and issuing firm cumulative abnormal return. Approximately, the yearly and monthly cumulative return of issuing firm are 25% and 36% higher than yearly and monthly cumulative return of market index, respectively.

Overall, the performance of firm after issuing equity event tend to perform very well compared with market index benchmark through 5-year period.

6. CONCLUSION

Previous studies document that firm significant underperformance following seasoned equity offerings. However, our results are inconsistent with literature, we approve that firm outperformance after issuing equity compared with market index benchmark. Using different data set as Vietnam stock market, and different period to test for the performance. We intend to concern the period after financial crisis, especially from 2010-2017 period, to look at any

economic effect that give a result in firm outperformance. The results are presented under yearly and monthly cumulative abnormal return of issuing firms compared with cumulative return of market index through five-year. The volatility between different year is compared and concluding that almost no risk effect related to the performance.

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APPENDIX

Table 1 report the excess return of SEO firms calculated under market-adjusted return for a period of five years since issuing. The data examines 59 seasoned equity offering from 2010 – 2016. They (CAR_t) column shows the cumulative abnormal return of monthly abnormal return specifically for the one year shown in the year since seasoning column. The CAR_t shows the cumulative abnormal return of all monthly abnormal returns since the date of seasoned equity issue, assigned to that month containing that event date. The corresponding calculations have been defined by equations:

$$CAR_t = \sum_{m=1}^t \left(\frac{1}{n} \sum_{t=1}^n \{r_{ISS(i,d)} - r_{market(i,d)}\} \right)$$
$$y(CAR_t) = \sum_{m=t-1}^t \left(\frac{1}{n} \sum_{t=1}^n \{r_{ISS(i,d)} - r_{market(i,d)}\} \right)$$