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Joseph P.H. Fan, TJ Wong
Tianyu Zhang

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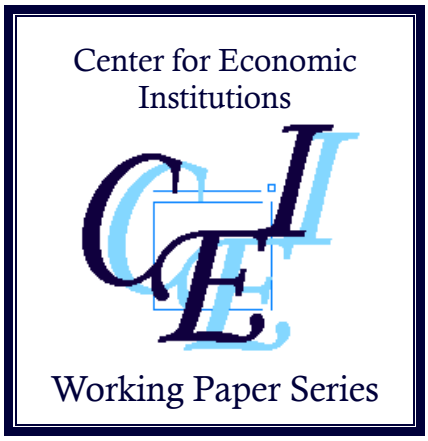


Institute of Economic Research
Hitotsubashi University
2-1 Naka, Kunitachi, Tokyo, 186-8603 JAPAN
http://cei.ier.hit-u.ac.jp/English/index.html
Tel:+81-42-580-8405/Fax:+81-42-580-8333

# Founder Succession and Accounting Properties*

JOSEPH P.H. FAN, *The Chinese University of Hong Kong*

TJ WONG[a], *The Chinese University of Hong Kong*

TIANYU ZHANG, *The City University of Hong Kong*

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[a] Corresponding author: School of Accountancy, The Chinese University of Hong Kong, Shatin, Hong Kong, PRC. Tel: +852-2609-7750, Email: tjwong@cuhk.edu.hk

# Founder Succession and Accounting Properties


## ABSTRACT

Using a sample of 231 entrepreneurial firm successions in Hong Kong, Singapore, and Taiwan, we find that firms' unsigned discretionary accruals decrease while timely loss recognition increases subsequent to successions, suggesting a shift in accounting toward a less insider-based system. We argue that the change in accounting properties is due to the loss of specialized assets in the succession process, such as the entrepreneur's reputation and political/social networks, inducing the firm to adapt to market-based rather than relationship-based contracting. Moreover, we find that the extent of the shift in accounting is larger in founder successions than in subsequent (non-founder) successions, as the dissipation of specialized assets is greatest in founder successions.



*Keywords:* Succession, founder, corporate governance, accounting properties.

*JEL classification:* G32; L14; M41

## 1. Introduction

Entrepreneurial firms, especially those in emerging markets, are typically tightly controlled by a family -- often in the hands of one person, the founder. Past research finds that the accounting transparency of these firms is low.[1] In particular, these firms tend to practice insider-based accounting that is characterized by less timely loss recognition (Ball et al., 2003; Ball et al., 2000) and low earnings informativeness (Fan and Wong, 2002).

Existing studies have attributed the low transparency of insider-based accounting systems primarily to entrepreneurs basing contracts on personal networks and inside communications. Such contracting practices can change significantly, however, when the entrepreneur passes control to his heir or a professional manager. This paper attempts to examine whether contractual arguments can explain changes in firms' accounting practices around leadership successions.

Entrepreneurial firms typically possess assets that are specialized in that they are not easily partitioned, evaluated, or transferred across individuals or organizational boundaries (Alchian, 1965). For example, entrepreneurial activities often involve teamwork where family members contribute their labor and financial resources short of formal contracts. Enforced by family ties, these implicit contracts provide high-power incentives (Williamson, 1985) that are valuable to the firm, but they are specialized to the family as they cannot be replicated by or transferred to another management team. Similarly, while the entrepreneur can easily sell his factory, he would have difficulty selling specialized assets such as his reputation or political connections that are critical to the profitability of the factory. Because specialized assets cannot be capitalized easily in the markets, the value of the assets to the firm can deviate from their market value substantially (Fan et al., 2008). Not surprisingly, specialized assets based on implicit contracts and personal networks lead

to an insider-based accounting system that relies on private communications rather than costly public disclosures (Ball et al., 2000; Ball et al., 2003; Ball and Shivakumar, 2005). Entrepreneurial firms are therefore associated with low accounting transparency.

While successful entrepreneurs often have certain specific assets that give them a competitive edge, these assets are subject to high transfer costs in succession. Even sons and daughters can only partially inherit specialized assets such as the founder's reputation and networks. Short of the assets necessary to enforce relationship-based contracts, the firm under the control of the heir is likely to shift more to arms-length contracts that rely less on personal networks. We therefore expect that the firm will change from an insider-based accounting system to a more outsider-based system upon a succession. Moreover, because the dissipation of specialized assets is more pronounced when the founder, who built the specialized assets, transfers control to his successor than in subsequent successions, we expect the change in accounting system to be more pronounced in the initial succession where the founder is predecessor than in subsequent successions where non-founders are predecessors.

Our empirical tests are based on a sample of 231 successions in three economies, namely, Hong Kong, Singapore, and Taiwan, during the 1987 through 2005 period. We find that after the succession events, the firms' unsigned discretionary accruals are lower while their timely loss recognition is greater than their pre-succession levels. This suggests that entrepreneurial firms shift to a less insider-based accounting system upon succession.

Further evidence shows that the changes in unsigned discretionary accruals and timely loss recognition are larger for an initial succession than for subsequent successions. This evidence suggests a larger shift towards a less insider-based

accounting system as the founder transfers control to his successor than in subsequent successions. Moreover, among the initial successions, we document that firms with older or less educated founders are associated with a more insider-based accounting system in the years prior to their successions, possibly because these firms depend more on specialized assets or relationship-based contracting than do otherwise similar firms.

This paper makes several contributions to the literature. First, it provides an explanation for why founder control, and more generally the life cycle of a firm, affects accounting properties. Second, in addition to the insiders' private benefit consumption argument, this paper offers another explanation for insider-based accounting systems prevalent in emerging markets that transact primarily through relationship-based contracts. Third, the succession events of interest in this paper, and in particular those that involve founders, provide a unique setting to test the roles of specialized, non-transferable assets in an insider-based accounting model. The time-serial comparison also offers more robust results than cross-sectional tests. Finally, our findings echo those in Ball et al. (2003) that firms' incentives rather than accounting standards play a more significant role in determining firms' accounting properties.

The remainder of the paper proceeds as follows. Section 2 discusses the hypotheses. Section 3 describes the sample. Section 4 presents empirical results and Section 5 concludes the paper.

## 2. Hypotheses

### *Relationship-based contracting and accounting properties*

Recent accounting literature examines how the contracting and the organizational form of family firms affect accounting properties. Using a sample of

US S&P 500 firms, Wang (2006) finds that founding family firms have higher quality financial reporting. More specifically, they are associated with lower abnormal accruals, higher earnings informativeness, and less persistence of transitory components in earnings. Wang argues that through stronger incentive alignment from more concentrated ownership, US family firms suffer less from agency conflicts and thus are less opportunistic in financial reporting than firms with diffuse ownership. Using the same dataset and similar agency arguments, Ali et al. (2007) confirm Wang's results.

In contrast to these US studies, Fan and Wong (2002) find that the concentrated family ownership of East Asian firms is associated with lower earnings informativeness. They argue that concentrated control and accounting opacity protect these firms' economic and political rents from competition and political/social sanction. Also, concentration of control may lead to entrenchment and controlling families may use accounting to cover up their opportunistic activities.

Several other studies have added to our understanding of the role of politics and networks in family firms. Morck (1996) argues that a family's reputation and tight control over the company increase the ability of the company to trade favors with politicians, and thus family firms are more likely to reduce accounting transparency in order to pursue political rent-seeking. Using a sample of Indonesian firms that are politically connected to the Suharto regime, Leuz and Oberholzer-Gee (2006) find that these firms are less willing to cross-list in the US because the increase in transparency would jeopardize their political connections with the Suharto government. Ball et al. (2003) argue that ethnic Chinese family firms in East Asia often increase accounting opacity to avoid government predation, a form of political cost resulting from the government seeking rents from the firms. These studies

demonstrate that a firm's relationships with important stakeholders, especially the government, play a significant role in shaping the firm's accounting system.

In this paper, we present a more general contracting argument for the relation between family ownership and accounting properties of emerging market firms. We argue that entrepreneurial activities are associated with specialized assets such as reputation and social/political networks that facilitate relationship-based contracting in place of arms-length contracting. Enforced by family, social, or political sanctions, the relationship-based contracts dominate market-based transactions in markets with weak legal institutions (Burkart, Panunzi, and Shleifer, 2003). As prior research shows, an example of a specialized asset that facilitates relationship contracting is family firms' ability to trade favors with governments (Morck, 1996; Fan and Wong, 2002; Ball et al., 2003; Leuz and Oberholzer-Gee, 2006).

These specialized assets are often highly personalized (valuable only to an individual) and non-transferrable. The concentrated control of the firm is important because it preserves the value of these assets. High ownership concentration suggests that the information asymmetry between owners and managers can be resolved through "insider access" communication (Ball and Shivakumar, 2005). More importantly, the presence of specialized assets and relationship-based contracts create measurement difficulties using standardized accounting procedures (Demsetz, 1964; Alchian and Demsetz, 1972; Cheung, 1983), inducing firms to rely more on private communications than public disclosures.

As argued in Fan and Wong (2002), the concentrated control of these Asian family firms can lead to entrenchment and accounting opacity. This perhaps is an undesirable side effect of family firms having specialized assets, concentrated control, and an insider-access accounting system. On the one hand, the specialized assets facilitate relationship contracting that is associated with concentrated ownership and

opaque accounting. On the other hand, these assets may create opportunities for controlling owners to expropriate outside shareholders and use accounting to cover up their entrenchment. In Section 4 we will explore whether this entrenchment argument is an alternative explanation for our results.

***Family succession and accounting properties***

Specialized assets can explain not only ownership concentration (Demsetz and Lehn, 1985) but also observed patterns in firm successions, namely, family successions where ownership is passed down to an heir. Even if the heir is not as capable as outside professionals (Smith and Amoako-Adu, 1999; Perez-Gonzalez, 2006; Villalonga and Amit, 2006; Bennedsen et al., 2007), he can at least partially inherit and capitalize on the specialized assets (Fan et al., 2008).

As the family firm passes control from one generation to the next, the loss in specialized assets will change the way the firm conducts its operations, contracts with its stakeholders, governs itself, and designs its accounting system. Internally, the successor will adopt more outsider-based accounting to facilitate increasingly standardized operating procedures and mitigate possible agency conflicts with managers hired from outside the family. Externally, stakeholders such as shareholders, suppliers, and customers will demand more outsider-based communication when the successor is only able to inherit part of the founder's reputation to enforce contracts.

Based upon the above discussion, we predict that in an entrepreneurial firm succession, the firm is likely to shift to a less insider-based system. In addition, the extent of the dissipation in specialized assets and the shift toward market-based contracting is likely to be larger for founder successions than non-founder successions (see the Appendix for a founder succession example and a non-founder succession example).[2] The reason is that the extent of asset specificity is greater in founder-controlled firms than in firms controlled by second- or later-generation descendants.

## 3. Data and Sample

We employ a sample of successions in Hong Kong, Singapore, and Taiwan assembled by Fan et al. (2008). Below we describe the sampling procedure.

### *Identifying successions*

The key task is to identify successions by tracking turnovers of chairmen over time.[3] A succession takes place when a family member or an unrelated professional is appointed to the position of chairman. Annual reports of all publicly traded companies since their initial public offerings in the three economies are used to track chairman turnovers.

In principal, a succession takes place in the year in which one chairman steps down and is replaced by a new chairman. However, several additional criteria are needed. First, firms controlled by foreign entities are excluded. Second, we require that a founder not only relinquish his chairmanship but also his directorship for a succession to be confirmed. This is because successions, especially those that involve the founder, typically start early on when the founder starts getting old but are not fully completed until he exits from the management team. Finally, different from leadership turnovers in diffusely held firms, sample successions must be associated with transfers of controlling ownership from the predecessor to the successor.

### *Data sources*

Public disclosures are used to identify succession and ultimate shareholdings of founding families. These information sources include company prospectuses, annual reports, and other sources such as local newspapers and magazines in each of the economies under study. Company prospectuses and annual reports typically disclose information on director profiles, shareholdings of large shareholders, and

related party transactions that are useful for identifying business group affiliations and relationships among board members. Stories covered by various newspapers, magazines, and periodicals are referenced when they provide supplementary information. For key information that is ambiguous or unavailable in the public domain, expert opinions or the families in question are consulted. All financial data come from hard copies of annual reports and from electronic databases such as *Worldscope*, *PACAP*, and *TEJ (Taiwan)*.

[Table 1 inserted here]

The final sample consists of 231 successions spanning the 1987 to 2005 period. In particular, the sample covers all successions of publicly traded companies from 1996 to 2005 for Hong Kong, 1991 to 2005 for Singapore, and 1987 to 2001 for Taiwan. Panel A of Table 1 presents sample summary statistics by year, economy, and succession type (founder vs. non-founder). There is no strong clustering of successions in a particular calendar year in any of the three economies. However, Taiwanese firms have a much higher proportion of founder successions at 76%, followed by Hong Kong at 52%, and Singapore at only 9%. There is no trend of an increase or decrease in the proportion of founder successions in any of the three economies. Panel B of Table 1 summarizes the sample by industry sector, economy, and succession type. Most (76) successions in Taiwan correspond to the manufacturing sector, while Hong Kong and Singapore have more successions in finance, insurance, and real estate in addition to manufacturing. The industry distribution of the sample is quite representative of the general industry distribution of firms in each of these economies.

## 4. Empirical Results

This section presents the empirical results on the patterns of accounting properties before and after succession. We examine changes in the accounting properties of the succession firms by comparing the accounting properties in the five years prior to succession (pre-succession period) with the same set of firms in the year of succession or the five years after succession (post-succession period).

***Earnings properties before and after succession***

*Discretionary Accruals*

We first present the results on unsigned discretionary accruals. Instead of using signed discretionary accruals to investigate whether firms manage earnings in an expected direction, we use unsigned accruals because we conjecture that firms using an insider-based accounting system rely less on earnings for communication with outside investors. Instead, they are likely to use discretionary accruals to increase opacity in order to protect proprietary information such as their business strategies, special contracts, business networks, or favors received from the government (Fan and Wong, 2002; Haw et al., 2004).

Discretionary accruals are estimated as follows. First, total accruals of firm *i* in year *t* ($TA_{it}$) are measured according to:

$$TA_{it} = (\Delta CA_{it} - \Delta CASH_{it}) - (\Delta CL_{it} - \Delta STD_{it} - \Delta TP_{it}) - DEP_{it},$$

where

$\Delta CA_{it}$ is change in current assets,
$\Delta CASH_{it}$ is change in cash,
$\Delta CL_{it}$ is change in current liabilities,
$\Delta STD_{it}$ is change in short-term debt,
$\Delta TP_{it}$ is change in taxes payable, and
$DEP_{it}$ is depreciation expenses.

Next, normal accruals are predicted by the following version of the Jones (1993) model, which is estimated using all firms without any succession event in each one-digit SIC industry for each fiscal year:

$$TA_{it}/ASSET_{it-1} = \beta_1 * 1/ ASSET_{it-1} + \beta_2 * (\Delta SALES_{it} - \Delta AR_{it})/ ASSET_{it-1}$$

$$+ \beta_3 * PPE_{it}/ ASSET_{it-1} + \beta_4 * ROA_{it} + \varepsilon_{it}, \quad (1)$$

where

$ASSETS_{it-1}$ is total assets of firm *i* at the end of year *t*-1,
$\Delta SALES_{it}$ is change in sales of firm *i* in year *t*,
$\Delta AR_{it}$ is change in accounts receivable of firm *i* in year *t*,
$PPE_{it}$ is net property, plant, and equipment of firm *i* in year *t*, and
$ROA_{it}$ is return on assets of firm *i* in year *t*.

Finally, discretionary accruals of the succession samples are calculated using the normal accruals prediction model above.[4]

Summary statistics of both the unsigned accruals and the control variables used in multivariate regressions below are presented in Panel A of Table 2. The univariate analysis shows that the level of unsigned discretionary accruals is significantly higher in the pre-succession period than in the post-succession period. Our robustness check indicates that the signed accruals are not statistically larger in the pre-succession period than in the post-succession period. This suggests that the succession firms do not use discretionary accruals to inflate earnings prior to succession.

Next, we examine the general firm characteristics of the sample before and after succession. Using sales to proxy for size, Panel A shows that the firms' average total sales in the post-succession period is larger than that in the pre-succession period, indicating that the succession firms are not necessarily shrinking in terms of sales. Further, firms have significantly higher financial leverage in the pre-succession period than in the post-succession period. Finally, comparison of firms' market-to-book equity across the pre- and post-succession periods shows that succession firms observe a significant decline in market-to-book equity after the succession, consistent with prior evidence that the substantial value of specialized assets is dissipated in the

succession process (Fan et al., 2008). However, we do not find a significant change in ownership concentration across the pre- and post-succession periods. The correlation matrix reported in Table 2 Panel B does not identify a high correlation between any two variables.

[Insert Table 2 here]

The test of unsigned discretionary accruals around a succession is performed using the following OLS regression with standard errors clustered by country and firm:

$$DTA_{it} = \beta_0 + \beta_1 SUCCESSION_{it} + \beta_2 SIZE_{it} + \beta_3 LEVERAGE_{it} + \beta_4 MB_{it} + \varepsilon_{it}, \quad (2)$$

where
$DTA_{it}$ is the unsigned discretionary accruals for firm *i* at time *t* estimated using the accruals model in equation (1),
$SUCCESSION_{it}$ is one for the post-succession period and zero for the pre-succession period,
$SIZE_{it}$ is the logarithm of sales for firm *i* at time *t*,
$LEVERAGE_{it}$ is the ratio of total liabilities to total assets for firm *i* at time *t*, and
$MB_{it}$ is the market-to-book equity ratio for firm *i* at time *t*;
Year, industry, and country fixed effects are also controlled for in the model.

Panel C of Table 2 reports the results of the multivariate regressions.[5] Without controlling for any other variables except year, country, and industry fixed effects, model (1) shows that the coefficient on SUCCESSION is negative and statistically significant at the 10% level, indicating that the unsigned discretionary accruals decrease after succession.[6] The significance of the coefficient on SUCCESSION increases to the 5% level after including the control variables SIZE, LEVERAGE, and MB in model (2). Overall, these results are consistent with our conjecture that entrepreneurial firms operate under a more insider-based accounting system prior to succession, but less so after succession. The results in all the models also suggest that smaller firms, firms with higher leverage, and firms with higher market-to-book equity have consistently higher unsigned discretionary accruals.

An alternative explanation for the results in models (1) and (2) is that entrenched predecessors use unsigned discretionary accruals to cover up private benefit consumption (Fan and Wong, 2002; Leuz, Nanda, and Wysocki, 2003; Leuz and Oberholzer-Gee, 2006). In this case, the change in accounting properties around succession is due to the change in the level of private benefit consumption. To test this story, we conjecture that the level of entrenchment and private benefit consumption are likely to be positively associated with family ownership concentration and negatively associated with the firm's profitability prior to succession. We conjecture that ownership concentration increases controlling families' ability to expropriate minority shareholders and that the resulting entrenchment will lead to low firm profitability. Thus, we add average performance (ROA) in the pre-succession period, denoted as PRE-ROA, and the family's share ownership percentage in model (3). Although ownership concentration is found to be positively associated with the level of unsigned discretionary accruals, the significantly positive coefficient on PRE-ROA does not support the entrenchment interpretation. This result is corroborated by the finding in Fan et al. (2008) that there is no surge in share value for these firms at or after the succession. If there were heavy expropriation and earnings management prior to succession, we would expect to see a positive change in firm value when the problems associated with entrenchment and earnings management become less severe after the succession. Finally, the coefficient on SUCCESSION remains significantly negative after controlling for these two additional variables, providing further support to our contracting hypothesis.

*Timely Loss Recognition*

Next, we use timely loss recognition to measure changes in accounting system around successions. Prior research such as Ball et al. (2000, 2003) and Ball and

Shivakumar (2005) finds that insider-based accounting systems are associated with less timely loss recognition. Thus, we investigate whether succession firms shift to a more outsider-based system that practices more timely loss recognition.

We use two regression models in the literature to test the degree of timely loss recognition before and after the succession, namely, the earnings-returns analysis in Basu (1997) and the income persistence analysis in Basu (1997) and Ball and Shivakumar (2005). The earnings-returns analysis makes use of firms' annual stock returns to estimate their total news content during a year. Since succession firms' stock returns may measure news content with much greater error because they experience a significant change in share value prior to succession (Fan et al., 2008), the income persistence analysis serves as an alternative approach that allows us to test timely loss recognition without relying on stock returns to capture economic news associated with the firms.

For the earnings-returns analysis, we use the following model:

$$\begin{aligned} EARNINGS_{it} = {} & \beta_0 + \beta_1 RETURN_{it} + \beta_2 RD_{it} + \beta_3 RETURN_{it} \times RD_{it} + \beta_4 \\ & SUCCESSION_{it} + \beta_5 RETURN_{it} \times SUCCESSION_{it} + \beta_6 RD_{it} \times SUCCESSION_{it} \\ & + \beta_7 RETURN_{it} \times RD_{it} \times SUCCESSION_{it} + \varepsilon_{it}, \end{aligned} \quad (3)$$

where
$EARNINGS_{it}$ is net income scaled by beginning-of-year market value of equity for firm *i* in year *t*,
$RETURN_{it}$ is the annual net-of-market return within the fiscal year for firm *i* in year *t*,
$RD_{it}$ is one for bad news when RETURN is negative and zero otherwise for firm *i* in year *t*, and
$SUCCESSION_{it}$ is one for the post-succession period and zero for the pre-succession period.

Our alternative method, the income persistence analysis, uses the following model:

$$\Delta INC_{it} = \beta_0 + \beta_1 \Delta INC_{it-1} + \beta_2 D\Delta INC_{it-1} + \beta_3 \Delta INC_{it-1} \times D\Delta INC_{it-1} + \beta_4 SUCCESSION_{it} + \beta_5 \Delta INC_{it-1} \times SUCCESSION_{it} + \beta_6 D\Delta INC_{it-1} \times SUCCESSION_{it} + \beta_7 \Delta INC_{it-1} \times D\Delta INC_{it-1} \times SUCCESSION_{it} + \varepsilon_{it}, \quad (4)$$

where
$\Delta INC_t$ is change in net income scaled by year-end total assets for firm *i* in year *t*,
$\Delta INC_{t-1}$ is change in net income scaled by year-end total assets for firm *i* in year *t*-1,
$D\Delta INC_{t-1}$ is one if $\Delta INC_{t-1}$ is negative and zero otherwise, and
$SUCCESSION_{it}$ is one for the post-succession period and zero for the pre-succession period.

[Insert Table 3 here]

Panel A of Table 3 presents the summary statistics of the variables in regression models (3) and (4). In the earnings-returns analysis, both mean and median annual net-of-market returns, RETURN, in the post-succession period are higher than those in the pre-succession period. This indicates that the decline in firm value finally stops as the firm completes the succession process. These stock price patterns are consistent with those reported in Fan et al. (2008).

There is no significant decline in mean EARNINGS, measured as net income over market value of equity at the beginning of the fiscal year prior to the succession.[7] The earnings pattern is not in line with the pattern of annual stock returns for firms in the pre-succession period for two possible reasons. First, the decrease in returns reflects the dissipation of specialized assets that are intangible and unrecognized, but that have no immediate impact on earnings. However, the decline in specialized assets and share values will have a longer-term effect on firm earnings. This may explain why earnings of post-succession firms are significantly lower than those of pre-succession firms.[8] Second, the decline in earnings after the succession is consistent with succession firms adopting a more conservative accounting system, which is in line with a less insider-based approach in contracting and accounting.

Finally, there is a lower median $\Delta INC_{t-1}$ for firms in the post-succession period than for firms in the pre-succession period. These patterns are similar to the pattern for the level of earnings captured in EARNINGS.

*Earnings-returns Association*

We first use the earnings-returns (Basu) model to test succession firms' degree of timely loss recognition. A positive coefficient on RETURN × RD suggests that earnings have a more timely response to bad news than good news. The comparison of timely loss recognition across pre- and post-succession periods is captured by the coefficient on RETURN × RD × SUCESSION, with a positive coefficient signaling a more timely response to bad news in the post-succession period. The coefficient on RETURN × RD × SUCESSION is significantly positive in model (1), which is consistent with our conjecture that prior to succession, entrepreneurial firms operate under a more insider-based accounting system, but following succession the practice becomes less insider-based.[9]

*Income Persistence*

In our second set of regressions we conduct income persistence analysis. A negative coefficient on ΔINC × DΔINC indicates that negative earnings are less persistent. If firms have significantly more transitory (less persistent) components in negative earnings in the post-succession period than the pre-succession period, the coefficient on ΔINC × DΔINC × SUCCESSION will be negative. However, the coefficient on ΔINC × DΔINC × SUCCESSION in model (2) is negative but not statistically significant.

*Effect of founder vs. non-founder succession on accounting earnings properties*

We next present the results on how a founder vs. non-founder chairman succession affects the accounting earnings properties of succession firms before and

after the succession. Table 4 presents the discretionary accruals results, and Table 5 presents the timely loss recognition results of the earnings-returns as well as the income persistence models.

*Accruals*

Based on regression models in Table 2, we add the independent variables FOUNDER and FOUNDER × SUCCESSION, where FOUNDER equals one if the predecessor is a founder and zero otherwise. FOUNDER helps capture the effect of the predecessor chairman being a founder on the succession firms' unsigned discretionary accruals before and after the succession. In addition, FOUNDER × SUCCESSION tests whether a founder predecessor is significantly associated with an incrementally sharper decline in unsigned accruals after the succession, as indicated by a significantly negative coefficient. An incremental drop in unsigned accruals would be consistent with our conjecture that the founder possesses specialized assets that facilitate relationship-based contracting and hence are more compatible with an insider-based accounting system, but that are highly personalized and non-transferrable, increasing the firm's need to engage in arms-length contracts and adopt a less insider-based accounting system after the succession. Thus, compared with a firm with a non-founder predecessor, a firm with a founder predecessor will experience a greater decline in unsigned accruals as it switches more sharply to a much less insider-based accounting system. The results in model (1) through model (3) show that the coefficient on FOUNDER × SUCCESSION is significantly negative, supporting our conjecture.[10]

[Insert Table 4 here]

We next consider whether founder-controlled firms are associated with higher levels of unsigned discretionary accruals prior to the succession. The results are

reported in models (4) and (5) in Table 4. The coefficient on FOUNDER is positive but not statistically significant, suggesting that the larger unsigned accruals prior to succession are not concentrated only among founder predecessor firms.

*Change in Timely Loss Recognition before and after Succession*

Next, we investigate how founder vs. non-founder succession affects timely loss recognition (earnings' responsiveness to bad news) after the succession. Our conjecture suggests that compared with non-founder succession firms, firms with a founder predecessor will experience a larger increase in timely loss recognition after the succession. Using models (1) and (2) of Table 3 Panel B as baseline models for the earnings-returns and income persistence analyses, respectively, we rerun each of the two regressions with the pre- and post-succession firm samples partitioned into founder predecessor firms and non-founder predecessor firms.

[Insert Table 5 here]

If there is significant improvement in timely loss recognition after the succession, the coefficient on RETURN × RD × SUCESSION will be significantly positive in the earnings-return analysis and the coefficient on ΔINC × DΔINC × SUCCESSION will be negative in the income persistence analysis. The results in Table 5 Panel A support our hypothesis. Specifically, in the earnings-returns analysis, we find that the coefficient on RETURN × RD × SUCESSION is significantly positive in the founder succession subsample but not in the non-founder succession subsample. Similarly, in the income persistence analysis, we find that the coefficient on ΔINC × DΔINC × SUCCESSION is significantly negative in the founder succession subsample but not in the non-founder succession subsample.[11] In an alternative test, we use the Ball and Shivakumar (2005) model by regressing total accruals on cash flows. Similar to the income persistence results, we find among

founder succession firms that the association between total accruals and cash flows upon bad news (negative cash flows) is significantly less negative in the pre-succession period than the post-succession period. We do not document such a result among non-founder succession firms.

It is important to note that to formally test our conjecture, we need to perform a formal test of the difference in coefficients on RETURN × RD × SUCESSION and ΔINC × DΔINC × SUCCESSION between the founder and non-founder succession subsamples. However, this would involve a four-way interaction in the regression and would make the results unstable. We therefore highlight the caveat that our results in Table 5 Panel A are suggestive and not a formal test of our conjecture.

*Timely Loss Recognition in the Pre-succession Period*

In this subsection, we examine whether founder vs. non-founder predecessor status affects timely loss recognition in the pre-succession period. More specifically, using only the pre-succession observations we run the Basu model (earnings-returns analysis) and Ball and Shivakumar model (income persistence analysis) with FOUNDER and its interaction terms. We expect the coefficient on RETURN × RD × FOUNDER in the earnings-returns analysis to be significantly negative, while we expect the coefficient on ΔINC × DΔINC × FOUNDER to be significantly positive. Our results reported in Table 5 Panel B support this conjecture. This subsection therefore provides a formal test showing that predecessor type (founder vs. non-founder) does have a significant impact on firms' level of timely loss recognition in the period prior to succession.[12]

*Additional analyses*

In this section, we further explore how, compared with non-founder-controlled firms, founder-controlled firms are likely to possess a higher level of asset or skill

specificity and thus a more insider-based accounting system. First, we explore whether the founder's age at the time of succession is associated with the firm's accounting properties. A founder's advancement in age at the time of succession may indicate that he possesses a high level of specialized assets that are difficult to pass on to the next generation, in which case a founder's age may be positively associated with the level of asset specificity or with an insider-based contracting and accounting system prior to succession. Our argument is along the same line as Smith and Amoako-Adu (1998), who use the successor's younger age as a proxy for lack of expertise and less established reputation. Second, we analyze whether the founder's education level proxies for his level of specialized assets. To be a founder of one of the listed firms in our sample, he should possess special abilities in growing his business. Thus, a founder with a low level of education indicates that he is likely to be endowed with skills or knowledge that are not acquired through standard educational channels. With such skills or knowledge that are highly individual-specific in nature, the firm is likely to adopt an insider-based contracting and accounting system.

To formally test these hypotheses on how a founder's age and education affect firms' accounting properties in the pre-succession period, we again use unsigned discretionary accruals and timely loss recognition. We use both continuous and binary variables for age and education. The binary variable for age is set equal to one when the founder's age is 80 or above (30% of the founders and 10% of non-founders are in this age group), while education is set equal to one when the founder's education level is at the bachelor degree level or above. To increase the power of the test, we use only the founder succession firms and replicate the models of Table 4 model (2) for unsigned discretionary accruals and Table 5 Panel B models (1) and (2) for the timely loss recognition regressions. In addition, we replace FOUNDER with FOUNDER'S BACKGROUND for the founder's age (Table 6 Panel B models (1) and (2), and

Table 6 Panel C models (1) and (3)) and education level (Table 6 Panel B models (3) and (4), and Table 6 Panel C models (2) and (4)).

The summary statistics on predecessor age and education are presented in Table 6 Panel A. Due to the poor disclosure practices of the three sample economies, especially in the 1980s and early 1990s, 63 succession firms do not have information on the age of predecessors and 104 firms have missing information on predecessors' education level. Even more information on predecessor age and education is missing for non-founder firms, suggesting that it is probably more important to disclose such information for founders than non-founders. Consistent with our expectations, the mean (median) age of founder predecessors is 70.57 (72), which is significantly higher than the mean (median) age of non-founder predecessors at 61.5 (60). Similarly, the average education level of founder predecessors is below the bachelor level, which is significantly lower than the bachelor level of non-founder predecessors.

[Insert Table 6 here]

*Effect of the Founder's Age and Education on Discretionary Accruals*

The regression results in Panel B of Table 6 show that the coefficient on FOUNDER'S BACKGROUND for education in models (3) and (4) is negative and statistically significant, which supports our conjecture that a lower level of education for the founder is associated with higher unsigned discretionary accruals. This is consistent with our hypothesis that the lower the founder's education, the higher the succession firm's asset specificity level and the more insider-based the firm's accounting. The coefficient on FOUNDER'S BACKGROUND for age in models (1) and (2) is negative but not statistically significant.

*Effect of the Founder's Age and Education on Timely Loss Recognition*

The timely loss recognition results for the founder's age and education are reported in Panel C of Table 6. We conjecture that earnings have a more timely

response to bad news when the founder's age is low and education level is high. That is, we expect that the coefficient on RETURN × RD × FOUNDER'S BACKGROUND is negative for founder's age and positive for founder's education. Consistent with this conjecture, the earnings-returns results show that the coefficient on RETURN × RD × FOUNDER'S BACKGROUND is negative and statistically significant for age in models (1) and (2), and is positive for education with *t*-statistics of 2.30 in model (3) and 1.51 in model (4).

For the income persistence regressions, we expect the coefficient on ΔINC × DΔINC × FOUNDER'S BACKGROUND to be positive for founder's age and negative for founder's education. The income persistence results show that the coefficient on ΔINC × DΔINC × FOUNDER'S BACKGROUND is positive for age with *t*-statistics of 1.59 in model (5) and 2.12 in model (6). This evidence supports our earlier conjecture. However, the sign of the coefficient on ΔINC × DΔINC × FOUNDER'S BACKGROUND is statistically insignificantly different from zero for education.

In summary, we find that the founder's education level has a significant impact on firms' unsigned discretionary accruals in the pre-succession period, while the founder's age influences a firm's timely loss recognition in the pre-succession period when using the earnings-returns and income persistence models and the founder's education influences a firm's timely loss recognition in pre-succession period using the earnings-return association model.

Note that there is a potential alternative explanation for the decrease in unsigned discretionary accruals and increase in earnings responsiveness to bad news after the succession. Rather than a change in contracting and accounting system being a result of a decrease in asset specificity surrounding a succession, it may be the case

that entrenched predecessors induce accounting opacity to cover up poor performance prior to the succession. In this case, high unsigned accruals and low earnings responsiveness to bad news would be a result of predecessors' entrenchment, not necessarily their possession of specialized assets and skills, leading to the use of insider-based accounting systems. However, our additional tests relating a founder's education to the firm's accounting properties prior to succession may lend credence to the contracting hypothesis. To the extent that a low level of education captures a founder's possession of specialized assets but does not proxy for entrenchment, our results support the view that the changes in accounting properties around a succession are associated with succession firms' changes in contracting and accounting system.

## 5. Conclusion

This paper examines whether emerging market entrepreneurial firms shift from an insider-based accounting system to a more outsider-based system around a leadership/ownership succession. Using a sample of 231 chairman successions in three East Asian Economies (Hong Kong, Singapore, and Taiwan), we find that compared with the five years prior to succession, succession firms report lower unsigned discretionary accruals and more timely loss recognition in the year of and the five years after the succession.

This result is consistent with our conjecture that family firms possess specialized assets such as reputation and social/political networks that facilitate relationship contracting but are highly personalized (belonging to the predecessor) and non-transferrable, losing value when the firms are transferred from the predecessors to their successors. This implies that the extent to which the specialized assets can facilitate relationship-based contracts decreases around a succession, with the succession firm adopting more arms-length contracts. As a consequence of this

change in contracting mechanism, the entrepreneurial firm's accounting system will also shift from an insider-based system to a more outsider-based system.

Further supporting this argument, we find that the change in accounting properties is significantly greater for successions that involve founder predecessors than for those with non-founder predecessors. Founder predecessors, who personally developed the specialized assets in the firms, will see a larger drop in these assets' amount and value at the initial succession than will their successors when they pass down the inherited assets to their heirs in subsequent successions. This larger decline in the specialized assets' amount and value is likely to induce firms to make a more significant shift to an outsider-based accounting system in the initial succession than in subsequent successions.

Future research should focus on collecting data for identification and measurement of entrepreneurial firms' key specialized assets. This would shed light on whether and how these specialized assets shape the ways in which firms organize their ownership and governance structures, and the way in which they pass control on to the next generation. Such data would also allow for more understanding of how specialized assets serve as a fundamental factor in determining a firm's accounting system and properties.

Appendix: Succession Examples

Case 1: Founder Succession

China Motor Bus Ltd. (hereafter as CMB) was founded by Ngan Shing-kwan and his father-in-law, Wong Wang-cai, in 1924. The first milestone of the company was to obtain the public bus service franchise in Hong Kong Island in 1933. The company's operations were terminated during World War II. They resumed full operation in 1948 and continued to boom until the 1980s. In 1962, the company went public through a listing on the Hong Kong Stock Exchange. At its peak, the company owned more than one thousand buses, operated more than one hundred bus lines, and served 300 million passengers annually.

Ngan Shing-kwan managed the company for 77 years until he died in 2001, while still serving as chairman of the company. His daughter Ngan Kit-ling succeeded as chairman of the company; she had been managing the company since the mid-1990s when her father was in his 90s.

A comparison of the father (founder) and daughter (heir) will enhance our understanding of the fundamental changes in the firm around succession. The father received wide recognition in the business as well as political arenas. Due to his success in the bus service business, he was named "the Father of Hong Kong Bus Service". He was the first Chinese appointed to the Executive Council of the Hong Kong government and the first Chinese sitting on both Executive and Legislative Councils. With his high social and political status in the city, he was regarded "the Patriarch of Chaozhou", an important clan of businessmen from the town of Chaozhou, Guangdong Province. He also received recognition from the British government with the granting of two Most Excellent Orders of the British Empire, Officer (OBE) and Commander (CBE), in 1955 and 1961, respectively. In addition, the father maintained a very good relationship with the firm's employees, providing his employees the best benefits among all bus companies in Hong Kong.

Ngan Kit-ling, the daughter, took over the daily operations of CMB in the mid-1990s. Both her career as practicing lawyer and notary public and her professional management style damaged rather than strengthened the company's relationships with employees and government officials. Her tough style in handling the political network is one of the direct factors leading to the loss of all remaining franchised bus lines in Hong Kong Island in 1998. Subsequently, Ngan King-kwan stayed in the hospital until he died in 2001.

This comparison shows that there was a significant change in the firm's specific assets, such as social prestige, political network, employee loyalty, and government franchise, around the family succession. After the succession, the company began to rely less on government franchise by switching more to real estate development as the company's core business. In addition, market mechanisms such as the hostile takeover threat by Yu Ming Investment Ltd. in mid-2002 induced the company to adopt more stringent governance standards such as issuing special dividends to its shareholders.

Sources:
China Motor Bus Memorial Page (in Chinese): http://www.chinamotorbus.com/

Annual Report of China Motor Bus Ltd. in corresponding years.

Case 2: Non-founder succession

Hysan Development Company Ltd., one of the top ten property companies in Southeast Asia, was incorporated in 1970; its parent company, Lee Hysan Estate Company, the oldest property company in Hong Kong, was founded by Lee Hysan in 1923. Lee's family was one of the top four families in Hong Kong in the 1920s. Hysan's wealth was mainly generated from the opium business in Hong Kong, Macao, and Canton. With such wealth, Hysan made his most high-profile transaction by purchasing from William Buchanan Jardine the East Point Hill. Lee's family converted this area, now known as Causeway Bay, to become the most expensive shopping district, as measured by retail rental cost, in the world and the family is regarded as "the Landlord of Causeway Bay".

Lee Hysan's oldest son, Lee Ming Chak, took charge of the family business after Lee Hysan was murdered in 1928. He led the family business successfully over the next 55 years, culminating in a listing on the Hong Kong Stock Exchange in 1981. In addition to accumulating financial wealth, Lee Ming Chak also amassed rich political capital over this period. He served in twelve different prestigious positions in the Hong Kong government including the Legislative Council, the Executive Council, the Advisory Commission on Corruption, the Panel of Inland Revenue Board of Review, and the Board of Education. He maintained close ties with political leaders in the mainland, as evidenced by his close personal relationship with Zhou Enlai and the bailout of his family-owned company in the mainland by Hu Yaobang. Lee Ming Chak was also awarded two of the Most Excellent Orders of the British Empire, Officer (OBE) and Commander (CBE), and was designated[?] Justice of the Peace in recognition of his contribution in business and politics in Hong Kong.

Upon the death of Lee Ming Chak in 1983, management of the company was transferred to a Lee family team consisting of Jung Sen, Wing Tat, and Hon Chiu, with Jung Sen serving as chairman. While Ming Chak was still in power, his plan was to eventually pass the chairmanship to Hon Chiu. As training for taking the helm of the company, Hon Chou was appointed to a senior management position of the company when Ming Chak was still the chairman. Hon Chiu formally took up the chairmanship in 1988. Hon Chiu continued the family's success, ranking No. 490 in Forbes' Rich List in 2001 when he retired from the chairmanship of the company. He was also rich with political capital, as evidenced by serving in the Legislative Council of the Hong Kong government, the nominating committee for the first Chief Executive of Hong Kong Special Administrative Region, and the Chinese People's Political Consultation Conference.

In 2001, Hon Chiu decided to pass on the chairmanship to his cousin, Lee Ting Chang. A difference between Ting Chang and his predecessors is that he has not taken up any government position or political appointment. His only public recognition to date is Justice of the Peace. However, Ting Chang is qualified as a Solicitor on the Supreme Court of England and Wales. Under the leadership of Ting Chang, Hysan Development Company was ranked among the companies with the best corporate governance practices by the 2006 research report of the Hong Kong Institute of Directors and the City University of Hong Kong.

One salient observation in the analysis of the chairman succession is that the family's political capital has declined, while the firm's emphasis on professionalism and corporate governance has increased over the three generations. It also appears that the chairman

succession became better organized. The succession in the earlier stage of the company occurred only when the predecessor died while still in a position of control. However, the succession in the later stage of the company involved a smoother transition with more careful planning by Hong Chiu.

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Prospectus and Annual Report of Hysan Development Company in corresponding years.

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**Table 1 Sample Summary Statistics**

**Panel A: Distribution by year of succession**

This table presents the sample distribution by succession year, economy, and succession type (founder vs. non-founder). A succession event is defined as an entrepreneur (founder or non-founder) stepping down from the chairman position. Total indicates the total number of succession events in the year. Founder indicates the total number of founder successions in the year. % indicates the founder succession as a percentage of the total number of successions in the year.

| | Hong Kong | | | Singapore | | | Taiwan | | | Pooled | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Founder | % | Total | Founder | % | Total | Founder | % | Total | Founder | % |
| 1987 | 0 | - | - | 0 | - | - | 2 | 1 | 50% | 2 | 1 | 50% |
| 1988 | 0 | - | - | 0 | - | - | 3 | 3 | 100% | 3 | 3 | 100% |
| 1989 | 0 | - | - | 0 | - | - | 6 | 6 | 100% | 6 | 6 | 100% |
| 1990 | 0 | - | - | 0 | - | - | 6 | 6 | 100% | 6 | 6 | 100% |
| 1991 | 0 | - | - | 1 | 0 | 0% | 5 | 4 | 80% | 6 | 4 | 67% |
| 1992 | 0 | - | - | 6 | 0 | 0% | 6 | 6 | 100% | 12 | 6 | 50% |
| 1993 | 0 | - | - | 5 | 0 | 0% | 4 | 2 | 50% | 9 | 2 | 22% |
| 1994 | 0 | - | - | 6 | 1 | 17% | 7 | 6 | 86% | 13 | 7 | 54% |
| 1995 | 0 | - | - | 4 | 0 | 0% | 6 | 3 | 50% | 10 | 3 | 30% |
| 1996 | 4 | 2 | 50% | 5 | 0 | 0% | 11 | 8 | 73% | 20 | 10 | 50% |
| 1997 | 7 | 3 | 43% | 2 | 0 | 0% | 5 | 5 | 100% | 14 | 8 | 57% |
| 1998 | 4 | 1 | 25% | 3 | 1 | 33% | 7 | 5 | 71% | 14 | 7 | 50% |
| 1999 | 12 | 10 | 83% | 6 | 1 | 17% | 12 | 8 | 67% | 30 | 19 | 63% |
| 2000 | 14 | 7 | 50% | 5 | 0 | 0% | 13 | 8 | 62% | 32 | 15 | 47% |
| 2001 | 11 | 6 | 55% | 1 | 0 | 0% | 12 | 9 | 75% | 24 | 15 | 63% |
| 2002 | 9 | 2 | 22% | 3 | 0 | 0% | 0 | - | - | 12 | 2 | 17% |
| 2003 | 7 | 4 | 57% | 4 | 1 | 25% | 0 | - | - | 11 | 5 | 45% |
| 2004 | 3 | 2 | 67% | 1 | 0 | 0% | 0 | - | - | 4 | 2 | 50% |
| 2005 | 2 | 1 | 50% | 1 | 1 | 100% | 0 | - | - | 3 | 2 | 67% |
| Total | 73 | 38 | 52% | 53 | 5 | 9% | 105 | 80 | 76% | 231 | 123 | 53% |

**Table 1 Sample Summary Statistics (continued)**
**Panel B: Distribution by industry**
This panel presents the sample distribution by one-digit SIC code, economy, and succession type (founder vs. non-founder). Total indicates the total number of succession events in the industry. Founder indicates the total number of founder successions in the industry. % indicates the founder succession as a percentage of the total number of successions in the industry.

| | Hong Kong | | | Singapore | | | Taiwan | | | Pooled | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Founder | % | Total | Founder | % | Total | Founder | % | Total | Founder | % |
| Agriculture and Mining | 4 | 1 | 25% | 3 | 0 | 0% | 5 | 4 | 80% | 12 | 5 | 42% |
| Manufacturing and Construction | 28 | 17 | 61% | 15 | 3 | 20% | 76 | 56 | 74% | 119 | 76 | 64% |
| Transportation | 6 | 3 | 50% | 5 | 2 | 40% | 11 | 9 | 82% | 22 | 14 | 64% |
| Wholesale and Retail Trade | 9 | 6 | 67% | 5 | 0 | 0% | 6 | 5 | 83% | 20 | 11 | 55% |
| Finance, Insurance, and Real Estate | 21 | 10 | 48% | 13 | 0 | 0% | 3 | 2 | 67% | 37 | 12 | 32% |
| Services | 5 | 1 | 20% | 12 | 0 | 0% | 4 | 4 | 100% | 21 | 5 | 24% |
| Total | 73 | 38 | 52% | 53 | 5 | 9% | 105 | 80 | 76% | 231 | 123 | 53% |

**Table 2 Level of Discretionary Accruals in the Pre-succession and Post-succession Periods**

**Panel A: Descriptive statistics**

This table presents descriptive statistics of unsigned discretionary accruals and control variables used in the multivariate regression in Panel B. Discretionary accruals are estimated as follows:

1) total accruals of firm *i* in year *t* are measured as: $TA_{it}=(\Delta CA_{it}-\Delta CASH_{it})-(\Delta CL_{it}-\Delta STD_{it}-\Delta TP_{it})-DEP_{it}$, where $\Delta CA_{it}$ is change in current assets, $\Delta CASH_{it}$ is change in cash, $\Delta CL_{it}$ is change in current liabilities, $\Delta STD_{it}$ is change in short-term debt, $\Delta TP_{it}$ is change in taxes payable, and $DEP_{it}$ is depreciation expenses.

2) normal accruals are predicted by the following model, estimated using all firms without a succession event in each one-digit SIC industry for each fiscal year:

$TA_{it}/ASSET_{it-1}= \beta_1 \times 1/ ASSET_{it-1} +\beta_2 \times (\Delta SALES_{it}-\Delta AR_{it})/ ASSET_{it-1} +\beta_3 \times PPE_{it}/ ASSET_{it-1} +\beta_4 \times ROA_{it}+\varepsilon_{it}$, where $ASSETS_{it-1}$ is total assets of firm *i* in year *t*-1, $\Delta SALES_{it}$ is change in sales of firm *i* in year *t*, $\Delta AR_{it}$ is change in accounts receivable of firm *i* in year *t*, $PPE_{it}$ is net property, plant, and equipment of firm *i* in year *t*, $ROA_{it}$ is return on assets of firm *i* in year *t*.

3) discretionary accruals are calculated using the normal accruals prediction model above.

For the control variables, SIZE is the logarithm of sales, LEVERAGE is the ratio of total liabilities to total assets, MB is the market-to-book equity ratio, PRE-ROA is the average return on assets in the five years preceding the succession year, and OWNERSHIP is the percentage of shares owned by the family. The pre-succession period is the five years preceding the succession year. The post-succession period is the succession year or the five years after the succession year. *** and * denote significance at the 1% and 10% level in the mean or median difference of pre- and post-succession periods.

| | Pre-Succession Period | | | Post-Succession Period | | |
|---|---|---|---|---|---|---|
| | N | Mean | Median | N | Mean | Median |
| Primary Variables | | | | | | |
| DISCRETIONARY ACCRUALS | 1,041 | 0.12 | 0.085 | 1,228 | 0.098*** | 0.068*** |
| Control variables | | | | | | |
| SIZE | 1,041 | 11.253 | 11.382 | 1,228 | 11.349* | 11.430* |
| LEVERAGE | 1,041 | 0.437 | 0.433 | 1,228 | 0.407*** | 0.389*** |
| MB | 1,041 | 1.944 | 1.575 | 1,228 | 1.606*** | 1.132*** |
| PRE-ROA | 999 | 0.023 | 0.032 | 1,178 | 0.03 | 0.033 |
| OWNERSHIP | 999 | 37.6 | 39.76 | 1,178 | 36.82 | 35.43 |

**Table 2 (continued)**
**Panel B: Correlation Matrix**
The spearman pairwise correlation coefficient is reported in this panel. ACCRUAL is the unsigned discretionary accruals; FOUNDER is an indicator variable that equals one if the predecessor is the founder of the firm and zero otherwise; SUCCESSION equals one for post-succession firms and zero for pre-succession firms; SIZE is the logarithm of sales in the fiscal year; LEVERAGE is the ratio of total liabilities to total assets at fiscal year-end; MTB is the market-to-book equity ratio at the fiscal year-end; PRE-ROA is the average return on assets in the five years preceding succession year; and OWNERSHIP is the percentage of shares owned by the family at the end of the fiscal year.

| | ACCRUALS | FOUNDER | SUCCESSION | SIZE | LEVERAGE | MTB | PRE-ROA | OWNERSHIP |
|---|---|---|---|---|---|---|---|---|
| ACCRUALS | 1 | | | | | | | |
| FOUNDER | 0.00 | 1 | | | | | | |
| SUCCESSION | -0.10 | 0.02 | 1 | | | | | |
| SIZE | -0.09 | 0.00 | 0.04 | 1 | | | | |
| LEVERAGE | 0.07 | -0.03 | -0.08 | 0.22 | 1 | | | |
| MTB | 0.19 | 0.15 | -0.15 | 0.07 | 0.05 | 1 | | |
| PRE-ROA | 0.01 | 0.27 | 0.04 | 0.10 | -0.34 | 0.23 | 1 | |
| OWNERSHIP | 0.05 | 0.07 | -0.03 | -0.17 | 0.01 | -0.13 | -0.02 | 1 |

**Table 2 (continued)**
**Panel C: Multivariate analysis**
This table provides the results of the comparison in unsigned discretionary accruals between the pre-succession (five years before succession) and post-succession (the year of succession or five years after succession) periods. The dependent variable is the unsigned discretionary accruals as defined in Panel A of this table. Independent variables include SUCCESSION, an indicator variable that equals one for firms in the post-succession period and zero for firms in the pre-succession period; SIZE, the logarithm of sales; LEVERAGE, the ratio of total liabilities to total assets; MB, the market-to-book equity ratio; PRE-ROA, the average return on assets in the pre-succession period; and OWNERSHIP, the percentage of shares owned by the family. Year, industry and country fixed effects are controlled for but not reported. OLS with errors clustered by country and firm is applied. Absolute t-values are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

| | Model (1) | Model (2) | Model (3) |
|---|---|---|---|
| SUCCESSION | -0.022 | -0.016 | -0.016 |
| | (1.88)* | (2.38)** | (2.79)*** |
| SIZE | | -0.012 | -0.012 |
| | | (9.18)*** | (7.05)*** |
| LEVERAGE | | 0.031 | 0.043 |
| | | (1.65) | (2.16)** |
| MTB | | 0.013 | 0.013 |
| | | (13.90)*** | (11.45)*** |
| PRE-ROA | | | 0.042 |
| | | | (1.68)* |
| OWNERSHIP | | | 0.000 |
| | | | (3.57)*** |
| Constant | 0.247 | 0.367 | 0.346 |
| | (4.62)*** | (6.72)*** | (5.57)*** |
| Observations | 2269 | 2269 | 2177 |
| Adjusted R-squared | 0.08 | 0.13 | 0.14 |

**Table 3 Timely Loss Recognition in Pre-succession and Post-succession Periods**
**Panel A: Descriptive statistics**

This table presents descriptive statistics of variables used in testing timely loss recognition in earnings-returns and income persistence analyses. RETURN is the annual net-of-market return over a fiscal year. EARNINGS is net income scaled by the market value of equity at the beginning of the fiscal year. $\Delta INC_t$ ($\Delta INC_{t-1}$) is the change in net income scaled by total assets at the end of year *t* (*t*-1). The pre-succession period is the five years preceding the succession year. The post-succession period is the succession year or the five years after the succession year. ***, **, and * denote significance at the 1% level in the mean and median difference between the pre- and post-succession periods.

| | Pre-Succession Period | | Post-Succession Period | |
|---|---|---|---|---|
| | Mean | Median | Mean | Median |
| Variables for earnings-return association analysis | | | | |
| RETURN | -0.054 | -0.094 | 0.013*** | -0.055*** |
| EARNINGS | 0.019 | 0.042 | -0.017*** | 0.033*** |
| Observations | 834 | | 1,178 | |
| Variables for income persistence analysis | | | | |
| $\Delta INC_t$ | 0.001 | 0.003 | 0.007 | 0.002 |
| $\Delta INC_{t-1}$ | 0.004 | 0.004 | 0.004 | 0.002 |
| Observations | 1,018 | | 1,296 | |

**Table 3 Timely Loss Recognition**
**Panel B: Regression results**

This table presents results of tests on the effect of succession on timely loss recognition based on earnings-returns analysis in model (1) and income persistence analysis in model (2). In the earnings-returns analysis, the dependent variable is EARNINGS, which is net income scaled by market value of equity at the beginning of the fiscal year. Independent variables include RETURN, which is the annual net-of-market return within the fiscal year; RD, an indicator for bad news that takes the value of one when RETURN is negative and zero otherwise; SUCCESSION, an indicator variable that equals one for firms in the post-succession period and zero for firms in the pre-succession period; and all the interaction terms among RETURN, RD, and SUCCESSION. In the income persistence analysis, the dependent variable is $\Delta INC_t$, the change in net income scaled by total assets at the end of year *t*. Independent variables include $\Delta INC_{t-1}$, which is the change in net income scaled by total assets at the end of year *t*-1; $D\Delta INC_{t-1}$, which equals one if $\Delta INC_{t-1}$ is negative and zero otherwise; SUCCESSION; and all the interaction terms among $\Delta INC_{t-1}$, $D\Delta INC_{t-1}$, and SUCCESSION. OLS regression is applied. Absolute t-values are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

| Earnings-Returns Association Model (1) | | Income Persistence Model (2) | |
|---|---|---|---|
| Independent variable | Post-Succession vs. Pre-Succession Firms | | Post-Succession vs. Pre-Succession Firms |
| RETURN | 0.003 | $\Delta INC_{t-1}$ | -0.125 |
| | (0.18) | | (2.08)** |
| RD | -0.013 | $D\Delta INC_{t-1}$ | -0.009 |
| | (0.87) | | (1.47) |
| RETURN×RD | 0.109 | $\Delta INC_{t-1} \times D\Delta INC_{t-1}$ | -0.382 |
| | (3.68)*** | | (4.32)*** |
| RD×SUCCESSION | 0.020 | $D\Delta INC_{t-1} \times$SUCCESSION | -0.009 |
| | (1.01) | | (1.06) |
| RETURN×SUCCESSION | 0.011 | $\Delta INC_{t-1} \times$SUCCESSION | 0.025 |
| | (0.54) | | (0.34) |
| SUCCESSION | -0.030 | SUCCESSION | 0.004 |
| | (2.30)** | | (0.69) |
| RETURN×RD×SUCESSION | 0.070 | $\Delta INC_{t-1} \times D\Delta INC_{t-1} \times$SUCCESSION | -0.153 |
| | (1.73)* | | (1.40) |
| Constant | 0.061 | Constant | -0.002 |
| | (5.93)*** | | (0.46) |
| Observations | 2,012 | Observations | 2,314 |
| Adjusted R-squared | 0.08 | Adjusted R-squared | 0.11 |

**Table 4 Effect of Founder on Discretionary Accruals**

This table provides results on tests of the effect of a founder predecessor on the difference in unsigned discretionary accruals between pre-succession (five years prior to succession) and post-succession (the year of succession or five years after succession) periods and on the level of unsigned discretionary accruals in the pre-succession period. The dependent variable is unsigned discretionary accruals. The independent variables include SUCCESSION, which equals one for firms in the post-succession period and zero for firms in the pre-succession period; FOUNDER, which equals one if the predecessor is a founder and zero otherwise; the interaction between FOUNDER and SUCCESSION; SIZE, the logarithm of sales in the fiscal year; LEVERAGE, the ratio of total liabilities to total assets at fiscal year-end; MB, the market-to-book equity ratio at fiscal year-end; PRE-ROA, the average return on assets in the pre-succession period; and OWNERSHIP, the percentage of shares owned by the family. Year, industry, and country fixed effects are controlled for but not reported. OLS with errors clustered by country and firm is applied. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

| | Post-Succession vs. Pre-Succession Periods | | | Pre-Succession Period | |
|---|---|---|---|---|---|
| | Model (1) | Model (2) | Model (3) | Model (4) | Model (5) |
| FOUNDER | 0.014 | 0.012 | 0.009 | 0.017 | 0.014 |
| | (1.52) | (1.62) | (1.18) | (1.33) | (1.27) |
| SUCCESSION*FOUNDER | -0.021 | -0.016 | -0.014 | | |
| | (2.18)** | (2.75)*** | (4.28)*** | | |
| SUCCESSION | -0.011 | -0.007 | -0.008 | | |
| | (0.81) | (0.93) | (1.83)* | | |
| SIZE | | -0.012 | -0.012 | | -0.014 |
| | | (8.33)*** | (6.52)*** | | (3.09)*** |
| LEVERAGE | | 0.030 | 0.041 | | 0.042 |
| | | (1.63) | (2.15)** | | (1.21) |
| MTB | | 0.013 | 0.013 | | 0.011 |
| | | (13.57)*** | (11.34)*** | | (4.59)*** |
| PRE-ROA | | | 0.040 | | |
| | | | (1.43) | | |
| OWNERSHIP | | | 0.000 | | |
| | | | (4.46)*** | | |
| Constant | 0.239 | 0.361 | 0.341 | 0.277 | 0.416 |
| | (4.50)*** | (6.53)*** | (5.60)*** | (5.30)*** | (4.09)*** |
| Observations | 2269 | 2269 | 2177 | 1041 | 1041 |
| Adjusted R-squared | 0.08 | 0.13 | 0.14 | 0.11 | 0.16 |

**Table 5 Effect of Founder on Timely Loss Recognition**

**Panel A: Change in timely loss recognition**

This table provides results on tests of the effect of a founder predecessor on the difference in timely loss recognition between pre-succession (five years prior to succession) and post-succession (the year of succession or five years after succession) periods. In the earnings-returns association analysis, the dependent variable is EARNINGS, which is net income scaled by market value of equity at the beginning of the fiscal year. Independent variables include RETURN, which is the annual net-of-market returns of the fiscal year; RD, which is an indicator for bad news that takes the value of one when RETURN is negative and zero otherwise; SUCCESSION, which equals one for firms in the post-succession period and zero for firms in the pre-succession period, and all the interaction terms among RETURN, RD, and SUCCESSION. In the income persistence analysis, the dependent variable is $\Delta INC_t$, the change in net income scaled by total assets at the end of year *t*. Independent variables include $\Delta INC_{t-1}$, which is the change in net income scaled by total assets at the end of year *t*-1; $D\Delta INC_{t-1}$, which equals one if $\Delta INC_{t-1}$ is negative and zero otherwise; SUCCESSION, which is defined above; and all the interaction terms among $\Delta INC_{t-1}$, $D\Delta INC_{t-1}$, and SUCCESSION. OLS regression is applied. Absolute t-values are reported in parentheses. ***, **, and * denotes significance at the 1%, 5%, and 10% level, respectively.

| Earnings-Return Association | | |
|---|---|---|
| | Founder Succession | Non-founder Succession |
| RETURN | 0.011 | -0.002 |
| | (0.47) | (0.09) |
| RD | -0.028 | 0.007 |
| | (1.44) | (0.30) |
| RETURN×RD | 0.055 | 0.174 |
| | (1.40) | (3.82)*** |
| RD×SUCCESSION | 0.046 | -0.012 |
| | (1.83)* | (0.40) |
| RETURN×SUCCESSION | 0.016 | 0.004 |
| | (0.55) | (0.12) |
| SUCCESSION | -0.037 | -0.024 |
| | (2.13)** | (1.19) |
| RETURN×RD×SUCCESSION | 0.095 | 0.039 |
| | (1.80)* | (0.63) |
| Constant | 0.068 | 0.054 |
| | (4.85)*** | (3.57)*** |
| Observations | 1,055 | 957 |
| Adjusted R-squared | 0.07 | 0.09 |

| Income Persistence | | |
|---|---|---|
| | Founder Succession | Non-founder Succession |
| $\Delta INC_{t-1}$ | -0.130 | -0.119 |
| | (1.62) | (1.32) |
| $D\Delta INC_{t-1}$ | -0.001 | -0.018 |
| | (0.11) | (1.94)* |
| $\Delta INC_{t-1} \times D\Delta INC_{t-1}$ | -0.322 | -0.440 |
| | (2.65)*** | (3.39)*** |
| $D\Delta INC_{t-1} \times SUCCESSION$ | -0.015 | -0.003 |
| | (1.30) | (0.21) |
| $\Delta INC_{t-1} \times SUCCESSION$ | 0.094 | -0.036 |
| | (0.95) | (0.34) |
| SUCCESSION | 0.001 | 0.006 |
| | (0.18) | (0.69) |
| $\Delta INC_{t-1} \times D\Delta INC_{t-1} \times SUCCESSION$ | -0.305 | -0.016 |
| | (2.03)** | (0.10) |
| Constant | -0.001 | -0.002 |
| | (0.27) | (0.38) |
| Observations | 1,242 | 1,072 |
| Adjusted R-squared | 0.11 | 0.11 |

**Table 5 Effect of Founder on Timely Loss Recognition**
**Panel B: Level in Timely Loss Recognition**

This table provides results on tests for the effect of a founder predecessor on timely loss recognition in the pre-succession period (five years before the succession). In earnings-returns association analysis, the dependent variable is EARNINGS, which is net income scaled by market value at beginning of the fiscal year. Independent variables include RETURN, the annual net-of-market stock return over the fiscal year; RD, an indicator for bad news that takes the value of one when RETURN is negative and zero otherwise; FOUNDER, which equals one if the predecessor is a founder and zero otherwise; and all the interaction terms among RETURN, RD, and FOUNDER. In the income persistence analysis, the dependent variable is $\Delta INC_t$, the change in net income scaled by total assets at the end of year *t*. Independent variables include $\Delta INC_{t-1}$, which is the change in net income scaled by total assets at the end of year *t*-1; $D\Delta INC_{t-1}$,which equals one if $\Delta INC_{t-1}$ is negative and zero otherwise; FOUNDER, which equals one if the predecessor is a founder and zero otherwise; and all the interaction terms among $\Delta INC_{t-1}$, $D\Delta INC_{t-1}$, and FOUNDER. OLS regression is applied. Absolute t-values are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

| Earnings-Return Association | | Income Persistence | |
|---|---|---|---|
| RETURN | -0.027 | $\Delta INC_{t-1}$ | -0.100 |
| | (0.91) | | (1.34) |
| RD | 0.019 | $D\Delta INC_{t-1}$ | -0.027 |
| | (0.67) | | (2.13)** |
| RETURN×RD | 0.299 | $\Delta INC_{t-1}\times D\Delta INC_{t-1}$ | -0.582 |
| | (5.22)*** | | (5.51)*** |
| RD×FOUNDER | -0.034 | $D\Delta INC_{t-1}\times$FOUNDER | 0.022 |
| | (0.86) | | (1.22) |
| RETURN×FOUNDER | 0.033 | $\Delta INC_{t-1}\times$FOUNDER | -0.139 |
| | (0.73) | | (1.13) |
| FOUNDER | 0.012 | FOUNDER | 0.002 |
| | (0.43) | | (0.20) |
| RETURN×RD×FOUNDER | -0.158 | $\Delta INC_{t-1}\times D\Delta INC_{t-1}\times$FOUNDER | 0.275 |
| | (1.99)** | | (1.72)* |
| Constant | 0.057 | Constant | -0.007 |
| | (3.03)*** | | (0.90) |
| Observations | 834 | Observations | 1,018 |
| Adjusted R-squared | 0.07 | Adjusted R-squared | 0.14 |

**Table 6 Effect of Founder's Age and Education on Earnings Properties**
**Panel A: Age and education level between founder and non-founder predecessors**
This panel presents the descriptive statistics of a predecessor's age and education level. Founder indicates that the predecessor is a founder. Non-founder indicates that the predecessor is not the founder of the firm. Age of the predecessor is measured in the succession year. Education level is the predecessor's final degree in the succession year, which is coded as: 1-below bachelor, 2-bachelor, 3-master, and 4-doctor. *** denotes significance at the 1% level in the founder's mean or median difference from that of the non-founder.

| | Founder | Non-Founder | Pooled |
|---|---|---|---|
| Age | | | |
| Observations | 110 | 58 | 168 |
| Mean | 70.57*** | 61.5 | 67.44 |
| Median | 72*** | 60 | 70 |
| Education Level | | | |
| Observations | 84 | 43 | 127 |
| Mean | 1.53*** | 1.98 | 1.72 |
| Median | 1*** | 2 | 2 |

**Table 6 (continued)**
**Panel B: Effect of founder's age and education on discretionary accruals**
This panel presents results of tests on the effect of a founder's age and education on the unsigned discretionary accruals in the pre-succession period (five years before the succession). The dependent variable is unsigned discretionary accruals. Independent variables include FOUNDER'S BACKGROUND, which is the founder's age in model (1) and an indicator variable that equals one if the founder's age is at or above 80 in the succession year and zero otherwise in model (2), and the founder's education level in model (3) and an indicator variable that equals one if the founder received an education level at or above a bachelor degree in the succession year and zero otherwise in model (4); SIZE, the logarithm of sales in the fiscal year; LEVERAGE, the ratio of total liabilities to total assets at fiscal year-end; and MB, market-to-book equity ratio at fiscal year-end. Year, industry, and country fixed effects are controlled for but not reported. OLS with errors clustered by country and firm is applied. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

| | Founder Age | | Founder's Education | |
|---|---|---|---|---|
| | Model (1) | Model (2) | Model (3) | Model (4) |
| FOUNDER'S BACKGROUND | 0.000 | 0.003 | -0.022 | -0.039 |
| | (0.78) | (1.02) | (6.14)*** | (4.43)*** |
| SIZE | -0.012 | -0.012 | -0.011 | -0.011 |
| | (6.50)*** | (7.04)*** | (7.63)*** | (9.35)*** |
| LEVERAGE | 0.042 | 0.043 | 0.078 | 0.067 |
| | (2.49)** | (2.72)*** | (2.29)** | (2.07)** |
| MB | 0.012 | 0.012 | 0.014 | 0.013 |
| | (3.07)*** | (3.07)*** | (2.75)*** | (2.63)** |
| Constant | 0.374 | 0.122 | 0.298 | 0.103 |
| | (14.74)*** | (6.74)*** | (5.26)*** | (2.35)** |
| Observations | 539 | 539 | 386 | 386 |
| Adjusted R-squared | 0.17 | 0.17 | 0.28 | 0.28 |

**Table 6 (continued)**

**Panel C. Effect of founder's age and education on timely loss recognition**

This panel presents results of tests on the effect of a founder's age and education on timely recognition in the pre-succession period (five years after the succession). In the earnings-returns association analysis, the dependent variable is EARNINGS, which is net income scaled by market value at the beginning of the fiscal year. Independent variables include RETURN, the annual net-of-market stock return within the fiscal year; RD, an indicator for bad news that takes the value of one when RETURN is negative and zero otherwise; FOUNDER'S BACKGROUND, which is the founder's age in model (1) and an indicator variable that equals one if the founder's age is at or above 80 in the succession year and zero otherwise in model (2), and the founder's education level in model (3) and an indicator variable that equals one if the founder received an education level at or above bachelor degree in the succession year and zero otherwise in model (4); and all the interaction terms among RETURN, RD, and FOUNDER'S BACKGROUND. In the income persistence analysis, the dependent variable is $\Delta INC_t$, the change in net income scaled by total assets at the end of year *t*. Independent variables include $\Delta INC_{t-1}$, which is the change in net income scaled by total asset at the end of year t-*1*; $D\Delta INC_{t-1}$,which equals one if $\Delta INC_{t-1}$ is negative and zero otherwise; FOUNDER'S BACKGROUND, which in models (5), (6) , (7), and (8) have the same definitions as those in models (1), (2), (3), and (4), respectively; and all the interaction terms among $\Delta INC_{t-1}$, $D\Delta INC_{t-1}$, and FOUNDER'S BACKGROUND. OLS regression is applied. Absolute t-values are reported in parentheses. ***, **, and * denotes significance at the 1%, 5%, and 10% level, respectively.

| Earnings-Return Association | | | | | Income Persistence | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Founder's Age | | Founder's Education | | | Founder's Age | | Founder's Education | |
| | Model (1) | Model (2) | Model (3) | Model (4) | | Model (5) | Model (6) | Model (7) | Model (8) |
| RETURN | 0.070 | 0.007 | 0.022 | 0.040 | ΔINC | 0.547 | -0.033 | -0.074 | -0.091 |
| | (0.40) | (0.18) | (0.54) | (1.60) | | (1.28) | (0.35) | (0.42) | (0.88) |
| RD | 0.252 | -0.005 | -0.099 | -0.050 | DΔINC | 0.041 | 0.003 | -0.010 | -0.001 |
| | (1.46) | (0.16) | (2.68)*** | (2.27)** | | (0.87) | (0.29) | (0.58) | (0.05) |
| RETURN*RD | 0.882 | 0.205 | -0.219 | -0.102 | ΔINC*DΔINC | -1.344 | -0.465 | -0.463 | -0.243 |
| | (3.02)*** | (3.30)*** | (2.83)*** | (2.19)** | | (2.06)** | (3.29)*** | (1.57) | (1.36) |
| RD*FOUNDER'S BACKGROUND | -0.004 | -0.042 | 0.048 | 0.069 | DΔINC*FOUNDER'S BACKGROUND | -0.001 | -0.017 | 0.006 | 0.002 |
| | (1.62) | (0.73) | (2.22)** | (1.88)* | | (0.95) | (1.01) | (0.68) | (0.13) |
| RETURN*FOUNDER'S BACKGROUND | -0.001 | 0.005 | 0.016 | 0.018 | ΔIND*FOUNDER'S BACKGROUND | -0.010 | -0.411 | -0.023 | -0.067 |
| | (0.34) | (0.07) | (0.61) | (0.39) | | (1.61) | (2.22)** | (0.23) | (0.35) |
| FOUNDER'S BACKGROUND | 0.002 | 0.015 | -0.011 | -0.030 | FOUNDER'S ATTRIBTUES | 0.001 | 0.019 | 0.000 | -0.000 |
| | (1.16) | (0.38) | (0.67) | (1.16) | | (1.75)* | (1.77)* | (0.08) | (0.01) |
| RETURN*RD*FOUNDER'S BACKGROUND | -0.011 | -0.232 | 0.104 | 0.123 | ΔINC*DΔINC*FOUNDER'S BACKGROUND | 0.015 | 0.624 | 0.220 | 0.382 |
| | (2.65)*** | (1.91)* | (2.30)** | (1.51) | | (1.59) | (2.12)** | (1.38) | (1.27) |
| Constant | -0.080 | 0.064 | 0.068 | 0.062 | Constant | -0.052 | -0.007 | 0.002 | 0.003 |
| | (0.61) | (2.56)** | (2.48)** | (4.15)*** | | (1.74)* | (1.08) | (0.22) | (0.49) |
| Observations | 390 | 390 | 274 | 274 | Observations | 486 | 486 | 367 | 367 |
| Adjusted R-squared | 0.11 | 0.08 | 0.06 | 0.05 | Adjusted R-squared | 0.07 | 0.08 | 0.01 | 0.01 |

[1] We define our sample firms as entrepreneurial firms because the majority of our sample firms are founder-managed before succession. Following Burkart, Panunzi, and Shleifer (2003), the family firms should be those firms that have been managed by the family for more than one generation. Otherwise, the firm should be regarded as an entrepreneurial firm.

[2] This paper focuses on the comparison between founder and non-founder successions. We do not further divide the 231 firms in our sample based on succession by heirs versus professional managers. The choice of successors is likely to be endogenously related to whether the predecessor is a founder or not and his level of specific assets.

[3] There is little difference between the chief executive function and the chairman function in an Asian firm.

[4] We find similar results in the paper using the following three alternatives of the Jones (1993) model:

1) $TA_{it}/ASSET_{it-1} = \beta_1 * 1/ASSET_{it-1} + \beta_2 * \Delta SALES_{it}/ASSET_{it-1} + \beta_3 * PPE_{it}/ASSET_{it-1} + \varepsilon_{it}$,

2) $TA_{it}/ASSET_{it-1} = \beta_1 * 1/ASSET_{it-1} + \beta_2 * (\Delta SALES_{it} - \Delta AR_{it})/ASSET_{it-1} + \beta_3 * PPE_{it}/ASSET_{it-1} + \varepsilon_{it}$, and

3) $TA_{it}/ASSET_{it-1} = \beta_1 * 1/ASSET_{it-1} + \beta_2 * \Delta SALES_{it}/ASSET_{it-1} + \beta_3 * PPE_{it}/ASSET_{it-1} + \beta_4 * ROA_{it} + \varepsilon_{it}$.

[5] We remove the years 1997 and 1998 to avoid the confounding effects of the Asian financial crisis in the accruals regressions and the timely loss recognition regressions. Our results remain qualitatively the same.

[6] Note that succession is unlikely to be completely exogenous. However, the median age of the founder-predecessors (see Table 6 Panel A) is 72, which suggests that these founders are likely to be forced to step down due to advancement in age.

[7] Due to data limitations for the 1980s in the Worldscope database, we use net income instead of net income before extraordinary items for E. As a robustness check, we also use net income from operations over sales to proxy for E and the main results in all the earnings-returns and income persistence analyses are qualitatively unchanged.

[8] The earnings-returns regression results in Table 3 are consistent with this alternative explanation. The income persistence analysis, however, is not confounded by this explanation, providing a stronger test of our specialized assets hypothesis.

[9] We repeat this earnings-returns regression economy-by-economy and find that the coefficient on RETURN × RD × SUCCESSION remains significantly positive for Singapore (t-stats = 2.42) and Taiwan (t-stats = 4.05), but it is statistically indistinguishable from zero for Hong Kong. Similarly, when we rerun the unsigned discretionary accruals regression model (2) of Table 2 Panel C, the coefficient on SUCCESSION is consistently negative but it is statistically significant (t-stats = 3.96) only in Taiwan, probably due to lack of power.

[10] Finally, we also control for the variable FIRM AGE, the number of years since the firm was founded, in Table 4 model (3) as well as in Table 2 Panel B model (3), due to the concern that the operations of older firms are presumably more standardized and thus their accounting information is more transparent. The coefficient on SUCCESSION remains negative and significant in both regressions.

[11] Note that in addition to our contracting argument, the earnings-returns results in Table 3 model (1) are consistent with an alternative explanation. Specifically, the impairment of specialized assets causes a decline in stock returns but not a corresponding write-off charge against earnings because these intangible assets have never been recognized in the books. However, our income persistence analysis among the founder-succession subgroup supports our contracting hypothesis because it does not use stock returns in the regressions and thus is unlikely to be confounded by this alternative explanation.

[12] The percentage of founder-succession firms in Singapore is significantly smaller than that of the other two economies. As a robustness check, we repeat our analyses in Tables 3 and 4 without the Singaporean firms and the main results for unsigned discretionary accruals and timely loss recognition continue to hold.