OWNERSHIP STRUCTURE AND EARNINGS PERCEPTION MANAGEMENT IN CHINESE IPOS

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Abstract

We examine the impact of ownership structure on two distinct investor perception management processes: earnings management and explanatory impression management with regard to earnings-related outcomes. Using detailed content analysis of earnings explanations in the MDA (Management Discussion and Analysis) section of 104 recent Chinese IPOs, we find that firms exhibit intense assertive verbal behavior in framing positive earnings outcomes. Ownership structure marginally affects both the amount of assertive causal tactics used and the assertive bias in the causal disclosures. However, the effect of ownership structure is more evident for earnings management propensity Earnings management propensity is significantly affected by the nature of the controlling shareholder. This effect is intensified by the size of shareholdings of the controlling shareholder.

Keywords: earnings management, explanatory impression management, ownership structure, Chinese IPOs

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Introduction

In this study, we examine the impact of ownership structure on both earnings management and narrative explanatory impression management in a context with high incentives to affect investor perception. The IPO market is a market in which investors need to form impressions of relatively new firms without a financial track record to rely on. The lack of firm-specific knowledge in the market leverages, on the one hand, the need for and reliance on corporate disclosures (Aharony et al., 1993). On the other hand, it increases a firm's incentives for an opportunistic disclosure position, seeking firm-specific advantage in the disclosure of financial information (Gibbins et al., 1990), in order to boost stock sales. Congruent with Gibbins et al. (1990) we qualify opportunistic disclosure behavior not necessarily as self-serving in the sense of biased information processing and biased information dissemination. It is more a question of sensitivity to disclosure opportunities, of a pro-active attitude towards the potential benefits of voluntary reporting. Arguing that ownership structure may affect managerial opportunism, we study the effect of ownership structure on two distinct perception management processes which may be important in affecting investor perception of IPO attractiveness: earnings management and assertive causal disclosures on earnings.

Earnings management is a pervasive corporate phenomenon under the current market regulation and condition (Leuz et al., 2003), and is generally considered to result from purposive corporate action to manage reported earnings according to pre-determined targets. In this vein, Schipper (1989) defines earnings management as a purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain. Next to earnings management, verbal behavior in IPO prospectuses may reflect significant framing activities, designed to affect investor appetite. Causal disclosures of the 'why' and 'how' of earnings and related performance outcomes is where new information is created, as they are usually not available from the face of the financial statements. They allow a qualitative view on the firm's performance to be incorporated in an IPO firm's filing, for example by referring to intangibles not recognized in the financial statements such as management quality, innovatory skills and knowledge assets, as driving forces for earnings-related outcomes. On the other hand, they allow to comment on performance contingencies and constraints coming from the external business and regulatory environment. By offering incremental information on links between internal and external antecedents and performance outcomes and by enhancing information precision, narrative explanations of performance outcomes are considered to be a useful extension of the financial reporting model (Baginski et al., 2000). On the other hand, causal disclosures are largely unregulated and highly discretionary as to their content.

Ownership structure and related board characteristics are expected to affect the use of both perception management mechanisms, as governance

characteristics may hold different incentives for opportunistic reporting. Prior research, for example, shows that abnormal accruals are negatively associated with the percent of independent directors on the board in the US and the UK (Klein, 2002; Peasnell et al., 2005). Moreover, Lang et al. (2006) and Leuz (2006) point out that earnings management is associated with the firm ownership characteristics and home-country institutions. In this research, we argue that privately controlled firms (normally controlled by wealthy individuals/families) are more likely to engage in perception management than state-controlled firms, due to stronger interest alignment between the majority owner and the management team (e.g. in terms of managerial ownership, CEO dual role in the board etc). Moreover, if the ownership is more concentrated by the controlling individual/family, the incentive of the privately controlled firm to use perception management practices is further strengthened.

Our results evidence significant earnings management tendencies and prominent assertive presentational behavior when explaining earnings-related outcomes in the MD&A section of the IPO prospectus. Overall, explanatory impression management is highly assertive. We find minor evidence that ownership structure affects assertive impression management with regard to earnings. State-controlled IPOs use less assertive causal tactics in their IPO prospectus than privately-controlled IPOs and are less biased in their references to an internal locus of causality. Contrary to expectations, ownership concentration does not intensify this effect. Consistent with expectations, we find that earnings management propensity is strongly associated with type of controlling shareholder: privately-controlled firms use significantly more earnings management, particularly when the controlling shareholder keeps a larger ownership stake in the firm. Moreover, board independence has a significant negative effect on earnings management, but does not affect the use of assertive causal disclosures. Taken together, this suggests that the effect of governance mechanisms may well depend on the nature of the perception management process. Governance mechanisms that are effective in constraining institutionally embedded impression management, such as financial statement management, may not have comparable effects on highly discretionary impression management processes such as causal disclosures of which the comprehensiveness and credibility are difficult to ascertain.

This research makes a number of contributions to the existing literature. First, to the best of our knowledge, this research is unique in examining explanatory impression management in an IPO setting. Second, we extend the study of verbal impression management in performance discussion to Chinese data. China provides a challenging research opportunity to study verbal impression management in accounting narratives, due to its unique institutional infrastructure and cultural context. Third, we use the latest IPO firms going public in Chinese domestic markets (year 2007), most of which are small and emerging firms controlled by wealthy individuals and/or families. These capitalist-led firms are not politically connected to the State, and they are totally different from those privatized state-owned firms that are widely studied in prior literature. So, we believe our sample firms provide a challenging opportunity to study Chinese firms' reporting practices and ownership structure/corporate governance issues. Finally, we test two distinct perception management processes on the same data set and show that the effect of governance mechanisms may be contingent on the characteristics of the impression management processes that they are expected to oversee.

The paper is structured as follows: Section 2 presents a literature review and develops hypotheses. Section 3 introduces the research design and describes our data. Section 4 analyzes the data and presents the results. Section 5 discusses results and concludes.

Literature review and hypotheses development

Earnings management

Global evidence shows that IPO firms are likely to manage discretionary accruals to boost pre-IPO reported earnings, since IPO firms have strong incentives to engage in income-increasing activities to ensure that the issues are fully subscribed and are priced sufficiently high to garner adequate proceeds (Li et al., 2006). Teoh et al. (1998) and DuCharme et al. (2001) examine US IPOs and present evidence that discretionary accruals are high before the IPO relative to those of non-issuers. Higher pre-IPO discretionary accruals increase a firm's initial value and its IPO proceeds (DuCharme et al., 2001), but decrease stock performance in the subsequent years (Teoh et al., 1998). Li et al. (2006) further argue that US IPO firms associated with aggressive pre-IPO accruals management are more likely to be de-listed because of their poor post-IPO stock performance. Roosenboom et al. (2003) show that Dutch issuers raise their reported earnings in the pre-IPO period by manipulating discretionary accruals, and unwind the accruals subsequent to the IPO over a longer period. Jaggi et al. (2006) find that Taiwanese IPO firms tend to release more optimistic earnings forecasts than conservative earnings forecasts, and that IPOs disclosing optimistic earnings forecasts engage in more accruals manipulation to meet the forecast error threshold.

In China, good historical operating performance is a necessary condition to be eligible for an IPO. According to *Chinese Company Law* (ed. 1993, CH. 3. 152), a candidate IPO firm should have an operating record with reliably measured positive

earnings for 3 consecutive years prior to the IPO. Empirically, Aharony et al. (2000) provide an initial study of pre-IPO accruals management on Chinese B-share firms and analyze total accruals and two specific accruals components (annual change in accounting receivables and inventories). They find that accounts receivables of IPO firms are abnormally high in the pre-IPO period, and low in the post-IPO period, showing that Chinese B-share IPOs may engage in accruals management by accelerating credit sales prior to the IPO.

We expect that Chinese A-share IPOs manipulate reported earnings by adjusting discretionary accruals in the pre-IPO period to boost their stock sales, through (1) earnings smoothing and (2) upward earnings management. Strong earnings with low volatility and an improving earnings trend are likely to impress investors. (Goel and Thakor, 2003). Investors are normally attracted by stable earnings growth over a longer pre-IPO period, rather than by an exceptional earnings increase in one pre-IPO year and decreases in some other years. Stable earnings growth signals profitability improvement of IPO firms which may be likely to sustain in the post-IPO period. Volatile earnings figures, however, give investors a negative impression that profitability improvement may not be sustainable in the future and that business risk may be considerable. As a result, IPO firms may be motivated to smooth earnings volatility through accruals adjustments so as to show quality earnings prior to the IPO.

Explanatory Impression Management

Prior research examines a repertoire of coping strategies and tactics that firms use to describe events, highlight and frame facts and actions and explain performance outcomes in order to affect a firm's public image and reputation (e.g. Ginzel et al., 1993; Neu et al., 1998; Elsbach, 2003). The way firms explain events and outcomes has been central to much of the narrative impression management literature. Attribution theory concepts have been popular as a vehicle to study explanatory tendencies in corporate narrative reports. Attribution theory relates to how people explain events by ascribing them to causes and relational antecedents. In that context, attributional statements are narrative statements reflecting a cause-effect or antecedent-consequence relationship. In concert with the tenet of attribution theory, narrative disclosure studies report a robust tendency to attribute positive effects or outcomes to the firm's own actions or corporate origins (company strategy, decisions, know how, human resources potential, etc.) and negative outcomes to external events or chance factors, like the general business climate, inflation, market prices, government policy, the weather (Bettman and Weitz, 1983; Staw et al., 1983; Salancik and Meindl, 1984; Clapham and Schwenk, 1991; Wagner and Gooding, 1997; Aerts, 2001, 2005; Tsang, 2002; Clatworthy and Jones 2003; Hooghiemstra, 2003; Baginski et al., 2000). This explanation pattern is generally considered as self-serving as it leads to define situations to the firm's own advantage.

Attributing positive outcomes to internal causes is one of the main assertive impression management tactics and these verbal tactics are usually referred to as 'entitlements' (Schlenker, 1980; Tetlock, 1985, 1999; Tedeschi and Melburg, 1984; Elsbach, 2003). Attributional entitlements, explicitly claiming responsibility for positive outcomes, are frequently accompanied by attributional enhancements whereby positive outcomes are portrayed within the contexts of negative external influences, leading to an upgrade of the favorability of the outcome (Tedeschi and Melburg, 1984). Given the high achievement context of an IPO setting, we expect both assertive causal disclosure tactics to be extensively used in the IPO prospectus.

Impact of ownership structure on earnings management and explanatory impression management

Recent studies on managerial opportunism in reporting earnings (e.g. earnings management literature) identify conditions for the occurrence of managerial opportunistic behavior, which are often linked with corporate governance inadequacies (Klein, 2002; Peasnell et al., 2005), ownership concentration and home-country institutions (Lang et al., 2006; Leuz, 2006). Recent Chinese studies also show that public firms' managerial opportunistic practices are associated with type of controlling shareholders and ownership concentration (Ding et al., 2007). However, the evidence for the role of corporate governance in constraining China's managerial opportunistic behavior is mixed: Chen and Cheng (2007) argue that the introduction of independent directors and voluntary audit committees does not seem to affect Chinese firms' managerial opportunism in reporting earnings under Chinese GAAP relative to their international earnings under IFRS, primarily because independent directors are not well-functioning in China. However, Chen et al. (2006) argue that board characteristics are associated with the incidence of fraud, and Liu and Lu (2007) further argue that a higher percentage of outside directors (the ratio of those without receiving any compensation from the firm to the total number of directors) is associated with earnings management behavior from a tunneling perspective.

Given this preliminary evidence on the relationship between governance structure and opportunistic behavior, we expect an IPO firm's propensity to engage in earnings management to be related to its ownership structure. Given the goal-directed nature of assertive impression management (Aerts, 2005), we equally expect that the assertive use of causal disclosures in the IPO prospectus is affected by ownership structure.

More specifically, we hypothesize that privately controlled firms are more likely to engage in such

perception management processes, primarily because the privately-controlled firms are individual/family dominated firms. The controlling individual/family owns a large percentage of voting rights, and the individual/family keeps a strong control in the board room and the management team. In many cases, the controlling person also chairs the board and serves as the CEO of the firm, so that the interests of the controlling shareholder are better aligned with those of the management team, e.g. though managerial ownership (Jensen and Meckling, 1976). In this regard, the management team of privately-controlled firms has a higher motive to engage into investor perception management for the benefit of the controlling shareholder. Furthermore, if the ownership is more concentrated by the controlling individual/family, the controlling shareholder keeps stronger control over the management team which will facilitate the implementation of investor perception management practices.

On the contrary, the management team of state-controlled firms does not seem to be highly motivated in perception management, because they do not normally own the shares of the firms and do not directly benefit from the perception management practices. In addition, large and mature state-controlled firms are more likely to use Big-4 auditors and cross-list in overseas markets. Quality audit and additional regulatory scrutiny in overseas markets may constrain managerial opportunistic behavior in reporting earnings.

So, we hypothesize:

H1a: An IPO firm's earnings management propensity is positively associated with type of controlling shareholder (privately-controlled).

H1b: The relationship between an IPO firm's earnings management propensity and type of controlling shareholder is stronger when the controlling shareholder owns a larger percentage of shares.

H2a: An IPO firm's use of assertive causal disclosures is positively associated with type of controlling shareholder (privately-controlled).

H2b: The relationship between an IPO firm's use of assertive causal disclosures and type of controlling shareholder is stronger when the controlling shareholder owns a larger percentage of shares.

Data and Method

Data Collection and Sample Distribution

This study examines recent Chinese IPOs listed on the Shanghai and Shenzhen stock exchanges, covering a full year from February 2007 to January 2008. The sample firms should consist of non-financial IPO firms, which report three-year operating results of the same comparable financial period (2004-2006) in their IPO prospectuses. As a result, the sample consists of 104 IPOs, with 93 listed in Shenzhen and 11 in Shanghai respectively. There is no B-shares IPO in this particular period.

[Insert Table 1 here]

We separate the sample firms into 13 industry groups (1-digit, group A-M), by using the CSRC Standard Industry Classification (SIC, 2001), which is the only official system to classify Chinese listed firms (Table 1, Panel A). Further, we breakdown group C (manufacturing sector) into 9 sub-groups (2-digit, C1-C9), because group C accounts for two thirds of the total sample. Table 1 describes the sample distribution by industry (Panel A). Although the sample over-represents some industries (mining and electronic industries) and under-represents others (water supply and electricity generating), the sample as a whole roughly represents the market. Panel B presents the operating performance of the firms in the pre-IPO period: (asset-scaled net income; asset-scaled earnings before interest, tax and depreciation & amortization; asset scaled operating cashflows). It shows that IPO firms tend to report an increasing operating performance in the three years prior to the IPO.

Measurement of Earnings Management

Following Leuz et al. (2003), we adopt four different measures of earnings management that capture dimensions along which insiders can exercise their discretion to manage reported earnings. The four measures capture outcomes of both upward earnings management in the last pre-IPO year and earnings smoothing practices in the three pre-IPO years. Consistent with Leuz et al. (2003), we construct an overall summary measure of earnings management to mitigate potential measurement error. For each of the four earnings management measures, firms are ranked such that a higher score suggests a higher level of earnings management. The aggregate earnings management score is computed by averaging the firms' rankings for the four single earnings management measures.

(1) Upward earnings management: the magnitude of positive discretionary accruals

Our first earnings management measure uses the magnitude of positive discretionary accruals in the last pre-IPO year as a proxy for the extent to which managers exercise discretion to manipulate earnings upwards. The majority of empirical earnings management studies decompose total accruals into discretionary accruals and non-discretionary accruals and employ aggregate discretionary accruals regression models, such as the Jones (1991) model (Li et al., 2006), the modified Jones model (Teoh et al., 1998; DuCharme et al., 2001; Roosenboom et al., 2003; Jaggi et al., 2006; Lee and Masulis, 2007), and/or a performance-adjusted modified Jones model (Li et al., 2006; Fan, 2007; Venkataraman et al., 2008). We use the performance-adjusted modified Jones model, primarily because standard versions are mis-specified (Kothari et al., 2005).

The model is specified as follows:

Discretionary accruals = EBXI – CFO – Non-discretionary accruals

EBXI and CFO represent Earnings and Cash flows from operations before extraordinary items (and discontinued operations). Nondiscretionary variables are expected accruals with discretionary variables being the residuals. Expected accruals for an IPO firm i in a given year t are estimated by a cross-sectional regression for that year of total accruals on the change in sales using an estimation sample of all listed firms in the same industry subcategories, excluding loss firms and outliers. Specifically, for each year t in the test period, the following cross-sectional regression is used:

$$\frac{TAC_{j,t}}{TA_{j,t-1}} = \alpha_0\left(\frac{1}{TA_{j,t-1}}\right) + \alpha_1\left(\frac{\Delta SALES_{j,t} - \Delta TR_{j,t}}{TA_{j,t-1}}\right) + \alpha_2\left(\frac{PPE_{j,t}}{TA_{j,t-1}}\right) + \alpha_3 ROA_{j,t} + \varepsilon_{j,t}$$

Where $TAC_{j,t}$ is the total accruals for IPO firm's peers j at year t; $\Delta SALES$ is the year-to-year change in sales revenues; ΔTR is the change in trade receivables; PPE is the gross level of property, plant and equipment; and TA is the beginning total assets. ROA is the EBXI scaled by the beginning total assets.

The asset-scaled nondiscretionary accruals for IPO firm i in year t, $NTAC_{i,t}$, is computed using the estimated coefficients and as:

$$NTAC_{i,t} = \hat{\alpha}_0\left(\frac{1}{TA_{i,t-1}}\right) + \hat{\alpha}_1\left(\frac{\Delta SALES_{i,t} - \Delta TR_{i,t}}{TA_{i,t-1}}\right) + \hat{\alpha}_2\left(\frac{PPE_{i,t}}{TA_{i,t-1}}\right) + \hat{\alpha}_3 ROA_{i,t}$$

Where $\hat{\alpha}_0$ is the estimated intercept; $\hat{\alpha}_1$ and $\hat{\alpha}_2$ are the slope coefficients for IPO firm i at year t. The residual total accruals are the asset-scaled excess accruals for IPO firm i in year t, $DAC_{i,t}$, which is calculated as:

$$DAC_{i,t} = \left(\frac{TAC_{i,t}}{TA_{i,t-1}}\right) - NTAC_{i,t}$$

(2) Upward earnings management: the increase in discretionary accruals

Our second earnings management measure uses the increase of discretionary accruals from the second-to-last year relative to the last pre-IPO year. As most event studies consider changes rather than absolute levels of variables, we use change in discretionary accruals as a second proxy for upward earnings management. Using changes might, to some extent, control for systematic differences in discretionary accruals between IPO firms and the estimation sample firms.

(3) Earnings smoothing using accruals

Our third earnings management measure captures the degree to which managers smooth earnings, i.e., reduce the variability of reported earnings by altering the accruals. The measure is the firm-level standard deviation of asset-scaled cashflow from operations divided by the standard deviation of asset-scaled net income. High values of this measure, *ceteris paribus,* indicate managers' exercise of accounting discretion to smooth reported earnings. This measure is commonly used in the earnings smoothing literature (e.g. Leuz et al. 2003; Francis et al., 2004; Lafond et al., 2007)

(4) Earnings smoothing and the correlation of accruals and operating cashflow

Our last earnings management measure captures the contemporaneous correlation between total accounting accruals and operating cash flows. The total accruals and operating cash flow components of earnings are calculated with the data in the cashflow statements. While a negative correlation is a "natural" result of accrual accounting (e.g., Dechow, 1994), larger magnitudes of this correlation indicate, *ceteris paribus*, smoothing of reported earnings that does not reflect a firm's underlying economic performance (see Skinner and Myers, 1999). The correlation measure is also widely used in prior literature (Leuz et al. 2003; Lafond et al., 2007; Barth et al., 2008).

As in Table 1 (Panel C and D), it is evident that DAC adjustments are likely to smooth reported earnings, since DAC is negatively associated with pre-discretionary performance. Further, we find marginal evidence that firms use DAC adjustments to inflate reported earnings when getting closer to the IPO date, since the last year before the IPO exhibits a higher positive DAC. So, in this regard, we use the aggregate earnings management score to capture both upward and smoothing practices of earnings management.

Measurement of assertive causal disclosure

Scope of the attributional content analysis

Assertive explanatory impression management measures are derived from a formal content analysis of IPO prospectuses. Content analysis is a widely used method in organization studies and for analyzing narrative reports in particular (Duriau et al., 2007). In this study, the content analyzed is restricted to explanatory passages, operationalized as attributional statements with regard to earnings measures. An attributional statement is defined as a phrase or a sentence in which an earnings-related performance outcome is linked with a reason or a cause for the outcome. The attributional statement has to reflect a definite and logical causal relationship. Each causal relationship is treated as a separate attributional statement, even when they were packed in one phrase with several explanatory factors tied to one explained effect.

Explanatory passages can be implicit or explicit. Explicit explanations are characterized by a causal conjunction or a causal connecting phrase (e.g. because of, as a result of ....). Also the verb in the sentence can refer to an explicit explanation (e.g. lead to, result in, ...). An explanation can also be implicit, when cause and effect are not explicitly related. These implicit explanations are only taken

into account if cause and effect can be reasonably linked to each other.

The explanatory passages selected have to refer to earnings (changes) at the level of the reporting entity or of its components (segments, divisions, consolidated entities).

Coded dimensions of explained effects

The explained effects are coded according to the following characteristics: nature, valence and time orientation (see Appendix 1). For each characteristic, different elements are discriminated as follows:

1. Nature: net income, intermediary earnings figures, margins;
2. Valence: positive, negative, neutral (viewpoint of a private investor);
3. Time orientation: past, present, future (present refers to the most recent accounting period);

Coded dimensions of explanatory factors

The explanatory factors are coded according to the following characteristics: direction of influence of the antecedent–consequence relationship, time orientation and locus of causality (Appendix 2). These characteristics are coded as follows:

1. Direction of influence of the antecedent-consequence relationship: identical or opposite (e.g. in spite of, nevertheless,...).
2. Time orientation of the explanatory factor: past, present, future (present refers to the most recent accounting period);
3. Locus of causality: source of causality can be internal to the firm (management decisions, factors at divisional, product line or business unit level, personnel and other) or external to the firm (industry, larger economic environment or other).

As our hypotheses will be tested at firm-level (and not at the level of the specific instance of attribution), the coding results are used to construct aggregated attribution variables at firm-level.

We use two firm-level attributional characteristics (see also Appendix 3) to measure causal assertiveness: the number of causal entitlements and causal enhancement with regard to positive earnings outcomes and the assertive causal bias, measured as the number of positive earnings outcomes explained internally minus the number of positive earnings outcomes explained externally (Salancik and Meindl, 1984). With regard to the assertive causal bias variable, the stronger the relative tendency to explain positive performance outcomes from internal, dispositional factors than from external factors, the stronger the assertive bias.

All IPO prospectuses in the sample were read by two researchers independently. All explanatory passages were marked and divided into explained effects and explanatory factors and coded according to specific content characteristics (Appendixes 1 and 2). If there were differences in the coding of the two researchers, they discussed the matter until they reached an agreement. In case no consensus was reached, a neutral arbiter intervened.

Empirical regression models

The following regression models are used to investigate the ownership structure/corporate governance determinants of earnings management and assertive causal disclosures respectively:

Earnings management measure$_{it}$ = f (Privately-controlled, Share concentration, Privately controlled × Share concentration, Board independence, Firm size, Firm age, Leverage ratio, Industry dummies, Capital intensity, Sales growth, Return on Assets and ROA change)$_{it}$

Assertive causal content measure$_{it}$ = f (Privately-controlled, Share concentration, Privately controlled × Share concentration, Board independence, Firm size, Firm age, Leverage ratio, Industry dummies, Capital intensity, Sales growth, Return on Assets and ROA change, Number of attributions)$_{it}$

Consistent with prior studies (Ding et al., 2007; Liu and Lu, 2007), we use two variables to proxy for ownership structure: (1) type of controlling shareholders (taking the value of 1 if non-state controlled and 0 otherwise), (2) ownership concentration (measured as the shares owned by the largest shareholder as disclosed in the IPO prospectus) as well as the centered interaction term between type of controlling shareholder and ownership concentration. Most corporate governance frameworks place a positive value on a dispersed ownership structure, arguing that concentrated ownership is the ultimate determinant of Asian firms' poor governance practice (see e.g., Claessens et al., 2000; Fan and Wong, 2001). This boils down to the assertion that higher ownership concentration in Chinese firms corresponds to a lower governance level and a higher incentive to expropriate minority investors.

As pointed out by Klein (2002), boards of directors are more effective in monitoring managers' financial reporting behavior, if they are more independent of the CEO. Consistent with Chen and Cheng (2007), board independence is defined as the ratio of the number of independent directors. We expect independent directors to constrain managers' perception management behavior. Besides, we further control for firm size (natural log form of total assets) and age (number of years since the firm starts up), operating performance (average sales growth and average asset-scaled net income in the three pre-IPO years) and earnings change (the asset-scaled net income change in the last year before the IPO compared to the prior year) and industry characteristics (energy sector dummy and information technology sector dummy and capital intensity, which is calculated as the gross PPE scaled by the total assets). For the assertive content regression, we additionally control for the number of the total effects explained. We do not include an audit quality variable (use of Big-4 auditor), or the effect of legal environment (cross-listing in overseas markets) in the regression models, because, in our sample, there are very few firms using a Big-4

auditor or being cross-listed in overseas markets, and the two variables are highly correlated with type of controlling shareholder. Alternatively, if we include the two control variables into the regressions, we obtain similar results.

Results

Descriptive data on attributions

[Insert Table 2 here]

Table 2 presents the firm-level (aggregated) assertive causal content descriptives. The average number of assertive causal disclosures (enhancements and entitlements) explaining positive earnings outcomes per IPO prospectus is 3.796, relative to an average of 2,049 explained positive earnings outcomes. This indicates that entitlements and enhancements are used intensively: on average, each explained positive earnings outcome is explained by using at least one tactical causal device. Overall there is a strong assertive bias in locus of causality: there is a very strong tendency to explain positive earnings outcomes internally and to avoid referring to external causes when explaining positive earnings outcomes. These descriptives evidence a very prominent assertive tendency in the causal disclosures of Chinese IPO firms.

Effect of ownership and corporate governance on perception management processes

[Insert Table 3 here]

Table 3 presents descriptive statistics of ownership structure and corporate governance characteristics of our sample firms by type of controlling shareholder (state-controlled versus privately-controlled IPO firms). Our sample is different from most prior studies on Chinese firms, because of the large proportion of family-controlled firms in our sample. Table 4 shows that only 32 out of the 104 sample firms are state-controlled, with the remaining firms ultimately controlled by either families or individuals. State-controlled IPO firms are significantly larger, more involved in the energy-related industry (e.g. mining) and less in the more risky hi-tech industries. Importantly, state-controlled IPO firms exhibit lower CEO ownership and less CEO board involvement, but introduce additional external mechanisms to oversee financial reporting and information disclosures (for example the use of a Big-4 auditor and cross-listing in overseas markets). Table 3 documents that type of controlling shareholders largely affects ownership structure and corporate governance. Type of controlling shareholders is one of the most important ownership/governance characteristics of Chinese IPO firms.

[Insert Table 4 here]

Table 4 presents the regression results of earnings management propensity on ownership structure. It shows that privately-controlled IPOs use more earnings management in the pre-IPO period than state-controlled IPOs (estimated coefficient 8.851, t statistic = 1.97). Further, the estimated co-efficient of centered interaction term between privately-controlled firms and ownership concentration is positive and significant (32.609, t statistic = 2.44), suggesting that if the controlling family/individual holds a larger percentage of ownership in the privately-controlled firm, the firm is likely to exhibit more earnings management. Table 4 confirms the hypothesis H1a and H1b. In addition, we find that board independence negatively affects the use of earnings management (coefficient -58.035, t statistic = 2.44), suggesting that boards effectively restrain the earnings management behavior.

[Insert Table 5 here]

Table 5 presents the regression results of the two assertive content measures. It shows that privately-controlled IPOs are likely to use more assertive causal tactics and are more biased in the use of assertive causal tactics than state-controlled IPOs (estimated coefficient are 1.736 and 1.897, t statistic = 1.36 and 1.47 respectively). However, the evidence is only marginally significant. Further, the estimated coefficient of centered interaction term between privately-controlled firms and ownership concentration are not statistically significant. In this regard, table 5 partially confirms hypothesis H2a, but not H2b. Moreover, we observe that board independence does not significantly affect the use of assertive causal disclosures, although it significantly restrains earnings management.

Discussion and Conclusion

Consistent with the proactive nature of an IPO setting, our results evidence earnings management tendencies and prominent self-serving presentational behavior when explaining earnings-related outcomes in the MD&A section of the IPO prospectus of Chinese firms. Given the strong incentives for promotional behavior in the IPO process, we establish that explanatory impression management in IPO prospectuses is generally highly assertive. The assertive stance in explaining past earnings outcomes is manifested by intense use of enhancements and entitlements and a strong self-presentational bias in avoiding external explanations for positive earnings outcomes. Ownership structure tends to affect both two perception management mechanisms (earnings management and assertive causal disclosures), corroborating the assertion that managers of privately-controlled IPO firm have stronger financial and reputational incentives to affect the IPO firm perception of external investors. The effect of ownership structure and related governance mechanism does, however, differ in strength and scope between the perception management processes that we study.

Consistent with expectations, we find that earnings management propensity is strongly

associated with type of controlling shareholder: privately-controlled firms use significantly more earnings management and this effect is strengthened if the controlling shareholder holds a larger ownership stake in the firm. On the other hand, we find minor evidence that ownership structure affects assertive impression management with regard to earnings. Overall, state-controlled IPOs use less assertive causal disclosures in their IPO prospectus than privately-controlled IPOs and are less biased in referring to an internal locus of causality (i.e. the assertive causal bias). Entrepreneurial advocacy might be part of the explanation for the effect on causal assertiveness: managers of privately-controlled IPOs may be more inclined to refer to entrepreneurship and agency in framing the success of firm's operations. For small and medium-sized firms, entrepreneurship spirit can be one of the most important factors to drive the firm forward. Privately-controlled IPOs in the sample are mainly (95%) entrepreneur-led firms. The entrepreneurs often keep majority voting rights and control the board room; in most cases, they are also appointed as top executives of the firms.

Contrary to expectations, shareholder concentration does not intensify the effect of ownership structure on assertive causal disclosures. Moreover, whereas board independence has a significant negative effect on earnings management, such a significant effect does not materialize for the use of assertive causal disclosures. Taken together, this suggests that the effect of governance mechanisms may well depend on the nature of the perception management process. Governance mechanisms that are effective in constraining institutionally embedded impression management such as financial statement disclosures and earnings management, may not have comparable effects on highly discretionary impression management processes such as causal disclosures of which the comprehensiveness and credibility are difficult to ascertain.

This research makes a preliminary investigation on the effects of ownership structure on explanatory impression management. It calls for future research on the effects of corporate governance on narrative attributional impression management and the relationship between earnings management practices and explanatory impression management practices. As IPO firms exhibit a prominent assertive behavior in explaining positive earnings outcomes, it could be interesting to examine the economic consequences of narrative attributional content (e.g. the impact on IPO pricing etc). We leave these research questions to be solved in the future.

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Table 1. Sample descriptives

Panel A: distribution by industry

SIC Code (2001)	Sample	A-share Firms*	Percentage
A Agriculture, forestry, & fishing	1	38	2.63%
B Mining	9	25	36.00%
C Manufacturing			
- C0 Foods and beverages	*4*	*61*	*6.56%*
- C1 Textiles, suits and leathers	*4*	*68*	*5.88%*
- C2 Wood products and furniture	*0*	*4*	*0.00%*
- C3 Papers, stationery, sporting, musical instruments	*1*	*31*	*3.23%*
- C4 Petroleum refining, chemicals, and allied products	*11*	*153*	*7.19%*
- C5 Electronic, electric components and home appliances	*14*	*51*	*27.45%*
- C6 Mineral products and metal products	*10*	*132*	*7.58%*
- C7 Equipments and machineries	*21*	*227*	*9.25%*
- C8 Drugs and Biologic products	*2*	*91*	*2.20%*
- C9 Miscellaneous products	*2*	*20*	*10.00%*
D Water, electricity, and gas	0	62	0.00%
E Construction	3	31	9.68%
F Transport & public utilities	4	63	6.35%
G Information technology	7	90	7.78%
H Wholesale and retail trade	1	93	1.08%
I Finance and insurance	Removed	12	0.00%
J Real estate	3	52	5.77%
K Service	5	42	11.90%
L Publishing, media, and allied services	2	10	20.00%
M Miscellaneous products and services	0	78	0.00%
TOTAL	104	1,434	7.25%

Source: Standard Industry Classification of China (ed. 2001)
Note: * ending at 31 December 2006

Panel B: pre-IPO operating performance

	No. of IPOs	IPO (-3) year	IPO (-2) year	IPO (-1) year	Mean Test of (-3) and (-2)	Mean Test of (-2) and (-1)
Net Income	104	9.92%	13.60%	15.08%	0.03684*** (6.967)	0.014792** (2.560)
EBITDA	104	15.98%	21.67%	23.30%	0.05683*** (9.448)	0.01631** (2.159)
CFO	104	9.29%	14.52%	16.11%	0.05228** (3.971)	0.01596 (1.138)

** ** * significant at the 0.01 0.05 and 0.10 levels respectively (Paired sample T test, 2-tailed)

Panel C: DAC in the pre-IPO period

	N	Mean (t statistic)	Std. Deviation	Min	Median (z statistic)	Max
DAC (performance-adjusted modified Jones model)						
Year (-2)	104	0.0090 (0.75)	0.1220	-0.2560	0.0028 (0.23)	0.3502
Year (-1)	104	0.0121 (1.29)	0.0955	-0.2858	0.0057 (1.32)	0.3286
DAC change (performance-adjusted modified Jones model)						
Year (-2) to (-1)	104	0.0030 (0.23)	0.1341	-0.3840	0.0096 (0.37)	0.3606

Panel D: Firm-level Pearson correlations between accruals proxies (Total accruals and Discretionary accruals) and pre-discretionary performance proxies (Cashflow from operations and Pre-discretionary income) across the three pre-IPO years

	N	Min	25% percentile	50% percentile	75% percentile	Max	S.D.
TAC and CFO	104	-0.999	-0.996	-0.967	-0.859	0.960	0.399
DAC and CFO	104	-0.999	-0.952	-0.819	-0.454	0.999	0.596
DAC and PDI	104	-0.999	-0.997	-0.980	-0.888	0.930	0.419

Table 2. Firm-level attributional content descriptives

Firm-level attributional content on earnings outcomes - Descriptives

Attributional content characteristics	**Mean**	**SD**	**Min.**	**Max.**
N = 104				
Number of explained positive earnings outcomes	2.049	1.704	0	7
Number of attributional statements on earnings	9.267	6.166	1	29
Number of enhancements and entitlements	3.796	4.226	0	18
Assertive causal bias	3.549	4.237	-1	18

Table 3. Descriptive statistics of ownership structure and corporate governance

	State-controlled	Privately-controlled	Mean test
	Mean (Std Dev)	Mean (Std Dev)	(t statistic)
No. of firms	32	72	
Size (natural log form of total assets)	21.3345 (2.1322)	19.5282 (0.8457)	1.8063*** (4.63)
EBITDA (Year-3)	15.75% (0.0720)	16.09% (0.0754)	-0.34% (-0.21)
Energy dummy	0.1562 (0.3689)	0 (0)	0.1562** (2.40)
Hi-tech dummy	0.0937 (0.2961)	0.2777 (0.4510)	-0.1840** (-2.47)
Shares held by controlling shareholder	63.09% (0.2044)	55.53% (0.2076)	7.56%* (1.72)
Board size	10 (2.0635)	8.75 (1.4703)	1.25*** (3.10)
Board independence	35.66% (0.0606)	35.99% (0.0401)	-0.33% (-0.32)
CEO salary (annual momentary income scaled by sales)	0.2781 (0.0335)	0.2642 (0.040)	0.0139* (1.82)
CEO ownership	1.59% (0.0659)	24.89% (0.2516)	-23.30%*** (-7.31)
CEO duality	0.1562 (0.3689)	0.4305 (0.4986)	-0.2743*** (-3.12)
Cross-listed in overseas markets	0.2187 (0.4200)	0 (0)	0.2187*** (2.95)
Use of Big-4 auditors	0.1875 (0.3965)	0.0138 (0.1178)	0.1736** (2.43)

*** ** * significant at the 0.01 0.05 and 0.10 levels respectively (2-tailed)

Table 4. OLS Regressions of Earnings Management Propensity on Ownership Structure

	Predicted sign	*Aggregate EM*	
Privately controlled (t-statistic)	+	8.851** (1.97)	13.545*** (3.49)
Share concentration (t-statistic)	+	8.400 (1.09)	6.113 (0.83)
Privately controlled× Share concentration (t-statistic)	+	32.609*** (2.44)	36.653*** (2.85)
Board independence (t-statistic)	-	-58.035** (-1.84)	
Firm size (t-statistic)	+/-	-0.704 (-0.51)	
Firm age (t-statistic)	+/-	-20.001* (-1.88)	
Debt-to-asset ratio (t-statistic)	+/-	-19.854 (-1.58)	
Energy sector dummy (t-statistic)	+/-	-2.499 (-0.29)	
Hi-tech sector dummy (t-statistic)	+/-	-5.275 (-0.75)	
Capital intensity (t-statistic)	+/-	-27.728*** (-3.14)	
Average sales growth (t-statistic)	+/-	7.233 (1.06)	
Average ROA (t-statistic)	+/-	-23.900 (-0.83)	
ROA change (t-statistic)	+/-	-0.333 (-0.01)	
Intercept (t-statistic)	+/-	123.531*** (3.49)	46.540*** (8.83)
R^2		28.8%	12.6%
Adjusted R^2		18.5%	10.0%
F Statistic (Significance)		2.80	4.84
Sample Size		104	

*** ** * significant at the 0.01 0.05 and 0.10 levels respectively (1-tailed if sign predicted, otherwise 2-tailed)

Variables	VIF
Firm size	2.49
Profitability	2.28
Privately controlled	2.19
Energy sector dummy	1.84
Privately controlled× Share concentration	1.77
Debt-to-asset ratio	1.75
Hi-tech sector dummy	1.57
Sales growth	1.56
Capital intensity	1.39
Share concentration	1.33
Profitability change	1.30
Firm age	1.18
Board independence	1.11

Table 5. OLS Regressions of Assertive Causal Disclosures on Ownership Structure

	Predicted sign	Use of entitlements and enhancements		Assertive causal bias	
Privately controlled (t-statistic)	+	1.736* (1.36)	1.697* (1.43)	1.897* (1.47)	1.811* (1.51)
Share concentration (t-statistic)	+	2.082 (0.97)	1.082 (0.48)	1.862 (0.86)	0.897 (0.40)
Privately controlled× Share concentration (t-statistic)	+	2.044 (0.53)	-0.769 (-0.20)	2.397 (0.62)	-0.692 (-0.17)
Board independence (t-statistic)	-	-3.095 (-0.34)		-3.996 (-0.44)	
Firm size (t-statistic)	+/-	-0.449 (-1.15)		-0.401 (-1.02)	
Firm age (t-statistic)	+/-	0.156 (0.05)		0.664 (0.21)	
Debt-to-asset ratio (t-statistic)	+/-	-3.271 (-0.93)		-2.392 (-0.67)	
Energy sector dummy (t-statistic)	+/-	0.029 (0.01)		-0.205 (-0.08)	
Hi-tech sector dummy (t-statistic)	+/-	-1.108 (-0.56)		-0.987 (-0.50)	
Capital intensity (t-statistic)	+/-	1.751 (0.71)		1.839 (0.74)	
Average sales growth (t-statistic)	+/-	1.582 (0.83)		0.602 (0.31)	
Average ROA (t-statistic)	+/-	-4.731 (-0.59)		-4.151 (-0.51)	
ROA change (t-statistic)	+/-	13.713* (1.71)		16.038* (1.98)	
No. of explained effects (t-statistic)	+/-	0.872*** (4.66)		0.903*** (4.77)	
Intercept (t-statistic)	+/-	9.664 (0.97)	2.132 (1.33)	8.469 (0.85)	2.461 (1.52)
R^2		34.4%	3.3%	34.7%	3.6%
Adjusted R^2		24.1%	0.4%	24.5%	0.7%
F Statistic (Significance)		3.35	1.16	3.39	1.44
Sample Size		104			

*** ** * significant at the 0.01 0.05 and 0.10 levels respectively (1-tailed if sign predicted, otherwise 2-tailed)

Variables	VIF
Firm size	2.49
Profitability	2.28
Privately controlled	2.25
Privately controlled× Share concentration	1.95
Debt-to-asset ratio	1.77
Energy sector dummy	1.77
Hi-tech sector dummy	1.57
Sales growth	1.57
Profitability change	1.43
Capital intensity	1.34
Share concentration	1.30
No of effects	1.28
Firm age	1.25
Board independence	1.17

Appendix 1. Coding dimensions of explained effects

Code A01	*Nature of effect*
1	Net income
2	Intermediary earnings
3	Margins
Code A02	*Valence of effect*
1	Positive
2	Negative
3	Neutral

Code A03	*Time orientation of effect*
1	Past
2	Present
3	Future

Appendix 2. Coding dimensions of explanatory factors

Code B11	Direction of antecedent-consequence relationship
1	Identical direction
2	Opposite direction
Code B12	Time orientation of explanatory factor
1	Past
2	Present
3	Future
Code B13	*Locus of causality*
1	Internal, reference to management
2	Internal, reference to new technology
3	Internal, reference to new products
4	Internal, other sources
5	External, reference to industry/sector
6	External, reference to general economic environment
7	External, other sources

Appendix 3. Assertive content of causal disclosures

Causal disclosure	Antecedent - consequence statement. One or more sentences (or part thereof) in which an earnings outcome is linked to one or more causes or reasons for that outcome (eg. operating profit increased due to strong consumer demand and an increase in retail outlets).
Valence of explained effect	A positive effect is favourable for the firm (eg. margins increase) from the perspective of an individual investor. A negative effect is not favourable from the investor's point of view (eg. downturn in profitability).
Enhancement	The framing of a positive outcome relative to negative external factors. Eg. the firm achieved strong earnings growth in the Orange division, despite an industry-wide decline in demand for goods produced.
Entitlement	Positive outcome causally attributed to internal achievements or internal factors (eg. management decision).
Assertive causal bias	(Relative) tendency to explain positive effects more from internal than external antecedents.