EQUITY OFFERING TYPES, FINANCING OBJECTIVES, AND LONG-RUN STOCK PERFORMANCE

Sakkakom Maneenop, Thammasat Business School
Chaiyuth Padungsaksawasdi, Thammasat Business School

ABSTRACT

We investigate whether issuance type, including seasoned equity offering and private placement, or financing objectives, including investment, recapitalization, and working capital management, have higher impacts on long-run stock performance. We find that issuance type affects long-run stock returns whereas financing objectives do not. Further, private placement (PP) issuers which report a working capital financing objective underperform in the subsequent year compared to seasoned equity offering (SEO) issuers which report an investment financing objective. The Fama-French-Carhart 6-factor regressions of long-short strategy for these two groups provide 0.72% of abnormal returns per month. SEO issuers with investment objective are reliably signaling profitable opportunities whereas other financing issuers are more likely to be opportunistic market timers. The Fama-MacBeth regression that controls for several firm characteristics shows that PP firms with recapitalization and working capital management financing objectives underperform non-issuers by 1.19% and 1.10% per month, respectively. Also, we learn that issuers from the property and construction industry do not suffer from long-run underperformance.

Keywords: Seasoned Equity Offering, Private Placement, Financing Objectives, Long-Run Stock Performance, Asset Pricing

INTRODUCTION

Previous literature on post-issuance long-run stock performance study *either* the differences in equity offerings between Seasoned Equity Offering (SEO) and Private Placement (PP) *or* financing objectives among investment, debt refinancing, working capital management, and other purposes[2]. The separation between these two stock issuing dimensions leads to difficulty when interpreting from which aspect abnormal returns arise. For example, PP issuers with specific financing purpose may reap better long-run stock performance compared to PP issuers with other financing purposes. Thus, this paper combines both aspects and provides answers as to which has more influence on long-run stock performances and which particular combination of offering types and financing objectives provides the most adverse returns to long-term investors. We respond to these questions using Thai firms' equity issuance information from 2000 to 2017.

A firm may choose to raise equity *via* public or non-public offerings. Public offerings, often called Seasoned Equity Offerings (SEOs), are offered to the majority of investors from an already traded company. SEOs can be comprised of shares sold by existing shareholders (RO, right offering), new shares (PO, public offering), or a combination of the two. In general, investment bankers, in the role of underwriters, perform multiple origination services including prospectus preparation and other filing documents. On the other hand, non-public equity offerings or Private Placement (PP) are offered to a small number of selected investors (Hertzel, Lemmon, Linck & Rees, 2002). Normally, experienced investors, especially institutional investors who have the ability to investigate securities by themselves, are the target of the issuance. These investors include insurance companies, mutual funds, pension funds or even

entities related to the firm, etc. However, the majority of shareholders will be punished if they interpret this offering type as a negative signal compared to SEO issuance.

Existing literature shows short-run returns to be negative for SEO issuers, but positive for PP issuers (Hertzel & Smith, 1993; Wruck, 1989). SEO stocks are viewed as overvalued or problematic firms that need capital injection. On the other hand, private placement is viewed as undervalued stocks that PP investors can access at a lower cost. Long-run return study results, however, are more controversial. Bessembinder & Zhang (2013) find no abnormal returns whereas Chen, Dai & Schatzberg (2010); Eckbo, Masulis & Norli (2007); Hertzel, et al., (2002); & Krishnamurthy, Spindt, Subramaniam & Woidtke (2005) show negative abnormal returns. Due to these conflicting results, we seek to answer the question as to which perform better in the long-run.

Another dimension of interest includes intended use of proceeds, which can be categorized as investment, recapitalization, working capital, and general purposes (see Autore, Bray & Peterson, 2009; Wyatt, 2014). It is shown in current studies that investment intention offers abnormal returns which are different from zero, whereas recapitalization and general purposes result in negative abnormal returns (Autore et al., 2009). Investment objective can be viewed as a good sign to investors because it may lead to an increase in value of a firm. The other purposes, contrarily, do not offer such a signal.

This paper contributes to existing literature at least in twofold. First, to the best of our knowledge, this study is the first to investigate both offering type and financing objective dimensions simultaneously while previous literature considers either offering type or financing objective. The combination of both aspects fills the gap in stock issuance literature. It helps clarify which has a greater effect on long-run stock returns. Also, PP firms can alleviate long-run negative stock returns if they state investment objective as intended use of proceeds. Second, with the unique dataset from Thailand, we reduce data bias between SEO and PP proportion both in number of events and total value of proceeds, which is distinguished in prior literature. Also, as there are many firms from the property industry that issue stocks through primary market, we provide sector analysis separating the dataset into property and non-property firms. To the best of our knowledge, this is the first work to investigate differences between them.

We use complete data in Thailand from 2000 to 2017, covering wide-ranging stock cycles, because the Thai stock market has the unique characteristic of high PP issuance in proportion to SEO issuance both in number of events and total value of stock issuance. We apply the calendar-time portfolio approach to test long-run stock performance. The Fama-French-Carhart 6-factor model, including market, size, value, investment, profitability, and momentum factors, provides the following results. Private placement issuers have long-run negative abnormal stock returns of 0.55% per month whereas SEOs do not have significant positive abnormal returns. Thus, PP issuers stand as a negative indicator to investors. Investment purpose provides a positive signal to investors whereas recapitalization and working capital management both provide negative abnormal returns of 0.55% and 0.47% per month, respectively. Moreover, calendar-time long-short portfolio approach find SEO issuers outperform PP issuers for 0.56% per month or 6.77% per year while issuers with investment objective do not outperform issuers with recapitalization or working capital management objectives. However, when considering both dimensions, we find that SEO stocks with investment purpose outperform PP stocks with working capital management purpose for 0.72% per month or 8.59% per year. The effect of raising type is slightly stronger than financing objective. In addition, firms that issue PP with working capital management objective are small, distressed, unprofitable, and contrarian firms. We confirm these results using Fama-MacBeth (1973) regressions. Regardless of issuing types, financing stocks with recapitalization and working management purposes underperform non-issuers by 0.79% and 0.86%, respectively. The worst performers are PP firms with recapitalization or working capital management objectives.

Through deeper analysis, we provide sector analysis separating the dataset into property and non-property firms. To the best of our knowledge, this is the first work to investigate differences between them. Property firms, which have frequent equity issuance relative to firms from other sectors, return insignificant abnormal returns whereas other firms return significant negative abnormal returns even when controlled for the Fama-French-Carhart 6-factor model. As firms in this industry have a higher proportion on SEO and investment purpose issuance compared to firms in other industries.

The organization of this paper is as follows. Section 2 provides supportive reasons and evidence for choosing Thailand as the area of focus. Section 3 describes the data used and methodology of the study. Sections 4 and 5 show empirical results of long-run stock performance and Section 6 concludes the paper.

WHY THAILAND?

Thailand offers an appropriate setting for a number of reasons. First, the Thai stock market has much more private placement issuance relative to the number of companies, number of transactions, total issuance values, and average issuance values[3]. In fact, more than 40% of equity issuance transactions and values in the Stock Exchange of Thailand comes from private placement. The ratio of PP issuance to overall stock offerings in Asian developed markets is 13% by number of issues and 12% by amount. Second, it is interesting to consider whether market behavior in an emerging market, with a higher proportion of uninformed traders to informed traders, is similar to that in developed markets. Differences in behavior may result from the relatively lax nature of existing rules in Thailand as compared with those in the United States or other developed markets. Third, Thai equity market has a relatively high concentration of property and construction companies that issue stocks compared to companies in other industries. Their behavior and financing objectives can be different from non-construction firms.

DATA AND METHODOLOGY

Data, Financing Types, and Financing Objectives

The initial sample of SEO and PP issuance is manually obtained from news corporate news reported in SETSMART and consists of capital raising data from 2000 to 2017. Our sample begins in 2000 as the companies' pre-2000 filing statements are not available. In contrast to Dahiya, et al., (2017) whose dataset on Thailand provides incomprehensive data, we retrieve data from the original source to ensure that all available data are selected. Unlike Autore, et al., (2009) & Leone, et al., (2007), whose datasets on intended use of proceeds are clustered within a short timeframe, our dataset spans the period from 2000 to 2017. The period covers complete stock cycles from the recovery period after the 1997 Asian financial crisis, which started in Thailand, to the peak in 2007, the subsequent trough in 2008 due to the global financial crisis and the continual rise from that point to the present. We include Public Offering (PO) and right offering proportionate to their shareholding (RO) as parts of SEO. Shareholders will be able to maintain their shareholding proportions in the company if a rights offering is used to increase capital. Stock price and financial statement data are collected from Data stream. As suggested by Huang & Ritter (2018), we select a stock issuer whose equity issuance value is greater than 5% of the book value of equity and greater than 3% of market value of equity[4].

We classify intended use of proceeds as investment, recapitalization, and working capital management which is done in the same manner as Amor & Kooli (2017); Autore, et al., (2009); Leone, et al., (2007); Walker & Yost (2008); Wyatt (2014)[5]. Investment includes financial asset investment, purchase of real assets, business expansion, capacity expansion, M&A transactions, etc. Recapitalization mainly concerns long-term debt repayment and restructuring of shareholder structures. Working capital includes short-term debt repayment, cash management, payments to

accounts payable, liquidity management, etc. Others are those for which we cannot identify a specific purpose of proceed use. Our classification differs from previous literature that often combines recapitalization and working capital purposes together in one group. The separation of these two financing purposes helps clarify different effects. IN addition, some companies state more than one financing objectives so that a firm may end up with multi-purpose use of proceeds clarifications. Therefore, some transactions can be categorized as being in several groups.

Our sample starts with 1,222 issuing events from Stock Exchange of Thailand between 2000 and 2017. After adjusting for some firms that announce multiple issuances on the same date, we are left with 945 events. We further select only significant issuance as mentioned above and have a final number of 551 events in our dataset. Further, we classify stock issuance into two categories – offering types and financing objectives, with two offering types (SEO and PP) and three financing objectives (investment, recapitalization, and working capital management). Thus, we can group issuing stocks into six combinations; SEO & investment, SEO & recapitalization, SEO & working capital management, PP & investment, PP & recapitalization, and PP & working capital management.

Descriptive Statistics

Table 1 provides issuance summary data from 2000 to 2017. The total number of significant SEO and private placement events are 301 and 250 events, respectively. The number of SEO firms is slightly higher than PP firms, which differs from many markets in which SEO firms greatly outnumber PP firms. In most years, the number of SEO companies is almost the same as the number of total SEO events, whereas PP companies are relatively less numerous than PP events. In other words, PP firms offer stock issuance more frequently than SEO firms. Total values (average values) of SEO offerings equal 627.7 (2.1) whereas PP offerings stand at 425.4 (1.7) billion Baht. These events correspond to 294 and 199 companies, respectively. The number of events, total value, and average value for both SEO and PP firms drop significantly between 2007 and 2009 due to global financial crisis.

Table 2 shows issuance summary with a combination of issuing types and financing objectives. Many issuing firms state multiple purposes as their needs of proceeds. This nature differs from other markets where most firms state only one financing objective. Table 3 shows issuance summary by industry and offering type. Industry type is categorized in the same manner as Stock Exchange of Thailand (SET)[6]. Resource, service, and financial industries predominantly offer equities through SEO while property & construction industry offers the majority through the PP channel. Of all 250 PP events, 112 events are from the property & construction industry alone.

Table 1
ISSUANCE SUMMARY BY YEAR

Year	Seasoned Equity Offering				Private Placement			
	No. of companies	No. of issuance	Total value (Mil. Baht)	Average value (Mil. Baht)	No. of companies	No. of issuance	Total value (Mil. Baht)	Average value (Mil. Baht)
2000	16	16	19,894	1,243	13	14	12,002	857
2001	15	15	5,045	336	4	5	10,681	2,136
2002	14	15	10,950	730	8	8	2,020	252
2003	10	12	56,984	4,749	12	16	51,220	3,201
2004	11	12	7,721	643	10	12	12,957	1,080
2005	21	21	46,152	2,198	12	16	34,506	2,157
2006	17	17	14,183	834	15	18	48,843	2,714
2007	14	14	11,251	841	5	5	11,339	2,268
2008	11	11	9,248	832	9	9	5,649	628

2009	8	8	3,968	496	8	12	4,923	410
2010	17	17	41,710	2,454	7	7	29,432	4,205
2011	13	13	20,632	1,587	7	8	15,971	1,996
2012	21	21	152,733	7,273	15	24	51,858	2,161
2013	37	39	46,450	1,191	20	26	19,762	760
2014	18	18	16,138	897	19	29	38,060	1,312
2015	23	23	34,885	1,517	16	21	23,055	1,098
2016	13	13	98,234	7,556	7	7	25,821	3,689
2017	15	16	36,201	2,263	12	13	27,362	2,105
Total	294	301	632,378	37,281	199	250	425,461	33,022

This table reports seasoned equity offering (SEO) and private placement (PP) issuance summary by year.

Table 2
ISSUANCE SUMMARY: COMBINATION OF ISSUING TYPES AND FINANCING OBJECTIVES

Purpose	**Seasoned equity offering**					**Private placement**				
	No. of companies	**No. of issuance**	**Total value (Mil. Baht)**	**Average value (Mil. Baht)**	**% Total**	**No. of companies**	**No. of issuance**	**Total value (Mil. Baht)**	**Average value (Mil. Baht)**	**% Total**
Investment	52	61	94,623	1,551	11.64%	40	55	137,703	2,504	27.20%
Working capital	44	58	95,810	1,652	12.40%	26	30	26,727	891	9.68%
Recapitalization	14	15	40,442	2,696	20.24%	22	33	91,104	2,761	29.99%
Others	16	20	108,593	5,430	40.76%	25	25	47,684	1,907	20.72%
Multiple purpose	113	147	292,910	1,993	14.96%	60	107	122,242	1,142	12.41%
TOTAL	239	301	632,378	13,321	100.00%	173	250	425,461	9,205	100.00%

This table reports issuing types (including SEO and PP) and financing objective (including investment, working capital management, recapitalization, multiple purpose, and other financing objectives) combination.

Table 3
ISSUANCE SUMMARY BY INDUSTRY

Industry	**Seasoned Equity Offering**					**Private Placement**				
	No. of companies	**No. of issuance**	**Total value (Mil. Baht)**	**Average value (Mil. Baht)**	**% Total**	**No. of companies**	**No. of issuance**	**Total value (Mil. Baht)**	**Average value (Mil. Baht)**	**% Total**
AGRO	14	22	48,852	2,221	12	6	9	23,473	2,608	18
CONSUMP	8	11	3,926	357	2	6	6	1,467	245	2
FINCIAL	27	45	150,894	3,353	18	18	29	125,429	4,325	30
INDUS	19	33	19,425	589	3	17	22	27,916	1,269	9
PROPCON	51	92	84,852	922	5	42	112	131,638	1,175	8
RESOURC	13	20	130,149	6,507	36	10	21	45,943	2,188	15
SERVICE	39	56	162,668	2,905	16	22	37	53,354	1,442	10
TECH	17	22	31,612	1,437	8	9	14	16,241	1,160	8
Total	188	301	632,378	18,291	12	130	250	425,461	14,412	100

This table reports SEO and PP issuance summary by industry.

Buy-and-Hold Abnormal Returns

Buy-and-hold abnormal returns (BHAR) is the first method we employ to detect abnormal returns. This method compares returns between event firms and matched firms. We employ two matching techniques that follow previous researchers (e.g. Autore et al., 2009). They are 1) size and value; and 2) size and price-run up. We choose matched firms based on the length of the month in which the capital raising occurs. We rank all stocks in that same month

based on their market capitalization into 10 deciles. For size and value technique, all stocks from the same decile are brought together and matched with value, using the market-to-book ratio as an indicator. We select a firm that has the closest market-to-book ratio closest to the sample as the matched firm. Note that the matched firm market-to-book ratio must be in the range of 30% from the sample. If a matched firm within that range cannot be found, that particular sample will be dropped from the final dataset. BHAR can be calculated as follows:

$$BHAR_{i,\tau} = \prod_{t=1}^{\tau}\left[1 + R_{i,t}\right] - \prod_{t=1}^{\tau}\left[1 + MR_{i,t}\right] \quad (1)$$

where $R_{i,t}$ is return of an event firm i from time t to τ, $MR_{i,t}$ is return of a matched firm to firm i from time t to τ. Time t is a month that the event firm has SEO or PP issuance (or investment, recapitalization, or working capital management purpose) and time τ is equal to 6 months, 12 months, 24 months, or 36 months after the event. We calculate abnormal returns using two dimensions, equity offering types or intended use of proceeds, as shown in Figure 1.

CALENDAR-TIME ABNORMAL RETURNS

Baseline Results

Long-run event studies can also be tested by the calendar-time portfolio approach, encouraged by Fama (1998)[7]. We form portfolio returns based on equal-weighted portfolios for each pair of dimensions because value-weighted portfolios are dominated by large stocks. We introduce a firm that issues stocks into our portfolio and keep it for 36 months[8]. In the next month, if there is another firm that issues stock, we include this new issuing firm in our portfolio. For example, if firm A announces its capital raising in December 2010, we will include this stock in the portfolio from January 2011 to December 2013.

We use the traditional Fama-French 3-factor and 5-factor models (Fama & French, 1993, 2015). In addition, we propose Fama-French-Carhart 6-factor model which is the 5-factor model with the additional factor of momentum. We use three different models because there is no general consensus on the best asset pricing model for identifying abnormal returns. Moreover, by increasing the number of factors from three to six, significance of abnormal returns or alphas can be identified more easily if they still persist after more controls. These three models can test whether there is an independent issuer effect after controlling for size, value, momentum, profitability, and investment momentum effects. Further, the models can examine how financing firm types are associated with each premium factor. The 6-factor model is in the following form.

$$R_{pt} = \alpha_p + \beta_{RMRF}RMRF_t + \beta_{SMB}SMB_t + \beta_{HML}HML_t + \beta_{UMD}UMD_t + \beta_{RMW}RMW_t + \beta_{CMA}CMA_t + e_t \quad (2)$$

In this regression, R_{pt} is the excess return of a certain portfolio at time t, $RMRF_t$ is the excess returns over the risk-free rate at time t, SMB_t is the difference of return from diversified portfolio of small and big stocks (size factor), HML_t is the difference of return from diversified portfolio of high and low B/M stocks (value factor), UMD_t is the difference of return from diversified portfolio of winner and loser stocks in the previous one year (momentum factor), RMW_t is the difference of return from diversified portfolio of profitable (robust) and nonprofitable (weak) stocks (profitability factor), and CMA_t is the difference of return from diversified portfolio of higher investment (conservative) and lower investment (aggressive) stocks (investment factor). The financial statement data of companies and all relevant market prices are collected from Datastream whereas the risk-free rate data are from Thai Bond Market Association (ThaiBMA). Details of forming the above loading factors and their components can be found in Fama & French (1993); Carhart (1997); Kenneth French's website.

Table 4 shows baseline results based on Fama-French regression for portfolios formed on the basis of all financing objectives, financing firms classified by issuing type, and financing firms classified by purpose of capital use. We use monthly equal-weighted returns from January

2000 to December 2017. We report the coefficients from the 3-factor, 4-factor, and 6-factor models.

Table 4
FAMA-FRENCH REGRESSION: ALL FINANCING STOCKS

	All issuing	Issuing types		Financing objectives		
	stocks	**SEO**	**PP**	**Investment**	**Recapital-ization**	**Working Capital**
3-factor						
Alpha	-0.508**	-0.320	-0.937***	-0.352	-0.861***	-0.887***
	(-2.11)	(-1.15)	(-3.03)	(-1.22)	(-2.63)	(-2.90)
RMRF	1.179***	1.164***	1.284***	1.109***	1.297***	1.321***
	(29.90)	(25.52)	(25.27)	(23.42)	(24.13)	(25.84)
SMB	0.824***	0.764***	0.922***	0.787***	0.813***	0.909***
	(14.98)	(12.01)	(13.01)	(11.91)	(10.84)	(13.02)
HML	0.190***	0.153*	0.179**	0.0997	0.330***	0.193**
	(2.78)	(2.78)	(2.03)	(1.22)	(3.54)	(2.22)
Adj R-squared	0.811	0.756	0.754	0.725	0.736	0.763
4-factor						
Alpha	-0.410*	-0.226	-0.810***	-0.272	-0.753**	-0.732**
	(-1.84)	(-0.85)	(-2.83)	(-0.97)	(-2.41)	(-2.59)
RMRF	1.145***	1.131***	1.239***	1.081***	1.259***	1.267***
	(31.07)	(25.85)	(26.15)	(23.34)	(24.33)	(26.50)
SMB	0.897***	0.834***	1.017***	0.846***	0.893***	1.005***
	(17.18)	(13.46)	(15.15)	(12.90)	(12.19)	(15.23)
HML	0.210***	0.173**	0.205**	0.116	0.352***	0.213***
	(3.32)	(2.30)	(2.52)	(1.46)	(3.97)	(2.67)
UMD	-0.257***	-0.248***	-0.335***	-0.209***	-0.284***	-0.338***
	(-6.11)	(-4.96)	(-6.18)	(-3.95)	(-4.80)	(-6.27)
Adj. R-squared	0.839	0.782	0.792	0.744	0.762	0.801
6-factor						
Alpha	-0.199	0.0175	-0.547*	-0.053	-0.545*	-0.471*
	(-0.89)	(0.07)	(-1.88)	(-0.18)	(-1.70)	(-1.71)
RMRF	1.044***	1.014***	1.121***	0.979***	1.166***	1.140***
	(24.73)	(20.54)	(20.45)	(18.17)	(19.28)	(21.99)
SMB	0.811***	0.742***	0.915***	0.753***	0.810***	0.894***
	(15.13)	(11.83)	(13.14)	(11.02)	(10.55)	(13.61)
HML	-0.0170	-0.0500	-0.0558	-0.101	0.135	-0.0380
	(-0.28)	(-0.71)	(-0.72)	(-1.31)	(1.57)	(-0.52)
UMD	-0.208***	-0.192***	-0.278***	-0.158***	-0.241***	-0.257***
	(-4.90)	(-3.88)	(-5.04)	(-2.92)	(-3.97)	(-4.87)
RMW	-0.278***	-0.332***	-0.333***	-0.280***	-0.261***	-0.433***
	(-4.00)	(-4.08)	(-3.69)	(-3.16)	(-2.62)	(-4.96)
CMA	-0.125	-0.111	-0.0750	-0.0968	-0.0767	-0.0637
	(-1.56)	(-1.19)	(-0.72)	(-0.95)	(-0.67)	(-0.65)
Adj. R-squared	0.846	0.797	0.797	0.747	0.763	0.822

This table reports the results of calendar-time regressions: $R_{pt} = \alpha + \beta_{RMRF}RMRF_t + \beta_{SMB}SMB_t + \beta_{HML}HML_t + \beta_{UMD}UMD_t + \beta_{RMW}RMW_t + \beta_{CMA}CMA_t + e_t$. The dependent variable, R_{pt}, is monthly excess returns of issuing stocks. $RMRF_t$ represents the excess returns over the risk-free rate at time *t*, SMB_t is the size factor, HML_t is the value factor, UMD_t is the momentum factor, RMW_t is the profitability factor, and CMA_t is the investment factor. The *t*-statistics are reported in parentheses. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

The first column of Table 4 reports coefficients for portfolios sorted by all equity issuing firms in the past three years. Using the three-factor model, the portfolio of equity issuers has a statistically significant intercept of -0.51% per month or -6.12% per year. Financing firms are riskier than the market as market factor beta is equal to 1.18. Further, they are small and value firms as SMB and HML loadings are equal to 0.82 and 0.19, respectively. The strongly positive SMB loading corresponds with Autore, et al., (2009) whereas the positive HML loading stands

in contrast with much existing literature that reports negative HML slope coefficients. When the 4-factor model is used, alpha is lower from -0.51% to -0.41% per month. The significant UMD loading of -0.26 suggests that financing stocks are contrarian, which is consistent with Autore, et al., (2009).

The 6-factor model, adding profitability and investment factors, reduces the alpha from -0.51% in the 3-factor model to a level statistically not different from zero. The 4-factor and 6-factor models slowly improve the description of the portfolio returns as intercepts get closer to zero, which is consistent with Fama & French (2015 & 2016). The additional profitability factor has a coefficient of -0.28, implying that issuing stocks are unprofitable firms. Adjusted R-squared also gradually increases as we move from the 3-factor model to the 6-factor model.

Columns 2 and 3 of Table 4 show results from separate SEO and PP firms. SEO stocks do not generate alphas different from zero for all asset pricing models. In contrast, PP firms have strongly negative abnormal returns of -0.94% per month in the 3-factor model and less marked negative abnormal returns of -0.55% per month in the 6-factor model. Results are in the same manner as in Krishnamurthy, et al., (2005) even when we control for more factors. Momentum, investment, and profitability factors subsume part of abnormal returns and finally lead to lower abnormal returns.

Columns 4 to 6 of Table 4 show results categorized by different intended use of proceeds. Overall, issuing stocks with investment objective do not suffer from negative abnormal returns whereas stocks with recapitalization and working capital objectives have negative abnormal returns. The magnitude and significance of recapitalization (working capital management) portfolio's alphas, however, decline from -0.86% (-0.89%) to -0.55% (-0.47%) per month as we move from the 3-factor model to the 6-factor model.

In conclusion, PP firms show higher market beta, size, momentum, and profitability coefficients relative to SEO firms. In addition, issuing stocks with working capital management objective are small, contrarian, and unprofitable firms.

Combination of Offering Types and Financing Objectives

The previous subsection illustrates separate results from each issuing aspect. The current section combines two dimensions and investigates which dimension plays a more marked role in long-run stock underperformance. Table 5 reports results from SEO portfolio regressions. Column 1 of Table 5 reproduces results from Column 2 of Table 4 for ease of comparison. Columns 2 to 4 of Table 5 provide results of SEO stocks with different financing purposes: investment, recapitalization, and working capital management. In general, intercepts from all models are not different from zero, suggesting that SEO firms offer no abnormal returns across all capital raising purposes.

Table 5
FAMA-FRENCH REGRESSIONS: SEO STOCKS

	SEO	**Objectives for financing**		
	Stocks	**Investment**	**Recapitalization**	**Working Capital**
3-factor				
Alpha	-0.320	-0.098	-0.664*	-0.644*
	(-1.15)	(-0.29)	(-1.66)	(-1.85)
RMRF	1.164***	1.082***	1.204***	1.281***
	(25.52)	(19.62)	(18.32)	(22.06)
SMB	0.764***	0.799***	0.624***	0.809***
	(12.01)	(10.38)	(6.80)	(10.20)
HML	0.153*	0.0814	0.329***	0.182*
	(2.78)	(1.22)	(3.54)	(2.22)
Adj R-squared	0.756	0.650	0.619	0.700
4-factor				
Alpha	-0.226	-0.046	-0.588	-0.475
	(-0.85)	(-0.14)	(-1.49)	(-1.47)

RMRF	1.131***	1.064***	1.177***	1.222***
	(25.85)	(19.23)	(17.97)	(22.33)
SMB	0.834***	0.839***	0.681***	0.914***
	(13.46)	(10.71)	(7.34)	(12.10)
HML	0.173**	0.0922	0.345***	0.204**
	(2.30)	(0.97)	(3.07)	(2.23)
UMD	-0.248***	-0.140**	-0.202***	-0.368***
	(-4.96)	(-2.21)	(-2.70)	(-5.97)
Adj. R-squared	0.782	0.658	0.631	0.743
6-factor				
Alpha	0.0175	0.170	-0.273	-0.186
	(0.07)	(0.50)	(-0.68)	(-0.60)
RMRF	1.014***	0.965***	1.041***	1.077***
	(20.54)	(15.03)	(13.76)	(18.44)
SMB	0.742***	0.756***	0.561***	0.798***
	(11.83)	(9.27)	(5.84)	(10.78)
HML	-0.0500	-0.119	0.153	-0.0429
	(-0.71)	(-1.30)	(1.42)	(-0.52)
UMD	-0.192***	-0.0900	-0.144*	-0.279***
	(-3.88)	(-1.40)	(-1.89)	(-4.70)
RMW	-0.332***	-0.279***	-0.402***	-0.494***
	(-4.08)	(-2.64)	(-3.23)	(-5.02)
CMA	-0.111	-0.0696	0.0305	-0.0806
	(-1.19)	(-0.57)	(0.21)	(-0.73)
Adj. R-squared	0.797	0.664	0.642	0.777

This table reports the results of calendar-time regressions: $R_{pt} = \alpha + \beta_{RMRF}RMRF_t + \beta_{SMB}SMB_t + \beta_{HML}HML_t + \beta_{UMD}UMD_t + \beta_{RMW}RMW_t + \beta_{CMA}CMA_t + e_t$. The dependent variable, R_{pt}, is monthly excess returns of issuing stocks. $RMRF_t$ represents the excess returns over the risk-free rate at time *t*, SMB_t is the size factor, HML_t is the value factor, UMD_t is the momentum factor, RMW_t is the profitability factor, and CMA_t is the investment factor. The *t*-statistics are reported in parentheses. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

Table 6 reports results from PP portfolio regressions. Column 1 of Table 6 reproduces results from Column 3 of Table 3 to enable easy comparison. Columns 2 to 4 of Table 6 illustrate results of PP stocks with different financing purposes in the same manner as Table 5. Intercepts from all models are significantly negative except for the intercept from the 6-factor model of PP stocks with investment objective portfolio. Overall, the impact of abnormal returns decreases as we expand from the 3-factor model to the 6-factor model. This result is the same as in Table 4. In the 6-factor model, recapitalization and working capital portfolios still have economic and significant negative abnormal returns of 0.86% and 0.88% per month, respectively. Thus, we can summarize that negative abnormal returns from different financing purposes shown in Table 4 derive mainly from PP firms.

Table 6
FAMA-FRENCH REGRESSION RESULTS: PRIVATE PLACEMENT STOCKS

	PP	**Objectives for financing**		
	stocks	Investment	Recapitalization	Working Capital
3-factor				
Alpha	-0.937***	-0.968**	-1.240***	-1.470***
	(-3.03)	(-2.28)	(-2.71)	(-3.51)
RMRF	1.284***	1.275***	1.423***	1.456***
	(25.27)	(18.32)	(18.64)	(20.76)
SMB	0.922***	0.988***	0.966***	1.150***
	(13.01)	(10.18)	(9.27)	(12.02)
HML	0.179**	0.102	0.393***	0.149
	(2.03)	(0.85)	(3.03)	(1.25)
Adj R-squared	0.754	0.620	0.628	0.681
4-factor				

Alpha	-0.810***	-0.843**	-1.070**	-1.270***
	(-2.83)	(-2.06)	(-2.43)	(-3.25)
RMRF	1.239***	1.231***	1.363***	1.384***
	(26.15)	(18.18)	(18.32)	(20.97)
SMB	1.017***	1.081***	1.073***	1.278***
	(15.15)	(11.27)	(10.45)	(14.03)
HML	0.205**	0.128	0.415***	0.176
	(2.52)	(1.10)	(3.33)	(1.59)
UMD	-0.335***	-0.329***	-0.373***	-0.446***
	(-6.18)	(-4.25)	(-4.45)	(-6.00)
Adj. R-squared	0.792	0.650	0.660	0.728
6-factor				
Alpha	-0.547*	-0.577	-0.855*	-0.875**
	(-1.88)	(-1.37)	(-1.90)	(-2.23)
RMRF	1.121***	1.108***	1.269***	1.212***
	(20.45)	(13.97)	(14.96)	(16.37)
SMB	0.915***	0.964***	0.980***	1.103***
	(13.14)	(9.57)	(9.12)	(11.76)
HML	-0.0558	-0.152	0.165	-0.148
	(-0.72)	(-1.34)	(1.37)	(-1.41)
UMD	-0.278***	-0.265***	-0.312***	-0.336***
	(-5.04)	(-3.33)	(-3.61)	(-4.46)
RMW	-0.333***	-0.329**	-0.329**	-0.582***
	(-3.69)	(-2.52)	(-2.31)	(-4.67)
CMA	-0.0750	-0.130	-0.0238	0.0718
	(-0.72)	(-0.86)	(-0.15)	(0.51)
Adj. R-squared	0.797	0.650	0.663	0.740

This table reports the results of calendar-time regressions: $R_{pt} = \alpha + \beta_{RMRF}RMRF_t + \beta_{SMB}SMB_t + \beta_{HML}HML_t + \beta_{UMD}UMD_t + \beta_{RMW}RMW_t + \beta_{CMA}CMA_t + e_t$. The dependent variable, R_{pt}, is monthly excess returns of issuing stocks. $RMRF_t$ represents the excess returns over the risk-free rate at time *t*, SMB_t is the size factor, HML_t is the value factor, UMD_t is the momentum factor, RMW_t is the profitability factor, and CMA_t is the investment factor. The *t*-statistics are reported in parentheses. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

Table 7 shows long-short portfolio regressions. Column 1 of Table 7 shows SEO/PP long-short regressions, investors long SEO portfolio and short PP portfolio. Investors can earn positive abnormal returns of 0.56% per month or 6.72% annually. Column 2 of Table 7 reports long-short regression based on financing objective strategy. Investors earn no abnormal returns from long stocks with investment objectives and short stocks with working capital needs. Finally, Column 3 of Table 7 displays long-short regression based on mixed dimensions, investors long SEO stocks with investment objectives and short PP stocks with working capital management objective. They generate positive abnormal returns of 0.72% per month or 8.64% per year.

Table 7
FAMA-FRENCH REGRESSION RESULTS: LONG-SHORT PORTFOLIO RESULTS

	SEO-PP	**Investment-Working capital**	**SEO & Investment – PP & working capital**
3-factor			
Alpha	0.618**	0.389*	0.839***
	(2.42)	(1.96)	(2.83)
RMRF	-0.120***	-0.160***	-0.202***
	(-2.86)	(-4.91)	(-4.15)
SMB	-0.158***	-0.128***	-0.123*
	(-2.71)	(-2.80)	(-1.81)
HML	-0.0253	-0.0596	-0.0974
	(-0.35)	(-1.05)	(-1.16)
Adj R-squared	0.036	0.095	0.066

4-factor			
Alpha	0.585**	0.327*	0.765***
	(2.30)	(1.71)	(2.65)
RMRF	-0.108**	-0.139***	-0.176***
	(-2.57)	(-4.38)	(-3.67)
SMB	-0.182***	-0.174***	-0.178***
	(-3.06)	(-3.89)	(-2.63)
HML	-0.0320	-0.0724	-0.113
	(-0.44)	(-1.34)	(-1.37)
UMD	0.0868*	0.164***	0.196***
	(1.80)	(4.54)	(3.58)
Adj. R-squared	0.047	0.172	0.116
6-factor			
Alpha	0.564**	0.310	0.716**
	(2.15)	(1.58)	(2.40)
RMRF	-0.107**	-0.129***	-0.157***
	(-2.17)	(-3.50)	(-2.79)
SMB	-0.173***	-0.172***	-0.159**
	(-2.76)	(-3.66)	(-2.23)
HML	0.00579	-0.0338	-0.0632
	(0.08)	(-0.64)	(-0.79)
UMD	0.0851*	0.160***	0.188***
	(1.72)	(4.32)	(3.33)
RMW	0.00133	0.0291	0.0539
	(0.02)	(0.48)	(0.58)
CMA	-0.0362	0.0328	0.00537
	(-0.39)	(0.47)	(0.05)
Adj. R-squared	0.034	0.169	0.106

This table reports the results of calendar-time regressions: $R_{pt} = \alpha + \beta_{RMRF}RMRF_t + \beta_{SMB}SMB_t + \beta_{HML}HML_t + \beta_{UMD}UMD_t + \beta_{RMW}RMW_t + \beta_{CMA}CMA_t + e_t$. The dependent variable, R_{pt}, is monthly excess returns of long-short issuing stocks. $RMRF_t$ represents the excess returns over the risk-free rate at time *t*, SMB_t is the size factor, HML_t is the value factor, UMD_t is the momentum factor, RMW_t is the profitability factor, and CMA_t is the investment factor. The *t*-statistics are reported in parentheses. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

Combination of Offering Type and Issuing Industry

We classify portfolios into two categories: property & construction firms (PROPCON) and non-property firms as PROPCON companies dominate approximately one-third (one-half) of SEO (PP) stocks. Moreover, their financing objectives are mostly for investments. Table 8 shows regression results from two different industrial portfolios. Columns 1 and 2 of Table 8 report PROPCON portfolio and portfolio of issuing stocks from other industries. In the 3-factor model, market beta of PROPCON companies is 1.63 whereas that of the remaining companies equals 1.02.

Table 8
FAMA-FRENCH REGRESSIONS: PROPERTY & CONSTRUCTION FINANCING STOCKS AND OTHER FINANCING STOCKS

	All issuing stocks		**SEO**		**PP**	
	PROPCON	Others	PROPCON	Others	PROPCON	Others
3-factor						
Alpha	-0.720*	-0.528**	-0.598	-0.338	-1.090**	-1.120***
	(-1.82)	(-2.20)	(-1.34)	(-1.17)	(-2.24)	(-3.59)
RMRF	1.625***	1.022***	1.593***	0.995***	1.633***	1.112***
	(24.58)	(25.94)	(21.35)	(21.04)	(20.11)	(21.76)
SMB	1.152***	0.684***	1.071***	0.606***	1.072***	0.817***
	(12.77)	(12.45)	(10.51)	(9.19)	(9.67)	(11.47)
HML	0.318***	0.144**	0.284**	0.102	0.413***	0.112

	(2.83)	(2.11)	(2.24)	(1.24)	(2.99)	(1.27)
Adj. R-squared	0.746	0.763	0.687	0.677	0.661	0.695
4-factor						
Alpha	-0.554	-0.450*	-0.440	-0.266	-0.877*	-1.020***
	(-1.47)	(-1.96)	(-1.02)	(-0.95)	(-1.91)	(-3.42)
RMRF	1.566***	0.995***	1.538***	0.970***	1.558***	1.078***
	(24.63)	(26.18)	(21.05)	(20.82)	(20.06)	(21.80)
SMB	1.256***	0.742***	1.169***	0.660***	1.206***	0.890***
	(14.30)	(13.79)	(11.59)	(10.01)	(11.24)	(12.70)
HML	0.340***	0.160**	0.304**	0.117	0.440***	0.132
	(3.19)	(2.46)	(2.49)	(1.46)	(3.39)	(1.56)
UMD	-0.363***	-0.205***	-0.344***	-0.190***	-0.467***	-0.256***
	(-5.06)	(-4.71)	(-4.18)	(-3.57)	(-5.34)	(-4.53)
Adj. R-squared	0.773	0.785	0.711	0.696	0.702	0.723
6-factor						
Alpha	-0.310	-0.231	-0.152	-0.017	-0.600	-0.741**
	(-0.85)	(-1.00)	(-0.36)	(-0.06)	(-1.31)	(-2.42)
RMRF	1.423***	0.899***	1.378***	0.861***	1.419***	0.960***
	(20.78)	(20.60)	(17.27)	(16.28)	(16.44)	(16.68)
SMB	1.132***	0.663***	1.030***	0.579***	1.087***	0.785***
	(13.04)	(11.97)	(10.18)	(8.62)	(9.94)	(10.73)
HML	0.0113	-0.0274	-0.00902	-0.0640	0.112	-0.0849
	(0.12)	(-0.44)	(-0.08)	(-0.85)	(0.91)	(-1.04)
UMD	-0.268***	-0.160***	-0.243***	-0.141***	-0.379***	-0.201***
	(-3.85)	(-3.65)	(-2.99)	(-2.65)	(-4.32)	(-3.47)
RMW	-0.451***	-0.280***	-0.509***	-0.332***	-0.465***	-0.344***
	(-3.91)	(-3.90)	(-3.79)	(-3.81)	(-3.20)	(-3.63)
CMA	-0.344***	-0.00897	-0.509***	0.0162	-0.196	0.0504
	(-2.65)	(-0.11)	(-3.79)	(0.16)	(-1.20)	(0.46)
Adj. R-squared	0.800	0.793	0.738	0.714	0.720	0.726

This table reports the results of calendar-time regressions: $R_{pt} = \alpha + \beta_{RMRF}RMRF_t + \beta_{SMB}SMB_t + \beta_{HML}HML_t + \beta_{UMD}UMD_t + \beta_{RMW}RMW_t + \beta_{CMA}CMA_t + e_t$. The dependent variable, R_{pt}, is monthly excess returns of issuing stocks from PROPCON industry or other industries. $RMRF_t$ represents the excess returns over the risk-free rate at time *t*, SMB_t is the size factor, HML_t is the value factor, UMD_t is the momentum factor, RMW_t is the profitability factor, and CMA_t is the investment factor. The *t*-statistics are reported in parentheses. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

Considering all issuing types, both PROPCON and the other portfolio have alphas of no different from zero. CMA loading of PROPCON financing stocks has economic and significant value of -0.34, suggesting that these firms are aggressive in investment plans.

Columns 3 and 4 of Table 8 report SEO stocks. Market betas of all regression models still confirm that PROPCON are riskier than markets whereas other companies have market betas of close to one. Momentum loadings from the 4-factor and 6-factor models show that PROPCON issuing stocks are more momentum-losing compared to other financing stocks. Alphas from all regressions are not statistically different from zero.

Columns 5 and 6 of Table 8 show regressions for PP stocks. In the 6-factor model, PROPCON stocks deliver close to zero alpha whereas another portfolio shows significant and economic alpha of -0.74% per month. Whereas other portfolios generate alpha of -0.74% per month in the 6-factor model, PROPCON stocks have alpha of statistically not different from zero.

In sum, PROPCON financing companies offer multiple points of interest. Their factor loadings are more extreme that other financing firms in general. First, they have higher market beta. Second, they are smaller firms compared to other financing stocks. Third, they are more distressed. Fourth, they are more momentum-losing. Fifth, they are more aggressive in investing. Finally, they have low profitability compared to others. However, their alphas are not different from zero.

FAMA-MACBETH RESULTS

Fama-French regressions from the previous section are designed to test performance of issuing stocks in portfolio level with recognized factors. In contrast, Fama-MacBeth (1973) style regression controlling firm characteristics can show performance in the firm level. We apply this regression in the same manner as Huang & Ritter (2018) using monthly returns. Using the return on a stock as the dependent variable, we find cross-sectional regressions of a variety of model specifications for each of the 216 months from January 2000 to December 2017. We then calculate time-series averages of each cross-sectional coefficient. We control the estimation model using Tobin's Q, size, returns, profitability, and investment variables.

Table 9 reports the times-series averages of coefficients from monthly regressions with t-statistics in parentheses. The dependent variable is the firm's monthly stock return in each month. Model 1 does not include financing type or objective dummy variables. The coefficients on the independent variables are generally consistent with the literature. Tobin's Q, sales, and investment are negatively related to future stock returns, while profitability is positively related to future stock returns. The stock return in year *t* is used to capture potential momentum effects. Its coefficient is not statistically significant.

Table 9
FAMA-MACBETH REGRESSIONS OF STOCK RETURNS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Intercept	2.935**	3.044***	3.074**	3.188**	3.186**	2.830**	2.833**
	(2.11)	(2.19)	(2.21)	(2.26)	(2.26)	(2.06)	(2.06)
SEO or PP		-0.719**					
		(-2.52)					
SEO			-0.904***				
			(-2.63)				
PP			-0.72**				
			(-1.98)				
Investment				-0.284			
				(-0.79)			
Recapitalization				-0.786*			
				(-1.84)			
Working capital				-0.863**			
				(-2.28)			
SEO & Investment					-0.088		
					(-0.18)		
SEO & Recapitalization					-0.446		
					(-0.78)		
SEO & Working Capital					-1.05*		
					(-1.88)		
PP &Investment					-0.417		
					(-0.72)		
PP & Recapitalization					-1.194**		
					(-2.51)		
PP & Working capital					-1.098*		
					(-1.96)		
Issuance from property industry						-0.376	
						(-0.81)	
Issuance from other industries						-1.147***	
						(-4.11)	
SEO from property industry							0.058
							(0.10)
SEO from other industries							-1.013***
							(-2.75)
PP from property industry							-1.015*
							(-1.66)

PP from other industries							-1.185***
							(-2.99)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.044	0.048	0.051	0.057	0.067	0.053	0.060

This table reports Fama-MacBeth (1973) cross-sectional regressions estimated each month. The coefficients and their corresponding t-statistics are the time-series averages of the monthly coefficients. The dependent variable is the monthly return (in percent) on a firm's stocks. The control variables have values of previous year before the monthly regression and include Tobin's Q, size, stock returns, profitability, and investment variables (see more details in the text).

Model 2 of Table 9 adds one dummy variable for stock issuance regardless of issuing type or objective. Consistent with the 3-factor regression in the previous section, issuing stocks are followed by lower stock returns. These stocks underperform non-issuers by 0.72% per month. Model 3 of Table 9 adds two dummy variables for SEO stocks and PP stocks. Their coefficients are both economic and significant at -0.90% and -0.72% per month, respectively. The impact of SEO stocks is slightly more than that of PP stocks, contradicting the results from Fama-French regressions. Model 4 of Table 9 includes three dummy variables for the issuing objectives including investment, recapitalization, and working capital management. The results suggest that investment objective does not generate significantly negative returns whereas recapitalization and working capital management objectives result in lower returns of -0.79% and -0.86%, respectively.

Model 5 of Table 9 presents six dummy variables with a combination of issuing types and objectives. Three dummy variables equal one for the combination of SEO with investment, recapitalization, and working capital management, respectively; and three dummy variables equal one for the combination of PP with three financing objectives. The results show that three combinations, including SEO and working capital management; PP and recapitalization; and PP and working capital management, provide economic and significant lower stock returns in the subsequent year of -1.05%, -1.19%, and -1.10% per month, respectively.

Model 6 of Table 9 includes two dummy variables presenting stock issuance from the PROPCON industry and other industries. Financing stocks from PROPCON industry do not have lower returns in the subsequent year whereas financing stocks from other industries have lower returns of -1.14% per month. Model 7 of Table 9 adds four dummy variables with a combination of issuing types and industries. Two dummy variables equal one for SEO stocks from PROPCON industry and SEO stocks from other industries, respectively. Another two dummy variables equal one for PP stocks from PROPCON industry and PP stocks from other industries. Financing stocks from PROPCON industry, regardless of issuing type, do not have lower returns in the subsequent year. On the other hand, financing stocks from non-property industries underperform non-issuing stocks by 1.01% and 1.18% per month, respectively. These underperformance results are consistent with results from Table 8.

CONCLUDING REMARKS

We document the impact of stock issuing types and objectives on long-run stock returns. Of all possible combinations, private placement stocks with recapitalization and working capital management objectives perform the most poorly. In addition, they have higher beta, are smaller stocks, and are more momentum-losing compared to SEO stocks with investment objectives. We also find that regardless of issuing type, stocks from property & construction industry do not suffer from long-run stock returns whereas issuing stocks from other industries have significantly lower returns in following years.

This paper has two prominent implications. First, it suggests that investors penalize stocks for both issuing type and objective dimension, with private placement being penalized slightly more than issuing objectives. Companies may reduce the impact of lower returns in the long run by mentioning investment objective as they announce interim stock issuance. Second,

property and construction companies can benefit from being in the right industry in which investors do not punish these stocks even when they issue private placement offerings. Investors tend to believe that companies from this industry use their proceeds wisely or invest in opportunistic projects as compared to firms issuing stocks in other industries.

ENDNOTES

1. Corresponding author. This study is supported by Business Research Center, Thammasat Business School. We thank Visarut Pugdeepunt for his valuable research assistance. We remain responsible for all errors and omissions.
2. See Chen, Dai, and Schatzberg (2010), Dahiya, Klapper, Parthasarathy, and Singer (2017), and Krishnamurthy, Spindt, Subramaniam, and Woidtke (2005) for difference type of offerings; and Autore, Bray, and Peterson (2009), Amor and Kooli (2017), Leone, Rock, and Willenborg (2007), Walker and Yost (2008), and Wyatt (2014) for intended use of proceeds.
3. See Dahiya et al. (2017) for more details on other Asian market issuance.
4. The key reason of doing so is to ensure that such equity offerings have a meaningful effect.
5. We do not include other financing objectives due to relatively small data sample.
6. Stock Exchange of Thailand (SET) classifies listed companies into eight industry groups. They consist of agribusiness & food industry (AGRO), consumer products (CONSUMP), financials (FINCIAL), industrials (INDUS), property & construction (PROPCON), resources (RESOURC), services (SERVICE), and technology (TECH).
7. This methodology is applied widely in focus of corporate events such as security offerings (Eckbo et al., 2007; Lowry et al., 2017), mergers and acquisitions (Betton et al., 2008), IPO underpricing, etc.
8. We also keep stocks in the portfolio for 48 and 60 months but report only 36-month results. Results are available upon request.

REFERENCES

Amor, S.B., & Kooli, M. (2017). Intended use of proceeds and post-IPO performance. *The Quarterly Review of Economics and Finance, 65*, 168-181.

Andriansyah, A., & Messinis, G. (2016). Intended use of IPO proceeds and firm performance: A quantile regression approach. *Pacific-Basin Finance Journal, 36*, 14-30.

Autore, D.M., Bray, D.E., & Peterson, D.R. (2009). Intended use of proceeds and the long-run performance of seasoned equity issuers. *Journal of Corporate Finance*, *15*(3), 358-367.

Bessembinder, H., & Zhang, F. (2013). Firm characteristics and long-run stock returns after corporate events. *Journal of Financial Economics*, *109*(1), 83-102.

Betton, S., Eckbo, B.E., & Thorburn, K.S. (2008). Corporate takeovers. *Handbook of corporate finance: Empirical corporate finance*, *2*, 291-430.

Billett, M.T., Flannery, M.J., & Garfinkel, J.A. (2011). Frequent issuers' influence on long-run post-issuance returns. *Journal of Financial Economics*, *99*(2), 349-364.

Boehme, R.D., & Sorescu, S.M. (2002). The long‐run performance following dividend initiations and resumptions: under reaction or product of chance? *The Journal of Finance*, *57*(2), 871-900.

Campbell, J.Y., Hilscher, J., & Szilagyi, J. (2008). In search of distress risk. *The Journal of Finance*, *63*(6), 2899-2939.

Carhart, M.M. (1997). On persistence in mutual fund performance. *The Journal of finance*, *52*(1), 57-82.

Chen, H.C., Dai, N., & Schatzberg, J.D. (2010). The choice of equity selling mechanisms: PIPEs versus SEOs. *Journal of Corporate Finance*, *16*(1), 104-119.

Dahiya, S., Klapper, L., Parthasarathy, H., & Singer, D. (2017). Equity raising by Asian firms: Choosing between PIPEs and SEOs. *Journal of Corporate Finance*, *45*, 64-83.

Dichev, I.D., & Piotroski, J.D. (2001). The Long-Run Stock Returns Following Bond Ratings Changes. The Journal of Finance, 56(1), 173-203.

Dionysiou, D. (2015). Choosing among alternative long‐run event‐study techniques. *Journal of Economic Surveys*, *29*(1), 158-198.

Eckbo, B.E., Masulis, R.W., & Norli, O. (2007). Security offerings. Handbook of corporate finance, *Empirical corporate finance*, *1*, 233-373.

Fama, E.F. (1998). Market efficiency, long-term returns, and behavioral finance. *Journal of financial economics*, *49*(3), 283-306.

Fama, E.F., & French, K.R. (1993). Common risk factors in the returns on stocks and bonds. *Journal of financial economics*, *33*(1), 3-56.

Fama, E.F., & French, K.R. (2015). A five-factor asset pricing model. *Journal of Financial Economics*, *116*(1), 1–22.

Fama, E.F., & MacBeth, J.D. (1973). Risk, return, and equilibrium: Empirical tests. *Journal of political economy*, *81*(3), 607-636.

Hertzel, M., Lemmon, M., Linck, J.S., & Rees, L. (2002). Long-run performance following private placements of equity. *The Journal of Finance*, *57*(6), 2595-2617.

Hertzel, M., & Smith, R.L. (1993). Market discounts and shareholder gains for placing equity privately. *The Journal of finance*, *48*(2), 459-485.

Huang, R., & Ritter, J.R. (2018). The puzzle of frequent and large issues of debt and equity. Working paper.

Kothari, S.P., & Warner, J. (2007). Econometrics of event studies. *Handbook of empirical corporate finance*, *1*, 3-36.

Krishnamurthy, S., Spindt, P., Subramaniam, V., & Woidtke, T. (2005). Does investor identity matter in equity issues? Evidence from private placements. *Journal of Financial Intermediation*, *14*(2), 210-238.

Leone, A.J., Rock, S., & Willenborg, M. (2007). Disclosure of intended use of proceeds and underpricing in initial public offerings. *Journal of Accounting Research*, *45*(1), 111-153.

Loughran, T., & Ritter, J.R. (1997). The operating performance of firms conducting seasoned equity offerings. *The journal of finance*, *52*(5), 1823-1850.

Lowry, M., Michaely, R., & Volkova, E. (2017). Initial public offerings: A synthesis of the literature and directions for future research. *Foundations and Trends in Finance*, *11*(3-4), 154-320.

Silva, A., & Bilinski, P. (2015). Intended use of proceeds, underwriter quality and the long‐run performance of SEOs in the UK. *Journal of Business Finance & Accounting*, *42*(9-10), 1282-1309.

Spiess, D.K., & Affleck-Graves, J. (1995). Underperformance in long-run stock returns following seasoned equity offerings. *Journal of Financial Economics*, *38*(3), 243-267.

Walker, M.D., & Yost, K. (2008). Seasoned equity offerings: What firms say, do, and how the market reacts. *Journal of Corporate Finance*, *14*(4), 376-386.

Wruck, K.H. (1989). Equity ownership concentration and firm value: Evidence from private equity financings. *Journal of Financial economics*, *23*(1), 3-28.

Wyatt, A. (2014). Is there useful information in the 'use of proceeds' disclosures in IPO prospectuses? *Accounting & Finance*, *54*(2), 625-667.