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Investigating the relation between earnings management and long run stock performance

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ABSTRACT

In this paper, we exam firm's incentive to manage earnings raising external capital varies with investor beliefs. Under the spline specification regression: a firm is more likely to management earnings when investors are more optimistic about the industry prospects, but more reluctant when investor belief is low. We evaluate monetary cost to explore the reasons and find that using venture capitalists as specialized investors with lower monitoring costs than other institutional investors, earnings management is less likely for low investor beliefs but more likely for high investor beliefs for VC-backed firms relative to non-VC-backed firms. We can also obtain the same results as former study that auditor's quality negatively related with earnings management. Considering above consequence, we documents IPOs firms engaged in managing earnings with high investor beliefs have an influence on the long-run abnormal stock return performance. These findings have implications for investors, firms, and accounting standard setters. More prudential monetary is important during market booming periods.

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Introduction

It is well established that financial reporting information is used by shareholders to monitor managers (e.g., Bushman and Smith, 2005; Lambert, 2001) and constitutes an important source of firm-specific information for investors (e.g., Bushman and Indjejikian, 1993; Holmstrom and Tirole, 1993; Kanodia and Lee, 1998). But based on inefficient market hypothesis, the monetary cost, and information asymmetry, investors' behavior may not be optimal one which mainly depends on financial reporting information. Especially during the initial public offering process, as the most important financing event in a firm's life, investor beliefs about IPOs firms are more strongly influenced by industry conditions because there is relatively little firm-specific information on which investors can condition their beliefs. In the real world, when earnings management stems from manager's behavior and investor's choice depends on their beliefs will both lead to information asymmetry, stock price, corporate investment and financing will be frequently affected. So during IPOs process offering entrepreneurs both have motivation and opportunities to manage earnings, because of high information asymmetry between investors and issuers (managers). When investors are unable to understand fully the extent to which IPOs firms engage in earnings management by borrowing from either the past or the future, high reported earnings would translate directly into a higher offering price. The stock pricing during IPOs will influenced both by investor beliefs and manger's earning management which affecting the financial reporting quality. It could be also contributes to under performance in the long run.

To test these predictions, we use a sample of U.S. firms that went public during the 2000 to 2010 period. As we discuss in Section II, whereas many factors may influence earnings management for established firms, investor beliefs about

industry conditions are likely to have a particularly salient effect on it for an IPO setting. We use cross sectional Jones (1991) model to measure detected earnings management firstly. As opposed to individual investors, institutional investors are more likely to have the skills and incentives to monitor firms carefully or influence managerial compensation contracts, as assumed by the theoretical models. We focus on measures that are more likely to reflect the beliefs of institutional investors. We use two proxies for investor beliefs about business conditions: median annual earnings per share (EPS) growth forecast for a firm's industry, and inverse of the median IPO book-building time by industry.

Our test examine relationship between investor beliefs and earnings management using spline regression, and find that the incidence of earnings management is at first increasing in the level of investor beliefs but decreasing once beliefs are sufficiently positive. Especially in the booming year, investor beliefs are more optimistic, the earnings management turns into much more seriously. We also find that two important characters during IPOs influence earnings management: venture capitalists and auditor. Venture capitalists as specialized investors with lower monitoring costs than other institutional investors, can affect the incidence of earnings management, also the auditor with good reputation and strict auditing will lead management more to report its financial statement. Our findings suggest that the presence of investors with lower monitoring costs decreases the likelihood of earnings management when investor beliefs about business conditions are higher. Auditor's influence under investor belief is not certain, but good auditor can effectively eliminate earnings management.

The following test is to examine the firm's long run stock performance which suffers the co-effects from both earnings management and investor beliefs. We relate the accruals from

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the first fiscal year financial statements of the IPO firm to the stock market performance from four to six months after the fiscal year end (we chose IPOs sample firm in years 2000-2001 to make sure there is time to exam long-run stock performance). We find that these discretionary current accruals are good predictors of subsequent year stock return performance in a wide variety of specifications. Depending on benchmark specification, IPO firms that are ranked in the highest quartile based on IPO-year discretionary current accruals (aggressive quartile) with higher investor belief earn a cumulative abnormal return and buy and hold return much less than the firm with lowest quartile (conservative IPOs).

The mechanism between earnings management and investor beliefs

Shedding more light on the study of investor psychology, behavioral finance clarifies that the behavior and decision of investors can affect the asset-pricing and financial market and not influenced by company fundamentals. Great amount of account literature focus on the factors that determine reporting qualities and its function.

Hodge(2003) investigate whether nonprofessional investor beliefs mirror the Securities and Exchange Commission's (SEC) concerns that earnings quality and auditor independence have declined over time. Perceived earnings quality for all publicly traded firm has declined over time, as has perceived auditor independence and the perceived reliability of audited financial information.as investors rely more on audited financial information, they find that information to be less reliable.one of the possible reason for the decline in the perceived reliability of audited financial information is the perceived decline in auditor independence.

Lev and Zarowin(1999)focus on financial information to investors in comparison to the total information in the marketplace. Their evidence indicates that the usefulness of reported earnings, cash flows, and book (equity) values has been deteriorating over the past 20 years, whether driven by innovation, competition, or deregulation, the impact of change on firms' operations and economic conditions is not adequate reflected by the current reporting system.

Some of scholar studied on how the incidence of fraud on corporate financial reporting is affected by investor beliefs about industry business conditions when raising external capital. Povel, Singh, and Winton (2007) predict that the incidence of fraud should be a hump-shaped function of investor beliefs about business conditions, peaking when investors believe conditions are good, but not extremely good. By contrast, Hertzberg (2005) predicts that the incidence of fraud should simply increase as investor beliefs improve. In Povel's literature, investor beliefs about business conditions influence investor monitoring intensity, which in turn affects managerial fraud incentives, whereas in Hertzberg (2005), more positive investor beliefs lead to more short-term managerial compensation, which in turn exacerbates managerial fraud incentives.

Based on those research, Wang, Winton, and Yu (2010; WWY, hereafter) examined the monitoring mechanism and compensation mechanism of manager's fraud and concludes that corporate fraud is likely to have negative externalities, particularly in the IPO market. "Widespread fraud can make investors averse to IPOs, depriving young firms of a critical source of funding, investors are more focused on finding good investments than on preventing fraud." They suggested fraud seems to peak in relatively good times, and even underwriter expertise is least effective in preventing fraud in such times, this

suggests that regulators and auditors should be especially vigilant during booms"

The effect of Financial reporting quality and investor beliefs on IPO's pricing and future performance

Great amount of IPO literature studies on what kinds of factors drive fluctuations in IPO volumes and underpricing over time, (e.g., Loughran and Ritter (2002), Lowry and Schwert (2002), Lowry (2003), Pastor and Veronesi (2005), and Cornelli, Goldreich, and Ljungqvist (2006)). Accounting accruals predict post-IPO stock return underperformance requires the presence of both earnings management and investor credulity. Teoh, Welch and Wong(1998) hypothesis that managers adjusting accruals to exploit market credulity, the marginal investor does not rationally discount for earnings management in forming expectations about future cash flows. It is unlikely that any fully rational theory will be able to explain why some rational investors are willing to hold IPOs in the aftermarket.

Their result confirmed that when manager report unusually high earnings by adopting discretionary accounting accrual adjustments that raise reported earnings relative to actual cash flows, and investors are guided by earnings but are unaware that earnings are inflated by the generous use of accruals, they could pay too high a price. As information about the firm is revealed subsequently, investors may thus lose their optimism. Other things equal, the greater the earnings management at the time of the offering, the larger the ultimate price correction.

Studies for IPOs firms long-run performance, over a three-year holding period after the offering, Ritter(1991) reports substantially lower stock returns (mean of 227 percent and median of 255 percent) for a sample of 1,526 IPOs going public between 1975 and 1984 than for a size- and industry-matched sample of seasoned firms. Ritter conjectures that "investors are periodically overoptimistic about the earnings potential of young growth companies." Teoh, Welch and Wong(1998) found that issuers with unusually high accruals in the IPO year experience poor stock return performance in the three years thereafter. Based on the accrual discretionary in their IPOs year, the issuers in the most "aggressive" quartile of earnings managers have a three-year aftermarket stock return of approximately 20 percent less than IPO issuers in the most "conservative" quartile. They also issue about 20 percent fewer seasoned equity offerings. Earnings management sample

The proxy for earnings management is measured by discretionary accruals, which are obtained relative to expected benchmark accruals (nondiscretionary accruals) based on firm and industry characteristics. We use cross-sectional modified Jones model to estimate discretionary accruals of each IPO firm (Jones, 1991; Dechow et al., 1995; Teoh et al., 1998a). The calculation is in appendix A, The results are sorted by the magnitude DCA. At various points throughout the paper, we rely on a quartile classification of firms to avoid the linear parameterization of regressions. Next, we sort the 1,200 IPO firms by their asset-scaled discretionary accruals into four quartiles, each containing 300 IPOs. To group into different quartiles is better for our following comparative study. We label the quartile of IPO firms with the lowest discretionary current accruals as "conservative" IPOs and the quartile of IPOs with the highest discretionary current accruals as "aggressive" IPOs. Higher accruals increase reported earnings. The conservative quartile has discretionary current accruals of less than -2 percent, the second quartile has accruals of -2 percent to 0 percent, the third quartile has accruals of 0 percent to 2 percent, and the aggressive quartile has accruals exceeding 2 percent.

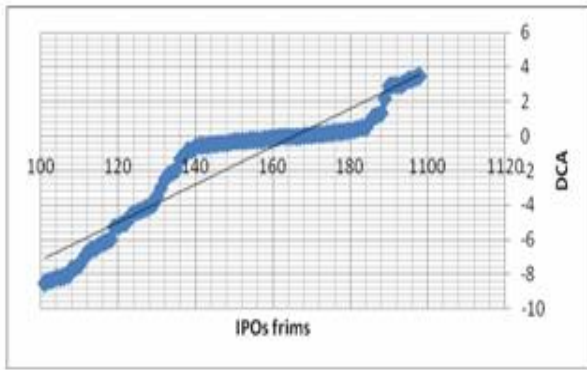


Figure 1 The results of DCA, sorted by the magnitude

Table 2 reports sample characteristics within these quartiles. There is considerably higher cross-sectional variation within the conservative (18.95 percent) and aggressive quartiles (29.76 percent) than within the two middle quartiles. The two quartiles with the lowest discretionary accruals contain larger firms than the two more aggressive quartiles, although this relation is not monotonic across the four quartiles.

Table II Summary statistics of Firm Characteristics in Issue Year by DCA Quartile

| | Variable Units(N) | DCA(%) | | |
|------------------------------|-------------------|--------|-------|---------|
| | | Median | Mean | Std Dev |
| Conservative Q1 (DCA<-4%) | 300 | -7.93 | -8.23 | 18.95 |
| Quartile 2(-0.4%<DCA<-0.01%) | 300 | -0.12 | -0.16 | 2.41 |
| Quartile 3(0.01%<DCA<0.5%) | 300 | 2.10 | 2.38 | 4.12 |
| Quartile 4(DCA>0.25%) | 300 | 3.76 | 4.26 | 29.76 |
| All firms | 1200 | 1.51 | 2.95 | 24.54 |

We compared the characteristic of aggressive Quartile 4(Q4) and conservative Quartile 1(Q1), We do not report the middle quartiles both for space reasons and because quartile returns are generally monotonic. Those data shows that the main industrial in most aggressive quartiles Q4 concrete on hi-technology, electric and bio-technology but for the conservative quartiles industrial Q1 is for traditional industry such as manufacture and transportation. Our data also show that Q4, in year 2000, there are more IPO firms using earnings management during 2000 than the rest years. The reason of this distribution suggests that young and growth firms may engage more in earnings management. Also there are more firm manage earnings during the stock market boom period.



Figure 2 Annual distributions in quartiles 4 (aggressive) The measurement of Investor Beliefs

As institutional investor have better incentives and abilities to learn industry dynamics, engage in monitoring, and influence managerial compensation. And they focus on three different dimensions: analyst forecasts, institutional investor’s demand for IPO shares, and secondary market prices. In our paper, based on

the data available, we use institutional investor’s demand for IPO shares, and secondary market prices as the proxy of earnings management. We also use the Fama–French 49 industry classification to construct time-varying measures for institutional investors’ prior beliefs about overall industry business conditions.

The first proxy for institutional investor beliefs, Ind. EPS Growth, is based on analyst forecasts of firms’ performance. Our second belief proxy is based on institutional Investor Beliefs and for an industry IPO shares. Specifically, (Ind. Book-Building)⁻¹ is equal to 100 divided by the industry median book-building period length, where the length of an IPO firm book-building period is the number of days between the filing day (when the firm files a preliminary prospectus with the SEC for a public offering) and the pricing day (when the final offer price is set). During an IPO book-building period, underwriters conduct road shows about the firm to build and aggregate demand for the shares from outside investors, which are predominantly institutions. A shorter book-building period suggests that it takes less time to market the shares of the issuing firm to institutional investors, which should indicate stronger demand and thus more optimistic investor beliefs about the issuer. The higher our proxy is, the stronger are investor beliefs about the industry prospects. Compared to other investors, venture capitalists have more expertise in funding start-ups and take a larger relative share of equity. Thus, they should have lower relative monitoring costs than other investors. To capture the variation in industry expertise among VC firms, we construct these dummy variables, VC Backed, that equals one if an IPO is backed by VC and zero otherwise. This variable is a traditional measure of VC participation in the IPO literature. Based on the former discussion, young and small auditor firm have much more higher monitory’s cost and closer client’s relationship. No matter the extant of investor beliefs, a decrease in auditor’s monitoring costs will reduce the likelihood of earnings management. We use auditor’s market share and issued proceeds rank measure the monitory cost, the monitory’s cost is much lower for large auditor firm which its reputation is also better. In our sample if auditor’s rank is in Top 3, there is few earnings management in those firm.

Empirical Results

The relationship between investor beliefs and earnings management

Our key objective is to test the relationship between investor belief and company’s earnings management during IPOs. Here we use the result of DCA in part IV as the proxy of earnings management. We use Ind. EPS Growth and book-building period as measurement of institutional Investor Beliefs. The two proxy of monitory cost are dummy variable, VC backed and Auditor’s quality as mentioned in section 3.2. VC backed stands for whether firms backed by venture capital, (we calculate dummy variable as 1 if backed by VC, otherwise 0). We calculate the Auditor’s quality dummy variable as 1, if firm’s auditor belongs to top 3 listed in panel D ΔEPS stands for the change between IPO years t and the year before it (t-1).

This table reports the median and mean (in parentheses) of variables for theQ4 and Q1 sample. It also reports the z statistics for the Wilcoxon tests that compare characteristics of the two samples. ..., ., and + indicate significance at the 1%, 5%, and 10% levels, respectively.

Table III Univariate Comparisons

| | Q4(AGGRESSIVE) | | Q1(CONSERVATIVE) | | Wilcoxon Z |
|-----------------------------|----------------|----------------|------------------|----------------|------------|
| | No. of Obs. | Median (Mean) | No. of Obs. | Median (Mean) | |
| Ind. EPS growth | 285 | 0.194(0.193) | 285 | 0.153(0.176) | 2.643 |
| (Ind. Book-Building).1 | 285 | 0.82(0.87) | 285 | 0.64(0.81) | 1.784 |
| Ind. Q Assets (millions) | 285 | 2.074(2.357) | 285 | 2.041(2.264) | 1.564 |
| Stock return | 285 | (368.4)145.6 | 285 | (41.6)258 | 3.097 |
| VC backed Auditor's quality | 281 | - | 279 | - | -0.781 |
| | | 0.0003(0.0076) | | 0.0166(0.0012) | |
| | 190 | 1.24(0.7) | 117 | 0.00(0.23) | 1.483 |
| | 285 | 0.00(0.46) | 285 | 0.28(0.65) | 0.263 |

Here specifically, we mainly test the most aggressive quartiles Q4 and most conservative quartiles Q1, which is better for comparative study. Table 3 shows that, compared to conservative firms, industry median EPS growth is significantly higher for firms that commit earnings management at the IPO stage with high discretionary accrual, the inverse of the industry median book-building period is insignificantly higher either. Also in Q4 there are more venture capital supported than Q1. This suggests that investor beliefs are weakly more optimistic when earnings management firms undertake IPOs. There is no evidence that in Q4 auditor 'quality is much better than Q1. But Stock return, change in EPS in Q4 also over perform than Q1.

To test Hypotheses 1A and 1B in a regression framework, we first examine whether the relationship between investor optimism and earnings management is hump-shaped using a piecewise linear specification—a spline. A spline specification allows the slope coefficient to vary with different levels of investor beliefs. We choose the spline cutoff points based on the quintiles of the investor belief variables (for example, the cutoff points for Ind. EPS Growth are 10%, 15%, 19%, and 25%). We then drop the square of EPS growth but examine the slope coefficient of the measure at each of the five different regions defined by the four cutoff points just given. The result shows that: when the level of investor beliefs is relatively low, the coefficient is positive, suggesting that a more optimistic investor belief about the firm's industry prospect is associated with a higher tendency of earnings management. However, as investor optimism rises further (the top quintile), the relationship between earnings management and investor beliefs becomes negative: firm engaging earnings management decreases when investor beliefs become too optimistic.

The dependent variable is earnings management firms measured by DCA based on 1200 sample data, the results is shown in figure 1 and we sorted DCA as its amount. The spline regression is based on the quintile cutoff points of Ind. EPS Growth in Model (1), and (Ind. Book-Building)–1 in Model (2). Coefficient estimates and the Huber–White–Sandwich robust standard errors clustered by industry (in square brackets) are reported. **, *, and + indicate significance at 1%, 5%, and 10% levels, respectively.

To allow the impact of monetary cost such as venture capitalists to vary across different levels of investor beliefs, in a spline-like framework we interact the indicator variable for each investor belief quintile with VC variables and auditor's quality, than include these interaction terms in the equation. The first (fifth) quintile corresponds to the lowest (highest) level of

investor beliefs. In addition, we control for the level of investor beliefs.

Table IV The relationship between Investor Beliefs and earnings management at IPO—Piecewise Linear Specification

| | Specification | |
|---------------------------|---------------|---------|
| | (1) | (2) |
| Spline 1 (lowest belief) | 3.048* | 0.519* |
| | [1.428] | [0.112] |
| Spline 2 | 7.602 | 0.753* |
| | [6.739] | [0.347] |
| Spline 3 | 21.380* | 1.180 |
| | [8.647] | [1.251] |
| Spline 4 | -2.033 | 2.961** |
| | [2.133] | [1.148] |
| Spline 5 (highest belief) | -1.418 | -2.674 |
| | [0.808] | [0.062] |
| Ln(assets) | 0.128** | 0.102** |
| | [0.046] | [0.021] |
| Stock return | -1.085 | 0.326 |
| | [0.543] | [0.163] |
| Stock turnover | 0.086 | 0.001** |
| | [0.084] | [0.426] |

The results of the above specification are reported in Models 1 and 2 of Table V. Consistent with Hypothesis 1B, earnings management varies with the degree of industry-specific investor optimism. When investor optimism is low, VC-backed firms, or firms backed by VCs of high industry specialty, are less likely to commit fraud than non-VC-backed firms or firms backed by VCs of low industry expertise. At higher levels of investor optimism, however, there is a shift in this relationship; now, firms backed by VCs of higher industry expertise are more likely to commit fraud than firms backed by VCs of lower industry expertise, and VC-backed firms are more likely to commit fraud than non-VC-backed firms. But consider another monetary cost proxy: auditor's quality. The significant and negative coefficients for the this variables in Models 2 suggest that, unlike venture capitalists, auditor's monitoring impact does not vary significantly with the degree of investor optimism. The coefficient estimates of the interaction terms in Model 2 are consistently negative in all quintiles, though not significant. This result suggests that under what extent of investors' belief, the relationship between auditor quality and earnings management is obscure, because we cannot distinguish auditor's role during IPOs.

We interact VC Backed and auditors quality with Q# EPS, the indicator variable for each quintile of Ind. EPS Growth. Coefficient estimates and the Huber–White–Sandwich robust standard errors clustered by industry (in square brackets) are reported. **, *, and + indicate significance at 1%, 5%, and 10% levels, respectively.

Long-run stock performance of earning management firm with high investor's optimism

Based on former discussion, Investor Beliefs effect on the extent of earnings management. It can also reflect the fact that, investor belief about market influence manager's behavior to manage earnings, on the other hand, those consequence especially investor's optimistic and manager's fraud will effect on IPOs firm long run stock performance. In this section, we evaluate whether the IPOs firms which engaged managing earnings with the high investor beliefs have an influence on the long-run abnormal stock return performance. This requires an appropriate measure for expected long-run returns, an issue much debated in the asset pricing literature. Depends on the methods of computing abnormal returns (buy-and-hold and

cumulative abnormal returns), benchmarks market-adjusted, cumulating periods, sample partitions, and regression test specifications (cross-sectional, time-series). The calculation process shows in appendix B. Tests indicate that discretionary current accruals reliably predict post-IPO returns.

Table V Monetary cost, investor belief and earnings management

| | (1) | (2) |
|----------------|---------------------|----------------------|
| | VC backed | Auditor quality |
| Q1 EPS × VC | -5.563** [1.753] | 0.197 [0.191] |
| Q2 EPS × VC | -3.186** [0.866] | -0.561** [0.117] |
| Q3 EPS × VC | -0.191 [0.353] | -0.015 [0.135] |
| Q4 EPS × VC | 0.500** [0.155] | 0.341 [0.185] |
| Q5 EPS × VC | 7.850** [1.484] | .783** [1.136] |
| Ln(assets) | -4.966** [1.345] | -11.553** [0.540] |
| Stock return | 0.124** [0.036] | 0.654** [0.051] |
| Stock turnover | 1.174 [0.031] | 1.403 [0.032] |

Table VI reports abnormal long-run returns using a variety of benchmarks. The sample firm is limited on 2000-2001 during which period firm perform IPOs, so the holding period is four months after the release of the first post-IPO financial statements in panels. Depends on former results of investors belief and earnings management, we sort two special sub-samples. Sample 1 include most aggressive earnings management with higher investors belief (between 15%---20%), sample 2 include most conservative accrual with lowest investors belief (less than 10%), noted as aggressive Quartile 4A and conservative Quartile 1A. The final sample for long-run abnormal returns consists of 72 IPOs firm going public in the period of 2000-2001.

On a CAR measure, the aggressive accruals portfolio underperformance the conservative accruals portfolio by 43.33 percent in raw returns, 5.77 percent in CRSP value-weighted market-adjusted returns, and 18.51 percent in Nasdaq composite index-adjusted returns. On a BH measure, the underperformance is somewhat larger, 14.01 percent in raw returns, but negative 30.99 percent in CRSP market-adjusted returns, and negative 17.22 percent in Nasdaq-adjusted returns.

Table VI Abnormal long-run stock returns using two benchmarks

| Benchmark Variations | | | | | |
|----------------------------|-------|-------|-----------------|-------|--------|
| Cumulative Abnormal (%) | | | Buy-and-Hold(%) | | |
| Return | all | Q4A | Q1A | Q4A | Q1A |
| Raw-retuns | 41.98 | 57.36 | 43.33 | 25.76 | 14.01 |
| Market-adj Value-weighted | 21.90 | 36.18 | 5.77 | 2.94 | -30.99 |
| Market-adj Nasdaq-Comp.Ind | 28.66 | 45.09 | 18.51 | 16.11 | -17.82 |

Figure 3 plots the time series of cumulated returns of the two quartile portfolios (plus the overall average) net of the Nasdaq composite index benchmark and market valued-weighted benchmark cumulated returns. The figure shows that IPO firms in the conservative first quartile underperform aggressive quartile in the Nasdaq market by about 2 percent during the first years (first 10-12 month), 1.2% underperform with the market valued-weighted.

(Composed of many new IPOs and small firms itself, the Nasdaq index performed relatively poorly throughout the first

period, so the magnitude of IPO underperformance indicated by this benchmark is relatively conservative.)

The figure shows that the aggressive portfolios deteriorate after the first twelve months. During the years thereafter, the conservative portfolios show only a small drift, but the aggressive quartile 4A portfolio enjoys only a ten-month reprieve before resuming its dramatic decline. Compared with Nasdaq composite index benchmark, we can also find that the result using Nasdaq composite index benchmark is also outperform the market valued-weighted benchmark in the long run.

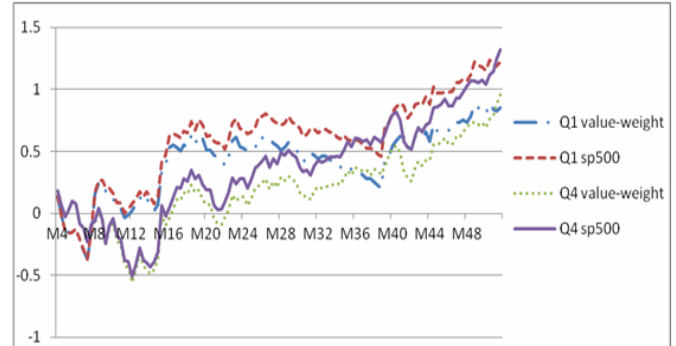


Figure 3. Cumulative return net of Nasdaq composite index return and market value-weighted return of DCA quartiles by event month, in percent. The holding period is four months after the release of the first post-IPO financial statements in panels; the abscissa denotes the starting point as M4.Each interval is 4 month. The sample consist of 72 IPOs and their stock performance since 2001. Firms are divided into two quartiles based on most aggressively DCA with high investor beliefs Q4A and most conservatively DCA with lower investor beliefs, Q1A.

In the figure 4, we test buy and hold return, the result is robust with Nasdaq composite index benchmark and market valued-weighted benchmark return. In long-run, the conservative quartile outperform dramatically than aggressive quartile. Especially during 2003-2007, based on the market booming the difference increased by average 5%, after 2007 the gap shirked because of the market volatility during financial crisis.

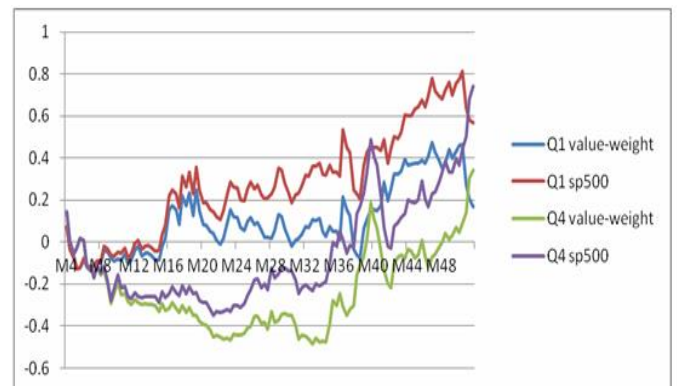


Figure 4. Cumulative buy-and-hold return net of Nasdaq composite index return and market value-weighted return of DCA quartiles by event month, in percent. The sample is of 72 IPOs from the 2001–2010 periods. Firms are divided into two quartiles based on most aggressively and most conservatively they manage their earnings, noted Q4A and Q1A. Our measure of earnings management is the firm’s discretionary current accruals (DCA), which adjusts for industry, size, and growth. As the same measurement in Figure 3, the abscissa denotes the starting point as M4.Each interval is 4 month.

Conclusions

In this paper, we use a sample of firms that went public between 2000 and 2010 to test a set of theories modeling how a firm's incentive to manage earnings when raising external capital varies with various investor beliefs. We find that discretionary current accruals—which are under the control of management and proxy for earnings management—are high around the IPO relative to those of nonissues. Based on the theory of Povel, Singh, and Winton (2007), we test the relationship between earnings management and investor beliefs, and our result is consistent with theirs: a firm is more likely to manage earnings when investors are more optimistic about the industry prospects, but in the presence of extreme investor optimism the probability of manage earning becomes lower as the firm is able to obtain funding without misrepresenting information to outside investors. Using venture capitalists as specialized investors with lower monitoring costs than other institutional investors, we find than earnings management is less likely for low investor beliefs but more likely for high investor beliefs for VC-backed firms relative to non-VC-backed firms, and for firms backed by venture capitalists of a higher level of industry expertise. Also, investor beliefs about business conditions have a positive impact on short term compensation, which in turn has a positive impact on a firm's earnings management. We can also obtain the same results as former study that auditor's quality negatively related with earnings management. But there is no evidence that auditor's quality significant related with investor beliefs. We also documents IPOs firms engaged in managing earnings with high investor beliefs have an influence on the long-run abnormal stock return performance. A firm classified to be in the most aggressive quartile of IPO earnings managers experiences on average a 15 to 30 percent worse three year performance after its earnings report than a firm classified to be in the most conservative quartile. As we noted before, earnings management is likely to have negative externalities, particularly in the IPO market: earnings management can make investors averse to IPOs, depriving young firms of a critical source of funding, especially during the recession of stock market.

Since earnings management seems to peak in relatively good times when investor beliefs is higher, and even auditor's expertise is least effective in preventing fraud in such times, this suggests that regulators and auditors should be especially vigilant during booms. These findings have implications for investors, firms, and accounting standard setters. Investors may want to use information contained in the pre-offering accounting accruals to discriminate among issuers. Entrepreneurs may want to consider how legitimate accounting choices can lower the firm's cost of equity capital or increase their own welfare. Finally, accounting standard setters may find these results useful for evaluating how much discretion they should allow corporate managers to adjust reported earnings.

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