The Use of Proceeds from Seasoned Equity Offerings in China and its long-term performance

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Abstract:

We investigate the use of proceeds in 523 Seasoned Equity Offerings in China from 1998 to 2003. We put our focus on the type of the use of general corporate use which constitutes 30% of total proceeds, and might be able to help to hide the true intention of the use from shareholders. Our study finds that funds for general corporate have been used to supply cash and repay debt. We think that this could be the support for the marketing timing theory and the trade-off theory, respectively. There seems to be no support for the agency conflict from our study since we do not find that general corporate use has an impact on free cash flow after SEOs. Conditioned on that 70% of total proceeds have been used for investment, and issuing firms' total assets double in three years after SEOs, we think that the motivation of investments plays an important role in the SEO motivation. Finally, the negative relationship between the post-issue operating and stock performance and general corporate use confirms that the market timing theory and agency theory which are predicted to impair firms' performance might be the motivation of general corporate use and then the motivation of SEOs.

1. Introduction

In this research, we examine four theories concerning the motivation of SEOs by examining the use of proceeds from SEOs and its long-term performance. These four theories include the trade-off theory, the information asymmetry theory, the agency theory, and the financing under growth theory. As demonstrated by other literatures, this ex-post information of the use of proceeds after SEOs could provide some evidence regarding the motivation of SEOs. Jeanneret (2005) examines the long-term stock performance following 232 rights issues in the French market during the period from 1984 to 1998. The author classifies the planned use of proceeds documented in issuing reports into two categories: to finance new investments, or to adjust

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firms' capital structure. The author finds that rights issues used to adjust firms' capital structure do not have significant long-term share price under-performance, while rights issues used to finance new investment suffer significant long-term under-performance. The author interprets the results as that financing new investment will involve the over-investment by managers which is the result of agency conflict. Autore, Bray, and Peterson (2009) investigate 880 public offerings in the U.S. from 1997 to 2003. They classify the planned use of proceeds into three categories: investment, debt repayment, and general corporate use. They also find that the planned use of debt repayment and general corporate use suffer worse post-issue long-term stock and operating performance. They interpret the results as that because debt repayment and general corporate use might mean that firms do not have profitable investment projects at the time of SEOs, this lack of investment shows that firms might raise funds for other purposes such as market timing motivation. The above two researches have two potential flaws. First, they fail to consider the possibility that firms changed the use of proceeds after SEOs. Second, they do not explicitly link the post-issue performance with the proxies of theories.

Walker and Yost's work (2008), to some extent, tries to avoid the above two flaws. Walker and Yost (2008) link the stated use of proceeds before SEOs with the change in some accounting variables after SEOs. In other words, they consider the change in the use of proceeds. The sample is 438 public offerings during the period from 1997 to 2000 in the U.S. market. They use the same three classifications of use as Autore, Bray, and Peterson (2009). Walker and Yost (2008) find that firms' investment significantly increases after SEOs for all three categories, and firms' leverage also increases even if the stated use is to repay the debt. They argue that SEOs with the change of the use from the general use of proceeds to investments might indicate over-investment problem due to agency conflict. The authors link the stated use of proceeds with the post-issue operating performance in terms of operating cash inflow, and find that the SEO firms with the general use of proceeds have significant lower operating cash inflow after SEOs. Regarding the connection with theories, Walker and Yost (2008) admit that their work might not be able to completely rule out the possibility of the market timing as the alternative explanation of their empirical results. However, they argue that they do not find the evidence of the market timing motivation, because they do not find an excessive increase in cash or working capital after SEOs. Greenwood (2005) and Kim and Weisbach (2008) argue that if firms conduct SEOs to time the market, they will hold excessive amount of cash or working capital after SEOs. In summary, previous literatures mainly examine the relationship

between the use of SEO proceeds and its long-term performance. They use market timing theory and agency conflict theory to explain such a relationship.

This paper aims to examine the four motivations of SEOs mentioned above from the perspective of the use of SEO proceeds with a focus of general corporate use. Compared to previous literatures, the difference or the contribution of this paper is that we try to provide more evidence on where general corporate use has been used, and link the use of SEO proceeds more closely with the theories (or their proxies). With the available data in China which tracks firms' announcements regarding the final use of proceeds after SEOs, we classify three categories of the use of proceeds: investments, debt repayment, and the rest are general corporate use, and we scale each use as a percentage of total proceeds. We find that in China on average 69.1% of proceeds have been used in investments; 0.7% of proceeds have been used in debt repayment; 30.2% of proceeds have been left as general corporate use. Additionally, 83% of SEOs (with available use of proceeds data) contain a certain level of general corporate use. We have the similar perception as previous literatures that this significant amount of general corporate use presents a possibility that it could help existing shareholders hide their market timing motivation from new shareholders, and help managers hide their agency motivation from shareholders. By using Kim and Weisbach (2008) model, we find that general corporate use has a significant positive impact on the increase in cash after SEOs, a support for the market timing theory. This is because for example, Greenwood (2005) and Kim and Weibash (2008) argue that firms will take advantage of timing and reserve some cash for future. We find no significant impact of general corporate use on the free cash flow after SEOs, and an occasionally significant impact on investments. We think that this investment out of the funds under general corporate use might indicate other theories rather than the theory of financing under growth. This is because financing under growth adds value to shareholders, and firms should have less/no incentive to hide such a value-added practice under general corporate use. A candidate explanation of the impact of general corporate use on investments is that managers actually use general corporate funds for over-investments. Regarding the theory of financing under growth, we find that investments as a 70% of total proceeds indeed have a significant positive impact on firms' investments after SEOs. Additionally, from summary statistics, issuing firms' total assets double in three years after SEOs while non-issuing firms only grow 27.9%. Hence, we conclude that investments are the main motivation of SEOs. Regarding the trade-off theory, we find that general corporate use

has a significant positive impact on debt repayment in SEO year and the year after, while proceeds have a significant positive impact on borrowings (the net of debt repayment and new debt). We think that the trade-off theory plays a moderate role in the SEO motivation since proceeds as well as general corporate use have an influence over firms' debt practice. Finally, in the post-issue long-term performance study, we find that more general corporate use as a percentage of proceeds will lead to worse post-issue operating and stock performance. In other words, general corporate use has been used in an unwise way which impairs firms' performance. This result supports the market timing theory and agency theory which predict an impairment of performance after SEOs. In conclusion, the market timing theory and financing under growth play an important role in the SEO motivation, and the trade-off theory plays a moderate role. We do not have clear support for the agency theory.

This chapter is organised as the followings: Section 2 is the hypothesis development; Section 3 presents our data; Section 4 examine the impact of proceeds as well as general corporate use on the change in some accounting variables; Section 5 links the general corporate use with the post-issue long-term operating and stock performance; Section 6 is the conclusion.

2. Hypotheses development

In this section, we will discuss how different theories of the SEO motivations could explain the use of proceeds and the long-term performance.

2.1 Market timing

The incentive for the market timing behaviour is to issue equity when the cost of information asymmetry of equity issue is low (Myers and Majluf 1984). Within the context of SEOs, Greenwood (2005) and Kim and Weibash (2008) argue that if firms conduct SEOs to time the market, they will hold excessive amount of cash or working capital after SEOs. Greenwood (2005) demonstrates that investors are not convinced with that the purpose of SEOs is for investments, because share price will not react positively to SEOs until firms actually begin their investments. Kim and Weibash (2008) examine the impact of an interaction variable between market valuation before SEOs and the proceeds on the increase in cash after SEOs. They find that the impact of proceeds with higher market valuation before SEOs on the increase in cash after SEOs is higher than that of proceeds with lower market valuation before SEOs. We will examine the impact of general corporate use on the increase in cash. We think

that if firms have market timing motivation, they might have incentive to hide their true motivation from new investors by displaying true use of proceeds as general corporate use. Furthermore, firms with more market timing motivation will have worse post-issue stock return[2]. More generally, if firms take advantage of the information asymmetry by earnings management before SEOs (Rangan 1998; Shivakumar 2000; Teoh, Welch, and Wong 1998), their post-issue operating performance might also decline. Hence, our hypotheses are:

H1: if general corporate use is associated with the market timing motivation, general corporate use will have a positive impact on the increase in cash.

H2: if general corporate use is associated with the market timing motivation, more general corporate use will lead to worse post-issue stock and operating performance.

2.2 Agency conflict

In the agency conflict model, managers tend to use the free cash flow for managerial perquisites including over-investments to expand the business quickly after all profitable projects have been undertaken. Equity becomes a choice compared to debt, because equity is free from the pressure of constant interest payments (Jensen and Meckling 1976; Jensen 1986). In the previous literatures, the free cash flow is considered to be an indicator of the cost of agency conflict, and has an impact on corporate finance decisions[3]. However, within the context of SEOs, the free cash flow might be the result of SEOs. In other words, SEOs are driven by managers' desire to raise more free cash flow. We think that general corporate use in SEOs can help managers hide their true intention of the free cash flow from shareholders. General corporate use as the result of the agency conflict might also impair firms' post-issue

[2] The evidence of the relationship that more market timing motivation will lead to worse post-issue stock performance includes: Kahle (2000) finds that SEOs with more insider (manager) stock selling before SEOs will have worse post-issue stock performance. Clarke, Dunbar, and Kahle (2004) find that the secondary SEOs by insiders (managers) will have worse post-issue stock and operating performance, compared to the secondary SEOs without the selling from insiders. The rationale behind those two researches is that managers understand that the current high share price or high operating performance will not be sustainable, so they sell their shares when the price is high and SEOs are the reflection of the marketing timing motivation.

[3] These corporate financing decisions include dividend policy (Lang and Litzenberger 1989), share repurchase decision (Nohel and Tarhan 1998), and acquisition decision (Lang, Stulz, and Walking 1991).

stock/operating performance due to the unwise use of the funds (Jeanneret 2005; Walker and Yost 2008). Hence, our hypotheses are:

H3: if general corporate use is associated with market timing motivation, general corporate use will have a positive impact on the increase in the free cash flow after SEOs.

H4: if general corporate use is associated with market timing motivation, more general corporate use will lead to worse post-issue stock/operating performance.

2.3 Financing under growth

A firm facing growth opportunities would prefer equity financing due to the increased agency costs of debtholders-shareholders conflict as well as the increased uncertainty of firms' earnings during the growth period (Myers 1977; Smith 1970; Myers and Smith 1987; Smith and Watt 1992; Gaver and Gaver 1993). Within the context of SEOs, Pilotte (1992) and Denis (1994) provide empirical evidence supporting the positive relationship between investment opportunities and the market reaction to SEOs by using a variety (ten) of proxies for investment opportunities. Hence, using SEOs to finance investments under growth adds value to shareholders, so firms should have less/no incentive to display the use as general corporate use. By displaying the use as investments, firms might be able to distinguish themselves from firms with more general corporate use which might be the result of market timing and agency conflict. Hence, our hypothesis is:

H5: if the theory of financing under growth plays a role in the motivation of SEOs, the use for investments should have a positive impact on firms' post-issue investments, while general corporate use should not.

H6: within a SEO, more investment and less general corporate use should lead to better post-issue stock performance.

2.4 Trade-off theory

Under the trade-off theory, firms could use SEOs to adjust their capital structure towards an optimal level (Modigliani and Miller 1958 and 1963; Brennan and Schwartz 1978; Miller 1977; DeAngelo and Masulis 1980). The adjustment of capital structure towards an optimal level

should add value for shareholders. Hence, if the debt repayment after SEOs is driven by the adjustment to optimal capital structure, shareholders should have less/no incentive to display the use of debt repayment as general corporate use in order to distinguish themselves from firms with more general corporate use which might be the result of market timing and agency conflict. Hence, our hypothesis is:

H7: if the trade-off theory plays a role in the motivation of SEOs, proceeds should have a significant (positive/negative) impact on firms' post-issue debt repayment or leverage, while general corporate use should not have a significant impact.

3. Data

Our data is retrieved from the CCER/Sinofin database which tracks firms' announcements regarding the post-issue use of proceeds. We have the information of use for 523 SEOs for the period from 1998 to 2003, a period containing 676 SEOs in total. [Table 1] provides the summary statistics of the SEO activities during our sample period. [Table 1] also includes the number of non-issuing firms which will be used later as matching firms for long-term performance. Non-issuing firms are defined as all (non-financial) listed firms who do not conduct any equity issue three years before and after current year. When previous literatures study the use of SEO proceeds, they identify each SEO with one purpose or one kind of use. If within one SEO, proceeds are used for more than one purpose, the use of proceeds for this SEO will be classified with the purpose which dominates the proceeds, or the SEO with multiple purposes will be excluded from sample. Additionally, the information of the use of proceeds is the planned use of proceeds before SEOs. With the available data in China, for each SEO we identify the different use of proceeds as a percentage of the total proceeds. The use of proceeds is also the real use rather than the planned use since the data is based on the firms' announcements of real use after SEOs. To be consistent with previous literatures, we classify the use of proceeds into the following three categories: investments (on average 69.1% of total proceeds), debt repayment (on average 0.7% of total proceeds), and general corporate use (on average 30.2% of total proceeds). [Table 2] shows the frequency of general corporate use as a percentage of total proceeds. We can see that not only on average general corporate use is high as a percentage of total proceeds, but also most SEOs will have a certain level of general corporate use. We think that this significant amount of general corporate use might allow us to understand some firms' motivations of SEOs.

[Table 3] shows the summary statistics of the change in some accounting variables after SEOs. To control the common shock during the sample period, non-issuing firms are defined for each year as firms who do not conduct any equity issue three years before and after the current year. In other words, we need to understand whether the change in accounting variables is due to SEOs or due to the change in economy or capital market. These accounting variables include the full three components of the cash flow statement (net cash flow from operations, net cash flow for investment, and net cash flow from financing activities), cash (and marketable securities), working capital (which is current assets excluding cash minus current liabilities excluding current interest-bearing liabilities), fixed assets, total borrowings (the total of short-term and long-term interest bearing borrowings), and total assets. Each variable is scaled by total assets.

Regarding the investment theory, we can see that issuing firms' total assets nearly double three years after SEOs, while non-issuing firms' total assets only grow 27.9% for the same period. Although issuing firms' fixed assets as a percentage of total assets, another measure of investment, only grow from 29.4% to 32.1%, the absolute amount of issuing firms' total assets also increase tremendously conditioned on the doubled total assets. Issuing firms' investment activities which are measured by cash flow for investments are also higher than non-issuing firms both before and after SEOs even with a decline. In summary, issuing firms experience significant growth after SEOs and at the time when they conduct SEOs, a support for the investment theory.

The market timing theory predicts that firms might have incentives to raise more funds than needed to take advantage of the high valuation of firms. Previous studies (Greenwood 2005; Kim and Weibash 2008) believe that cash (or cash and marketable securities) and working capital are the places where firms could reserves these additional funds. [Table 3] shows that issuing firms' cash as well as cash and marketable securities significantly increases after SEOs while non-issuing firms' cash stays relatively stable. Issuing firms' working capital decreases from 19.6% to 13.8%. However, non-issuing firms' working capital decreases from 18.2% to 6.9% for a same period. In other words, the lower decrease in issuing firms' working capital during the period could be the result of the potential injected funds due to the market timing. In summary, we find evidence that issuing firms hold more cash after SEOs, a support for the

market timing theory. [Table 3] also, to some extent, exclude another explanation rather than the market timing theory to the increase in cash after SEOs. DeAngelo, DeAngelo, and Stulz (2010) argue and demonstrate that the increase in cash after SEOs is due to that firms conduct the SEOs to cover their short-term cash shortage. In [Table 3], we can see that issuing firms' cash before SEOs (11.6%) is not particularly lower than non-issuing firms' cash (11.2%). Additionally, in the year prior to SEO year, issuing firms' net cash flow from operation (6%) and financing activities (2.8%) is able to cover their investments (8.8%). In conclusion, issuing firms in China are not particularly short of cash before SEOs, compared to non-issuing firms.

Regarding the trade-off theory, the summary statistics shows that issuing firms' leverage increases from 20.8% to 24.8% in three years after SEOs. In the use information of proceeds, the use of debt repayment is on average only 0.7% of the total proceeds. Hence, the preliminary observation is that the trade-off theory might not be a consideration in the motivation of SEOs since SEOs are not used to reduce the debt level.

4. The use of proceeds

4.1 The Kim and Weibach (2008) model

We borrow the K&M model to examine the impact of proceeds as well as general corporate use on the change in the chosen accounting variables which include cash, free cash flow, investments, and debt repayment. The K&M model put all kinds of cash inflow as independent variables, and put certain cash outflow as dependent variable. The K&M model separates proceeds from the total cash inflow, and compares the impact of proceeds with the impact of other source of cash inflow/available funds on the change in accounting variables. Each variable in the K&M model has log transformation of one plus the original variable to minimise the effect of outliers. The regression is estimated by heteroskedasticity-consistent standard errors clustered by industry code. The standard K&M model is:

$$Y = \beta_0 + \beta_1 \ln(TA_{-1}) + \beta_2 \ln\left(\frac{\sum_{i=0}^{t} other\_sources}{TA_{-1}} + 1\right) + \beta_3 \ln\left(\frac{proceeds}{TA_{-1}} + 1\right) + \beta_4 yeardummy + \varepsilon$$

t_0 is the SEO year; t=-1, 0, 1, 2, 3; TA is the total assets; Proceeds are the total actual proceeds; other sources of funds is equal to the sum of net cash flow from operations, cash inflow from investment, and cash inflow from financing activities excluding current proceeds. For H1, our

dependent variable is [45]: $Y = \ln(\frac{Cash_t - Cash_{-1}}{TA_{-1}} + 1)$. The independent variables are the same as the ones in Kim and Weibach (2008).

Regarding H3, we define the free cash flow (FCF) as: FCF = operating income before depreciation – interests payment – tax payments – dividend payments – net cash flow for investment. Hence, our dependent variable is the cumulated FCF from the current SEO year up to three years after the current SEO: $Y = \ln(\frac{\sum_{i=0}^{t} FCF}{TA_{-1}} + 1)$. The original K&M model does not use this dependent variable. We think that the appropriate control for the other possible source of funds which could also provide the FCF is the cash inflow from financing activities excluding current proceeds. In other words, managers could also use more borrowings to provide the FCF. Hence, the other source is the cash inflow from financing activities excluding current proceeds.

Regarding H5 of investments, we use the original K&M model as well. The dependent variable is the cumulated cash outflow for capital expenditure (Capex)[6] from the current SEO year up to three years after the current SEO[7]: $Y = \ln(\frac{\sum_{i=0}^{t} Capex}{TA_{-1}} + 1)$. The control variable of

[4] It might be argued that cash plus marketable securities might present the true cash better. However, if we use cash plus marketable securities to measure cash, we have to exclude the movement in marketable securities from net cash flow from operations. From [Table 3], we see that the trend for both cash items is the same, we just use simple cash to avoid the unnecessary complication of the K&M model.

[5] We also estimate the similar regression for the change in working capital to check whether the resource motivated by the market timing motivation has been reserved in working capital. The other source of funds will exclude the change in working capital at the same time. The results are not show here, because proceeds as well as general corporate use are not significant for all periods.

[6] We also try to use the net capital expenditure as dependent variable, and take the cash inflow from investments out of independent variable. The results of this amendment are similar to the original K&M model.

[7] The sign for cash outflow should be negative. However, due to the nature log transformation, we need to keep the number positive. Hence, in the regressions we assign a negative sign to all outflow numbers to make them positive.

other source of funds is the same one in the model for cash[8]. When we separate general corporate use from proceeds, we need to add another control variable of investment use. This is because investment use will affect post-issue investments as well.

Regarding H7 of debt repayment, it is still the original K&M model. The dependent variable is the cumulated cash outflow to repay debt (Finex) from the current SEO year up to three years after the current SEO[9][10]: $Y = \ln(\frac{\sum_{i=0}^{t} Finex}{TA_{-1}} + 1)$. The control variable of other source of funds is the same one in the model for cash. We also estimate the similar regression for the change in borrowings as robustness. The dependent variable is firms' total long-term and short-term interest-bearing liabilities: $Y = \ln(\frac{Borr_t - Borr_{-1}}{TA_{-1}} + 1)$. In other words, borrowings are the net of debt repayment and newly negotiated debt. The other source of funds will exclude the cash inflow from financing activities (excluding proceeds) at the same time. In other words, the other sources of funds here is equal to the sum of net cash flow from operations and cash inflow from investment.

4.2 Results

[Table 4] shows the results when the change in cash is dependent variable. Both proceeds and general corporate use have significant positive impact on the increase in cash after SEOs. In other words, we show that these general corporate use funds will be used to increase cash. This is a behaviour which is consistent with the prediction of the market timing motivation. Shareholders use general corporate use to hide their market timing motivation, and reserve the

[8] In China, there are many cases where firms conduct another SEO within 3 years of the current SEO. The impact of SEOs within 3 years after the current SEO on the investments is included in and controlled by the cash inflow from financing excluding the current proceeds. To control the SEO/IPO within 3 years before the current SEO, we add existing cash into "other source" of funds. This means that firms could the funds raised in the previous equity issue for the current investments. The results of this amendment are similar to the original K&M model.

[9] The sign for cash outflow should be negative. However, due to the nature log transformation, we need to keep the number positive. Hence, in the regressions we assign a negative sign to all outflow numbers to make them positive.

[10] Although announced use of debt repayment should also have an impact on cash outflow for debt repayment and borrowings, on average the impact is only 0.7% of the total proceeds, and in most SEOs the use for debt repayment is zero. Hence, we ignore this factor in the regression for simplicity.

funds in the cash. [Table 5] shows the results when the cumulated FCF is dependent variable. Both proceeds and general corporate use do not have a significant impact on the FCF after SEOs. In other words, we do not have support for the agency conflict motivation. [Table 6] shows the results when the cumulated cash outflow for investments (Capex) is dependent variable. Both proceeds and announced investment use have a significant positive impact on the increase in cash outflow for investments after SEOs. The impact of general corporate use is only significant occasionally. The evidence shows that the investment theory plays an important role in SEOs or the increase in investments after SEOs. As we mentioned above, firms should have less/no incentives to hide the information of investments away from shareholders if such investment behaviour adds value to firms. One candidate explanation of the significant positive impact of general corporate use on investments is that managers might use this to hide their motivation of use SEOs as undisciplined resource (compared to debt) to fund their over-investments. In other words, the use of general corporate in investments might present an over-investment. [Table 7] and [Table 8] shows the results when the cumulated cash outflow for debt repayment (Finex) and the change in borrowings is dependent variable, respectively. Proceeds only have a significant positive impact on debt repayment in SEO year, and general corporate use only has a significant positive impact on debt repayment in SEO year and one year after. On other hand, proceeds significantly affect the increase in borrowings positively while general corporate use, as predicted, does not have a significant impact on borrowings. The result might mean that firms use SEO funds (mainly general corporate use) to repay the matured debt in a short-term before a new debt is negotiated, resulting in an overall unchanged level of borrowings. Firms might use general corporate use to hide this practice rather than display the use as debt repayment before SEOs, probably because firms do not want release misleading information of a leverage reduction to the market since the debt level or leverage will actually increase ultimately according to our summary statistics. In other words, the capital structure might be under consideration in the decision of SEOs, though SEOs do not directly reduce the leverage. The evidence that proceeds have a significant impact might also indicate that firms might adjust their borrowings/leverage according to SEO practice, a possible support for the trade-off theory. In summary, general corporate use has been used for cash (most significantly), some investments (but not very significant), and debt repayment of matured debt before the newly negotiated debt.

5. Post-issue long-term performance

In the previous section, we examine the impact of proceeds as well as general corporate use on the change in some accounting variables which can be seen as the proxy of theories. We should also be able to link the SEO motivations with the post-issue performance, because in summary the marketing timing and the agency motivation should impair firms' post-issue stock and operating performance, and the financing under growth and the trade-off theory should add value to firms. Therefore, if proceeds or general corporate use is associated with the theories, they should have a significant impact on firms' post-issue performance accordingly.

5.1 Matching firms and the definition of abnormal return

Matching firms are important in the long-term performance to control the common shock in the market such as the change in a country's economy situation. The principle of matching for operating performance is to find a matching non-issuing firm which has the same performance before SEOs and the same movement in performance if there is no SEO. Loughran and Ritter (1997) (L&R hereafter) choose their matching firms to control for total assets, profitability, and industry. In the L&R (1997), non-issuing firms are matched in such a way: a group of non-issuing firms with the same industry as the target issuing firm is selected. Within this industry group, a group of non-issuing firms which have the total assets in a range from 25% to 200% of target issuing firm's total assets is selected. Finally, within this industry-size group, the non-issuing firm with the most similar prior issue operation income before depreciation and amortisation (OIBS) over total assets is selected. However, the L&R (1997) method is not actually achievable in China, because as shown in [Table 1] the number of non-issuing firms is very low in the early years during our samples. The second reason is that as shown in [Table 9] the difference in EBIT/TA (ROA) between issuing firms and non-issuing firms' industry average is huge and significant due to the regulation in China that only profitable firms are allowed to conduct SEOs. If we use the L&R (1997) method, we will end up with that many issuing firms are matched with one non-issuing firm and their pre-issue ROA are still very different, a situation which might lead to bias associated with the possible non-issuing firms' abnormal change in accounting information. Therefore, we use EBIT/TA as performance measure and use non-issuing firms' industry average EBIT/TA as benchmark. [Table 9] show the summary statistics of the post-SEOs long-term operating performance. In China, SEO firms' significant decline in operating performance after SEOs underpins the meaning of "underperformance" rather than that SEO firms actually underperform non-issuing firms in a mature market situation. To control for the significant difference in pre-issue performance, the

abnormal return will further deduct the pre-issue abnormal return. Hence, the abnormal return for the post-issue operating performance is that issuing firms' ROA minus non-issuing firms' industry average ROA minus the difference between issuing firms' pre-issue ROA and non-issuing firms' pre-issue industry average ROA:

$$Abnormal\_return_{operating} = (RoA_{t,issuing} - RoA_{t,non-issuing-industry}) - (RoA_{-1,issuing} - RoA_{-1,non-issuing-industry})$$

Regarding stock performance, the principle of matching is to find a find a matching non-issuing firm which has the same stock movement/performance if there is no SEO. According to Fama and French (1993) three factor model, size, market-to-book ratio, and market return explain over 95% of the stock return. Since the market return will be identical for issuing firms and non-issuing firms during the same period, size and market-to-book ratio becomes the popular factors in the selection process. In Loughran and Ritter (1995), a non-issuing firm with the most similar market capitalisation with the target issuing firm is selected as matching firm. Spiess and Affleck-Graves (1995) extend the size matching by size-industry and size-book-to-market matching. In other words, size matching will take place within the same industry of issuing firm. They also select a matching firm such that the sum of the absolute percentage difference between the sizes and book-to-market ratios of the issuing firm and the matched firm is a minimum. Lee and Loughran (1998) split non-issuing firms into 25 quintiles based on their market-to-book ratio, and within each quintile, size is then used for matching. Again, due to the small sample size of non-issuing firms in China, we decide to adopt Lee and Loughran (1998) method, but we only divide our non-issuing firms into three equal quintiles[11] according to their market-to-book ratio[12]. By selecting matching firms in this way, we have 145 non-issuing firms of firm-year matching for 463 SEOs. In other words, on average one non-issuing firm is matched for three issuing firms. The rest 210 SEOs are one-for-one matched. [Table 10] shows that issuing firms in China actually outperform non-issuing firms both before and after SEOs. The abnormal stock return used in this research is defined as:

$$Abnormal\_return_{stock} = [\prod_{t=1}^{12,24,36}(R_{t,issuing}+1)-1] - [\prod_{t=1}^{12,24,36}(R_{t,non-issuing-matched}+1)-1]$$

[11] Fama and French (1993) use three quintiles for market-to-book ratio in their analysis.

[12] The market capitalisation is total number of shares multiplied by prior SEO year-end market price. It is not adjusted for any discount of non-tradable shareholders.

5.2 Model and control variables

We will put post-issue operating and stock abnormal return defined above as dependent variables. Our model (estimated by OLS) is:

$$Abnormal\_return = \beta_0 + \beta_1 Size_{-1} + \beta_2 MtoB_{-1} + \beta_3 pre-op + \beta_4 pre-stock + \beta_5 EIdumB_{-1}$$
$$+ \beta 6 EIdumB_{-2} + \beta_7 EIdumB_{-3} + \beta_8 EIdumA_t + \beta_9 proceeds/TA_{-1} (or\_\beta_9 General/procceds)$$
$$+ \beta_{10} yeardummy + \beta_{11} industrydummy + \varepsilon_i$$

The key independent variable is proceeds over total assets (prior to SEOs) and general corporate use as a percentage of proceeds. We choose the following control variables to control for some other determinants of the abnormal returns. *Size* is the natural log of total assets at the year-end prior to SEO. *MtoB* is the natural log of issuing firms' market capitalisation divided by book value of equity at the year-end prior to SEO. Pre-issue operating performance (*Pre-op*) is issuing firms' EBIT over total assets (ROA) minus non-issuing firms' industry average at the year-end prior to SEOs. The sign of this control variable is the net effect of two impacts. (1) As the results of information asymmetry, firms might use earnings management to enhance their share price before SEOs. Hence, more earnings management might lead to lower post-issue performance (Rangan 1998; Shivakumar 2000; Teoh, Welch, and Wong 1998). (2) According to CSRC, better ROA might lead to better post-issue performance, because they use profitability as requirement to distinguish between "good"/"bad" firms . Both Dang and Yang (2007) and Chen and Wang (2007) argue and prove that firms who could satisfy the stricter profitability requirement will have better post-issue performance. Furthermore, firms with high profitability could be the result of good corporate governance, good industrial environment, and other favourite conditions of firms. Hence, it also possible that better pre-issue profitability will lead to better post-issue operating performance. Pre-issue stock performance (*Pre-stock*) is issuing firms' 12 month return prior to their SEOs. Higher pre-issue stock performance might mean higher marketing timing incentives (Asquith and Mullins 1986; Masulis and Korwar 1986; and Eckbo and Masulis 1992). Hence, we expect that higher pre-issue stock performance will lead to worse post-issue stock performance.

EIdumB-1, *EIdumB-2*, *EIdumB-3* means whether firms conduct SEOs/IPOs in previous first year, second year, and third year. Those control variables will help control the situation that the current post-issue underperformance might include the effect of previous post-issue underperformance. In mature market studies, these overlapped samples are normally excluded.

For robustness, we also try to use one dummy rather than three dummies for three years. *EIdumAt* means whether firms have a SEO within t years after a SEO to control whether the performance contains the effect of SEOs in three years of the current SEO. [Table 11] shows the summary statistics for these control variables.

5.3 Results

[Table 12] and [Table 13] show the results for 1, 2, 3 years post-issue operating performance and 12, 24, 36 month post-issue stock performance, respectively. The overall results can be summarised as that general corporate use has a significant negative impact on firms' post-issue operating and stock performance over three years, and proceeds do not have such a significant impact. The result shows that general corporate use has been used in a way which impairs firms' operating and stock performance, a support for the market timing and agency theory which predict a decline in performance. However, our long-term performance study might not be able to distinguish the effect between different theories. On the other hand, the size of proceeds does not have an impact on the performance. This is probably because when we include investments element into the regression, the positive effect of the value-added practices (i.e. financing under growth) on performance offsets the negative effect of the market timing and agency theory.

We tried the following robustness: (1) since issuing firms' pre-issue stock return outperforms non-issuing firms before SEOs, we further deduct pre-issue difference between issuing firms' and non-issuing firms' 12 month stock returns in the abnormal return. In other word, this will have the similar treatment as operating performance. (2) We use Shanghai Composite Index monthly return as an alternative benchmark for stock performance. (3) The model is also estimated by heteroskedasticity-consistent standard errors. The fundamental message does not change, and we think that our results are robust.

6. Conclusion

In this paper, we aim to examine the theories explaining the motivations of SEOs in China by using the information of the use of proceeds and the long-term performance. According to firms' announcement after SEOs, we know that around 69.1% of the total actual proceeds have been used in investments. 0.7% of proceeds have been used in debt repayment. 30.2% of proceeds have been left as general corporate use. We find support for the market timing theory

since both proceeds and general corporate use have a significant positive impact on the increase in cash after SEO. We think that financing under growth plays an important role in SEO motivation because we find that investment use as a 70% of total proceeds significantly affects post-issue investments, and issuing firms' total asset double in three years after SEOs. We do not have clear support for the agency theory, because the impact of general corporate use on the free cash flow after SEOs is not significant. However, we think that the investments using funds for general corporate use might indicate an over-investment. However, this evidence needs more research in the future. The impact of the trade-off theory on SEO decision is moderate since we find that firms' debt practice (repayment and new borrowings) has a relationship with proceeds as well as general corporate use. Finally, the negative relationship between the post-issue operating and stock performance and general corporate use confirms that the market timing theory and agency theory, as predicted to impair firms' performance, is the motivation of general corporate use and then the motivation of SEOs.

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Table 1: Summary statistics for SEO activities

Non-issuing firms are defined as all (non-financial) listed firms who do not conduct any equity issue three years before and after current year.

	Rights issues		Public offerings		Total SEOs		No. of firms in pool of non-issue firms	No. of available use of proceeds info.
	No. of issues	Capital raised (bn RMB)	No. of issues	Capital raised (bn RMB)	No. of issues	Capital raised (bn RMB)		
1998	155	40.2	7	3	162	43.3	110	65
1999	120	28.3	5	5.5	125	33.8	182	108
2000	181	55.2	24	22.6	205	77.9	240	175
2001	84	31.2	13	10.4	97	41.6	319	90
2002	20	5.8	30	16.8	50	22.5	452	47
2003	24	6.2	14	9.2	38	15.4	640	38
2004	21	9.9	12	16.1	33	26.1	-	-
2005	-	-	3	26.4	3	26.4	-	-
2006	-	-	47	49.62	47	49.62	-	-
Total	605	176.8	155	159.62	760	336.62	1943	523

Table 2: Summary statistics and frequency of general corporate use

	Mean	StDev
1998	48.6%	33.0%
1999	32.4%	25.4%
2000	30.6%	26.5%
2001	22.2%	24.8%
2002	29.0%	28.4%
2003	9.4%	16.8%
	30.0%	28.1%

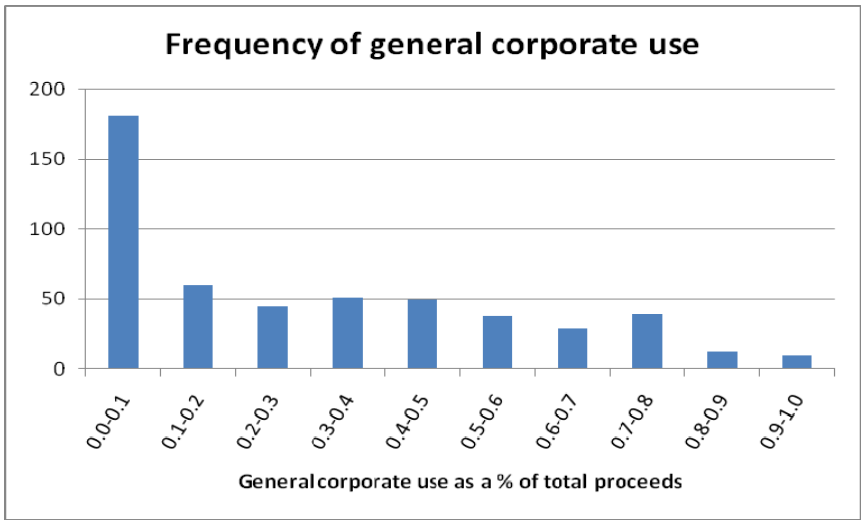

Table 3: Summary statistics for the change in accounting variables after SEOs

Non-issuing firms are defined as for each year firms who do not conduct any equity issue three years before and after the current year. Cash flow information is the amount of cash flow of certain year rather than the cumulative information till time t. ***, **, and * indicates the significance of paired t-test to examine whether the change from one year before SEO to time t is significant at 99%, 95%, and 90% confidence interval respectively. Working capital is current assets excluding cash minus current liabilities excluding current interest-bearing liabilities. Total borrowings is the total of short-term and long-term interest bearing borrowings

	Issuing firms As a % of total asset at t					Non-issuing firms As a % of total asset at t				
	-1	SEO yr	+1	+2	+3	-1	Matched yr	+1	+2	+3
Net cash flow from operations	6.0%	3.9% ***	4.4% ***	4.6% ***	4.5% ***	3.8%	4.1%	4.2%	4.6% *	4.9%
Net cash flow for investments	-8.8%	-9.6% **	-9.2%	-7.1% ***	-6.2% ***	-3.5%	-3.3%	-3.2% *	-3.1% **	-3.0%
Net cash flow from financing activities	2.8%	16.1% ***	4.2% **	3.4%	2.7%	0.1%	0.1%	-0.2% *	-1.2% ***	-1.7% ***
Cash	11.6%	17.1% ***	15.0% ***	14.7% ***	14.1% ***	11.2%	11.5% **	11.9% **	11.9% **	12.0% **
Cash and marketable securities	12.6%	18.5% ***	16.0% ***	15.6% ***	14.8% ***	12.1%	12.3%	12.4%	12.2%	12.1%
Working capital	19.6%	18.0% ***	17.0% ***	15.4% ***	13.8% ***	18.2%	15.0% ***	12.1% ***	8.9% ***	6.9% ***
Fixed assets	29.4%	28.2% **	29.6%	31.1% **	32.1%	30.4%	32.0% **	32.3% **	32.3% **	31.6% ***
Total borrowings	20.8%	18.8% ***	21.6% *	23.6% ***	24.8% ***	26.2%	27.9% ***	28.5% ***	28.5% ***	27.8% ***
Total assets (growth from t-1 yr)		32.7%	52.0%	74.2%	96.4%		4.5%	11.2%	18.9%	27.9%
Mean of total assets (bn RMB)	1.48	1.98	2.31	2.63	2.97	1.62	1.70	1.81	1.93	2.10
Median of total assets (bn RMB)	0.98	1.39	1.60	1.82	2.02	0.95	0.98	1.00	1.03	1.05

Table 4: results of cash as dependent variable in the K&M model

$$Y = \beta_0 + \beta_1 \ln(TA_{-1}) + \beta_2 \ln(\frac{\sum_{i=0}^{t} other\_sources}{TA_{-1}} + 1) + \beta_3 \ln(\frac{proceeds}{TA_{-1}} + 1) + \beta_4 yeardummy + \varepsilon$$

$Y = \ln(\frac{Cash_t - Cash_{-1}}{TA_{-1}} + 1)$; t_0 is the SEO year; t=-1, 0, 1, 2, 3; TA is the total assets; Proceeds are the total actual proceeds; other sources of funds is equal to the sum of net cash flow from operations, cash inflow from investment, and cash inflow from financing activities excluding current proceeds.

	$\ln((cash_t - cash_{-1})/TA_{-1} + 1)$							
	t(0)	t(1)	t(2)	t(3)	t(0)	t(1)	t(2)	t(3)
Size	-0.014	-0.008	-0.024	-0.026	-0.056	-0.043	-0.045	-0.038
	(0.004)***	(0.006)	(0.006)***	(0.014)	(0.006)***	(0.005)***	(0.012)***	(0.020)*
other source	0.174	0.134	0.133	0.168	0.187	0.145	0.142	0.197
	(0.020)***	(0.019)***	(0.025)***	(0.026)***	(0.024)***	(0.022)***	(0.025)***	(0.019)***
proceeds	0.587	0.545	0.401	0.354				
	(0.056)***	(0.072)***	(0.065)***	(0.066)***				
General use					0.350	0.367	0.264	0.261
					(0.061)***	(0.135)**	(0.097)**	(0.128)*
constant	0.181	0.056	0.465	0.509	1.149	0.875	0.930	0.787
	(0.092)*	(0.124)	(0.158)**	(0.329)	(0.118)***	(0.113)***	(0.276)***	(0.449)
Number of obs	613	596	582	575	481	468	458	454
R-squared	0.450	0.421	0.325	0.332	0.250	0.235	0.239	0.279

Table 5: results of free cash flow (FCF) as dependent variable in the K&M model

$$Y = \beta_0 + \beta_1 \ln(TA_{-1}) + \beta_2 \ln(\frac{\sum_{i=0}^{t} other\_sources}{TA_{-1}} + 1) + \beta_3 \ln(\frac{proceeds}{TA_{-1}} + 1) + \beta_4 yeardummy + \varepsilon$$

$Y = \ln(\frac{\sum_{i=0}^{t} FCF}{TA_{-1}} + 1)$; t_0 is the SEO year; t=-1, 0, 1, 2, 3; TA is the total assets; Proceeds are the total actual proceeds; other sources of funds is equal to the cash inflow from financing activities excluding current proceeds. FCF = operating income before depreciation – interests payment – tax payments – dividend payments – net cash flow for investment

	ln(ΣFCF/TA$_{-1}$ +1)							
	t(0)	t(1)	t(2)	t(3)	t(0)	t(1)	t(2)	t(3)
Size	0.006	-0.001	0.037	0.090	0.032	0.046	0.066	0.108
	(0.008)	(0.020)	(0.025)	(0.039)*	(0.009)***	(0.016)**	(0.018)***	(0.035)**
other source	-0.244	-0.265	-0.270	-0.313	-0.206	-0.326	-0.364	-0.360
	(0.032)***	(0.056)***	(0.059)***	(0.068)***	(0.048)***	(0.048)***	(0.076)***	(0.083)***
proceeds	-0.358	-0.471	-0.328	0.110				
	(0.095)***	(0.223)*	(0.108)**	(0.204)				
General use					0.111	0.132	0.172	0.453
					(0.057)*	(0.137)	(0.107)	(0.313)
constant	-0.038	0.173	-0.668	-1.843	-0.662	-0.864	-1.370	-2.220
	(0.179)	(0.445)	(0.512)	(0.848)*	(0.171)***	(0.340)**	(0.424)**	(0.746)**
Number of obs	661	652	637	604	508	499	486	461
R-squared	0.139	0.140	0.097	0.099	0.104	0.152	0.107	0.104

Table 6: results of the cash outflow for capital expenditure (Capex) as dependent variable in the K&M model

$$Y = \beta_0 + \beta_1 \ln(TA_{-1}) + \beta_2 \ln(\frac{\sum_{i=0}^{t} other\_sources}{TA_{-1}} + 1) + \beta_3 \ln(\frac{proceeds}{TA_{-1}} + 1) + \beta_4 yeardummy + \varepsilon$$

$Y = \ln(\frac{\sum_{i=0}^{t} Capex}{TA_{-1}} + 1)$; t_0 is the SEO year; t=-1, 0, 1, 2, 3; TA is the total assets; Proceeds are the total actual proceeds; other sources of funds is equal to the sum of net cash flow from operations, cash inflow from investment, and cash inflow from financing activities excluding current proceeds.

	ln(Σcapex outflow/TA$_{-1}$ +1)							
	t(0)	t(1)	t(2)	t(3)	t(0)	t(1)	t(2)	t(3)
Size	-0.001	-0.018	-0.015	-0.011	-0.001	-0.023	-0.016	-0.010
	(0.004)	(0.005)***	(0.012)	(0.017)	(0.004)	(0.006)***	(0.009)*	(0.014)
other source	0.251	0.352	0.380	0.431	0.245	0.364	0.382	0.432
	(0.022)***	(0.019)***	(0.017)***	(0.015)***	(0.029)***	(0.015)***	(0.014)***	(0.025)***
proceeds	0.469	0.518	0.607	0.590				
	(0.040)***	(0.082)***	(0.067)***	(0.073)***				
Invest use					0.506	0.565	0.643	0.664
					(0.027)***	(0.076)***	(0.079)***	(0.085)***
General use					0.217	0.199	0.345	0.286
					(0.038)***	(0.114)	(0.129)**	(0.129)*
constant	0.028	0.346	0.279	0.187	0.032	0.443	0.327	0.174
	(0.077)	(0.091)***	(0.221)	(0.334)	(0.070)	(0.114)***	(0.171)*	(0.271)
Number of obs	613	596	580	571	481	468	456	450
R-squared	0.403	0.520	0.547	0.559	0.420	0.533	0.554	0.564

Table 7: results of the cash outflow for debt repayment (Finex) as dependent variable in the K&M model

$$Y = \beta_0 + \beta_1 \ln(TA_{-1}) + \beta_2 \ln(\frac{\sum_{i=0}^{t} other\_sources}{TA_{-1}} + 1) + \beta_3 \ln(\frac{proceeds}{TA_{-1}} + 1) + \beta_4 yeardummy + \varepsilon$$

$Y = \ln(\frac{\sum_{i=0}^{t} Finex}{TA_{-1}} + 1)$; t_0 is the SEO year; t=-1, 0, 1, 2, 3; TA is the total assets; Proceeds are the total actual proceeds; other sources of funds is equal to the sum of net cash flow from operations, cash inflow from investment, and cash inflow from financing activities excluding current proceeds.

	$\ln((Finex_t - Finex_{-1})/TA_{-1} + 1)$							
	t(0)	t(1)	t(2)	t(3)	t(0)	t(1)	t(2)	t(3)
Size	0.016	0.023	0.024	0.015	0.016	0.031	0.027	0.020
	(0.004)***	(0.006)***	(0.015)	(0.019)	(0.006)**	(0.006)***	(0.015)*	(0.020)
other source	0.552	0.758	0.808	0.884	0.565	0.771	0.829	0.887
	(0.051)***	(0.029)***	(0.042)***	(0.027)***	(0.043)***	(0.024)***	(0.018)***	(0.015)***
proceeds	0.183	0.054	0.006	0.011				
	(0.067)**	(0.101)	(0.147)	(0.106)				
General use					0.312	0.283	0.033	0.115
					(0.065)***	(0.080)***	(0.118)	(0.072)
constant	-0.280	-0.476	-0.523	-0.458	-0.263	-0.691	-0.636	-0.605
	(0.089)**	(0.134)***	(0.311)	(0.405)	(0.101)**	(0.100)***	(0.296)*	(0.405)
Number of obs	613	596	582	575	481	468	458	454
R-squared	0.599	0.745	0.770	0.823	0.601	0.735	0.772	0.828

Table 8: results of the change in borrowings (Borr) as dependent variable in the K&M model

$$Y = \beta_0 + \beta_1 \ln(TA_{-1}) + \beta_2 \ln(\frac{\sum_{i=0}^{t} other\_sources}{TA_{-1}} + 1) + \beta_3 \ln(\frac{proceeds}{TA_{-1}} + 1) + \beta_4 yeardummy + \varepsilon$$

$Y = \ln(\frac{Borr_t - Borr_{-1}}{TA_{-1}} + 1)$; t_0 is the SEO year; t=-1, 0, 1, 2, 3; TA is the total assets; Proceeds are the total actual proceeds; other sources of funds is equal to the sum of net cash flow from operations and cash inflow from investment. Borrowings are firms' total long-term and short-term interest-bearing liabilities.

	$\ln((Borr_t - Borr_{-1})/TA_{-1} + 1)$							
	t(0)	t(1)	t(2)	t(3)	t(0)	t(1)	t(2)	t(3)
Size	-0.008	-0.024	-0.038	-0.066	-0.014	-0.043	-0.049	-0.076
	(0.007)	(0.008)**	(0.014)**	(0.017)***	(0.006)**	(0.010)***	(0.016)**	(0.021)***
other source	-0.221	-0.131	-0.033	0.028	-0.220	-0.185	-0.052	0.039
	(0.051)***	(0.077)	(0.060)	(0.064)	(0.027)***	(0.082)*	(0.046)	(0.060)
proceeds	0.149	0.418	0.484	0.516				
	(0.093)	(0.113)***	(0.193)**	(0.188)**				
General use					0.258	0.339	0.558	0.535
					(0.170)	(0.220)	(0.421)	(0.449)
constant	0.211	0.545	0.879	1.490	0.315	0.947	1.106	1.683
	(0.173)	(0.176)**	(0.333)**	(0.398)***	(0.141)*	(0.220)***	(0.357)**	(0.476)***
Number of obs	618	600	584	578	484	470	459	456
R-squared	0.095	0.127	0.109	0.128	0.129	0.125	0.091	0.096

Table 9: Summary statistics for post-issue long-term operating performance

Non-issuing firms are defined as for each year firms who do not conduct any equity issue three years before and after the current year.
***, **, and * indicates the significance of paired t-test to examine whether the difference between issuing firms and non-issuing firms is significant at 99%, 95%, and 90% confidence interval respectively.

The return on assets is EBIT divided by the total assets. The benchmark is defined as the industry average of the pool of non-issuing firms whose industry is the same as the issuing firms.

	t-1	SEO yr	t+1	t+2	t+3
Issuing firm RoA					
Mean	8.8%	6.4%	4.8%	3.4%	1.8%
StDev	4.0%	3.3%	4.7%	5.5%	7.5%
Median	7.9%	6.0%	4.9%	4.1%	2.9%
Benchmark RoA					
Mean	1.2%***	0.8%***	1.4%***	1.6%***	1.8%
StDev	2.0%	2.3%	2.1%	2.5%	2.7%
Median	1.2%	0.7%	1.0%	0.9%	1.9%

Table 10: Summary statistics for post-issue long-term stock performance

Non-issuing firms are defined as for each year firms who do not conduct any equity issue three years before and after the current year.
***, **, and * indicates the significance of paired t-test to examine whether the difference between issuing firms and non-issuing firms is significant at 99%, 95%, and 90% confidence interval respectively.

The stock return is the cumulated monthly return 12, 24, and 36 months after the SEO month, or 12 month before the SEO month. For each SEO, one non-issuing firm is matched, and this non-issuing firm is benchmark. This matching non-issuing firm is selected as: first, for each year all non-issuing firms are classified into three equal quintiles according to their (prior year) market-to-book ratio; second, an issuing firm's (pre-issue/prior year) market-to-book will be compared to the three quintiles and one quintile whose market-to-book ratio contains the issuing firm will be chosen as the pool for the next stage matching; third, within the chosen pool of non-issuing firms, the matching non-issuing firm is select to have the closet market capitalisation to the issuing firm. This matching non-issuing firm will stay with the issuing firm as its benchmark throughout all periods.

	-12m	12m	24m	36m
Issuing firm stock return				
Mean	8.7%	-4.7%	-16.6%	-29.2%
StDev	32.6%	32.0%	39.0%	40.2%
Median	4.0%	-10.8%	-26.8%	-37.7%
Benchmark stock return				
Mean	1.2%***	-9.0%***	-21.8%***	-33.6%**
StDev	30.5%	30.8%	37.6%	38.6%
Median	0.3%	-15.2%	-29.0%	-41.0%

Table 11: summary statistics of independent variables

Size is the natural log of total assets at the year-end prior to SEO. *MtoB* is the natural log of issuing firms' market capitalisation divided by book value of equity at the year-end prior to SEO. Pre-issue operating performance (*Pre-op*) is issuing firms' return on total assets (RoA, and return is measured as EBIT) minus nonissuing firms' industry average at year-end prior to SEO. *Pre-stock* is firms' 12 month stock return prior to SEO month. *EIdumB-1*, *EIdumB-2*, *EIdumB-3* means whether firms have SEO/IPO in previous first year, second year, and third year. *EIdumAt* means whether firms have SEO within t years after SEO. *Pro/TA* is proceeds over total assets before SEOs.

	Mean	Median	StDev
Size	20.75	20.70	0.82
MtoB	1.51	1.50	0.46
Pre-op	7.7%	6.8%	5.1%
Pre-stock	9.5%	4.0%	35.9%
EIdumB-1	8.4%	-	27.8%
EIdumB-2	48.1%	-	50.0%
EIdumB-3	25.0%	-	43.3%
EIdumAt+2	11.5%	-	31.9%
EIdumAt+3	20.7%	-	40.5%
Pro/TA	30.8%	23.5%	29.5%

Table 12: the impact of the unspecified use of proceeds on the 3 year post-issue operating performance

	SEO +1yr	SEO +1yr	SEO +2yr	SEO +2yr	SEO +3yr	SEO +3yr
Size	-0.002	-0.002	0.007	0.010	0.010	0.012
	(0.003)	(0.003)	(0.003)**	(0.004)***	(0.005)**	(0.005)**
MtoB	0.003	0.004	0.007	0.010	0.006	0.009
	(0.006)	(0.006)	(0.007)	(0.007)	(0.009)	(0.010)
Pre op performance	-0.726	-0.674	-0.668	-0.674	-0.656	-0.630
	(0.047)***	(0.053)***	(0.054)***	(0.061)***	(0.077)***	(0.089)***
Pre stock performance	0.005	0.000	0.002	-0.001	-0.006	-0.006
	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)	(0.011)
EI dum -1	0.017	0.024	0.012	-0.001	0.005	0.000
	(0.009)*	(0.011)**	(0.010)	(0.013)	(0.015)	(0.018)
EI dum -2	0.009	0.008	0.001	0.000	-0.004	0.000
	(0.006)	(0.007)	(0.007)	(0.008)	(0.010)	(0.011)
EI dum -3	0.004	0.005	0.004	0.001	-0.006	-0.002
	(0.006)	(0.006)	(0.007)	(0.007)	(0.010)	(0.010)
EI dum +3	-0.009	-0.006	0.019	0.021	0.036	0.035
	(0.024)	(0.033)	(0.007)**	(0.010)**	(0.008)***	(0.010)***
Proceeds/TA	0.004		0.001		-0.013	
	(0.008)		(0.009)		(0.013)	
General use/proceeds		-0.029		-0.021		-0.026
		(0.008)***		(0.009)**		(0.013)*
constant	0.051	0.035	-0.171	-0.238	-0.267	-0.327
	(0.063)	(0.068)	(0.072)**	(0.078)***	(0.101)***	(0.111)***
Number of obs	641	494	640	490	637	485
F-value	17.45	13.96	14.63	11.97	8.94	6.28
R-squared	0.383	0.395	0.343	0.361	0.243	0.230
Adj R-squared	0.361	0.366	0.319	0.330	0.216	0.193

Table 13: the impact of the unspecified use of proceeds on the 36 month post-issue stock performance

	+12m	+12m	+24m	+24m	+36m	+36m
Size	-0.018	-0.011	-0.076	-0.039	-0.081	-0.050
	(0.027)	(0.029)	(0.031)**	(0.033)	(0.033)**	(0.036)
MtoB	0.015	0.035	-0.039	-0.002	0.006	0.011
	(0.055)	(0.062)	(0.066)	(0.069)	(0.068)	(0.075)
Pre op performance	0.751	0.671	-0.299	0.059	-0.618	0.169
	(0.416)*	(0.468)	(0.498)	(0.527)	(0.522)	(0.578)
Pre stock performance	-0.937	-1.006	-1.039	-1.106	-0.993	-1.051
	(0.060)***	(0.075)***	(0.071)***	(0.084)***	(0.074)***	(0.090)***
EI dum -1	0.041	0.000	0.023	-0.115	-0.045	-0.084
	(0.086)	(0.109)	(0.103)	(0.122)	(0.106)	(0.129)
EI dum -2	-0.013	-0.025	-0.002	0.007	-0.006	-0.034
	(0.057)	(0.064)	(0.069)	(0.072)	(0.072)	(0.078)
EI dum -3	0.025	0.023	0.012	0.035	0.060	0.071
	(0.056)	(0.061)	(0.068)	(0.069)	(0.071)	(0.075)
EI dum +3	0.276	0.159	0.123	0.002	0.069	0.042
	(0.221)	(0.319)	(0.072)*	(0.070)	(0.062)	(0.076)
Proceeds/TA	-0.161		-0.113		-0.075	
	(0.067)**		(0.082)		(0.084)	
General use/proceeds		-0.172		-0.261		-0.293
		(0.078)**		(0.088)***		(0.097)***
constant	0.340	0.252	1.677	0.996	1.675	1.028
	(0.584)	(0.652)	(0.688)**	(0.727)	(0.721)**	(0.792)
Number of obs	614	475	608	469	573	441
F-value	13.57	9.64	11.64	9.75	10.04	7.74
R-squared	0.336	0.319	0.305	0.325	0.287	0.290
Adj R-squared	0.311	0.286	0.278	0.292	0.258	0.252