Intended Use of Proceeds and Long-run Performance of Reverse Mergers: Evidence from Taiwan

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Abstract

This paper examines the long-run performance of reverse merger (RM) transactions in the Taiwan stock market. Shell companies generally issue private investment in public equity (PIPEs) in order to raise equity capital in the year following such transactions. Based on the intended use of capital, PIPEs issuers are classified into three categories: investment, recapitalization, and general corporate purposes. This study finds that shell companies in the investment category experience better long-term performance in the subsequent three years, which is consistent with the view that RM firms with strategic plans to expand investments in capital expenditures are signaling profitable investment opportunities. However, shell companies under the categories of recapitalization or general corporate purposes exhibit no or poor subsequent underperformance, suggesting that RM deals in these two categories are speculative in nature and have short-sightedness that destroys long-term shareholder wealth.

Keywords: Reverse mergers, Private investment in public equity, Intended use of proceeds, long-run performance

JEL Classifications: G31; G32

1. Introduction

Reverse mergers (RMs), or Reverse takeovers (RTOs) as they are typically referred to in U.S., provide another option to the traditional initial public offerings (IPOs) route for going public. Generally speaking, an RM process is an acquisition where the private firm's management seeks a public entity with which to merger and obtain the exchange list. As opposed to an IPO transaction, an RM transaction not only can be completed quickly without expensive underwriter fees but also avoids substantial ownership dilution (Floros and Sapp, 2011). Since 2000, an increasing number of foreign firms, particularly those from China, have used the RMs method to access U.S. capital markets. More specific, in 2008, the number of RMs in the U.S. was higher than the number of traditional IPOs for the first time (Semenenko,

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2011).[1] Despite its importance, RMs have attracted much less attention than traditional IPOs in corporate finance.

Prior studies have examined the characteristics and wealth effect of RMs transactions. For example, Gleanson et al. (2005) document significant short-term announcement gains for 121 RMs that took place on U.S. exchanges in the period 1987-2001. However, they show that only 46% of the sampled firms survive the first 2 years and argue RMs transactions involve considerable risk that cannot create long-run wealth for the shareholders of the post-event firm. Moreover, Adjei et al. (2008) indicate that smaller, younger, and poorer performing private firms prefer RMs to traditional IPOs and also experience worse long-run stock performance after RMs transactions are completed. Most important, their study shows that, within three years of listing, 42% of the RMs are delisted compared to 27% of matched IPOs. Floros and Sapp (2011) find a significant percentage of U.S. RMs firms are profitable short-term investments with returns of 48.1% over the first 3 months. Following the RMs transactions, Floros and Sapp (2011) show that the surviving firm earns an annual post-event return of -91.2%.

Previous literature has documented why firms engaging RMs experience significant short-run announcement gains. For example, Floros and Sapp (2011) indicate that this extraordinary payoff is primarily compensation to those investors who bearing shell stock illiquidity and the uncertainty. That is, these shell firms have no operations and less assets, but offer their shareholders the hope of a RM agreement and an exceptional return. However, until now, less studies explain why we observe poor long-term stock performance subsequent to the RMs transactions.

Although current literature shows that, on average, firms engaging RMs tend to experience significant negative long-term stock returns, it also demonstrates that there is a moderate proportion of the firms conducting RMs has a significant positive long-term stock return. In this study, I hypothesize that the variation of long-term stock performance might related to the different motivations for issuing private investment in public equity (PIPEs) by newly listed firms subsequent to RMs transactions.

Why does this study focus on PIPEs subsequent to RMs transactions? According to Floros and Sapp (2011), the financial characteristics of newly listed firms subsequent to RMs transactions tend to be highly information asymmetric and less liquid. In such case, these firms are very difficult to raise the equity capital by using public offerings (POs). Additionally, Floros and Sapp (2011) show these firms, on average, are less profitable, have minimal assets, and higher leverage. Thus, their study indicates that when these firms need capital but exhaust their access to debt, they tend to choose PIPEs as the only vehicle to obtain the capital. As these newly listed firms are financially constrained and have less alternatives for funding subsequent to RMs transactions, I posit these firms might have specific motivations for using the proceeds

[1] Semenenko (2011) argues financial crisis influenced the channels through which companies went public. It undermined credibility of the investment banking industry and reduced players in the field.

if they can successfully access to PIPEs financing. In this paper, I investigate the relation between issuer's motivations for issuing PIPEs after the RMs transactions and their subsequent long-term stock performance.

This study measures the issuer's motivations by utilizing the intended use of proceeds on issuer's PIPEs registration statement filed with the competent authority. More specific, this study classifies the intended use of proceeds into three categories: recapitalization, investment, and general purpose. This paper particularly shed lights on the association between the investment motivation and post-issue long-term stock performance.

The issuer's stated use, to some extents, typically provide clear information about the firm's motivations. In this study, I hypothesize that firms issuing PIPEs for investment purpose tend to utilize the proceeds for strategic value-enhanced investments, such as capital expenditures and advanced research development. In such case, they would state "investment" as their primary use of capital in the proxy statement. Therefore, if the issuing firms have valuable growth opportunities and specific plans for the proceeds, I anticipate little evidence of worse long-term performance for these issuing firms. This hypothesis is consistent with the findings of Walker and Yost (2008), suggesting that issuers stating specific investment projects tend to experience a relatively favorable market reaction at the offer announcement and an improvement in long-term stock performance.

However, if the issuing firms desire to relieve financial constraints, they would state "recapitalization" and are likely to repay debts or increase their investment in working capital. Finally, in case where firm managers do not have specific projects and merely take advantages of overvaluation to issue private equity, they tend to state their intended use of proceeds as "general corporate purposes".[2] This study predicts that these firms may be opportunistic market timers and experience worse long-term performance.

I investigate a sample of 97 private placements made on the Taiwan stock markets between January 2003 and December 2013. Specifically, 97 PIPEs are issued by firms subsequent to the RMs transactions within 3 years. The competent authority in Taiwan requires the issuers of PIPEs to disclose detailed information, including the intended use of the proceeds and the names of target investors. As I mentioned previously, based on the intended use of the proceeds stated in the proxy statement, I classify all PIPEs samples into three categories: recapitalization, investment, and general purpose. Then, we examine the announcement returns and post-event stock performance for the three categories.

Three main findings emerge from our analysis. First, due to have less channels to raise external financing because of poorly operated and financially constrained, I find firms in my sample tend to negotiate with sophisticated target investors to obtain funding subsequent to RMs transactions. Second, regardless of the category, I find market reactions to the

[2] Since the competent authority will audit the ultimate use of such proceeds, it forces firm managers of issuing firms to state truthfully their intended use of the proceeds.

announcement of placement subsequent to RMs transactions are all positive. This empirical finding is consistent with the result documented in earlier studies on private placements (e.g., Wruck and Wu, 2009).

Third, subsequent to the RM transactions, I observe that the motivation for issuing PIPEs differ among types of intended use of proceeds. More importantly, I provide the evidence that issuers' stated intended use of proceeds is associated with long-term stock performance. For the outperformance of placements in the investment category, I argue that, subsequent to RMs transactions, firms issuing PIPEs for investment purpose tend to utilize the proceeds for strategic value-enhanced investments, such as capital expenditures and research development and then create shareholder's wealth. The underperformance of placements in the general purpose category indicates that these issuers, subsequent to RMs transactions, do not have specific plans about proceeds. They might just take the advantage of overvaluation to issue new equity, and then accumulate funds in less-risky assets, such as cash and net working capital. This leads to the lower ling-term stock performance. Finally, for placements in recapitalization category, an issuance of new equity supports substantial cash infusion for the issuing firms. It implies that the benefits from relieving financial distress risk might offset the decrease in value when growth options are converted into assets in place. This results in placements in recapitalization category that do not show long-run abnormal returns.

This research contributes to the literature in two ways. First, this study contributes to the existing literature on RMs transactions. Despite the potential advantages in cost and speed of completion, RMs deals have attracted considerable adverse publicity and regulatory attention in the last decade. The controversy in the U.S. was fuelled by the large number of Chinese RMs listed in the U.S. between 2001 and 2010 and the surge in lawsuits in 2011 prompted by accounting fraud. Although the SEC has approved tougher listing standards for firms using RMs in order to list on the major U.S. exchanges, a negative perception has built up over the years. That is, the significant underperformance of the newly listed firms in the years following the RMs transactions. Thus, it is widely believed that such transactions are speculative in nature and short-sightedness activities which fail to generate long-run wealth gains.

However, the potential implication of different motivations conveyed by firms' following activities in terms of raising capital through PIPEs are overlooked. Subsequent to the RMs transactions, this study shows that firms with investment motivation to issue PIPEs have significantly positive long-term stock performance, while firms with general purpose motivation to issue PIPEs have poor long-term stock performance. Overall, our empirical findings show little evidence that RMs transactions are toxic corporate activities in the long-run.

Second, our empirical results complement that debate on the overinvestment of equity issuance. Previous studies document that overinvestment of equity issuing firms is the driving force behind long-term underperformance (e.g., Lyandres et al., 2008; and Fu, 2010). However,

recent studies provide strong evidence against the overinvestment hypothesis. For instance, Hertzel and Li (2010) find that firms with better growth opportunities invest more in R&D projects after issuance but do not experience poor stock performance un the long run. On the contrary, their paper also indicates that issuing firms with greater mispricing tend to increase cash holdings or decrease long-run debt, and experience lower post-issuing stock returns. In addition, Autore et al. (2009) test the relationship between the intended use of proceeds in SEOs and their post-event long-run stock performance. Their findings demonstrate that issuing firms stating general purpose or recapitalization as their intended use of proceeds experience worse stock performance in the subsequent three years, but issuing firms stating investment purpose in the proxy statement display no subsequent underperformance.

My findings in this study, to a certain extent, implies that PIPEs issuers with specific investment motivation tend to experience better long-term stock performance subsequent to the RMs transactions. Although several papers, as mentioned earlier, argue that managers of issuing firms invest too much in capital expenditure or R&D and then result in post-issue underperformance, the sample in those studies is likely to be contaminated by the agency costs of free cash flow. That is, the agency costs of managerial discretion may increase as new equity is issued. Therefore, it is ambiguous whether the post-issue poor stock performance is caused by the investment per se or by the agency costs of managerial discretion. Our sample in this study is highly possible to free from agency costs of managerial discretion, because newly listed firms subsequent to RMs transactions are financially distressed. This firm's financial characteristic after RMs transactions relieves the confounding effect in studies using equity issuance and reinforce our empirical evidences that PIPEs issuers with strategic motivations to use the proceeds for investment purposes are conveying profitable investment opportunities.

The paper is organized as follows. Section 2 introduce the RMs transactions and PIPEs in Taiwan. Section 3 depicts the data applied in this research. Section 4 describes the main empirical findings. Finally, the conclusions drawn from this study are summarized in section 5.

2. Background on RMs and Private Placements in Taiwan

Since the early of 2000s, RMs is an important mechanism for a firm to go public in Taiwan. One of the possible reasons is that, during the Asian financial crisis in 1997 and the dotcom crash in 2000-2001, it is difficult for private firms in Taiwan to raise the capital via traditional IPOs at that time; as a result, private firms may choose RM route for going public to satisfy their liquidity demands. Another possible reason is that there are some primary benefits to engaging in a RM rather than an IPO, as documented by prior literature (e.g., Feldman, 2006; and Floros and Shastri, 2010).

Additionally, there is one difference in terms of the definition of a shell company between U.S. and Taiwan. In U.S., the SEC clearly denotes the shell company. That is, firms with "no or nominal operations, and with no or nominal assets or assets consisting of any amount of cash

and cash equivalents". According to Rule 12b-2, firms filing to the SEC have to point out whether they report themselves as a shell company. However, in Taiwan, there is no specific definition for a shell company. Next, I introduce the private placements in Taiwan.

Before 2002, for public firms in Taiwan, public offerings were the only way to sell their primary shares through seasoned equity offerings (SEOs). However, the Act related to Securities and Exchange was amended in 2002. At that time, the public firms are also permitted to issue SEOs by PIPEs. Due to their flexibility and cost saving, PIPEs snatched market shares soon after the amendment Act and then change into another important way for public firms in Taiwan to raise capital.

Prior to the issuance of PIPEs in Taiwan, the issuing firm should place the capital-raising proposal agenda at the shareholder's meeting. Moreover, the issuing firm has to disclose not only the planned amount of capital to be issued, but also the intended use of proceeds. When the private placement deal is approved, the issuing firm contacts with sophisticated private investors to negotiate the contract. Once the placement deal is closed, the issuing firm publishes an announcement about the transaction in the Market Observation Post System (MOPS). It is noted that those investors acquiring the securities of the private placements are subject to restrictions on the resale for a period of three years.

3. Data

3.1 Sample

I construct the list of completed RMs transactions in Taiwan from several different sources. I start with searching prior literature related to RMs transactions in Taiwan. These studies provide us the initial Taiwanese RMs sample information, including name of private firm and public firm, the announcement date and completion date of RMs transaction. In order to confirm the validity of this initial sample, each transaction was also independently checked from news releases and the proxy statement in the MOPS. The final sample consists of 61 RMs transactions completed from January 2003 to December 2013. The main reason why our sample period begins 2003 is that PIPEs become a valid capital-raising source for Taiwanese public firms since 2002. Additionally, firm's financial variables and daily price are collected from the Taiwan Economic Journal (TEJ) Finance database.

To build the PIPEs sample subsequent to RMs transaction, I collect the data from MOPS for PIPEs announced in the Taiwan stock markets between 2003 and 2016. It contains information of each deal, including the announcement date and the intended use of proceeds. This produces s total sample of 97 private placements issued by firms subsequent to the RMs transactions within 3 years.

Table 1 exhibits the distribution of 61 RMs transactions completed in Taiwan stock markets from 2003 to 2013. In panel A of Table 1, I present the frequency distribution of sample

firms by year. There is only one completed RMs deal in 2003, accounting for 1.6% of the total sample. The number of completed RMs transactions increases over time until 2006, and then slightly declines with the period of financial crisis from 2007 to 2009. After that, the number of completed deals remain steady, accounting for 51% of the total sample.

Moreover, Panel B of Table 1 displays the distribution of our samples by their industry. It is interesting that building material and construction industry made up 26 of completed deals, accounting for 42.7% of the total sample. Electronic industry accounts for 26.2%. It is also interesting to note that majority of RMs transactions in Taiwan is completed in construction and electronic industry.

Table 1: Distribution of Reverse Mergers

Panel A: Distribution of samples by year		
Year	**Number of RMs**	**Percentage**
2003	1	1.6%
2004	2	3.3%
2005	5	8.2%
2006	7	11.5%
2007	6	9.8%
2008	6	9.8%
2009	3	4.9%
2010	9	14.8%
2011	5	8.2%
2012	9	14.8%
2013	8	13.1%
Total	61	100.0%
Panel B: Distribution of samples by industry		
Industry	**Number of RMs**	**Percentage**
Textiles	3	4.9%
Electric Machinery	2	3.3%
Biotechnology and Medical Care	3	4.9%
Electronic	16	26.2%
Building Materials and Construction	26	42.7%
Tourism	2	3.3%
Financial	1	1.6%
Trading and Consumer's Goods	2	3.3%
Others	6	9.8%
Total	61	100.0%

Note: Our sample comprises 61 completed RMs transactions on the Taiwan stock markets from 2003 to 2013.

3.2 Characteristics of Public Firm Antecedent to RMs Transactions

Unlike the specific definition of shell firms denoted by SEC in U.S., there is no precise definition of shell firms in Taiwan. In this section, I present descriptive statistics on several firm characteristics variables for our sample of public firm antecedent to RMs transactions. All

variables are the annual or the year-end figures in the preceding year of the announcement of RMs transactions.

In this study, the proxies for firm size are total assets and market capitalization. The proxy for internal cash flow is the cash flow ratio, which is measured as earnings before interest, taxes, depreciation, and amortization (EBITDA) divided by total book assets. The proxies for liquidity are cash ratio and NWC ratio, which are calculated as the ratio of cash and cash equivalents to total book assets, and the ratio of non-cash net working capital to total book assets, respectively. Additionally, our study computes the total debt as a proxy for financial leverage. I also measure R&D ratio, which is computed as research and development expense divided by total book value of assets. Finally, I measure the market-to-book ratio by using market capitalization to book value of equity.

Table 2: Descriptive Statistics of Public Firm Characteristics

	Mean	Median	Maximum	Minimum	SD
Cash flow ratio (%)	-28.55	-4.31	24.86	-880.15	115.29
R&D ratio (%)	7.51	3.08	32.33	0.00	9.18
Return on assets (%)	-13.72	-3.99	20.35	-377.82	50.91
Cash ratio (%)	18.07	11.54	76.83	0.09	18.28
NWC ratio (%)	3.48	10.52	58.71	-100.82	28.93
Debt ratio (%)	49.86	49.44	111.24	1.73	28.53
Total assets (NT$ million)	1,303	691	11,488	18	192.86
Market Cap (NT$ million)	850	382	7,482	31	327.53
Market-to-book	1.08	0.73	5.47	0.05	10.69

Note: Table 2 presents descriptive statistics for the characteristics of the public firms prior to be reverse merger.

Table 2 reports the summary statistics for the annual financial variables of the public firms before they are acquired by private firms. Because of extreme skewness, this study focus on the medians. In my sample, the median cash flow ratio is -4.31%, suggesting the internal source flow is a deficit. The table also shows median public firm has very little in total assets and negative return on assets, suggesting less revenue to support operating expenses. In addition, I observe the median public firm has lower R&D ratio and higher debt ratio. These firm characteristics highlight that the public firms antecedent to RMs transactions are poorly managed companies that tend to be financially constrained. This finding is consistent with Floros and Sapp (2011), showing that shell companies in U.S. tend to have minimal assets and worse profitability.

3.3 Raising Capital Activities around the RMs Transactions

Previous studies find that private firms in U.S. choosing to go public via RMs tend to be financially distressed. Thus, these private firms have strong motivation to become publicly traded in order to secure financing from sophisticated investors utilizing PIPEs (e.g., Makamson, 2010; and Floros and Shastri, 2010). It is interesting to investigate whether the newly listed

firms in Taiwanese RMs transactions also immediately raise the capital at the time of going public. Table 3 presents the activities of raising equity capital antecedent to the RMs transactions, while Table 4 reports the activities of raising equity capital subsequent to the RMs transactions

Table 3: Sample Distribution of Private Placement (PP) and Public Offering (PO) before the Completion of RMs Transactions

Panel A: PP and PO before the completion of RMs transactions				
	Private Placement (PP)		**Public Offering (PO)**	
Number of issuing firms	31		7	
Number of transactions	39		8	
Panel B: Frequency distribution by year				
Year	**Number of PP**	**%**	**Number of PO**	**%**
-3	9	23	2	25
-2	14	36	5	63
-1	10	26	1	13
0	6	15	0	0
Total	39	100	8	100

Note: Year 0 is the completion year of RMs transactions.

Panel A in Table 3 presents that, among the 61 RMs transactions, there are 31 public firms tend to issue the private placements preceding the RMs deals; however, a little number of public offerings occurs in our sample. In Panel B, it presents that a large proportion of private placements is concentrated in one to two years prior the completion of RMs transactions.

Table 4 reports firms' activities in terms of raising external capital after the event. In panel A, I find that a large number of firms engaging in PIPEs soon after turning into the status of publicly traded. More specific, among the 61 RMs transactions, there are 51 firms using the PIPEs to raise capital, reflecting their likely motivation to use the proceeds as payment in plans for firm's future growth. Additionally, comparing with the number of private placements occurring prior the RMs deals is only 39, the number of private placements completing after the RMs deals is 97. Panel B of Table 4 also illustrates that a huge number of private placements is done at the time of going public.

Table 4: Sample Distribution of Private Placement (PP) and Public Offering (PO) after the Completion of RMs Transactions

Panel A: PP and PO after the completion of RMs transactions				
	Private Placement (PP)		**Public Offering (PO)**	
Number of issuing firms	51		5	
Number of transactions	97		5	
Panel B: Frequency distribution by year				
Year	**Number of PP**	**%**	**Number of PO**	**%**
0	41	42	0	0
1	28	29	0	0
2	15	15	2	40
3	13	13	3	60
Total	97	100	5	100

Note: Year 0 is the completion year of RMs transactions.

3.4 Classification by Intended Use of Proceeds

So far, my study documents that, subsequent to RMs transactions, newly listed firms tend to choose PIPEs as an important vehicle to obtain the equity capital. Because of limited channels for raising funds, these firms might have specific motivations for using the proceeds if they can successfully access to PIPEs financing. In this paper, I examine the relation between issuer's motivations for issuing PIPEs subsequent to the RMs transactions and their post-event long-term stock performance. Our study measures the issuer's motivations by utilizing the intended use of proceeds on issuer's PIPEs registration statement filed with the competent authority. In this section, I introduce the method for classifying the sample of 97 placements into three categories. I also present descriptive statistics on firm characteristics for the three categories.

In their announcement of PIPEs, if issuers report that they intend to employ the proceeds to repay outstanding debt or loans, or to increase working capital, these deals are placed in the "recapitalization" category (39 placements or 40% of our sample). If issuers disclose that they intend to utilize the proceeds for investment in R&D or capital expenditures, acquisitions, or business expansions, these placements are classified in the "investment" category (46 placements or 48% of our sample). If the issuing firms state that proceeds of placements have at least two purposes are in the "recapitalization" and "investment" categories, or if the proxy statements do not concretely identify the intended use of proceeds, then these placements are classified as "general purpose" category (12 placements or 12% of our sample).

Table 5: Intended Use of Proceeds for Private Placement (PP) after the Completion of RMs Transactions

Panel A: Distribution of PP by Intended Use of Proceeds Categories						
Year	**Intended use of proceeds categories**					
	Recapitalization		**Investment**		**General Purpose**	
	Number of PP	**%**	**Number of PP**	**%**	**Number of PP**	**%**
0	20	51	18	39	3	25
1	8	21	13	28	7	58
2	7	18	8	17	0	0
3	4	10	7	15	2	17
Total	39	100	46	100	12	100

Panel B: Firm characteristics for PP by Intended Use of Proceeds Categories			
	Intended use of proceeds categories		
	Recapitalization	**Investment**	**General Purpose**
Number of PP	39	46	12
(%)	40.12	47.51	12.37
Cash flow ratio (%)			
Mean	-11.84	-2.14	-15.85
Median	-2.27	0.73	-4.87
R&D ratio (%)			
Mean	5.68	4.31	2.32
Median	4.57	0.52	0.21
Return on assets (%)			
Mean	-6.48	-0.29	-11.42
Median	-3.31	0.97	-5.61
Cash ratio (%)			
Mean	17.09	22.32	19.13
Median	14.39	13.62	20.03
NWC ratio (%)			
Mean	3.79	22.81	4.77
Median	9.36	22.41	6.29
Debt ratio (%)			
Mean	54.82	46.91	54.55
Median	52.15	47.13	60.77
Total assets (NT$ million)			
Mean	1,436	1,830	1,973
Median	752	1,058	957
Market Cap (NT$ million)			
Mean	1,237	1,540	841
Median	621	951	935

Panel A in Table 5 shows the frequency distribution of PIPEs subsequent to RMs transactions, classified by intended use of proceeds. I find that, at the year of going public, 51% of issuing firms in “recapitalization” category tend to use the proceeds in repaying the liabilities or increasing the working capital, implying these firms desire to relieve financial constraints. I

also find that, in the first two years, 67% of issuing firms in "investment" category tend to use the proceeds in specific investment projects, suggesting that these firms have strategic plans for their shareholders.

Panel B in Table 5 presents the firm characteristics for the three categories. Although poorly management and financial constraints are universal across all three categories, issuing firms that state "recapitalization" and firms that state "general purpose" have a poor return on assets, higher leverage, and lower net working capital ratio than firms that state "investment".

4. Empirical Results

4.1 Market Reactions

In this section, I investigate the announcement returns of new listed firms engaging private placements subsequent to RMs transactions. Previous literature has shown that firms issuing PIPEs typically experience positive market reaction. For example, Krishnamurthy, Spindt, Subrananiam, and Woidtke (2005) find a mean CAR [-3,0] (cumulative abnormal returns over the 4 day interval beginning 3 days prior to the announcement, with day 0 being the initial announcement date of the PIPEs) of 2.23 percent. In addition, Wruck and Wu (2009) document CAR [-3,0] of 2.03 percent. Wu, Wang, and Yao (2005) also report a mean CAR [-1,1] of 3.51 percent for their sample of private placements in Hong Kong.

Table 6: Announcement Abnormal Returns

	CAR Event Window			
	[-1,+1] (%)		**[-1,+10] (%)**	
	Mean	**Median**	**Mean**	**Median**
All private placements (N=97)	4.71	2.52	9.45	4.91
	[0.000]	[0.000]	[0.000]	[0.000]
Recapitalization (N=39)	-2.01	-1.71	1.04	-3.59
	[0.043]	[0.032]	[0.632]	[0.595]
Investment (N=46)	10.49	11.91	15.53	11.68
	[0.000]	[0.000]	[0.000]	[0.000]
General Purpose (N=12)	4.82	7.89	14.04	8.59
	[0.007]	[0.006]	[0.000]	[0.000]

Note: *P-values* are in parentheses.

In this study, I employ the market model to compute the abnormal return around the announcement date. Specifically, the market model is estimated, in the period from day -120 to day -11, with a regression of firm's daily stock returns on the market returns. We use the CARs in two different windows to capture the stock price reactions to the announcement of the private placements: CAR [-1,1] and CAR [-1,10]. The results of announcement period abnormal returns are reported in Table 6.

In Table 6, the average CAR [-1,1] for all placements is 4.71 percent, and the average CAR [-1,10] is 9.45 percent. All of these abnormal return measures are significant. Additionally, this study finds that the mean announcement abnormal returns of placements in the investment category are significantly positive (10.49 percent in the event window [-1,1], and 15.53 percent in the event window [-1,10]), whereas placements in the general purpose category are also significantly positive (4.82 percent in the event window [-1,1], and 14.04 percent in the event window [-1,10]). However, I observe the announcement stock performance for placements in the recapitalization category is significantly negative (-2.01 percent), especially in the event window [-1,1].

4.2 Long-term Stock Performance

In this section, I am interested in understanding whether different stated intentions for use of proceeds can be associated with a variation in the long-run stock performance.

This study utilizes two different windows: [11,480] and [11,720] to proxy the medium-run and long-run abnormal returns. Then, I utilize two methods to measure the long-run performance. The first method is the cumulative abnormal returns, where the abnormal return is calculated by subtracting the value-weighted return of all firms in the same industry from the return of the issuing firm. Another approach is the calendar time portfolio, which involves regressing the portfolios' daily excess return again the four factors of Fama and French (1993, 1996) and Carhart (1997). For each calendar day in my sample period, I form an equally weighted portfolio of all placements in the post-issue period [11,480] or [11,720]. In Table 7, I present the summary statistics for the long-run stock performance of PIPEs subsequent to the RMs transactions. Panel A reports the CARs results. The first row shows the medium-run and long-run CARs for the whole sample of PIPEs completed after the event. The result indicates that average medium-run and long-run CARs is insignificantly -3.07 percent and -7.79 percent, respectively.

Table 7: Long-Run Stock Performance

Panel A: CARs for private placements subsequent to the completion of RMs transactions				
	CAR Event Window			
	[11,480] (%)		**[11,720] (%)**	
	Mean	Median	Mean	Median
All private placements (N=97)	-3.07	-11.16	-7.79	-6.54
	[0.709]	[0.658]	[0.451]	[0.436]
Recapitalization (N=39)	-4.24	-3.49	-7.69	-5.24
	[0.755]	[0.505]	[0.921]	[0.895]
Investment (N=46)	13.08	4.47	20.84	16.92
	[0.067]	[0.053]	[0.032]	[0.042]
General Purpose (N=12)	-23.81	-17.69	-19.64	-20.25
	[0.003]	[0.002]	[0.503]	[0.531]
Recapitalization *minus*	19.57	14.2	11.95	15.01
General purpose	[0.026]	[0.035]	[0.352]	[0.531]
Investment *minus*	36.89	22.16	40.48	37.17
General purpose	[0.000]	[0.005]	[0.028]	[0.006]

Panel B: Calendar time portfolio abnormal returns for private placements		
	CAR Event Window	
	Alpha [11,480] (%)	**Alpha [11,720] (%)**
	Daily	Daily
All private placements (N=97)	0.0328	0.0268
	[0.074]	[0.013]
Recapitalization (N=39)	0.0263	0.0283
	[0.233]	[0.281]
Investment (N=46)	0.0697	0.0532
	[0.012]	[0.000]
General Purpose (N=12)	-0.0712	-0.0485
	[0.031]	[0.067]
Recapitalization *minus*	0.0975	0.0768
General purpose	[0.046]	[0.038]
Investment *minus*	0.1409	0.1017
General purpose	[0.003]	[0.008]

Note: *P-values* are in parentheses.

Moreover, the average abnormal returns of placement in the investment category are significantly positive (13.08 percent in the period [11,480], and 4.47 percent in the period [11,720]). The average abnormal returns of placement in the general purpose category are significantly negative (-23.81 percent) in the window of [11,480], but insignificantly negative (-19.64 percent) in the window of [11,720]. Finally, this study shows that the long-run performance for placements in the recapitalization category lies between the other types and the mean abnormal returns are not significantly different from zero (-4.24 percent and -7.69 percent, respectively).

Next, this study investigates the abnormal stock returns between the private placements in the general purpose category and those in the other two categories. In the event window of CAR [11,480], issuers stating investment as the intended use of proceeds significantly outperform the issuers stating general purpose by 36.89 percent (median of 22.16 percent). Moreover, I also find that the issuers stating recapitalization as the intended use of proceeds significantly outperform the issuers stating general purpose by 19.57 percent.

Panel B of Table 7 reports the Fama-French and the Carhart four-factor model results based on the daily return in the [11,480] and [11,720] windows, respectively. It indicates that the alpha for all samples subsequent RMs transactions is 0.033 percent for the medium-run and 0.027 percent for long-run. For the private placements classified by the intended use of proceeds, I find that the alphas for the investment category are significantly positive, while the ones for the recapitalization category are insignificantly positive. In contrast to the investment and recapitalization categories, the alpha on general purpose placements is significantly negative. Similar to the results outlined in Panel A, the investment private placements significantly outperform the general purpose private placements in the four factor model.

5. Conclusions

It is widely believed that RMs transactions are speculative in nature and short-sightedness that tend to destroy the long-term shareholder wealth. However, the potential implication of different motivations conveyed by their following raising capital activities through PIPEs are overlooked. In this paper, I examine the relation between issuer's motivations for issuing PIPEs after the RMs transactions and their subsequent long-term stock performance.

I examine 97 PIPEs issued on the Taiwan stock markets from 2003 to 2016. Specifically, 97 private placements are issued by firms subsequent to the completion of RMs transactions within 1-3 years. Since regulation requires disclosure of the intended use of proceeds raised in private placement, this provides us an opportunity to classify all samples into three categories: recapitalization, investment, and general purpose. Our paper particularly shed lights on the association between the investment motivation and post-issuing long-run stock performance.

The empirical results in this study show that the post-issue stock performance varies greatly among these three categories. While placements in the investment category have significantly positive long-term abnormal returns, and placements in the general purpose category have poor long-term stock performance, the ones in the recapitalization category are reported as showing no abnormal returns.

For the outperformance of placements in the investment category, this study argue that, subsequent to RMs transactions, firms issuing PIPEs for investment purpose tend to utilize the proceeds for strategic value-enhanced investments, such as capital expenditures projects and research development and then create shareholder's wealth. The underperformance of placements in the general purpose category indicates that these issuers, subsequent to RMs

transactions, do not have specific plans about proceeds. They might just take the advantage of overvaluation to issue new equity, and then accumulate funds in less-risky assets, such as cash and net working capital. This leads to the lower ling-term stock performance. Finally, for placements in recapitalization category, an issuance of new equity supports substantial cash infusion for the issuing firms. It implies that the benefits from relieving financial distress risk might offset the decrease in value when growth options are converted into assets in place. This results in placements in recapitalization category that do not show abnormal returns in the long-term.

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