

Do Family Firms Exploit Voluntary Disclosure Practices? An Empirical Study.

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Abstract

We study the voluntary disclosure practices of family firms. We document that family firms provide more annual earnings forecasts as compared to non-family firms thanks to their long-term investments horizons. Recent research shows that firms are switching from quarterly to annual earnings forecasts due to avoiding myopic pressure; thus, family firms are more likely to focus on long-term performance rather than beat consecutive short-term targets. We also find that family firms have better earnings forecast accuracy because of better monitoring and less manager-owner agency problems. More importantly, we find that family firms issue more bad news prior to stock repurchase announcements and more good news before seasoned equity offerings.

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1. Introduction

A family-owned company is a firm in which at least a member of the founding family continues to hold positions in top management, to sit on the board, or to be a block-holder of the company. As a significant part of corporate world, family-owned (family) firms account for approximately 33% of the S&P 500 firms. Family firms are characterized by the founding family's concentrated ownership and the founding family members' active involvement in firms' management either as top executives or as directors. On average, founding families hold around 18% of the equity and 22% of directorships, and hold the CEO position in 62% of family firms. These distinguishing features can potentially affect such firms' financial disclosure choices.¹ However, how family firms implement financial disclosure choices is still limited in prior literature.

Though it is assumed that stakeholders prefers the company to be more transparent, the voluntary disclosure literature generally treats the firms as a uniform group [(Diamond and Verrecchia (1991), Nagar, Nanda, and Wysocki (2003)]. However, recent studies find that not all firms are alike. For instance, investors with concentrated ownership have different preferences for disclosure from others. On the one hand, Ajinkya, Bhojraj, and Sengupta (2005) find that firms with large institutional investors and more concentrated insider equity holdings are less likely to provide management forecasts.

Li and Zhuang (2012) find that management guidance reduces the magnitude of SEO underpricing and that this effect is more pronounced among smaller firms. Further, the effect of management guidance on SEO underpricing appears to be driven by firms issuing high-

¹ Chen, Chen, and Cheng (2007)

quality guidance that is more accurate or precise.

Ertimur, Sletten, and Sunder (2013) find that firms with bad news are more likely to delay disclosures in the lockup expiration quarter, consistent with their following a disclosure policy that allows pre-IPO shareholders to sell shares before the news is incorporated in the stock price.

We continue this strand of research and study the voluntary disclosure practices of family firms regarding earnings forecast accuracy in addition to management's disclosure behavior during corporate events such as stock repurchases and seasoned equity offerings.

Family firm's unique ownership structure results in different voluntary disclosure practices. Firstly, founding families' less diversified equity holdings in their firms imply that they are more likely to take into account both the benefits and costs of disclosure more seriously. Prior research [Welker (1995) and Botosan (1997)] finds that voluntary disclosure can reduce the cost of capital. And firms have incentives to voluntarily disclose bad news to preempt litigation risks [Fields, Lowry, and Shu, (2005)]. Second, family owners have longer investment horizons than other shareholders [Anderson and Reeb (2003)]. This suggests family firms have more incentives to release timely information to reduce asymmetric information [McNichols and Trueman (1994)]. Thirdly, family owners' active involvement in firms' management results in lower information asymmetry between themselves and managers. Thanks to better monitoring of managers by family owners, the demand for information from non-family shareholders to monitor managers is lower [Bushman, Chen, Engel, and Smith (2004)]. The above arguments thus imply that family owners prefer less public voluntary disclosure, which they may avoid releasing quarterly earnings guidance due to myopic pressure. Conversely, in the case of bad news disclosure, managers' career concern may play an important role in disclosure strategy. Managers in non- family firms can face higher job security threats if the firm is sued due to

withholding bad news. This implies non-family firms have stronger incentives to voluntarily give out bad news earnings warnings than family firms.

In a nutshell, the unique characteristics of family ownership suggest that family firms have different preferences for voluntary disclosure from other firms. Because family owners are influential over corporate decisions, they may tilt the firms' disclosure practices toward their preferences. Thus, whether family firms on average provide more or less annual voluntary disclosure is ultimately an empirical question.

Based on the sample S&P 500 firms in the period 1995-2006, we document that family firms are more likely to issue annual than quarterly earnings forecasts compared to non-family firms. Family firms are more likely to give annual earnings forecasts at a significant level of 10.29 percentage points higher. These results suggest that family firms have better long-term investment horizon. We also find that family firms show higher likelihood of providing more accurate management earnings forecasts than non-family firms. Specifically, the likelihood of providing more accurate management earnings forecasts is 12.09 percentage points higher for family firms than for non-family firms. We conjecture that family firms have better monitoring of management; they are also concerned about their reputations and also try to reduce litigation risks.

More importantly, we find that family firms are more likely to issue bad earnings forecast news prior to stock repurchase announcements, and release good earnings forecast news before seasoned equity offerings. We conjecture that family firms strategically influence information flow before major corporate events for their own benefits. Our results are robust both pre and post Regulation Fair Disclosure (Reg FD) periods.

Our paper contributes to the voluntary disclosure literature by providing evidence on the impact of ownership structure on voluntary disclosure practices. This is the first study to use two

major contrast corporate events: stock repurchases and seasoned equity offerings, to test how family firms implement their voluntary earnings forecasts. We find that family firms in fact use earnings guidance for their own purposes. In contrast to the conventional wisdom that firms are likely to release more voluntary disclosure to reduce information asymmetry and reduce cost of capital, we find that family firms in fact use earnings guidance for their own purposes. This result extends the voluntary disclosures and SEO underpricing [Li and Zhuang (2012)], and voluntary disclosure and stock repurchases, [Brockman, Khurana, and Martin (2008)].

The rest of the paper is organized as follows. The next section reviews prior literature and develops our hypothesis. Section 3 discusses the sample and research design. Section 4 presents our empirical results, and Section 5 concludes.

2. Prior Literature and Hypothesis Development

2.1 Literature on shareholder interest, voluntary disclosure in relation to stock repurchases and seasoned equity offering

Literature shows that voluntary disclosure reduces the cost of capital and supports the conventional wisdom that shareholders, as a uniform group, prefer more voluntary disclosure of timely information. The theoretical literature on voluntary disclosure holds that shareholders benefit from more voluntary disclosure because voluntary disclosure can reduce the cost of capital [Diamond and Verrecchia (1991)] or non-diversifiable estimation risk [Barry and Brown (1985) and Coles, Loewenstein, and Suay (1995)]. Empirical evidence is generally consistent with the theoretical research [Botosan (1997) and Healy, Hutton, and Palepu (1999)].

Karamanou and Vafeas (2005) document that the likelihood of management forecasts decreases with insider ownership. Conversely, Ali, Chen, and Radhakrishnan (2007), finds that among S&P 500 firms, family firms are more, rather than less, likely to provide quarterly

forecasts than non-family firms when firm performance is poor.

Thus, whereas the majority of voluntary disclosure research maintains that shareholders prefer more voluntary disclosure of timely information, recent studies have documented a differential association between concentrated stock ownership and voluntary disclosure. Family owners have a longer investment horizon, better monitoring of management, better access to information, and concentrated ownership, compared to other shareholders. However, since they have more firm control, they are able to take advantage of using proprietary information to convey to the market as their own benefits.

2.2 Hypothesis development

Compared to other shareholders, family owners have a longer investment horizon. Casson (1999) and Anderson, Mansi, and Reeb (2003) argue that founding families view their ownership as an asset to pass on to their descendents, rather than wealth to consume during their lifetimes. McNichols and Trueman (1994) show that disclosure of timely information is of no value to long-term shareholders in terms of trading profits. In addition, long-horizon shareholders have to bear the potential costs arising from voluntary disclosure of timely information. Anilowski, Feng, and Skinner (2007) find that firms are switching from quarterly to annual earnings guidance recently due to the myopic pressure of quarterly earnings guidance. This discussion suggests that founding families, with longer investment horizons, likely face more potential costs than benefits from disclosure of timely information, and as a result, they would prefer less disclosure by switching from more frequent quarterly earnings forecasts to less frequent annual earnings forecasts.

Hypothesis 1: Family firms are more likely to issue annual earnings forecasts

$$\text{PROB}(\text{ANN}_{i,t+1} = 1) = \alpha + \beta_1 \text{FAMI}_{i,t} + \beta_2 \text{INST}_{i,t} + \beta_3 \text{ANA}_{i,t} + \beta_4 \text{DISP}_{i,t} \\ + \beta_5 \text{LITI}_{i,t} + \beta_6 \text{SIZE}_{i,t} + \beta_7 \text{MTB}_{i,t} + \beta_8 \text{ROA}_{i,t} + \varepsilon_{i,t}$$

Where:

ANN: Annual earnings forecast equals 1 if the management earnings forecast is annual forecast and 0 otherwise. MFE is the management forecast error measured by the actual EPS minus the first management forecast EPS in that year and scaled by the share price at the beginning of the year.

INST: institutional ownership dummy equals to the ratio of shares owned by institutions divided by the total number of shares outstanding.

ANA: Analyst coverage is the number of financial analysts following the firm in year t.

DISP: Analyst forecast dispersion is measured as the standard deviation of one-year-ahead EPS forecasts scaled by absolute mean.

LITI: Litigation risk is measured using a dummy variable indicating the high litigation industries (SICs: 2833-2836, 3570-3577, 7370-7374, 3600-3674, 5200-5961, 8731-8734).

SIZE is natural log of year t total assets.

MTB is the market-to-book value of common equity at the beginning of year t.

ROA is return on assets in year t and measured as income before extraordinary items divided by total assets.

Furthermore, compared to other owners, family owners are usually more actively involved in firm management by serving as executives and/or directors. Thus, family owners have better access to information and can better monitor management, reducing the agency problem between management and shareholders. As direct monitoring and corporate disclosure are substitutes in alleviating agency problems, as shown in Bushman et al. (2004). Villalonga and Amit (2006) document that family firms can help increase firm value since they have better control and

access to company flow. Thus, we have the following hypothesis:

Hypothesis 2: Family firms are more likely to issue more accurate earnings forecasts

$$\text{PROB}(\text{ACCU}_{i,t+1} = 1) = \alpha + \beta_1 \text{FAMI}_{i,t} + \beta_2 \text{NEG}_{i,t} + \beta_3 \text{INST}_{i,t} + \beta_4 \text{ANA}_{i,t} + \beta_5 \text{DISP}_{i,t} + \beta_6 \text{LITI}_{i,t} + \beta_7 \text{SIZE}_{i,t} + \beta_8 \text{MTB}_{i,t} + \beta_9 \text{ROA}_{i,t} + \varepsilon_{i,t}$$

Where:

Accuracy (ACCU) is the dummy variable which equals 1 if the absolute value of MFE is less than 0.01 and 0 otherwise. MFE is the management forecast error measured by the actual EPS minus the first management forecast EPS in that year and scaled by the share price at the beginning of the year.

NEG = the voluntary disclosure indicator variable, coded as 1 if there is a negative earnings guidance, and zero otherwise;

Relative to other shareholders, family owners usually have large concentrated equity holdings and are less diversified – their fortunes are disproportionately tied up in their ownership of the firm. Niehaus and Roth (1998) document that CEOs in non-family firms face greater job security concerns than CEOs in family firms. This implies that they are more likely to utilize the benefits of voluntary disclosure for their own purposes. Brockman, Khurana, and Martin (2008) find that managers increase the frequency and magnitude of bad news announcements during the 1-month period prior to repurchasing shares. To a lesser extent, they also increase the frequency and magnitude of good news announcements during the 1-month period following their repurchases. Shivakumar (2000) find that firms mislead investors by overstating earnings before seasoned equity offerings. Rangan (1998) find that firms somewhat manipulate their earnings

and firm performance before seasoned equity offerings. Thus, we have the following hypotheses to address these issues empirically:

Hypothesis 3A (Stock repurchases announcement sample): Family firms are more likely to issue bad news prior to stock repurchase announcements

$$\begin{aligned} \text{PROB}(\text{BAD}_{i,t} = 1) = & \alpha + \beta_1 \text{FAMI}_{i,t} + \beta_2 \text{ANN}_{i,t} + \beta_3 \text{INST}_{i,t} + \beta_4 \text{ANA}_{i,t} + \beta_5 \text{DISP}_{i,t} \\ & + \beta_6 \text{LITI}_{i,t} + \beta_7 \text{SIZE}_{i,t} + \beta_8 \text{MTB}_{i,t} + \beta_9 \text{ROA}_{i,t} + \varepsilon_{i,t}, \end{aligned}$$

Where:

GOOD/BAD news is the good/bad management earnings forecasts within 3 months prior to the repurchase/SEOs announcements. Following Brockman et al. (2008) we define good/bad earnings forecasts based the abnormal stock returns around the management earnings forecasts. We calculate the abnormal returns as the excess return over the CRSP value-weighted index daily returns over the three-day window [-1, 1] around management forecasts. If the abnormal return is positive (negative), we classify the forecasts as GOOD (BAD) news FAMI is a binary variable which equals 1 if a firm is family firm and 0 otherwise

Hypothesis 3B (Stock repurchases announcement sample): Family firms are more likely to issue good news prior to seasoned equity offerings announcements

$$\begin{aligned} \text{PROB}(\text{GOOD}_{i,t} = 1) = & \alpha + \beta_1 \text{FAMI}_{i,t} + \beta_2 \text{ANN}_{i,t} + \beta_3 \text{INST}_{i,t} + \beta_4 \text{ANA}_{i,t} \\ & + \beta_5 \text{DISP}_{i,t} + \beta_6 \text{LITI}_{i,t} + \beta_7 \text{SIZE}_{i,t} + \beta_8 \text{MTB}_{i,t} + \beta_9 \text{ROA}_{i,t} + \varepsilon_{i,t} \end{aligned}$$

where:

GOOD equals 1 if the earnings forecast is classified as GOOD news, and 0 otherwise. GOOD/BAD news is the good/bad management earnings forecasts within 3 months prior to the repurchase/SEOs announcements. Following Brockman et al. (2008) we define good/bad earnings forecasts based the abnormal stock returns around the management earnings forecasts. We calculate the abnormal returns as the excess return over the CRSP value-weighted index daily returns over the three-day window $[-1,1]$ around management forecasts. If the abnormal return is positive (negative), we classify the forecasts as GOOD (BAD) news.

3. Sample and Research design.

3.1 Sample and data

The original sample of family and non-family firms in S&P 500 is made available by Anderson and Reeb (2003). The sample starts with the firms in the S&P 500 index as of December 1992 and continues through 1999. Anderson and Reeb (2003) classify a firm as family owned if founding families have maintained equity ownership in the firm and/or family members are on the board of directors. The sample for the period 2000-2006 is generously made available by Liu (2011). She manually expanded the sample until 2006 by collecting information on firm histories or the presence of founding families from a variety of websites, firm proxy statements, 10-K reports, and other financial reports, Liu (2011). We then get data for accounting related variables from Compustat, stock return data from the Center for Research in Security Prices (CRSP), data for analyst information from IBES, and institutional ownership data from CDA Spectrum. Utility and financial firms are excluded because of their special regulatory requirements. We also exclude firm-years which have negative net assets,

negative market value of equity, or negative dividends (Faulkender and Wang 2006, Liu 2011). We then merge our family firm data with data for management earnings forecasts (from First Call's Company Issued Guidelines database), data for repurchase announcements and seasonal equity offerings (SEOs) (from Thompson Reuters' SDC Database (SDCs)). Our final sample has 2,933 firm-year observations spanning from 1995 to 2006.

As common in the literature, we use management forecasts as our primary proxy for voluntary disclosure. We obtain the data from First Call's Company Issued Guidelines database, which has comprehensive coverage of management forecasts since 1995. Because our interest is on the earnings forecast accuracy, we include annual and quarterly forecasts of earnings, cash flows. Also, we treat multiple forecasts by the same firm on the same day as one forecast.

We control for other important relevant factors impacting voluntary disclosure as documented by prior research. Prior studies [Ajinkya et al. (2005)] find that the likelihood of voluntary disclosure is positively correlated with institutional ownership (INST). Moreover, firms with greater analyst following (ANA) and greater information asymmetry, proxied by higher forecast dispersion (DISP) face a greater demand for information and are more likely to disclose [Hutton (2005)]. We further control for firm size (SIZE) and growth factors (MTB). Skinner (1994) also finds that firms with high litigation risk (LITI) are more likely to voluntarily disclose bad news. We control for contemporaneous accounting performance (ROA) because it can affect voluntary disclosure decision [Miller (2002)] and differs between the structure of family and non-family firms [Anderson and Reeb (2003)].

4. Empirical Results

4.1 Descriptive statistics on firm characteristics

Table 1 provides the distribution of family/non-family firms, subsamples of family/non-family firms which issue either quarter earnings forecasts or annual earnings forecasts and the number of quarter and annual management earning forecast by year.

Consistent with family firm literature, one third of our sample is family firms. Table 1 also shows that firms do not always issue management earnings forecasts. In particular, the percentage of family firms (non-family firms) issue either quarter or annual earnings forecast ranges from 27.6% to 82.8% (26.7% to 85%), respectively.

Table 2 presents the distribution of family/non family firms by industry in 1995. The family firms are proportionately higher in industries like: Construction materials, Trading, Pharmaceutical products, Textiles, Communication, Smoke, and Restaurants, hotels and motels. Given the disproportionate distribution of family firms in years and industries, we control for year fixed effects and industry fixed effects in the multivariate analysis.

Panel A in Table 3 provides the number of repurchase announcements made by both family and non-family firms for each year. There are 132 and 279 repurchases announcements made by family firms and non-family firms during 1995 and 2006, respectively. In each year, the percentage of firms which announce repurchase announcements ranges from 6.9% to 19.5% (6.6% to 22.1%) for family firm (non-family firms). We also report the number of good news, bad news, and no news within 3 months before repurchase announcements or SEO announcements. Specifically, following Brockman et al. (2008) we define good (bad) news based the abnormal stock returns around the management forecasts. We calculate the abnormal returns as the excess return over the CRSP value-weighted index daily returns over the three-

day window $[-1, 1]$ around management forecasts. If the abnormal return is positive (negative), we classify the forecasts as good news (bad news). We classify no news if firms don't issue any forecasts. Panel A, Table 3 shows that many firms choose not to issue any earnings forecasts before repurchase announcements and both family and non-family firms issue more bad news than good news. Specifically, family firms (non-family firms) issue 41 (54) bad news and only 13 (38) good news for the entire period from 1995-2006. Family firms also relatively issue more bad news than non-family firms do. In particular, if we scale the number of bad news by the number of repurchase, the ratio of total bad news to total repurchases of family firms is $41/132$ or 0.31 which is higher than $54/279$ or 0.19 of the non-family firms.

Similarly, Panel B, Table 3 shows the distributions for SEOs, bad news, good news, and no news by year for family and non-family firms. We observe an opposite pattern for SEOs compared to repurchase announcements from Panel A. In particular, family firms issue more good news before SEOs than bad news. In particular, family firms issue 51 good news and 29 bad news. The ratio of number of good news scaled by number of SEOs for family firms is $51/119$ or 0.42 which is higher than $53/232$ or 0.23 for non-family firms.

Table 4 presents the summary statistics for our samples. Compared to non-family firms, family firms issue more annual earnings forecasts, have better forecast accuracy, are smaller in size, are more profitable, and are more likely in industry with a higher litigation risk. The institutional ownership is higher in non-family firms.

4.2 Results from tests of the hypothesis

4.2.1 Family firms and annual earnings forecasts

We present our tests of the first hypothesis in Table 5. Column (1) reports the logit regression results for the likelihood of full sample of management earnings forecasts, and columns (2) and

(3) report the results for the likelihood of the Pre-Reg-FD and Post-Reg-FD periods, respectively. We find that, family firms are more likely to issue annual management earnings forecasts, and this holds for the full and both Pre-Reg-FD and Post-Reg-FD samples. The coefficients on FAMI in all models are significantly positive at 1% levels for the first two models and 5% level for the Post-Reg-FD model.

The results on the control variables are largely consistent with predictions and prior research. The likelihood of annual earnings forecast issuance decreases with analyst coverage and analyst dispersion. The coefficient on the litigation risk dummy is insignificant. ROA does not affect the probability of issuing annual earnings forecasts.

To gauge the economic significance of the impact of family firm presence on voluntary disclosure, we estimate the marginal effect of each the independent variables on the probability of issuing annual earnings forecasts. Results in Model 1 show that the probability of providing management annual earnings forecasts is 5.07 percentage points higher for family firms than for non- family firms. Anilowski et. al. (2007) also document that firms recently switch gradually from quarterly to annual earnings forecasts to avoid short-term pressure. The findings support our hypothesis that family firms are more likely to issue annual earnings forecasts, for they have more control; thus, they can avoid issuing myopic quarterly earnings forecasts if they wish not. And the results are statistically significant for any samples including Pre-Reg-FD and Post-Reg-FD periods.

4.2.2 Family firms and earnings forecast accuracy

We present our tests of the second hypothesis in Table 6. Column (1) reports the logit regression results for the likelihood of the whole sample of management earnings forecast accuracy. For columns (2) and (3), we repeat the same regression on the annual and quarterly earnings forecast samples separately.

We find that family firms are more likely to issue more accurate earnings forecasts and this holds for all three models. The coefficients on FAMI in all models are significantly positive at 1% levels.

The results on the control variables are largely consistent with predictions and prior research as well. Management earnings forecast accuracy likelihood increases with analyst coverage at least at 5% significant levels. The coefficient on the negative surprise coefficient is statistically significant at 5% and consistent with hypothesis that losing firms are less likely to care for their forecast accuracy [Hayn (1995)]. While ROA does affect the probability of issuing better earnings forecasts since firms with higher earnings are more likely to maintain their disclosure reputation and credentials [Ali et al (2007)]. With more analysts following, family firms are also more likely to issue better forecast accuracy.

We also estimate the marginal change in the probability of earnings forecast accuracy for each of the independent variables. Results in Model 1 show that the probability of providing more accurate earnings forecasts is 10.29 percentage points higher for family firms than for non-family firms. These findings support our hypothesis that family firms are more likely to issue more precise earnings forecasts. And the results are statistically significant for any samples including annual or quarterly earnings forecast individually.

4.2.3 Family firms and earnings forecast prior to stock repurchases and seasoned equity offerings

We present our tests of the 3A and 3B hypotheses in Table 7A and 7B. In Table 7A (7B), we run our logit regressions on a subsample of all family and non-family firms which had repurchase (SEOs) announcements during 1995 and 2006, respectively.

Column (1) in Table 7A reports the logit regression results for the likelihood of bad-news

earnings forecasts. In column (2), we add the Reg FD dummy variable to examine the effect of Reg FD implementation in August 2000 on family firm earnings forecasts. In column (3) we include only good and bad news observations.

We find that family firms are more likely to issue bad-news earnings forecasts prior to stock repurchase announcement, and this holds for the three models. The coefficients on FAMI in all models are significantly positive at 1% levels. This is consistent with findings documented by Brockman, Khurana, and Martin (2007) that managers increase the frequency and magnitude of bad news announcements during the 1-month period prior to repurchasing shares.

More analyst coverage and larger institutional holdings decrease the likelihood of releasing bad earnings forecast news prior to stock repurchases at least at 1% significant levels. We conjecture that more monitoring outsiders are likely to make family firms issue less downward biased earnings forecasts before stock repurchases. The coefficient on the Reg FD is statistically negative. This supports the prior literature of Reg FD that Reg FD somewhat improves corporate transparency. Family firms are less likely to issue bad earnings forecast news prior to stock repurchases after the implementation of Reg FD.

Results in Model 1 show that the probability of providing bad news prior to stock repurchases is 12.09 percentage points higher for family firms than for non-family firms. And the results are statistically significant for any samples.

Column (1) in Table 7B reports the logit regression results for the likelihood of good-news earnings forecasts. Similarly, in column (2), we add the Reg FD dummy variable to examine the effect of Reg FD implementation in August 2000 on family firm earnings forecasts. In column (3) we include only good and bad news observations.

We find that family firms are more likely to issue good-news earnings forecasts prior to

seasoned equity offerings, and this holds for all three models. The coefficients on FAMI in all models are significantly positive at 1% levels. This is consistent with prior literature that managers increase the frequency and magnitude of good news announcements during the last quarter prior to seasoned equity offerings.

Similar to the stock repurchase sample, the coefficient on the Reg FD is statistically negative. This also supports the prior literature of Reg FD that Reg FD somewhat improves corporate transparency. Family firms are less likely to issue good earnings forecast news prior to SEOs after the implementation of Reg FD.

Results in Model 1 show that the probability of providing good earnings forecast news prior to stock repurchases is 7.17 percentage points higher for family firms than for non-family firms. And the results are statistically significant for any samples. This is consistent findings documented by Ertimur, Sletten, and Sunder (2013) for IPO samples.

These findings strongly support our hypothesis that family firms utilize voluntary disclosure through earnings forecasts for their own benefits such as issue good and bad news earnings forecasts prior to stock repurchases and SEOs, respectively. We conjecture that family firms are more likely to do that because they are better managing information flow before major corporate events.

4.2.4. Robustness Checks

We also truncated our sample at 1% to reduce the outliers' effect, and the results are still significant for any hypothesis tests. We also redefine our ACCU variable using the cutoff point at 0.03 and 0.05, the results are qualitatively similar.²

² Results available upon requests

5. Conclusion

In this paper we study the voluntary disclosure practices of family firms by using the sample of S&P 500. The unique characteristics of family owners imply that family owners have different preferences for voluntary disclosure than other non-family firms. We document that family firms are more likely to issue annual than quarterly earnings forecasts compared to non-family firms. These results suggest that family firms have better long-term investment horizons. We also find that family firms show higher likelihood of providing more accurate management earnings forecasts than non-family firms. We conjecture that family firms have better monitoring of management; they are also concerned about their reputations and also try to reduce litigation risks.

More importantly, we find that family firms are more likely to issue bad earnings forecast news prior to stock repurchase announcements, and release good earnings forecast news before seasoned equity offerings. These findings suggest that family firms strategically manage information flow before major corporate events for their own benefits. Our results are robust both pre and post Regulation Fair Disclosure periods. Our results extend recent studies on the association between firms' ownership structure and voluntary disclosure during major corporate events such as stock repurchases and seasoned equity offerings.

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Table 1: Family/Non-family Firms and Management Earnings Forecasts Distributions by Year during 1995-2006

The original sample of family and non-family firms in S &P 500 is made available by Anderson and Reeb (2003). The sample for the period 2000-2006 is generously made available by Liu (2011). Following Anderson and Reeb (2003), a firm is classified as a family if the founding family has maintained equity ownership in the firm and/or family members are on the board of directors. We exclude utility and financial firms, firms with negative net assets, negative market value of equity, or negative dividends. We require firms to have data on management earnings forecasts. Firms issues EFs are firm which issue earnings forecasts. QEF and AEF are quarter and annual earnings forecasts, respectively.

Year	Family					Non-family					Total Firms	% Family Firms
	N	Firms issue EFs	%	QEF	AEF	N	Firms issue EFs	%	QEF	AEF		
1995	134	37	27.6	35	30	232	62	26.7	60	46	366	36.6
1996	118	38	32.2	48	23	241	74	30.7	82	43	359	32.9
1997	116	38	32.8	44	25	227	88	38.8	108	84	343	33.8
1998	102	49	48.0	78	50	219	121	55.3	183	157	321	31.8
1999	89	54	60.7	72	79	195	116	59.5	212	201	284	31.3
2000	58	39	67.2	90	76	122	85	69.7	234	195	180	32.2
2001	58	48	82.8	145	155	122	104	85.2	291	253	180	32.2
2002	58	44	75.9	125	162	122	99	81.1	328	254	180	32.2
2003	58	42	72.4	169	192	122	87	71.3	345	266	180	32.2
2004	58	43	74.1	159	289	122	87	71.3	305	250	180	32.2
2005	58	40	69.0	140	280	122	84	68.9	246	320	180	32.2
2006	58	40	69.0	135	250	122	83	68.0	324	380	180	32.2
Total	965	512		1,240	1,611	1,968	1,090		2,718	2,449	2,933	

Table 2: Distribution of Family/Non-family Firms by Industry in 1995.

Distribution of family and non-family firms using Fama-French 1997 industry classifications. Since the number of firms changes every year, we present the distribution in 1995.

Industry	Family	Non-family	Total	% Family
Argiculture	4	19	23	17.4
Food Products	6	7	13	46.2
Candy & Soda	6	3	9	66.7
Smoke	0	2	2	0.0
Transportation	1	11	12	8.3
Communication	10	5	15	66.7
Chemicals	0	2	2	0.0
Textiles	6	3	9	66.7
Construction	35	60	95	36.8
Materials				
Business Services	1	4	5	20.0
Personal Services	1	8	9	11.1
Electronic Equipment	4	15	19	21.1
Trading	15	11	26	57.7
Pharmaceutical	10	29	39	25.6
Products				
Restaurants, Hotels	10	30	40	25.0
Wholesale	1	8	9	11.1
Retail	22	14	36	61.1
Others	2	1	3	66.7
Total	134	232	366	36.6

Table 3: Distributions of Repurchase Announcements, SEOs Announcements, and Bad/Good News.

Repurchase announcements (RP) and seasonal equity offerings announcements (SEOs) are obtained from Thompson Reuters' SDC Database. GOOD/BAD news is the good/bad management earnings forecasts within 3 months prior to the repurchase/SEOs announcements. Following Brockman et al. (2008) we define good/bad earnings forecasts based the abnormal stock returns around the management earnings forecasts. We calculate the abnormal returns as the excess return over the CRSP value-weighted index daily returns over the three-day window [-1, 1] around management forecasts. If the abnormal return is positive (negative), we classify the forecasts as GOOD (BAD) news. We classify No news if firms don't issue any forecasts.

Panel A: Repurchase announcements

Year	Family						Non-family					
	N	RP	%	GOOD news	BAD news	No news	N	RP	%	GOOD news	BAD news	No news
1995	134	17	12.7	1	4	13	232	26	11.2	2	1	23
1996	118	23	19.5	1	2	23	241	36	14.9	1	4	32
1997	116	20	17.2	3	5	16	227	38	16.7	2	2	36
1998	102	19	18.6	3	2	14	219	37	16.9	2	9	32
1999	89	12	13.5	0	5	9	195	21	10.8	0	6	16
2000	58	4	6.9	0	3	2	122	22	18.0	2	4	17
2001	58	4	6.9	0	3	2	122	12	9.8	2	2	9
2002	58	6	10.3	0	2	5	122	13	10.7	2	4	10
2003	58	5	8.6	0	1	6	122	8	6.6	3	5	6
2004	58	11	19.0	4	5	5	122	15	12.3	9	1	8
2005	58	7	12.1	0	7	3	122	27	22.1	6	11	17
2006	58	4	6.9	1	2	2	122	24	19.7	7	5	16
Total		132		13	41	100		279		38	54	222

Panel B: SEOs

Year	Family						Non-family					
	N	RP	%	Good news	Bad news	No news	N	RP	%	Good news	Bad news	No news
1995	134	15	11.2	5	2	9	232	29	12.5	5	3	23
1996	118	20	16.9	7	4	14	241	31	12.9	7	4	26
1997	116	13	11.2	3	5	10	227	24	10.6	4	4	19
1998	102	12	11.8	6	3	8	219	32	14.6	2	8	27
1999	89	15	16.9	4	5	10	195	19	9.7	6	5	13
2000	58	4	6.9	3	3	2	122	14	11.5	1	4	10
2001	58	5	8.6	3	1	2	122	14	11.5	3	4	9
2002	58	7	12.1	3	2	3	122	11	9.0	2	5	6
2003	58	6	10.3	4	1	3	122	5	4.1	3	3	1
2004	58	8	13.8	4	0	5	122	17	13.9	7	1	10
2005	58	9	15.5	5	2	4	122	22	18.0	7	11	18
2006	58	5	8.6	4	1	0	122	14	11.5	6	5	10
Total	965	119		51	29	70	1968	232		53	57	172

Table 4: Descriptive Statistics.

Annual earnings forecast (ANN) equals 1 if the management earnings forecast is annual forecast and 0 otherwise. MFE is the management forecast error measured by the actual EPS minus the first management forecast EPS in that year and scaled by the share price at the beginning of the year. Accuracy (ACCU) is the dummy variable which equals 1 if the absolute value of MFE is less than 0.01 and 0 otherwise. Institutional ownership (INST) equals to the ratio of shares owned by institutions divided by the total number of shares outstanding. Analyst coverage (ANA) is the number of financial analysts following the firm in year t. Analyst forecast dispersion (DISP) is measured as the standard deviation of one-year-ahead EPS forecasts scaled by absolute mean. SIZE is natural log of year t total assets. MTB is the market-to-book value of common equity at the beginning of year t. ROA is return on assets in year t and measured as income before extraordinary items divided by total assets. Litigation risk (LITI) is measured using a dummy variable indicating the high litigation industries (SICs: 2833-2836, 3570-3577, 7370-7374, 3600-3674, 5200-5961, 8731-8734).

Variables	Family [965]			Non-family [1,968]			p-value	
	Mean	Median	Std	Mean	Median	Std	Mean	Median
ANN	0.57	1.00	0.43	0.47	0.07	0.45	0.001	0.004
ACCU	0.34	0.00	0.21	0.14	0.00	0.48	0.001	0.001
MFE	0.03	0.00	0.12	0.09	0.01	0.19	0.001	0.001
INST	58.33	33.42	11.83	64.51	52.11	16.02	0.001	0.001
ANA	15.75	12.13	7.56	17.34	14.56	8.23	0.001	0.001
DISP	0.06	0.03	0.51	0.05	0.03	0.32	0.001	0.002
SIZE	9.13	7.43	2.52	12.01	9.06	2.88	0.001	0.001
MTB	2.09	1.23	0.78	1.86	1.11	1.02	0.002	0.001
ROA	0.08	0.05	0.17	0.12	0.07	0.14	0.001	0.053
LITI	0.65	0.00	0.45	0.12	0.00	0.32	0.001	0.002

Table 5: Logit Regression of the Probability of Family Firm Issuing More Annual Earnings Forecasts.

Table 5 shows the result of the logit model: $\text{PROB}(\text{ANN}_{i,t+1} = 1) = \alpha + \beta_1 \text{FAMI}_{i,t} + \beta_2 \text{INST}_{i,t} + \beta_3 \text{ANA}_{i,t} + \beta_4 \text{DISP}_{i,t} + \beta_5 \text{LITI}_{i,t} + \beta_6 \text{SIZE}_{i,t} + \beta_7 \text{MTB}_{i,t} + \beta_8 \text{ROA}_{i,t} + \varepsilon_{i,t}$, where Annual earnings forecast (ANN) equals 1 if the management earnings forecast is annual forecast and 0 otherwise. FAMI is a binary variable which equals 1 if a firm is family firm and 0 otherwise (Following Anderson and Reeb (2003), a firm is classified as a family if the founding family has maintained equity ownership in the firm and/or family members are on the board of directors). Institutional ownership (INST) equals to the ratio of shares owned by institutions divided by the total number of shares outstanding. Analyst coverage (ANA) is the number of financial analysts following the firm in year t. Analyst forecast dispersion (DISP) is measured as the standard deviation of one-year-ahead EPS forecasts scaled by absolute mean. SIZE is natural log of year t total assets. MTB is the market-to-book value of common equity at the beginning of year t. ROA is return on assets in year t and measured as income before extraordinary items divided by total assets. Litigation risk (LITI) is measured using a dummy variable indicating the high litigation industries (SICs: 2833-2836, 3570-3577, 7370-7374, 3600-3674, 5200-5961, 8731-8734). FD is Regulation Fair Disclosure dummy which equals 1 if management earnings forecast is before August 2000 and 0 otherwise. Model (1) includes the full sample. Model (2) includes only firm-years pre-FD (before the Regulation Fair Disclosure in August 2000). Model (3) includes only firm-years post-FD (after the Regulation Fair Disclosure in August 2000).

	Model (1) (Full sample)		Model (2) (Pre-FD)		Model (3) (Post-FD)	
	Coef. (p-value)	Marginal Δ in prob. (%)	Coef. (p-value)	Marginal Δ in prob. (%)	Coef. (p-value)	Marginal Δ in prob. (%)
Intercept	-3.817 (0.001)	n/a	-2.909 (0.001)	n/a	-2.708 (0.001)	n/a
FAMI	0.201 (0.002)	5.07	0.223 (0.001)	6.006	0.232 (0.028)	6.403
INST	0.568 (0.098)	1.16	0.377 (0.113)	1.06	0.339 (0.126)	1.02
ANA	-0.048 (0.721)	-1.05	-0.021 (0.821)	-0.82	-0.019 (0.674)	-0.69
DISP	-2.320 (0.001)	-2.01	-1.894 (0.008)	-2.03	-2.037 (0.001)	-1.98
LITI	0.092 (0.879)	2.19	0.082 (0.754)	1.89	0.088 (0.578)	1.97
SIZE	0.028 (0.647)	0.86	0.021 (0.194)	1.58	0.023 (0.762)	1.66
MTB	0.004 (0.781)	0.23	0.011 (0.574)	0.55	-0.019 (0.256)	-1.31
ROA	-2.328 (0.001)	-3.68	-0.267 (0.089)	-1.14	-1.721 (0.045)	-2.90
Pseudo R ²	0.210		0.205		0.199	
N	8,018		3,553		4,465	

Table 6: Logit Regression of the Probability of Family Firms Issuing More Accurate Earnings Forecasts.

Table 6 shows the result of the logit model: $\text{PROB}(\text{ACCU}_{i,t+1} = 1) = \alpha + \beta_1 \text{FAMI}_{i,t} + \beta_2 \text{NEG}_{i,t} + \beta_3 \text{INST}_{i,t} + \beta_4 \text{ANA}_{i,t} + \beta_5 \text{DISP}_{i,t} + \beta_6 \text{LITI}_{i,t} + \beta_7 \text{SIZE}_{i,t} + \beta_8 \text{MTB}_{i,t} + \beta_9 \text{ROA}_{i,t} + \varepsilon_{i,t}$, where Accuracy (ACCU) is the dummy variable which equals 1 if the absolute value of MFE is less than 0.01 and 0 otherwise. MFE is the management forecast error measured by the actual EPS minus the first management forecast EPS in that year and scaled by the share price at the beginning of the year. NEG is the dummy variable taking the value of 1 if it is a negative surprise forecast, and zero otherwise. FAMI is a binary variable which equals 1 if a firm is family firm and 0 otherwise. (Following Anderson and Reeb (2003), a firm is classified as a family if the founding family has maintained equity ownership in the firm and/or family members are on the board of directors). Institutional ownership (INST) equals to the ratio of shares owned by institutions divided by the total number of shares outstanding. Analyst coverage (ANA) is the number of financial analysts following the firm in year t. Analyst forecast dispersion (DISP) is measured as the standard deviation of one-year-ahead EPS forecasts scaled by absolute mean. SIZE is natural log of year t total assets. MTB is the market-to-book value of common equity at the beginning of year t. ROA is return on assets in year t and measured as income before extraordinary items divided by total assets. Litigation risk (LITI) is measured using a dummy variable indicating the high litigation industries (SICs: 2833-2836, 3570-3577, 7370-7374, 3600-3674, 5200-5961, 8731-8734). Model (1) includes the full sample. Model (2) includes only annual earnings managements. Model (3) includes only quarter earnings managements.

	Model (1) (Full sample)		Model (2) (Annual only)		Model (3) (Quarter only)	
	Coef. (p-value)	Marginal Δ in prob. (%)	Coef. (p-value)	Marginal Δ in prob. (%)	Coef. (p-value)	Marginal Δ in prob. (%)
Intercept	3.722 (0.001)	n/a	3.799 (0.001)	n/a	4.408 (0.001)	n/a
FAMI	0.719 (0.001)	10.29	0.690 (0.001)	9.39	0.702 (0.001)	9.89
NEG	-0.048 (0.072)	-2.23	-0.092 (0.075)	-3.22	-0.068 (0.086)	-3.11
INST	0.576 (0.078)	5.12	0.467 (0.088)	4.65	0.530 (0.101)	5.10
ANA	0.075 (0.033)	2.27	0.071 (0.037)	2.05	0.088 (0.077)	3.67
DISP	-2.246 (0.001)	-1.11	-2.078 (0.001)	-0.98	-2.013 (0.001)	-1.02
LITI	-0.637 (0.872)	-3.19	-0.572 (0.758)	-3.02	-0.588 (0.654)	-2.79
SIZE	-0.122 (0.766)	-4.67	-0.101 (0.682)	-3.58	-1.42 (0.57)	-5.33
MTB	0.001 (0.001)	0.13	0.001 (0.001)	0.14	0.019 (0.001)	0.13
ROA	0.789 (0.001)	4.86	0.702 (0.001)	3.14	0.721 (0.001)	3.92
Pseudo R ²	0.251		0.248		0.249	
N	8,018		4,060		3,958	

Table 7A: Logit Regression of the Probability of Family Firms Issuing a BAD News before Repurchase Announcements.

Table 7A shows the result of the logit regressions on a subsample of family and non-family firms which had repurchase announcements during 1995 and 2006: $PROB(BAD_{i,t} = 1) = \alpha + \beta_1 FAMI_{i,t} + \beta_2 ANN_{i,t} + \beta_3 INST_{i,t} + \beta_4 ANA_{i,t} + \beta_5 DISP_{i,t} + \beta_6 LITI_{i,t} + \beta_7 SIZE_{i,t} + \beta_8 MTB_{i,t} + \beta_9 ROA_{i,t} + \varepsilon_{i,t}$, where BAD equals 1 if the earnings forecast is classified as BAD news, and 0 otherwise. GOOD/BAD news is the good/bad management earnings forecasts within 3 months prior to the repurchase/SEOs announcements. Following Brockman et al. (2008) we define good/bad earnings forecasts based the abnormal stock returns around the management earnings forecasts. We calculate the abnormal returns as the excess return over the CRSP value-weighted index daily returns over the three-day window [-1, 1] around management forecasts. If the abnormal return is positive (negative), we classify the forecasts as GOOD (BAD) news. We classify No news if firms don't issue any forecasts. FAMI is a binary variable which equals 1 if a firm is family firm and 0 otherwise (Following Anderson and Reeb (2003), a firm is classified as a family if the founding family has maintained equity ownership in the firm and/or family members are on the board of directors). Institutional ownership (INST) equals to the ratio of shares owned by institutions divided by the total number of shares outstanding. Analyst coverage (ANA) is the number of financial analysts following the firm in year t. Analyst forecast dispersion (DISP) is measured as the standard deviation of one-year-ahead EPS forecasts scaled by absolute mean. SIZE is natural log of year t total assets. MTB is the market-to-book value of common equity at the beginning of year t. ROA is return on assets in year t and measured as income before extraordinary items divided by total assets. Litigation risk (LITI) is measured using a dummy variable indicating the high litigation industries (SICs: 2833-2836, 3570-3577, 7370-7374, 3600-3674, 5200-5961, 8731-8734). Model (1) includes the full sample. FD is Regulation Fair Disclosure dummy which equals 1 if management earnings forecast is before August 2000 and 0 otherwise. Model (2) includes the FD dummy. Model (3) exclude the No news observations.

	Model (1)		Model (2)		Model (3)	
	(Full Sample)		(With FD dummy)		(Exclude No news)	
	Coef. (p-value)	Marginal Δ in prob. (%)	Coef. (p-value)	Marginal Δ in prob. (%)	Coef. (p-value)	Marginal Δ in prob. (%)
Intercept	-8.613 (0.001)	n/a	-7.775 (0.001)	n/a	-9.425 (0.001)	n/a
FAMI	0.785 (0.001)	12.09	0.689 (0.001)	10.12	0.701 (0.001)	11.57
ANN	0.338 (0.001)	4.49	0.384 (0.001)	3.68	0.397 (0.001)	4.11
INST	-0.485 (0.061)	-3.03	-0.286 (0.273)	-1.65	-0.330 (0.186)	-2.10
ANA	-0.248 (0.001)	-4.12	-0.55 (0.001)	-8.21	-0.428 (0.001)	-6.67
DISP	2.245 (0.001)	-2.37	2.199 (0.001)	-2.14	-2.277 (0.001)	-2.31
LITI	-0.102 (0.886)	-1.22	-0.082 (0.654)	-1.16	-0.078 (0.478)	-0.97
SIZE	0.024 (0.126)	0.88	0.071 (0.192)	0.97	1.02 (0.027)	1.23
MTB	0.001 (0.210)	0.13	0.010 (0.354)	0.11	0.019 (0.252)	0.11
ROA	-0.525 (0.001)	-1.86	-0.442 (0.001)	-1.22	-0.422 (0.018)	-1.39
FD			-2.325 (0.048)	-4.79	-2.452 (0.032)	-3.21
Pseudo R ²	0.178		0.173		0.173	
N	468		468		146	40

Table 7B: Logit Regression of the Probability of Family Firms Issuing a GOOD News before SEOs.

Table 7B shows the result of the logit regressions on a subsample of family and non-family firms which SEOs announcements during 1995 and 2006: $PROB(GOOD_{i,t} = 1) = \alpha + \beta_1 FAMI_{i,t} + \beta_2 ANN_{i,t} + \beta_3 INST_{i,t} + \beta_4 ANA_{i,t} + \beta_5 DISP_{i,t} + \beta_6 LITI_{i,t} + \beta_7 SIZE_{i,t} + \beta_8 MTB_{i,t} + \beta_9 ROA_{i,t} + \varepsilon_{i,t}$ where GOOD equals 1 if the earnings forecast is classified as GOOD news, and 0 otherwise. GOOD/BAD news is the good/bad management earnings forecasts within 3 months prior to the repurchase/SEOs announcements. Following Brockman et al. (2008) we define good/bad earnings forecasts based the abnormal stock returns around the management earnings forecasts. We calculate the abnormal returns as the excess return over the CRSP value-weighted index daily returns over the three-day window [-1, 1] around management forecasts. If the abnormal return is positive (negative), we classify the forecasts as GOOD (BAD) news. We classify No news if firms don't issue any forecasts. FAMI is a binary variable which equals 1 if a firm is family firm and 0 otherwise (Following Anderson and Reeb (2003), a firm is classified as a family if the founding family has maintained equity ownership in the firm and/or family members are on the board of directors). Institutional ownership (INST) equals to the ratio of shares owned by institutions divided by the total number of shares outstanding. Analyst coverage (ANA) is the number of financial analysts following the firm in year t. Analyst forecast dispersion (DISP) is measured as the standard deviation of one-year-ahead EPS forecasts scaled by absolute mean. SIZE is natural log of year t total assets. MTB is the market-to-book value of common equity at the beginning of year t. ROA is return on assets in year t and measured as income before extraordinary items divided by total assets. Litigation risk (LITI) is measured using a dummy variable indicating the high litigation industries (SICs: 2833-2836, 3570-3577, 7370-7374, 3600-3674, 5200-5961, 8731-8734). Model (1) includes the full sample. FD is Regulation Fair Disclosure dummy which equals 1 if management earnings forecast is before August 2000 and 0 otherwise. Model (2) includes the FD dummy. Model (3) exclude the No news observations.

	Model (1) (Full Sample)		Model (2) (With FD dummy)		Model (3) (Exclude No news)	
	Coef. (p-value)	Marginal Δ in prob. (%)	Coef. (p-value)	Marginal Δ in prob. (%)	Coef. (p-value)	Marginal Δ in prob. (%)
Intercept	3.654 (0.001)	n/a	3.702 (0.001)	n/a	4.009 (0.001)	n/a
FAMI	0.444 (0.001)	7.17	0.397 (0.001)	6.78	0.401 (0.001)	7.13
ANN	-0.485 (0.001)	-3.03	-0.286 (0.001)	-1.65	-0.330 (0.001)	-2.10
INST	-0.254 (0.061)	3.03	0.286 (0.273)	1.65	0.330 (0.186)	2.10
ANA	-0.048 (0.532)	-2.24	-0.103 (0.765)	-4.11	-0.94 (0.442)	3.74
DISP	-1.724 (0.001)	-1.23	-1.099 (0.009)	-0.74	-2.176 (0.001)	-1.61
LIT	-0.132 (0.753)	-4.02	-0.092 (0.554)	-2.36	-0.088 (0.378)	-1.97
SIZE	-0.004 (0.446)	-1.86	-0.004 (0.394)	-3.58	-0.005 (0.451)	-3.77
MTB	0.001 (0.001)	0.05	0.001 (0.001)	0.05	0.001 (0.001)	0.05
ROA	-0.977 (0.001)	-4.01	-0.442 (0.001)	-3.14	-0.733 (0.008)	-3.22
FD			-3.117 (0.009)	-5.27	-2.724 (0.024)	-4.17
Pseudo R ²	0.165		0.155		0.156	
N	432		432		190	40