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The Persistence of Earnings and Corporate Governance in IPO Firms

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■ *In this study, we investigate the earnings persistence in IPO firms by examining the two components of earnings: accruals and cash flows. We also analyze the impact of corporate governance structure on earnings and the two earnings components. In our comparison of the top and bottom quartiles based on the firms' earnings at the IPO year, we find that although the top quartile firms have a significantly positive accrual component in the IPO year, they eventually have the same negative accrual component of earnings as the bottom quartile firms in the second year after the IPO. In contrast, we find that the significant difference in the cash flow component between the top and bottom quartiles persists during the two years after the IPO. This finding supports the existing literature that the cash flow component contributes to the persistence of earnings while the accrual component does not. We also find that the corporate governance structure has a significant impact on earnings and the components of earnings for the top quartile firms, but not for the bottom quartile firms. This is particularly evident since the top quartile firms have the opportunity to manage their earnings, while firms in the lowest quartile are unable to manage their earnings.*

Introduction

The notion of "earnings quality" – the degree to which reported earnings reflects the true operational health of a business - has long been of interest to both academics and financial practitioners. Prior research shows that firms with persistent earnings are assigned a greater value in their securities [Kormendi and Lipe 1987, Collins and Kothari 1989, Ali and Zarowin 1992]. Therefore, earnings persistence should reflect a higher quality of earnings. These studies use statistically motivated models in determining their measure of earnings persistence. Sloan (1996), on the other hand, employs a model that relies on the characteristics of the underlying accounting process. He decomposes earnings into its accrual and cash flow components and finds that current earnings is less likely to persist into the future if it is attributable primarily to the accrual component of earnings as opposed to the cash flow component.

Research in the area of earnings management find that firms can manipulate reported earnings through the accrual component. Firms can report earnings in excess of cash flows by taking positive accruals. However, high earnings due to large positive accruals will not persist into the future and, therefore, lowering the quality of the firm's earnings reporting process [Sloan 1996].

The initial public offering (IPO) process is particularly susceptible to earnings management, offering entrepreneurs both motivation and opportunities to manage earnings. Managing earnings through accruals rather than making

real efforts to maintain earnings persistence through cash flows is considered an agency problem. An agency problem occurs when management's actions and the interest of the shareholders become misaligned. This agency problem is exacerbated in IPO firms. When a firm goes public, the number of non-manager shareholders increases, therefore decreasing the manager's incentive to maximize the firm's value. Prior research finds that corporate governance mechanisms can mitigate this agency problem [Beasley 1996, Dechow et al. 1996, Yermack 1996, Core et al. 1999, Klein 2002, Reitenga and Tearney 2003].

Given this background, the purpose of this study is twofold. First, we investigate the persistence of earnings in IPO firms by examining the accrual and cash flow components of earnings. Second, we analyze the impact of corporate governance mechanisms (specifically, board structure, ownership concentration, and CEO characteristics) on earnings and the two earnings components.

Literature Review

Accrual and Cash Flow Components of Earnings. Financial statement analysis textbooks emphasize the importance of analyzing the accrual and cash components of current earnings in the assessment of future earnings persistence. Cash flow from operations is less susceptible to distortion than net income. The accrual-based net income number relies on accruals, deferrals, allocations and valuations, which all involve a higher degree of subjectivity than what enters into the determination of cash flow from operations [Bernstein 1993]. Although both components contribute to current earnings, high performance that is attributable to the cash flow component of earnings is more likely to persist than high performance that is attributable to the accrual component of earnings [Sloan 1996].

Earnings Management in IPO Firms. Practitioners emphasize the role of accounting information in investment and lending decisions by stockholders and creditors as a major motivation for earnings manipulation. For example, Kellogg and Kellogg (1991) state that the first two reasons for fraud, misrepresentation, and manipulation in financial statements are: (1) to encourage investors to buy an interest in a company's stock as owners, or in bonds as creditors; and (2) to increase the value of the stock of present shareholders of the company. Similarly, the National Association of Certified Fraud Examiners (1993) states that the first reason why financial statement manipulation is committed is "to encourage investment through the sale of stock." This evidence suggests that IPO firms have a strong motivation to manipulate earnings.

Initial public offerings tend to be made by relatively small firms with limited operating histories. Generally, at the time of the IPO, there is little publicly available information about these firms other than that contained in their prospectuses. Therefore, in evaluating an IPO firm's future prospects, investors must rely heavily on the firm's disclosures made in the financial statements. This creates an informational asymmetry between the entrepreneur taking his firm public and potential investors. These conditions provide IPO firms with the opportunity to manipulate reported earnings.

Teoh et al. (1998) examines the relation between the long-run post-IPO return underperformance and IPO firms' earnings management. They find that IPO firms with higher discretionary accruals have poorer stock return performance in the subsequent three years. DuCharme et al. (2001) investigates the role of earnings management by issuers prior to making IPOs. Similar to earlier studies, they find that abnormal accruals during the offer year are significantly negatively related to subsequent firm stock returns. These studies only examine the relation between accruals and stock return performance. They do not consider the cash flow component of earnings, the subsequent performance of earnings, and the effect of corporate governance on earnings management.

Corporate Governance Mechanisms. Internal coporate governance processes are established to maintain the credibility of firms' financial statements and safeguard against such behavior as earnings management. The board of directors is a crucial part of the corporate structure. The board provides the link between the providers of capital (shareholders) and those who use that capital to create value (managers). Fama (1980) theorizes that outside directors are essential to creating a board that will function as an effective monitor of management. Empirical evidence indicates that more independent board structures contribute to better monitoring of management and lead to better decision-making that follows shareholders' interests [Hochberg 2003, Reitenaga and Tearney 2003]. The major committees involved in the governance of the firm are the audit and compensation committees. The role of the audit committee includes preventing fraudulent accounting statements, as well as mediating disputes between management and outside auditors regarding the application of Generally Accepted Accounting Principles. The compensation committee determines and reviews compensation packages for top management [Hochberg 2003].

The ownership structure of the firm may also influence top management's financial reporting decisions. Since external blockholders have large shareholdings, they could become effective monitors, reducing the likelihood of earnings management [Reitenga and Tearney 2003]. Warfield et al. (1995) find that managerial ownership is positively related to the informativeness of accounting

earnings. They also find that the magnitude of discretionary accounting accrual adjustments is significantly higher when managerial ownership is low. This evidence suggests that managerial ownership mitigates earnings manipulation through accruals and increases earnings quality.

Various CEO characteristics provide CEOs with the incentive and opportunity to manage earnings to their advantage. CEO tenure and whether the CEO is the founder of the company measures the relative power of the CEO. When the chairman of the board is the CEO, management is accountable to a body led by management. The CEO is then put in the position of evaluating his or her own performance, creating a clear conflict of interest.

Contribution of the Study

Our study contributes to the existing literature in three ways. First, our paper extends the current research by examining total earnings and both the accrual and cash flow components of earnings for IPO firms. By decomposing earnings into its accrual and cash flow components, we can ascertain which component is more susceptible to earnings management and influenced by corporate governance mechanisms. This differs from prior studies on earnings management in IPO firms since they focus only on the accrual component of earnings and its relation to subsequent stock return performance [Teoh et al. 1998, DuCharme et al. 2001]. Second, we investigate the firms in the top and bottom quartile of earnings in the IPO year, and observe the persistence of earnings and its components in the first and second year following the IPO. The top quartile represents firms with high (strong) performance and the bottom quartile represents firms with poor (weak) performance. By separately analyzing these two sub-samples, we can determine whether earnings and its components behave differently based on performance categories. Lastly, we focus our analysis on the significance of corporate governance on earnings, and the accrual and cash flow components of earnings, for the top and bottom quartiles of IPO firms. This enables us to detect whether there are any differences in the roles that corporate governance plays in these two groups of firms.

Methodology

Sample, Data, and Variables. The total number of IPOs reached its peak in 1996 and 1997. To maximize the size of our sample, we utilize the sample of firms that went public during the peak period of IPOs (1996-1997). Since we are interested in the evolution of earnings after the IPO, we require that these firms survive at least two consecutive years after its IPO year.[1]

The sample of IPO firms and information on the primary seasoned equity offering following the IPO are gathered from the Security Data Corporation (SDC) Global Issues database. Financial information about the firm is collected from the Compustat and the IPO prospectuses. The corporate governance data such as CEO and external blockholder ownership concentration, the board size and composition are manually collected from the Security Exchange Commissions (SEC) Edgar online. Additional information about the firm's age and the founder of the firm are obtained from proxy statements from the SEC Edgar online.

The financial variables of interest in this study are earnings, accruals and cash from operations. Earnings is defined as operating income after depreciation. We select this definition because it excludes non-recurring items. The accrual component of earnings is computed using information from the balance sheet and income statement, which is common in the earnings management literature [Dechow et al. 1995, Sloan 1996].

$$Accruals = (\Delta CA - \Delta Cash) - (\Delta CL - \Delta STD - \Delta TP) - Dep$$

where, ΔCA = change in current assets, $\Delta Cash$ = change in cash/equivalents, ΔCL = change in current liabilities, ΔSTD = change in debt included in current liabilities, ΔTP = change in income taxes payable, and Dep = depreciation and amortization expense. Debt in current liabilities is excluded from accruals because it relates to financing transactions as opposed to operating transactions. Income taxes payable is also excluded from accruals for consistency with the definition of earnings employed in the empirical tests. The cash flow component of earnings is computed as the difference between earnings and the accrual component of earnings. This methodology is similar to that used by Sloan (1996).

The empirical tests require cross-sectional and temporal comparisons of the magnitude of earnings performance and the relative magnitude of the accrual and cash flow components of earnings. Therefore, we standardize all three financial variables by firm size to facilitate the comparisons. We use total assets as our proxy for firm size, measured as the average of the beginning and end of year book value of total assets. The three financial variables we use in the empirical tests are defined as follows:

$$Earnings = \frac{Income\ from\ Continuing\ Operations}{Average\ Total\ Assets}$$

$$Accrual\ Component = \frac{Accruals}{Average\ Total\ Assets}$$

$$Cash\ Flow\ Component = \frac{Income\ from\ Continuing\ Operations - Accruals}{Average\ Total\ Assets}$$

The corporate governance variables we use in this study are as follows: (1) for board structure we use board size

(BODSIZE), percentage of outside directors (ODPCTBOD), size of audit committee (AUDCOM), and size of compensation committee (COMPCOM); (2) for ownership concentration we use percentage of external blockholder ownership (EXTBLOCK) and percentage of total CEO ownership, including restricted stock grants (TOTCEOWN); and (3) for CEO characteristics we use a dummy variable that equals one if the CEO is the chairman of the board and zero otherwise (CEOCHAIR), a dummy variable that equals one if the CEO is the founder of the firm and zero otherwise (CEOFOUND), and CEO tenure (CEOTENUR).

Additionally, we control for the age of the company (YRFOUND), firm size (measured by the natural log of total assets) (LOGASSET)[2], and whether the firm conducts a primary seasoned equity offering (SEO). Older firms tend to be more established and exhibit stronger and more stable earnings performance. Larger firms benefit from economies of scale and thus become more efficient and profitable. SEO is an indicator variable taking the value of one if the firm conducts a seasoned equity offering since firms may manage earnings upwards prior to an SEO.

We also include a time trend variable (TREND) in our analysis. Since we are interested in investigating the behavior of earnings, and its accrual and cash flow components, over the two years subsequent to the IPO, this time trend variable captures any changes over time in earnings and its components.

Lastly, to control for any industry effects, we include dummy variables that equal one if the firm belongs to one of the two-digit SIC codes 10 through 87 and zero otherwise (SIC10-87).

Regression Equations. We investigate the relation between earnings, and its accrual and cash flow components, and corporate governance mechanisms through multiple regression analysis. We separately regress earnings (Equation 1), the accrual component (Equation 2), and the cash flow component (Equation 3) on the corporate governance and other control variables. The models are estimated using ordinary least squares (OLS) with White's heteroscedasticity-consistent standard errors.

$$Earnings_{it} = \beta_0 + \beta_1 BODSIZE_{it} + \beta_2 ODPCTBOD_{it} + \beta_3 AUDCOM_{it} + \beta_4 COMPCOM_{it} + \beta_5 EXTBLOCK_{IT} + \beta_6 TOTCEOWN_{it} + \beta_7 CEOCHAIR_{it} + \beta_8 CEOFOUND_{it} + \beta_9 CEOTENUR_{it} + \beta_{10} YRFOUND_{it} + \beta_{11} LOGASSET_{it} + \beta_{12} SEO_{it} + \beta_{13} TREND + \beta_{14-46} SIC10-87 + \varepsilon_{it} \qquad (1)$$

$$AccrualComponent_{it} = \beta_0 + \beta_1 BODSIZE_{it} + \beta_2 ODPCTBOD_{it} + \beta_3 AUDCOM_{it} + \beta_4 COMPCOM_{it} + \beta_5 EXTBLOCK_{IT} + \beta_6 TOTCEOWN_{it} + \beta_7 CEOCHAIR_{it} + \beta_8 CEOFOUND_{it} + \beta_9 CEOTENUR_{it} + \beta_{10} YRFOUND_{it} + \beta_{11} LOGASSET_{it} + \beta_{12} SEO_{it} + \beta_{13} TREND + \beta_{14-46} SIC10-87 + \varepsilon_{it} \qquad (2)$$

$$CashFlowComponent_{it} = \beta_0 + \beta_1 BODSIZE_{it} +$$

$$\beta_2 ODPCTBOD_{it} + \beta_3 AUDCOM_{it} + \beta_4 COMPCOM_{it} + \beta_5 EXTBLOCK_{IT} + \beta_6 TOTCEOWN_{it} + \beta_7 CEOCHAIR_{it} + \beta_8 CEOFOUND_{it} + \beta_9 CEOTENUR_{it} + \beta_{10} YRFOUND_{it} + \beta_{11} LOGASSET_{it} + \beta_{12} SEO_{it} + \beta_{13} TREND + \beta_{14-46} SIC10-87 + \varepsilon_{it} \qquad (3)$$

Descriptive Statistics. Table 1 presents the descriptive statistics of the overall sample and the firms in the top and bottom quartiles of earnings at the time of the IPO. The top quartile subsample is formed by choosing the firms that are in the top quartile of earnings at their IPO year. The bottom quartile subsample is formed by choosing the firms that are in the bottom quartile of earnings at their IPO year.

There are no significant differences in the average board size, board structure, and size of the audit and compensation committees between the top and bottom quartiles. However, we observe a significant difference in the average external blockholders and CEO ownership between the top and bottom quartile firms. The firms in the top quartile tend to have a lower external blockholding and a higher CEO ownership compared to the bottom quartile. This evidence indicates that there are more differences in the ownership structure rather than the board structure between the top and bottom quartile firms.

We also find that the CEOs in the top quartile firms are more likely to be appointed as chairman of the board and have longer tenure than the CEOs in the bottom quartile firms. The top quartile firms are also older and larger in asset size compared to the bottom quartile firms. This implies that firms in the top quartile are likely to be more established than the bottom quartile firms.

Comparison of Top and Bottom Quartiles Ranked on Earnings in IPO Year. Table 2 reports the evolution of the firms' earnings and its accrual and cash flow components in the IPO year, one year after the IPO, and two years after the IPO, for the full sample and the top and bottom quartile firms. Table 2 also presents the univariate test of means and medians (t-stat and Wilcoxon z-score) between the top and bottom quartiles based on earnings, the accrual component, and cash flow component. Earnings for the full sample decline during the two years subsequent to the IPO. Earnings for the top quartile firms are positive and significantly different from earnings for the bottom quartile firms in the IPO year. This difference persists after the IPO even though earnings for the top quartile firms decline during the two subsequent years.

Similar to earnings, the accrual component for the full sample declines during the two years following the IPO. The accrual component for the top quartile is positive and significantly different from the bottom quartile. However, the accrual component for the top firms deteriorates and becomes negative and insignificantly different from the bottom firms in the second year after the IPO. This indicates that the top quartile firms with strong earnings due

TABLE 1
DESCRIPTIVE STATISTICS

Variables	Full Sample Mean	Median	Bottom Quartile Mean	Median	Top Quartile Mean	Median
EARNINGS	-0.066	0.054	-0.418	-0.375	0.152	0.15
ACRRUAL	-0.01	-0.024	-0.043	-0.031	0.044	0.02
CASH FLOW	-0.056	0.022	-0.375	-0.366	0.108	0.124
BODSIZE	6.682	6	6.642	6.5	6.726	7
ODPCTBOD	72.146	75	75.711	80	70.065	71.43
AUDCOM	2.595	3	2.559	3	2.655	3
COMPCOM	2.654	3	2.524	2	2.655	3
EXTBLOCK	22.983	20.1	27.539	30.25	16.684	12.15
TOTCEOWN	13.253	6.02	10.546	5.416	20.274	12.701
CEOCHAIR	0.495	0	0.381	0	0.583	0
CEOFOUND	0.396	0	0.452	0	0.464	0
CEOTENUR	4.9	4	4.464	4	6.988	5
YRFOUND	9.196	7	6.892	6	13.19	13
LOGASSET	4.305	4.063	3.726	3.55	4.615	4.591
SEO	0.112	0	0.095	0	0.166	0
Total firms	111		28		28	
Observations	321		84		84	

TABLE 2
COMPARISON OF TOP AND BOTTOM QUARTILES
RANKED ON EARNINGS IN IPO YEAR

Panel A. Earnings

	Full Sample Mean	Median	Bottom Quartile Mean	Median	Top Quartile Mean	Median	t-stat	Wilcoxon z-score
IPO year	-0.02	0.065	-0.421	-0.391	0.223	0.184	-11.89***	-6.42***
First year	-0.056	0.038	-0.411	-0.323	0.146	0.14	-7.05***	-5.86***
Second year	-0.081	0.021	-0.423	-0.38	0.088	0.121	-5.50***	-5.01***

Panel B. Accrual Component

	Full Sample Mean	Median	Bottom Quartile Mean	Median	Top Quartile Mean	Median	t-stat	Wilcoxon z-score
IPO year	0.003	-0.019	-0.035	-0.03	0.072	0.024	-2.76***	-2.32**
First year	-0.009	-0.013	-0.082	-0.037	0.074	0.043	-3.81***	-3.59***
Second year	-0.023	-0.032	-0.011	-0.021	-0.013	-0.032	0.15	0.28

Panel C. Cash Flow Component

	Full Sample Mean	Median	Bottom Quartile Mean	Median	Top Quartile Mean	Median	t-stat	Wilcoxon z-score
IPO year	-0.035	0.043	-0.386	-0.396	0.151	0.151	-8.41***	-5.85***
First year	-0.059	0.013	-0.328	-0.353	0.071	0.074	-5.35***	-5.03***
Second year	-0.071	0.018	-0.411	-0.372	0.102	0.13	-5.47***	-5.09***

** $p < 0.05$ ***$p < 0.01$

TABLE 3
MULTIPLE REGRESSION RESULTS FOR FULL SAMPLE

Variables	Equation 1 Earnings		Equation 2 Accrual Component		Equation 3 Cash Flow Component	
	Coef.	t-stat	Coef.	t-stat	Coef.	t-stat
BODSIZE	0.0021	0.23	-0.0013	-0.28	0.0034	0.37
ODPCTBOD	-0.0035	-2.54**	-0.0017	-2.55**	-0.0018	-1.33
AUDCOM	-0.1065	-2.00**	-0.0100	-0.59	-0.0965	-1.86*
COMPCOM	0.0619	2.08**	-0.0176	-1.25	0.0795	2.65***
EXTBLOCK	0.0008	0.93	0.0003	0.84	0.0005	0.59
TOTCEOWN	0.0027	2.25**	0.0009	1.66	0.0019	1.47
CEOCHAIR	-0.0346	-0.96	-0.0334	-1.94*	-0.0012	-0.03
CEOFOUND	-0.1307	-3.61***	-0.0229	-1.30	-0.1077	-2.96***
CEOTENUR	0.0150	3.71***	0.0048	2.59***	0.0102	2.51**
YRFOUND	0.0088	3.98***	0.0002	0.21	0.0085	3.57***
LOGASSET	0.0546	3.19***	-0.0102	-1.58	0.0649	3.74***
SEO	0.0792	2.15**	0.0727	3.54***	0.0064	0.18
TREND	-0.0551	-3.02***	-0.0121	-1.51	-0.0430	-2.33**
INTERCEPT	-0.2506	-1.56	0.1272	1.21	-0.3778	-2.06**
R-square	0.50		0.32		0.47	
Total firms	111		111		111	
Observations	321		321		321	

The estimated slope coefficients for the industry dummies (2-digit SIC) are not reported.

* $p < 0.1$ ** $p < 0.05$ ***$p<0.01$

to a higher accrual component at the IPO eventually have the same accruals as the firms with weak earnings in the second year after the IPO. This evidence implies that strong earnings at the IPO that are attributable to high accruals will not persist during the two years after the IPO.

The cash flow component for the full sample has a slight downward trend, but not as much as earnings and accruals. The cash flow component for the top quartile is positive and significantly different from the bottom quartile. This difference persists during the two years after the IPO. When we examine the earnings and its components for the second year, we find that the top firms have a positive cash flow component but a negative accrual component indicating that the positive earnings at the second year is primarily attributable to the cash flow component of earnings. This implies that the cash flow component persists after the IPO. The overall findings indicate that the cash flow component tends to persist, while the accrual component does not persist during the two years after the IPO.

Multiple Regression Results

Multiple Regression Results for Full Sample. Table 3 presents the multiple regression results for the full sample.

We find that the percentage of outside directors (ODPCTBOD) is negatively related to total earnings (t=-2.54, p<0.05) and the accrual component (t=-2.55, p<0.05). IPO firms with a larger percentage of outside directors tend to have a lower accrual component and, therefore, result in lower total earnings. This signifies the importance of the outside directors' role in monitoring management from conducting earnings manipulation through accruals and maintaining the quality of earnings.

We find that the number of audit committee members (AUDCOM) has a significant negative association with earnings (t=-2.00, p<0.05) and the cash flow component (t=-1.86, p<0.1). This finding indicates that IPO firms with a higher number of audit committee members in their board tend to adopt more conservative cash flow reporting and, therefore, earnings reporting. On the other hand, the number of compensation committee members (COMPCOM) in the board has a significant positive relation with earnings (t=2.08, p<0.05) and cash flows (t=2.65, p<0.01). This evidence suggests that the audit committee has a different (opposite) role compared to the compensation committee in influencing management's reporting of earnings.

In terms of ownership structure (EXTBLOCK AND TOTCEOWN), we only find a positive association between CEO ownership (TOTCEOWN) and total earnings (t=2.25,

TABLE 4
MULTIPLE REGRESSION RESULTS FOR TOP QUARTILE SAMPLE

Variables	Equation 1 Earnings		Equation 2 Accrual Component		Equation 3 Cash Flow Component	
	Coef.	t-stat	Coef.	t-stat	Coef.	t-stat
BODSIZE	0.0208	1.04	0.0078	0.44	0.0130	0.53
ODPCTBOD	-0.0036	-2.76***	-0.0080	-5.70***	0.0044	2.69***
AUDCOM	-0.0711	-2.02**	0.0793	1.71*	-0.1504	-3.04***
COMPCOM	0.1040	3.65***	-0.0513	-1.88*	0.1553	4.70***
EXTBLOCK	0.0001	0.07	-0.0038	-2.34**	0.0039	1.95*
TOTCEOWN	-0.0001	-0.05	-0.0030	-1.68*	0.0029	1.17
CEOCHAIR	-0.0368	-0.83	-0.0264	-0.64	-0.0104	-0.22
CEOFOUND	0.0127	0.18	0.1004	1.50	-0.0877	-0.93
CEOTENUR	0.0077	1.53	-0.0019	-0.55	0.0095	1.71*
YRFOUND	0.0034	0.93	-0.0021	-0.93	0.0055	1.25
LOGASSET	0.0116	0.49	-0.0537	-1.89*	0.0653	1.84*
SEO	0.0588	1.49	0.1120	3.75***	-0.0532	-1.08
TREND	-0.0797	-3.71***	-0.0180	-1.03	-0.0616	-2.64***
INTERCEPT	-0.0646	-0.28	0.7870	3.35***	-0.8517	-3.22***
R-square	0.56		0.66		0.52	
Total firms	28		28		28	
Observations	84		84		84	

The estimated slope coefficients for the industry dummies (2-digit SIC) are not reported.
* p < 0.1   ** p < 0.05   ***p<0.01

p<0.05). This finding implies that the ownership structure of an IPO does not seem to influence the level of the accrual or cash flow components of earnings.

The CEO as the chairman of the board (CEOCHAIR) does not seem to influence the firm's earnings and cash flow component, and it only marginally affects the accrual component (t=-1.94, p<0.1). However, the fact that the CEO is the founder of the company (CEOFOUND) has a negative and significant effect on the firm's earnings (t=-3.61, p<0.01) and cash flow component (t=-2.96, p<0.01), but not the accrual component. This latter finding indicates that if the founder is the CEO of the firm, the firm tends to earn less than firms with a non-founder CEO. We also find that CEO tenure (CEOTENUR) has a positive impact on earnings (t=3.71, p<0.01) and both the accrual and cash flow components (t=2.59 and t=2.51, respectively). This suggests that CEO tenure represents the CEO human capital and experience that is important to boost earnings in the newly public firms.

After controlling for other factors, we find that older (YRFOUND) and larger (LOGASSET) firms tend to have higher earnings (t=3.98 and t=3.19, respectively) since it has a higher cash flow component (t=3.57 and t=3.74, respectively). IPO firms that conduct a primary seasoned equity offering (SEO) after the IPO tend to have a larger

accrual component (t=3.54, p<0.01) and, therefore, higher earnings (t=2.15, p<0.05). We observe that the firms' earnings have declined over the period following the IPO (as indicated by the time TREND variable). One additional year after the IPO reduces the firm's earnings and cash flow component by 5.5 cents and 4.3 cents, respectively. We do not find the same decaying trend of the firms' accrual component in the full sample.[3]

Multiple Regression Results for Top Quartile Sample. The results presented in Tables 1 and 2 indicate that there are significant differences in earnings, accruals, cash flows, and corporate governance mechanisms between firms in the top and bottom quartiles of earnings. To further investigate these differences, we separately perform our regression analysis on the top and bottom quartile subsamples.

Table 4 reports the regression results for the top quartile subsample. We find that the percentage of outside directors (ODPCTBOD) is negatively related to earnings and the accrual component (t=-2.76 and t=-5.7, respectively), but positively related to the cash flow component (t=2.69, p<0.01). This evidence suggests that more independent boards inhibit management from manipulating earnings through accruals and from over-investing surplus cash. Similar to the results for the full sample (Table 3), we find that the number of audit committee members (AUDCOM)

TABLE 5
MULTIPLE REGRESSION RESULTS FOR BOTTOM QUARTILE SAMPLE

Variables	Equation 1 Earnings		Equation 2 Accrual Component		Equation 3 Cash Flow Component	
	Coef.	t-stat	Coef.	t-stat	Coef.	t-stat
BODSIZE	0.0063	0.31	-0.0009	-0.09	0.0073	0.35
ODPCTBOD	0.0062	2.03**	0.0006	0.33	0.0056	1.85*
AUDCOM	-0.0395	-0.36	0.0167	0.22	-0.0562	-0.55
COMPCOM	-0.1227	-1.75*	-0.0025	-0.04	-0.1203	-1.58
EXTBLOCK	0.0056	2.33**	0.0015	1.03	0.0041	1.56
TOTCEOWN	0.0103	2.33**	0.0013	0.86	0.0091	1.93*
CEOCHAIR	0.0240	0.39	0.0207	0.55	0.0033	0.05
CEOFOUND	-0.1141	-1.07	-0.0267	-0.60	-0.0874	-0.81
CEOTENUR	-0.0619	-1.99**	-0.0025	-0.22	-0.0594	-1.97**
YRFOUND	0.0565	2.99***	0.0076	0.70	0.0489	2.48**
LOGASSET	0.0839	2.09**	-0.0086	-0.40	0.0925	2.37**
SEO	0.1385	1.72*	0.0153	0.34	0.1232	1.33
TREND	-0.0109	-0.33	0.0098	0.51	-0.0207	-0.56
INTERCEPT	-0.5406	-1.26	-0.2184	-0.70	-0.3222	-0.83
R-square	0.67		0.30		0.64	
Total firms	28		28		28	
Observations	84		84		84	

The estimated slope coefficients for the industry dummies (2-digit SIC) are not reported.

* $p < 0.1$ ** $p < 0.05$ ***$p<0.01$

has a negative association with earnings and the cash flow component (t=-2.02 and t=-3.04, respectively). Its positive impact on the accrual component is only marginally significant at the 10 percent level (t=1.71). The number of compensation committee members (COMPCOM), like the full sample, has an opposing effect on earnings, accruals, and cash flows.

We find that the external blockholders' ownership (EXTBLOCK) is negatively related to the accrual component (t=-2.34, p<0.05), but only marginally positively associated with the cash flow component (t=1.95, p<0.1). We find that CEO ownership (TOTCEOWN) is marginally related with the accrual component of earnings (t=-1.68, p<0.1). This implies that a higher ownership concentration in the hands of external blockholders increases earnings through the cash flow component and it reduces the potential for earnings management through accruals. This finding is consistent with the extant literature that external blockholders have a strong incentive to monitor the manager's efforts to increase the firm's earnings through real activities that boost the firm's cash flow rather than manipulating earnings through accruals.

We find that CEO characteristics (CEOCHAIR, CEOFOUND, AND CEOTENUR) do not significantly affect earnings and the components of earnings in the top quartile subsample. IPO firms that conduct seasoned equity

offerings (SEO) are likely to increase the accrual component (t=3.75, p<0.01), but not the cash component or total earnings. We observe that over time (TREND variable) the earnings of the top quartile firms decrease since their cash flow component of earnings decreases after the IPO (t=-3.71 and t=-2.64, respectively). This finding is consistent with Loughran and Ritter (1997) who find a long-run decrease in operating performance of IPO firms.

Multiple Regression Results for Bottom Quartile Sample. Table 5 reports the regression results for the bottom quartile subsample. We find that the proportion of outside directors (ODPCTBOD) is positively related to earnings (=2.03, p<0.05) and the cash flow component (t=1.85, p<0.1), but these results are weaker compared to the top quartile subsample. In contrast to the top quartile, we find that outside directors have no effect on the accrual component for the bottom quartile (t=0.33). We also find that both the audit (AUDCOM) and compensation (COMPCOM) committees do not have a significant effect on earnings and the components of earnings. We find that the poor performance of the firms in the bottom quartile persists during the period after the IPO and do not have the opportunity to manage their earnings through accruals. Therefore, outside directors and the audit and compensation committees do not have as important a role in monitoring

management's actions in the bottom quartile firms as in the top quartile firms.

We find that external blockholding (EXTBLOCK) is positively related with earnings (t=2.33, p<0.05), but not the components of earnings. In addition, CEO ownership (TOTCEOWN) is positively associated with earnings (t=2.33, p<0.05) and the cash flow component (t=1.93, p<0.1). Interestingly, we find that CEO tenure (CEOTENUR) has a negative association with earnings and cash flows (t=-1.99, and t=-1.97, respectively). We also find that older and larger firms tend to have higher earnings (t=2.99 and t=2.09, respectively) through the cash flow component (t=2.48 and t=2.37, respectively). The earnings and components of earnings for the bottom quartile firms do not change over the two years after the IPO (TREND variable).

Overall, we find that board structure, ownership structure, and CEO characteristics have less influence on earnings and the components of earnings for the bottom firms. This is probably due to the bottom quartile firms having persistently negative earnings and, therefore, do not have the ability to manipulate earnings through accruals or cash flows. We find that the bottom quartile firms are influenced primarily by their age and size.

Conclusion

In this study, we investigate earnings persistence in IPO firms by examining the accrual and cash flow components of earnings. We also analyze the impact of corporate governance mechanisms on earnings and the two components of earnings. We analyze the full sample and two subsamples of the firms that are in the highest and lowest quartiles of earnings.

We find that the strong positive earnings reported by the top quartile firms in the IPO year do not persist during the two subsequent years. This decline is due to the deterioration of the accrual component of earnings from positive in the IPO year to negative in the second year after the IPO. In contrast, the negative earnings reported by the bottom quartile firms remain fairly consistent from the IPO year through the second year following the IPO.

We find that the percentage of outside directors is negatively related to earnings and the accrual component for the full sample and top quartile firms. In addition, a positive relation is found for the cash flow component for the top quartile. This suggests that more independent boards inhibit the manipulation of earnings through accruals and the over-investment of surplus cash for firms with strong positive earnings. Contrary to this, a positive association is found between earnings and the percentage of outside directors for firms in the bottom quartile. This latter finding suggests that the role of outside directors is different for firms with weak (negative) earnings.

Interestingly, we find that the audit and compensation committees have differing (opposing) roles in relation to the firm's earnings and its components. We find a negative relation between the number of audit committee members and earnings and the cash flow component. This suggests that an increase in audit committee members may cause managers to become more conservative in accounting reporting of real profits through cash flows. In contrast, we find a positive association between the number of compensation committee members and earnings and the cash flow component. The compensation committee rewards managers for earning real profits (pay-for-performance), thus resulting in higher earnings from the cash flow component. These results are found for the full sample and top quartile firms, but not for the bottom quartile firms.

We find that external blockholders' ownership is negatively related to the accrual component of earnings but has no relation to total earnings for the top firms. However, for the bottom firms, external blockholders' ownership positively affects total earnings, but not the components of earnings. Similarly, CEO ownership has no relation to earnings or its components for the top quartile firms, but has a positive association to earnings for the bottom quartile firms. This is probably due to the differing ownership structures between the top and bottom firms.

We find that CEO characteristics have no relation to earnings and its components for firms in the top quartile, and only CEO tenure is negatively related to earnings and cash flows for the bottom quartile. We also find that firm age and size is positively associated with earnings and cash flows for the bottom firms, but not the top firms.

Lastly, we find IPO firms that conduct a SEO tend to have a larger accrual component of earnings. This finding renders further investigation on whether firms that decide to raise capital through equity issues do in fact manipulate their earnings during the issuance period. Future research can investigate the potential for earnings management through the accrual component when firms decide to come back to the capital market by issuing new equity.

Endnotes

[1] The two years after the IPO peak period (1998-1999) are just prior to the stock market crash of March 2000. We limit our sample to this period so as not to contaminate our findings with the impact of the stock market downturn in the United States in the years following our sample period.

[2] We replace the natural log of total assets with the natural log of total sales in the regression equations to test whether our results are caused by spurious correlations between the dependent variables (that have assets as the denominator) and the log of assets as an independent variable. We find that our reported results remain robust with the log of total sales as a measure of the firm's economies of scale.

[3] We do not report the slope coefficients for the two-digit

industry dummies. We find that several industries have significantly higher earnings due to a higher accrual component (i.e., metal mining, electrical and transportation equipment, wholesale trade, and home furnishing). Other industries such as apparel stores, amusement service, social service and engineering and management service, have higher earnings due to a higher cash flow component.

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