

Dividend Signaling: Evidence from Bank IPOs

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Abstract

Post-IPO banks are far more likely to initiate dividends than nonfinancial firms. Moreover, dividend initiation has a major impact on the ultimate disposition of a newly public bank, increasing its likelihood of subsequent acquisition by around 40 percent and reducing the expected time until acquisition by 92 percent. Moreover, conditional on being acquired, dividend initiation significantly increases the takeover premium. Average premiums for post-IPO dividend initiators exceed those on non-dividend payers by about 50 percent of the market value of the bank in the month prior to the takeover announcement. Positive associations between bank performance and dividend initiation and between dividend initiation and both takeover likelihood and premium appear consistent with a signaling role for dividends. Dividend initiation seems to speed up and amplify the rewards to owners that may be reaped through an ultimate sale of the institution.

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1. Introduction

Substantial declines in the fraction of nonfinancial firms that pay dividends have attracted considerable interest in recent years, with a particular focus on the dividend initiation decisions of younger firms. Several studies have pegged declines in the incidence of dividend payers to both the changing composition of public firms, and more interestingly, to changes in the average proclivity to pay dividends at any stage of the corporate life cycle. But as this paper demonstrates, dividend policy in the banking industry is substantially different than in the nonfinancial sector and is seemingly driven far more acutely by signaling motives.

The declining proportion of dividend payers among nonfinancial firms is due to at least two separate factors. First, a spate of IPOs has tilted the mix of public firms toward younger companies that are less prone to pay dividends than more mature firms. Second, it appears that even controlling for characteristics such as firm age, the propensity to initiate dividends has declined over time (Fama and French, 2001). Thus, firms that would appear “ready” to initiate dividends based on past norms are far less likely to do so today.

These patterns are markedly different for banks and thrifts. Using a sample of bank and thrift IPOs between 1980 and 2001, we document a very high rate of dividend initiation among newly public institutions. Whereas only 3.7 percent of industrial firms going public had initiated dividends 10 years subsequent to their IPO in the Fama-French sample, we find that 76 percent of banks not already paying dividends pre-IPO had initiated them post-IPO, on average only 1.6 years after going public. (We here and henceforth refer to all banks and thrifts simply as banks.)

Second, we find that dividend initiation has a profound effect on the ultimate disposition of the bank. Dividend initiation dramatically increases the likelihood that a recent IPO bank will be acquired by another institution. In addition, conditional on becoming a takeover target, post-IPO dividend initiation predicts a substantial increase in the takeover premium; the incremental premium associated with dividend initiation averages around 50 percent of the stock price in the month prior to the takeover announcement.

These patterns suggest that banks may use dividend initiation differently than nonfinancial firms. In particular, dividend initiation may be a signaling device, conveying that a bank may be either attractive as or amenable to becoming a takeover candidate for another acquiring firm. For these banks, the IPO may merely serve as a stepping stone on the way to the ultimate payoff—acquisition at a generous premium—and the dividend decision a means to facilitate this process.

In the next section, we briefly review the literature on post-IPO dividend initiation. Section 3 discusses our hypotheses and Section 4 presents our data and methodology. Section 5 presents empirical results and Section 6 concludes the paper.

2. Literature

The question of why firms go public is still an essentially unresolved question in finance and one that we do not attempt to answer. For some firms, however, an initial public offering may be part of an exit strategy that eventually leads to a merger or acquisition. Indeed, using a survey of CFOs of firms that undertake IPOs, Brau and Fawcett (2006) report that the primary motivation for going public is acquisition purposes. Despite this, Fama and French (2004) find that only 22 percent of all firms undertaking an IPO between 1980 and 1991 are subsequently acquired.

Ultimate acquisition may be a more salient motivation for banks, however. In contrast to Fama and French's results for nonfinancial firms, we find that more than half of the banks that undertake an IPO are acquired, with an average time to acquisition of 6.8 years. Moreover, as documented in Rosen et al. (2005), banks that go public are significantly more likely to become takeover targets than are privately-held control banks. Thus, whatever the motive for going public, banks appear to exhibit a pronounced different behavior than nonfinancial firms. Banks conducting an IPO may be marked as acquisition targets.

As noted, banks also differ from nonfinancial firms in their post-IPO dividend behavior. Few nonfinancial firms tend to initiate dividends post-IPO. For nonfinancial firms, the likelihood of dividend initiation appears best explained not by signaling motives, but instead by measures of firm maturity such as the ratio of retained earnings to total equity, profitability, and cash balances (Denis and Osobov, 2006; DeAngelo, DeAngelo, and Stulz, 2006; Bulan, Subramanian, and Tanlu, 2007). These measures typically are low for newly public firms. Post-IPO banks are far more likely to quickly initiate dividends after going public. Bessler et al. (2003) find that as many as 30 percent of banks begin to pay dividends in the first year after the initial equity sale and 40 percent pay dividends by the second and third year of their existence as a public entity.

Our focus is the role of dividend policy in affecting the ultimate status of an IPO bank. We investigate whether initiation of dividends post-IPO is associated with a higher likelihood of and payoff to becoming an acquisition target. Dividend initiation in the case of banks may serve as a signal of quality, of free cash flow, or most simply, of an interest in being acquired. Indeed, empirical evidence suggests that dividend policy for banks is uniquely important in that it signals quality in an environment characterized by significant

information asymmetry (Slovin, Sushka, and Poloncheck, 1999; Bessler and Nohel, 1996). At the least, dividend initiation soon after an IPO seems to signify that a bank has different goals from other firms offering equity to the public for the first time, since most newly traded public firms use cash obtained from the offering to fund growth and not distributions. Thus, differences in dividend policies may shed light on management's long-term goals for the company.

3. Control Variables

To isolate the impact of dividend initiation on ultimate acquisitions, we need to control for several other factors that might influence the eventual disposition of the bank. These control variables include measures of corporate governance as well as financial performance.

3.1 Bank Performance

We use several measures of bank performance in six broad categories: profitability, capital adequacy, asset quality, operating efficiency, liquidity, and growth. The specific metrics for each of these categories are listed in Panel A of Table 1.

The profitability indicators such as ROE and ROA and capital adequacy indicators are standard measures of bank financial strength. The liquidity indicators such as the liquidity ratio or loan-to-deposits ratios measure another dimension of bank safety, i.e., the level of liquidity risk. The asset quality indicators use the composition of the loan portfolio to capture yet another aspect of risk, i.e., asset default risk. In addition, the loan loss reserves ratio more directly reflects the quality of the bank's loan portfolio. Specifically, a higher loan loss reserve ratio indicates a riskier loan portfolio. We also compute standard ratios that measure the operating efficiency with which a bank deploys its assets. Finally,

we measure banks along dimensions of growth, as growth has been shown to be associated with both dividends and acquisitions in other studies. The link between growth options and dividends are discussed in Fama and French (2001), Denis and Osobov (2006), DeAngelo, DeAngelo, and Stulz (2006), and Bulan, Subramanian, and Tanlu (2007). Several studies note that mergers may be geared toward acquisition of growth options (e.g., Lang, et al., 1989; Holmes and Schmitz, 1995; Maksimovic and Phillips, 2001; and Jovanovic and Rousseau, 2002).

3.2 Governance

Corporate governance variables have been shown in other contexts to affect firm performance and behavior. Such variables include board of director characteristics, CEO tenure, director and executive officer stock ownership, and institutional ownership in the firm. To the extent that governance affects performance, it also affects both the probability of dividend initiation as well as the probability the bank will become an acquisition target. Moreover, better governance (with more constraints on managers who attempt to capture private rewards) may well make a bank more open to takeover attempts by outside firms. We summarize our governance-related control variables in Panel B of Table 1.

Board size. Jensen (1993) and Yermack (1996) argue that small boards are more effective in monitoring a CEO's actions. These studies suggest that the size of a firm's board should be inversely related to the performance of the bank post-IPO.

Board composition. Boards dominated by outsiders are widely regarded as better able to monitor and control managers. Outside directors are likely to be more independent of the firm's managers, and in addition bring a greater breadth of experience to the firm. A number of studies have linked the proportion of outside directors to financial performance

and shareholder wealth (Brickley, Coles, and Terry, 1994; Byrd and Hickman, 1992; Rosenstein and Wyatt, 1990).

CEO/Chair duality. In about 80 percent of U.S. companies, the CEO is also the chairman of the board (Brickley, Coles, and Jarrell, 1997). CEO/Chair duality concentrates power in the CEO's position, potentially allowing for more management discretion. The dual office structure also permits the CEO to effectively control information available to other board members and thus may impede effective monitoring (Jensen, 1993). If CEO/Chair duality does impede effective monitoring, it would also be negatively related to performance.

CEO tenure. The tenure of the CEO may determine his or her effectiveness in managing the firm. Some studies suggest that top officials with little experience have limited effectiveness because it takes time to gain an adequate understanding of the company and the industry (e.g., Alderfer, 1986). Thus, we expect CEO tenure to be positively related to the performance of the financial institution.

Insider and/or board ownership. Several studies argue that stock and/or option ownership by board members and executive officers gives them an incentive to monitor managers more carefully to ensure that the firm is run efficiently (see for example Brickley, Lease, and Smith, 1988; or Brown and Maloney, 1999). Therefore, the percent of stock owned by board members and executive officers of an IPO bank is expected to be positively related to performance.

Institutional investor stock ownership. McConnell and Servaes (1990), Del Guercio and Hawkins (1999), Hartzell and Starks (2003), and Cornett, Marcus, Saunders, and Tehranian (2007) conclude that corporate monitoring by institutional investors can constrain managers' behavior. Large institutional investors have the opportunity, resources, and ability to

monitor, discipline, and influence managers to focus more on corporate performance and less on opportunistic or self-serving behavior.

3.3. IPO Underwriting Characteristics

We also control for some aspects of the IPO process itself because these variables may be correlated with otherwise hard-to-measure characteristics of a bank that reflect its attractiveness as an acquisition target. These are summarized in Table 1, Panel C.

Offer size. Cicotello, Bennett, and Field (2001) find that larger thrift IPOs have a greater tendency to be acquired and can more readily absorb costs associated with the conversion of the firm to public ownership. Large financial firms are able to take advantage of economies of scale and scope and thus pay lower costs when issuing equity. Further, large banks can use their size to increase the number of fee generating services they offer. Thus, the size of the initial deal to take the bank public is related to the performance of the bank post-IPO.

Underwriter's Reputation. Brau and Fawcett (2006) find that CFOs of IPO firms select underwriters based on their overall reputation. Conversely, better underwriters may represent higher-quality firms. In fact, Carter and Manaster (1990) find that an underwriter's reputation is associated with the subsequent performance of IPO shares in the equity markets. We use their measure of reputation, which is based on the number of times an underwriter is a lead bank, in this study.

Number of Underwriters. Larger syndicates may be organized to pool risk among more investment banks when an offering poses greater risk. Since dividends are more likely to be paid by firms with more stable cash flows, the number of underwriters involved in an IPO

may be negatively related to a bank's post-IPO likelihood of paying dividends, as well as its probability of becoming an acquisition target.

4. Data and Methodology

4.1. Data

We start by identifying a sample of bank and thrift initial public offerings between 1980-2001. An initial sample of 511 bank IPOs was identified from the Security Data Company (SDC) consisting of U.S. equity offerings (IPOs) by firms with a banking SIC code. Next, we match the SDC sample with the CRSP database. This matching reduces the sample size to 442 bank IPOs. We eliminate 10 observations with an SIC code of 6099 because financial statement data from Call Reports are not available for these institutions. Another 12 observations are lost because they represent U.S. offerings of foreign banks that do not furnish Call Report data. Finally, 14 observations are lost because the subsequent acquisition announcement date could not be identified. Thus, the final sample includes 406 financial institution IPOs (117 banks and 289 thrifts). Table 2 presents the sample of IPOs by year. Notice that there is a spike in bank IPO activity in the mid-1980s (a period with a record number of bank and thrift failures) and a decline in the number of filings toward the later part of the sample period.

Stock and listing data as well as data pertaining to the initiation and amount of dividends are obtained from CRSP. CRSP data reveal whether each bank paid a dividend and/or was acquired after going public. We use CRSP delisting codes to confirm that each bank began trading on the same date as reported by SDC. Delisting codes also allow us to identify which companies are eventually acquired as well as the date on which the

acquisition is closed. Lexis-Nexis is used to identify the first announcement date of the acquisition for each bank that eventually becomes a target.

Table 3 classifies the sample of IPO banks according to dividend history as well as subsequent acquisition. Of the 406 bank IPOs in our sample, 332 (82 percent) pay a dividend post-IPO (sum of observations in columns 1 and 2). The great majority of those dividend payers (240 out of the 332) actually initiate dividends post-IPO, on average, only 1.6 years after the initial offering. This proclivity to initiate dividends is in striking contrast to that of non-financial IPOs. As noted, Fama and French (2001) find that only 3.7 percent of all companies initiate a dividend within 10 years of their IPO. The Fama and French finding is consistent with the notion that firms go public to raise funds necessary for investments in real assets. Thus, the tendency of IPO banks to return cash to shareholders (as dividends) is curious.

Moreover, Table 3 shows that dividend initiation seems highly predictive of subsequent acquisition. The middle column reveals that 161 of the 240 IPO banks that initiate dividends post-IPO are subsequently acquired. In contrast, less than half of the banks that already paid dividends before their IPO (column 1) or that do not pay dividends at all (column 3) are subsequently acquired. Thus, the data reveal two characteristics that seem peculiar to banks: the propensity of these firms to quickly announce a dividend post-IPO and the tendency of those dividend initiators subsequently to be acquired. Table 3 hints that the bank IPO process may be just a step on the way to the ultimate payoff in the form of an acquisition.

Of course, this casual analysis does not control for at least two important factors. First, we need to account for differences in timing: some banks in the sample went IPO in 1980 whereas others did not until 1998. Ultimate acquisition or payment of dividends is of

course more likely when there have been more years since the IPO.¹ Second, we need to account for differences in bank quality, which will be associated with both dividend initiation as well as the likelihood of subsequent acquisition. Nevertheless, more careful analysis below establishes that dividend initiation dramatically increases both the conditional probability of a subsequent acquisition at each year post-IPO as well as the premium paid to owners of the acquired bank.

To isolate the impact of dividend initiation on ultimate acquisitions, we need to control for measures of financial performance as well as corporate governance. These controls were described in Table 1; summary data for each are presented in Table 4. We obtain the data used to calculate these performance variables (Panel A of Table 4) for banks from Call Reports at the Chicago Fed website. Data related to performance ratios for thrifts are obtained from *Moody's (Mergent's) Bank and Finance Manuals*.

Summary statistics for corporate governance variables are listed in Panel B of Table 4. We collect governance data from the first proxy statements available after the IPO. Panel C contains summary statistics pertaining to the bank's original underwriting.

4.2 Methodology

Our ultimate aim is to determine whether post-IPO dividend initiation meaningfully affects the probability of ultimate acquisition as well as the average takeover premium paid in an acquisition. However, better performing banks are both more likely to be takeover targets and more likely to initiate dividends. To eliminate spurious correlations, any

¹ This actually may not be a big problem for our sample. Looking at the third column of Table 2, we observe that there is no decline in the incidence of dividend initiation for more recent compared to other IPOs. This suggests that if dividends are initiated, they tend to begin so quickly that even for recent IPOs there is adequate time to observe them. The decline in post-IPO acquisitions for the more recent portion of the sample is more pronounced (see column 4 of Table 2), but affects relatively few observations. In any case, we deal with timing issues more carefully below.

association between dividend policy and takeover experience must control for bank performance. Therefore, we begin by documenting the link between bank characteristics and dividend policy, establishing the aspects of both corporate governance as well as financial and operating performance that are associated with dividends.

Given the variables that seem associated with dividend initiation, we then more carefully reconsider the relation between dividends and acquisitions, controlling for these empirically relevant factors. Logit analysis shows that dividend initiation post-IPO strongly increases the probability of a subsequent acquisition, controlling for both bank performance and governance arrangements. Because logit analysis does not account for the timing of any such acquisition, we also employ hazard models to estimate the conditional probability of an acquisition at each year post-IPO and find highly similar results. Finally, we turn to an analysis of takeover premiums. OLS regressions controlling for performance as well as univariate analysis suggest that acquired banks that initiate dividends post-IPO enjoy significantly higher takeover premiums than banks that continue to pay no dividends post-IPO or that banks already paid dividends prior to their IPO. The incremental acquisition premium associated with dividend initiation is large, on average equal to 50 percent of the bank's pre-acquisition market price.

5. Results

5.1 Dividend initiation and bank performance

Table 5 compares average governance and performance metrics for post-IPO dividend initiators versus other banks. This table compares dividend initiators to banks that paid dividends both before and after their IPOs. The comparison between initiators and the before-and-after group is effectively identical to that between the initiators and the non-

dividend group of banks. In other words, the before-and-after group and the non-dividend banks have largely equivalent performance measures. We use the before-and-after group here for the sake of homogeneity of the comparison group and because their payment of dividends might suggest that they are the stronger comparison group. Despite this, the initiators are clearly even stronger.

Panel A, which focuses on governance and underwriting variables, shows that dividend initiation is significantly associated with several features typically identified with better governance such as lower insider ownership, higher block institutional ownership, higher outside representation on the board, and a higher ownership share of outside directors. Larger IPOs also are associated with dividend initiation. Differences in other governance variables are not statistically significant.

Panel B tracks several measures of bank performance from the IPO year (year 1) through year 3. Dividend initiators appear to exhibit stronger financial as well as operating performance and present lower risk than other banks in these post-IPO years. This pattern is consistent with a signaling motive behind dividend initiation, in that the initiators turn out to be better performers in the post-IPO period. They have significantly higher average ROA and ROE. Their personnel expense ratios are lower, as are their ratios of non-interest expense to assets, while income per employee is higher. They tend to have lower risk exposures, with higher capital ratios and higher liquidity than other banks. Moreover, they maintain lower loan and deposit ratios, as well as lower loan loss reserves, and lower ratios of commercial and industrial (C&I) loans to assets. Asset growth is lower for dividend initiators; this is consistent with research on nonfinancial firms (e.g., Bulan, Subramanian, and Tanlu, 2007), and may signify that banks experiencing rapid growth choose to reinvest

earnings to generate the equity necessary to support the growth in their asset bases. In sum, dividend initiators are clearly stronger banks, both financially and operationally.²

Table 6 presents results on the impact of dividends on post-IPO acquisitions. In this table, we present a logit analysis in which the dependent variable equals 1 if the bank is acquired post-IPO and 0 otherwise. The regression controls for both performance and governance differences across the sample. Perhaps not surprisingly, banks with high institutional block ownership and outside board membership are more likely to be acquired, while those with high ownership by executives and insider board members are less likely. Stronger banks as measured by higher ROE and higher liquidity seem to be more attractive as takeover targets. Banks with higher recent asset growth are less likely to be acquired. Since we observe that acquired banks are also less risky and maintain stronger loan and deposit ratios, this may reflect a general proclivity for such strong banks to grow in a more measured manner. It is possible that the low-risk nature of acquired banks' operations impedes more robust asset growth. Alternatively, holding all other performance variables fixed, these lower growth rate banks may appear to offer more growth potential for a potential acquirer. The substantial difference between asset and deposit growth rates suggests that acquirers may be looking for an institution with the potential to grow faster than it has been at the time of acquisition.³

We also include control variables associated with the underwriting of the bank's IPO. It is possible, for example, that higher-quality banks are brought to market by higher quality investment banks, so underwriter reputation may capture otherwise hard-to-quantify

² We estimate logit regressions for dividend initiation and find results consistent with the univariate analysis in Table 5. The same variables show up as predictors of dividend initiation in either analysis.

³ Moreover, acquired banks have lower ratios of fixed assets to total assets than non-acquired banks. This also might help explain why acquired banks have lower deposit growth rates than non-acquired banks, as deposit growth is enhanced by investment in new branches. Thus, it is possible that acquiring firms are targeting banks that take on less risk and perform well, yet are not exploiting their full growth potential.

aspects of bank quality. As it turns out, better underwriter reputation is marginally significant in predicting subsequent acquisition, while higher dispersion of the underwriting syndicate as measured by the number of underwriters predicts lower likelihood of subsequent acquisition.

The interesting explanatory variables for our purposes are the two dividend-related dummies. The first (Div before & after) equals 1 for banks that paid dividends before and after their IPOs and zero otherwise. The second (Dividend initiation) dummy equals 1 for banks that initiate their first dividend post-IPO and zero otherwise. Therefore, these coefficients may be interpreted as measuring the incremental effects relative to a base line corresponding to banks that do not pay dividends either before or after their IPO. (There are no banks that suspend a pre-existing dividend post-IPO.) The dummy for banks that pay dividends both before and after their IPOs is statistically insignificant in the logit regression ($z = 0.97$). But the coefficient on dividend initiation is highly significant ($z = 4.11$). Therefore, even controlling for governance and performance, post-IPO dividend initiation seems to substantially increase the likelihood of ultimate acquisition.

The “marginal impact” of each explanatory variable is presented in the last column of each Panel of Table 6. This is the increase in the probability of an acquisition corresponding to a shift from the 25th to the 75th percentile of the sample distribution of each quantitative right-hand side variable, while holding all other explanatory variables at their mean values. For the dividend dummies, the marginal impact is simply the change in acquisition probability when the dummy variable changes from a value of 0 to 1. Thus, the probability of an acquisition is fully 40.24 percent higher for dividend initiators than non-initiators after controlling for all other right-hand side variables.

While it is not the central focus of this paper, the impacts of governance variables are economically as well as statistically highly significant, and in the directions one would predict. For example, an increase in insider ownership from the 25th to the 75th percentile of the sample distribution reduces the likelihood of an acquisition by 31.89 percent, while a comparable increase in institutional ownership increases that probability by 39.86 percent. The coefficient on outside board membership is also highly statistically significant and implies that outside membership also meaningfully increases the probability of eventual acquisition; the marginal impact on acquisition probability is 9.6 percent. These values are consistent with a tug of war between insiders protecting their private benefits of corporate control and outside investors seeking to maximize market value.

The other economically significant influences on takeover probability imply that stronger banks are more likely to be acquired. The coefficients on ROE and liquidity are positive, significant, and have high impact on acquisition probability. While the number of underwriters is statistically significant, its economic impact is small. Finally, as noted, faster asset growth significantly reduces acquisition probability.

In Panel B, we repeat the logit analysis, but this time we exclude banks that are acquired in the first two years post-IPO. One motivation for this procedure is that the banks that are acquired so quickly after an IPO already may be “slam-dunk” candidates for a takeover. Therefore, a dividend signal is redundant. Another motivation is that an acquisition completed in this time frame may have been announced so soon after the IPO that a dividend initiation decision was never confronted or resolved. The striking feature of Panel B is that with one exception each of the regression coefficients is nearly identical to its value in Panel A. That exception is the coefficient on the dividend initiation dummy, which nearly doubles. Given the similar coefficient estimates, it is not surprising that the marginal

impacts in Panel B are nearly identical to those in Panel A. Again, the major exception to this generalization is the impact of the dividend initiation dummy, which rises from 40.24 percent in panel A to 46.97 percent in panel B.⁴ Panels A and B together suggest that dividend initiation is a strong signal that a recent-IPO bank is more attractive as a takeover target and, that for banks not already obvious takeover candidates, the incremental value of the dividend signal is even stronger.

The logit regressions presented in Table 6 are limited by their inability to deal with the timing of an ultimate takeover. Hazard models are better able to track a time-series of post-acquisition experience of IPO banks. The hazard rate is the conditional probability that a bank is acquired in year t , given that it has not already been acquired by year $t - 1$. Hazard models are standard tools for dealing with duration (in this case, time to acquisition) data, and allow us to determine how a set of explanatory variables affect the duration of acquisitions.

We use a Weibull proportional hazard model similar to Kroszner and Strahan (1999), which specifies that the hazard rate takes the form:

$$h[t, \mathbf{x}(t), \boldsymbol{\beta}] = h_0(t) \exp[\mathbf{x}(t)' \boldsymbol{\beta}]$$

where $\mathbf{x}(t)$ is the vector of explanatory variables (whose values can change over time) and $\boldsymbol{\beta}$ is a vector of parameters to be estimated. The baseline hazard rate, $h_0(t)$, is specified as pt^{p-1} . This specification can accommodate a geometrically increasing baseline hazard rate (when $p > 1$) or a geometrically decreasing one ($p < 1$). Variation in the vector of explanatory variables, $\mathbf{x}(t)$, will shift the hazard rate up or down. In this specification, one

⁴ This is an economically significant increase in probability, but a substantially smaller percentage increase than that on the regression coefficient on dividend initiation across the two Panels. The difference in relative magnitudes reflects the non-linear shape of the logistic transformation.

can invert the hazard function to solve for the log of the time to acquisition as a linear function of the right-hand side variables and an error term (Kiefer, 1988):

$$\ln(\text{time to acquisition}) = \mathbf{x}(t)' \boldsymbol{\beta}^* + e$$

where the $\boldsymbol{\beta}^*$ coefficients are rescaled values of $\boldsymbol{\beta}$, equal to $\boldsymbol{\beta}/p$. They may be interpreted as the percentage change in the expected time to acquisition for a one unit change in the right-hand side variable. A negative coefficient means that an increase in the variable decreases the expected time to acquisition, or equivalently, increases the conditional probability of an acquisition at any date.

Table 7 presents estimates of the hazard model. For the most part, the right-hand side variables achieve higher degrees of statistical significance in the hazard model than in the logit model. The variables that are statistically significant in the logit regressions are also statistically significant here, and a few variables (such as the C&I ratio) now attain significance. Of most interest, the dividend initiation dummy remains highly significant, and its coefficient implies an economically substantial impact on acquisition probability.

The last column of Table 7 presents estimates of the impact of each right hand side variable on expected time to acquisition. For the continuous variables, we show the percentage change in expected time to acquisition given an increase of one (sample) standard deviation in the right-hand side variable.⁵ For the dividend dummies, we show the percentage change in expected time to acquisition given a change in the dummy from a value of 0 to 1. The -2.64 coefficient on the dividend initiation dummy therefore implies that dividend initiation is overwhelmingly potent in reducing the expected time to acquisition: initiation reduces that time by 92.86 percent. (The point estimate on the

⁵ The hazard model implies that the expected change in the log of the time to acquisition, T , is the regression coefficient times the change in the right-hand side variable. So for any right-hand side variable x , with regression estimate β , the expected impact on $\ln(T)$ given a change of Δx equals $\Delta \ln(T) = \beta \Delta x$, which implies that $T_2/T_1 = \exp(\beta \Delta x)$.

dividend before and after dummy also seems to imply a smaller but still economically meaningful impact on time to acquisition, but that variable is measured very imprecisely, with a z -statistic of only 0.89.)

As in the logit regressions, governance has a very strong economic impact on acquisition outcomes, with higher insider ownership substantially increasing expected time to acquisition, and higher institutional ownership and outsider representation of the board reducing it. Among the other coefficients with significance levels better than .01, higher ROE and liquidity stand out as substantially reducing expected time to acquisition, and asset growth as increasing it.

5.2 Takeover Premiums

Tables 8 and 9 examine takeover premiums for those banks that are acquired. Table 8 is a univariate analysis, in which we compare the offer price to both the market price of the stock in the month prior to the announcement of an intention to acquire the bank as well as to book value. The premiums are computed for three groups of acquired banks: those that initiate dividends post-IPO ($n = 161$), those that pay dividends both before and after IPO ($n = 22$), and those that never pay dividends ($n = 35$).

The distribution of premiums is highly skewed, with a few very large outliers. Therefore, we focus on median values; these differ markedly across the groups. The median premium for the dividend initiators is 69.46 percent of the pre-announcement market price and 97.46 percent of book value. The median premiums for the before-and-after dividend banks and the non-dividend banks are far smaller: only 23.98 percent and 32.11 percent, respectively, of the pre-announcement market price, and 40.80 percent and 33.33 percent, respectively, of book value. Thus, dividend initiators received a median takeover premium

relative to pre-announcement market price around 40 percentage points higher than other banks. Their median premium relative to book value is around 60 percentage points higher than that of the other banks. The mean takeover premiums imply even larger differentials.

Table 9 presents a multivariate estimate of the impact of dividend policy on the takeover premium. The dependent variable in Panel A is the premium as a fraction of the pre-merger announcement market price; in Panel B it is the premium as a fraction of book value. While we use the full sample of acquired banks in Panels A and B, in Panels C and D we repeat the analysis, but (as in Panel B of Table 5) exclude from the analysis banks that are acquired within 2 years of their IPO. As in the logit and hazard regressions of Tables 6 and 7, we include two dividend dummies on the right-hand side, one for dividend payers before and after the IPO and the other for dividend initiation post-IPO. The base line therefore is banks that never pay dividends.

The impact of dividend initiation in Panels A and B are strikingly similar to the results obtained in Table 8. The before-and-after dividend dummy is small and insignificant, implying that there is no difference in the takeover premium between banks that never pay dividends and those that already paid dividends pre-IPO. But the coefficient on the dividend initiation dummy in Panel A is 0.511, implying an incremental premium of 51.1 percent of the pre-announcement market price. This is nearly identical to the difference in the incremental premium reported in Table 8. Similarly, the coefficient on the dividend initiation dummy in Panel B is .863, implying an incremental premium as a fraction of book value nearly also nearly equal to the differential found in Table 8.

The Panel C and D results, which exclude banks acquired within 2 years of their IPO, are even more dramatic. Here the coefficients on the dividend initiation dummy are

0.743 and 0.913. Dividend initiation in this group has an even larger impact on the takeover premium.

6. Conclusion

We have shown that post-IPO banks exhibit dividend policies in marked contrast to nonfinancial firms. Post-IPO banks are far more likely to initiate dividends than nonfinancial firms, and banks with better future performance are far more likely to initiate dividends than weaker ones. Moreover, dividend initiation has a major impact on the ultimate disposition of the bank. Dividend initiation increases the likelihood of acquisition by around 40 percent and by an even greater amount for the subset of firms are not acquired within two years of their IPO. Initiation reduces the expected time until acquisition by 92 percent. Initiation of a dividend by an IPO bank not only increases the probability of an eventual acquisition, but also significantly increases the premium received by the IPO bank owners. Average takeover premiums for post-IPO dividend initiators exceed those on non-dividend payers by about 50 percent of the market value of the bank in the month prior to the takeover announcement. The positive associations between performance and dividends and between dividends and both takeover likelihood and premium appear consistent with a signaling role for dividends. Dividend initiation seems to speed up and amplify the rewards to owners that may be reaped through an ultimate sale of the institution.

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TABLE 1

This table contains definitions and abbreviated names of the variables used in the paper. Panel A contains performance variables. Panel B lists the governance variables. Panel C describes the underwriting variables. Panel D defines dividend payout dummy variables.

Panel A: Performance variables

Profitability	
Return on assets (ROA)	Net income/total assets (%)
Return on equity (ROE)	Net income/total equity capital (%)
Net interest margin	Net interest income/total earning assets (%)
Capital Adequacy	
Capital ratio	Total equity capital/total assets (%)
Loan ratio	Total loans/total equity capital (%)
Deposit ratio	Total deposits/ total equity capital (%)
Asset quality	
Loan loss reserves	Loan loss reserves/total loans (%)
Expenses to revenue	Total non-interest expense/total non-interest revenue (%)
Non-interest expense	Total non-interest expense/total assets (%)
C&I ratio	Construction & industrial (C&I) loans/total assets (%)
Real estate loans to assets	Total real estate loans/total assets (%)
Consumer loans (%)	Total consumer loans/total assets (%)
Operating Efficiency	
Personnel expense	total personnel expenses/total assets (%)
Fixed asset ratio	Fixed assets to total assets (%)
Assets to employees	Total assets (in millions of \$s)/total employees (multiple)
Income per employee	Net income (in millions of \$s)/total employees (multiple)
Service charge/assets	Total service charges/total assets (%)
Liquidity	
Loans-to-assets	Total loans/total assets (%)
Loans-to-deposits	Total loans/total deposits (%)
Liquidity ratio	(Total cash plus marketable securities)/total assets
Growth	
Asset growth	(Total assets at t – total assets at t-1)/ total assets at t-1 (%)
Deposit growth	(Total deposits at t – total deposits at t-1)/ total deposits at t-1 (%)

Table 1, continued	
Panel B: Corporate governance variables	
Bank age	Age of the bank (years)
Inside ownership	Inside board member plus executive ownership as a percentage of total common stock (%)
Block ownership	Block institutional ownership as a percentage of total common stock (%)
Board size	Number of individuals on the board of directors
Board meetings	Number of annual board meetings
Board insiders	Number of insiders on board as a percentage of all board members (%)
Board outsiders	Number of outsiders on board as a percentage of all board members (%)
Board affiliated	Number of affiliated members as a percentage of all board members (%)
Insider ownership	Insider directors' plus executive officer ownership as a percentage of total common stock (%)
Outside director ownership	Outsider directors' ownership as a percentage of total common stock (%)
Affiliated director ownership	Affiliated directors' ownership as a percentage of total common stock (%)
Chair duality	Equals 1 if the CEO is also the Chairman of the Board
CEO tenure	Number of years the CEO has been the chief executive of the firm
Panel C: Underwriting variables	
Underwriter reputation	Measure of underwriters' reputation utilizing measures developed by Carter and Manaster (1990).
Number underwriters	Number of underwriters employed by the bank
IPO size	Size of the initial public offering in millions of dollars
Panel D: Dividend payout dummy variables	
Years to dividend	Number of years from IPO to initiation of dividends
Years to acquisition	Number of years from bank IPO to later acquisition

TABLE 2

This table presents descriptive statistics of the sample of bank and thrift IPOs obtained from the SDC database. The table lists the number of firms that undertook an IPO in each year as well as the fraction of bank IPO that initiate dividends and the fraction that are acquired post-IPO.

Year	Number of IPOs	Fraction initiating dividend post-IPO	Fraction acquired post-IPO
1980	8	0.75	0.38
1981	5	0.40	0.80
1982	4	0.50	0.50
1983	52	0.63	0.54
1984	30	0.67	0.53
1985	35	0.69	0.63
1986	91	0.57	0.55
1987	51	0.59	0.61
1988	26	0.62	0.65
1989	9	0.56	0.78
1990	6	1.00	0.50
1991	6	0.33	0.50
1992	5	0.60	0.40
1993	16	0.44	0.56
1994	6	0.50	0.50
1995	3	0.67	0.67
1996	11	0.45	0.45
1997	10	0.50	0.30
1998	25	0.52	0.32
1999	5	0.80	0.00
2000	2	0.00	0.00
2001	0	na	na
Total	406	0.59	0.54

TABLE 3

Classification of sample of IPO banks by acquisition and dividend initiation after IPO.

	Paid dividends before and after IPO	Initiate dividends after IPO	Never pay dividends	Row sum
Acquired post-IPO	22	161	35	218
Not acquired post-IPO	70	79	39	188
Column sum	92	240	74	406

Table 4

Descriptive statistics for the sample of banks that went public between 1980 and 2001. Panel A contains performance variables. Panel B lists the governance variables. Panel C describes the underwriting variables. Definitions for the variables used in this table are presented in Table 1.

Panel A: Performance variables					
Variable	N	Minimum	Maximum	Mean	Standard Dev.
ROA	352	-4.86%	6.69%	0.59%	0.89%
ROE	351	-78.97%	83.98%	15.84%	17.55%
Net interest margin	351	-0.56%	12.53%	3.01%	1.55%
Capital ratio	351	1.26%	79.89%	8.77%	5.85%
Loan ratio	354	44.20%	4965%	1042%	664.0%
Deposit ratio	351	22.32%	17571%	1234%	1123%
Loan loss reserves	335	-0.11%	9.38%	0.49%	0.90%
Expense to revenue	345	-535%	6421%	520%	752%
Non-interest expense	349	0.25%	12.26%	2.45%	1.13%
Personnel expense	339	0.32%	5.10%	1.17%	0.54%
Fixed asset ratio	353	0.07%	12.65%	2.18%	1.53%
Assets to employees	298	1.61	15239	2798	1771
Income per employee	298	-277	1638	42.15	114
C&I ratio	115	0.00%	49.84%	15.30%	0.87%
RE loans to assets	116	0.00%	88.46%	37.78%	1.56%
Consumer loans	116	0.00%	60.03%	8.39%	0.79%
Service chg to asst	116	0.00%	0.99%	0.32%	0.02%
Loans to assets	353	2.11%	95.61%	69.38%	15.48%
Loans to deposits	350	2.81%	156.96%	87.81%	22.84%
Liquidity	352	3.09%	92.60%	23.27%	14.59%
Asset growth	317	-96.92%	956.74%	39.22%	99.92%
Deposit growth	319	-96.51%	3350%	60.25%	260.74%

Panel B: Corporate governance variables					
Bank age (years)	356	1.00	182.00	48.61	43.59
Inside ownership	166	0.07%	79.08%	16.82%	17.54%
Institutional ownership	190	0.00%	77.22%	7.74%	12.65%
Board size	189	4.00	30.00	10.69	4.21
Board meetings	188	0.00	29.00	10.52	5.30
Board insiders	189	4.76%	80.00%	27.73%	14.10%
Board outsiders	189	0.00%	100.00%	57.62%	19.73%
Board affiliated	189	0.00%	79.17%	15.08%	15.44%
Insider ownership	189	0.00%	78.55%	12.70%	15.73%
Outside director owner.	189	0.00%	39.27%	6.31%	7.24%
Affiliated director owner.	189	0.00%	48.19%	2.42%	5.46%
Chair duality	189	0.00	1.00	0.51	0.50
CEO tenure (years)	189	1.00	52.00	7.72	7.19

Panel C: Underwriting variables					
Underwriter reputation	406	1.50	9.00	6.75	1.74
Number underwriters	406	1.00	34.00	2.23	3.23
Offer size (\$ millions)	406	0.40	878.90	22.51	52.82

TABLE 5

This table contains results of *t*-tests conducted on the sample of bank and thrift IPOs. The sample is split into two groups. Group 1 includes banks and thrifts that did not issue a dividend pre-IPO but initiate dividends post-IPO (n = 240). Group 0 includes banks and thrifts that pay dividends prior and post-IPO (n = 92). Panel A contains corporate governance and underwriting variables. Panel B contains performance variables. Definitions for the variables used in this table are presented in Table 1.

Panel A: Corporate governance and underwriting variables

Variable	Group	Mean	t-statistic
	1	49.25	
Bank age	0	54.26	1.51
	1	13.45%	
Insider ownership	0	20.6%	-2.19 **
	1	13.86%	
Institutional ownership	0	7.00%	3.69 ***
	1	11.03	
Board size	0	12.33	0.98
	1	10.73	
Board meetings	0	10.22	0.48
	1	67.87%	
Board outsiders	0	47.52%	3.01 ***
	1	7.39%	
Outside director ownership	0	4.00%	2.16 **
	1	0.52	
CEO/Chair duality	0	0.56	0.29
	1	9.05	
CEO tenure	0	5.95	4.19 ***
	1	6.86	
Underwriter reputation	0	7.04	1.04
	1	2.15	
Number underwriters	0	2.19	-0.29
	1	25.75	
IPO size	0	16.84	3.21 ***

continued

Table 5, continued

Panel B: Performance variables							
Variable	Group	Mean Yr 1	t-stat	Mean Yr 2	t-stat	Mean Yr 3	t-stat
ROA	1	0.72%		0.70%		0.45%	
	0	0.40%	2.26 **	0.30%	2.45 **	-0.06%	2.56 **
ROE	1	18.95%		9.02%		7.03%	
	0	9.64%	2.62 **	2.78%	2.83 ***	-1.20%	2.21 **
Net interest margin	1	3.09%		3.28%		3.03%	
	0	2.91%	0.68	3.03%	0.21	2.96%	0.41
Capital ratio	1	9.47%		9.07%		9.28%	
	0	7.81%	2.11 **	6.87%	2.46 **	5.13%	2.29 *
Loan ratio	1	945.8%		961.60%		933.56%	
	0	1171.34%	-2.39 **	1204.47%	-2.48 **	1569.2%	-2.75 ***
Deposit ratio	1	1005%		998.50%		1075%	
	0	1588.17%	-2.03 **	1600.43%	-2.75 ***	1598.98%	-2.34 **
Loan loss reserves	1	0.38%		0.46%		0.72%	
	0	0.60%	-1.83 *	0.68%	-1.95 **	1.01%	-1.98 **
Expense to revenue ratio	1	512.86%		479.90%		536.86%	
	0	537.54%	-0.11	511.87%	-0.45	550.28%	-0.18
Non-interest expense to assets ratio	1	2.05%		2.11%		2.15%	
	0	3.24%	-2.76 ***	3.34%	-3.05 ***	2.98%	-2.84 ***
Personnel expense	1	0.98%		0.92%		0.90%	
	0	1.52%	-2.35 **	1.71%	-2.75 ***	1.87%	-2.24 **
Fixed asset ratio	1	2.11%		2.21%		2.46%	
	0	2.33%	-0.45	2.46%	-0.73	2.64%	-0.53
Assets per employee	1	2594		2613		2698	
	0	3056	-1.48	2696	-0.39	2821	-1.09
Income per employee	1	51.19		39.19		16.67	
	0	32.68	2.39 **	18.95	2.59 **	3.57	2.69 ***
C&I ratio	1	11.21%		10.42%		11.98%	
	0	22.04%	-2.74 ***	23.16%	-3.11 ***	20.71%	-2.63 ***
RE loans to assets	1	38.02%		40.02%		41.43%	
	0	37.62%	0.22	39.44%	0.09	39.37%	0.47
Service charge/assets	1	0.29%		0.29%		0.27%	
	0	0.33%	-0.12	0.29%	-0.03	0.34%	-0.19
Loans to assets	1	68.67%		69.75%		68.47%	
	0	70.37%	-0.69	68.31%	0.15	70.27%	-0.58
Loans to deposits	1	86.95%		88.98%		91.07%	
	0	88.90%	-0.64	91.98%	-0.75	89.19%	0.63
Liquidity ratio	1	27.14%		26.78%		27.92%	
	0	15.95%	2.85 ***	15.16%	2.75 ***	14.82%	2.65 ***
Asset growth	1	22.42%		21.45%		8.16%	
	0	41.94%	-3.06 ***	38.30%	-2.81 **	17.15%	-2.06 **
Deposit growth	1	60.02%		35.12%		13.98%	
	0	57.71%	0.33	34.22%	0.15	12.64%	0.11

* Indicates statistical significance at 0.10 level.

** Indicates statistical significance at 0.05 level.

*** Indicates statistical significance at 0.01 level.

TABLE 6

Results of two logit regressions on acquisition post-IPO. The dependent variable equals 1 if the institution is acquired post-IPO and 0 otherwise. Panel A uses all banks and thrifts that went public between 1980 and 2001 (n = 406). Panel B excludes banks acquired within 2 years of their IPOs (n = 371). Definitions for the variables used in this table are provided in Table 1.

Explanatory Variable	Panel A: Full Sample			Panel B: Partial Sample		
	Coefficient	z-statistic	Marg. Effect	Coefficient	z-statistic	Marg. Effect
Insider ownership	-3.34	-2.89***	-0.3189	-3.05	-2.80***	-0.3199
Institutional ownership	4.67	2.71***	0.3986	5.45	3.22***	0.4164
Board size	-0.50	-1.19	-0.0026	-0.45	-1.16	-0.0021
Board outsiders	3.75	3.18***	0.0964	3.87	3.27***	0.0992
Outside director ownership	1.49	1.52	0.0064	1.45	1.40	0.0055
CEO tenure	0.74	0.82	0.0015	0.67	0.75	0.0011
Underwriter reputation	0.98	1.74*	0.0296	0.87	1.82*	0.0211
Number underwriters	-0.43	-2.19**	0.0269	-0.57	-2.21**	0.0315
ROE	14.89	4.62***	0.4094	14.97	4.79***	0.4124
Loan ratio	-0.09	-1.20	-0.0039	-0.07	-1.22	-0.0038
Loan loss reserves	-2.02	-1.15	-0.0010	-2.00	-1.09	-0.0008
Non-interest expense	-0.47	1.02	0.0012	-0.41	0.95	0.0009
C&I ratio	-0.43	-1.06	-0.0009	-0.35	-0.79	-0.0007
Real estate loans to assets	-0.79	-1.91*	-0.0192	-0.77	-1.83*	-0.0181
Asset growth	-2.11	-3.05***	-0.3492	-2.18	-3.11***	-0.3498
Liquidity	4.25	2.79***	0.2167	4.31	2.97***	0.2213
Div before & after dummy	0.73	0.97	0.0018	0.68	0.85	0.0011
Dividend initiation dummy	7.16	4.11***	0.4024	12.53	5.06***	0.4697

Merger Model panel A chi2 =77.84***

Merger Model panel B chi2 =79.23***

* Indicates statistical significance at 0.10 level.

** Indicates statistical significance at 0.05 level.

*** Indicates statistical significance at 0.01 level.

TABLE 7

Estimates of a hazard model for all banks and thrifts (n=218) that went public between 1980-2001.

The dependent variable is the log expected time to acquisition post-IPO: $\ln(T) = x(t)' \beta^* + e$.

Economic impact is the estimated percentage change in expected time to acquisition for a one standard deviation change in each quantitative right-hand side variable, or for the dummy variables, a change from 0 to 1. Definitions for the variables used in this table are provided in Table 1.

Explanatory Variable	Coefficient	z-statistic	Economic Impact
Insider ownership	2.04	4.21 ***	43.02%
Institutional ownership	-3.82	-3.95 ***	-38.32%
Board size	0.04	1.02	18.34%
Board outsiders	-2.89	-4.33 ***	-43.46%
Outside director ownership	-1.10	-0.97	-7.66%
CEO tenure	-0.07	-0.19	-0.50%
Underwriter reputation	-0.07	-0.86	-0.12%
Number underwriters	1.95	2.80 ***	6.50%
ROE	-3.73	-6.41 ***	-48.04%
Loan ratio	0.06	0.68	48.94%
Loan loss reserves	1.01	1.09	0.91%
Non-interest expense	-0.39	-1.15	-0.44%
C&I ratio	2.18	2.27 **	1.91%
Real estate loans to assets	1.10	2.56 **	1.73%
Asset growth	0.41	3.89 ***	50.63%
Liquidity	-4.33	-5.08 ***	-46.83%
Div before & after dummy	-0.31	-0.89	-26.66%
Dividend initiation dummy	-2.64	-5.14 ***	-92.86%
Observations	2,243		

Model chi2 =70.11***

Div before & after dummy = 1 if the institution pays dividends both before and after IPO and 0 otherwise.

Dividend initiation dummy = 1 if the institution initiate dividends only after IPO, and 0 otherwise.

* Indicates statistical significance at 0.10 level.

** Indicates statistical significance at 0.05 level.

*** Indicates statistical significance at 0.01 level.

TABLE 8

Summary statistics on the offer price and the corresponding premium for IPO banks that were subsequently acquired. Panel A lists statistics for institutions initiating dividends only after an IPO. Panel B lists statistics for institutions paying dividends both before and after their IPO. Panel C lists statistics for non-dividend paying IPO banks. Offer Price is the price per share offered by the acquirer for the IPO bank. Market Price_{t-1} is the market price of the stock one month before the acquisition announcement. Book value per share is the IPO bank's book value per share at year-end before the acquisition announcement.

Panel A: Dividend paying only after IPO banks (n = 161)

	Offer price (\$)	Market price _{t-1} (\$)	Book value per share (\$)	Offer price/Market price _{t-1} (%)	Offer price/Book value (%)
Mean	32.37	19.14	15.94	183.28	252.01
Median	29.18	17.64	14.98	169.46	197.46
Standard deviation	13.34	10.06	8.11	73.11	207.12
Minimum	7.12	2.60	1.97	76.56	50.16
Maximum	82.00	57.25	55.21	909.33	2102.23

Panel B: Dividend paying both before and after IPO banks (n = 22)

	Offer price (\$)	Market price _{t-1} (\$)	Book value per share (\$)	Offer price/Market price _{t-1} (%)	Offer price/Book value (%)
Mean	23.02	19.40	16.04	135.42	150.22
Median	20.75	16.42	15.11	123.98	140.80
Standard deviation	12.15	14.11	8.24	30.42	103.12
Minimum	4.86	1.50	1.41	72.91	47.43
Maximum	65.54	52.18	47.09	384.70	1018.63

Panel C: Non-dividend paying IPO banks (n = 35)

	Offer Price (\$)	Market price _{t-1} (\$)	Book value per share (\$)	Offer price/Market price _{t-1} (%)	Offer price/Book value (%)
Mean	22.58	17.42	15.64	133.57	148.58
Median	19.00	14.00	13.68	132.11	133.33
Standard deviation	11.22	13.96	9.362	25.80	90.33
Minimum	4.06	3.88	1.53	103.57	103.57
Maximum	60.00	50.00	35.21	245.31	646.27

TABLE 9

Results of OLS regressions. The dependent variable in Panel A is the price per share paid by the acquirer for the target (IPO bank) divided by the market price of the stock one month before the merger announcement. The dependent variable in Panel B is price per share paid by the acquirer for the target divided by the IPO bank's book value per share at year-end before the merger announcement. The sample includes banks and thrifts that went public between 1980 and 2001 and then merged post-IPO (n = 218). Panels C and D report the same OLS regressions, but using only banks and thrifts that merge more than two years post-IPO (n = 183). Div before & after dummy = 1 if the institution pays dividends both before and after IPO and 0 otherwise. Dividend initiation dummy = 1 if the institution initiates dividends only after its IPO, and 0 otherwise. Definitions for the other variables used in this table are provided in Table 1.

Explanatory Variable	Panel A		Panel B	
	Coefficient	t-statistic	Coefficient	t-statistic
Insider ownership	0.033	0.92	0.087	0.98
Institutional ownership	2.928	3.87***	3.186	3.11***
Board size	1.786	3.49***	2.231	3.61***
Board outsiders	0.011	0.97	0.009	1.02
Outside director ownership	0.291	3.18***	0.301	3.04***
CEO tenure	1.108	2.81***	1.259	3.08***
Underwriter reputation	0.022	1.05	0.034	1.15
Number underwriters	0.044	2.31**	0.059	2.72***
ROE	-0.011	-0.69	-0.021	-0.52
Loan ratio	1.402	4.19***	1.445	4.47***
Loan loss reserves	-0.0001	-0.17	-0.0002	-0.25
Non-interest expense	-1.246	-2.21**	-1.615	-2.21**
C&I ratio	-2.309	-2.84***	-2.079	-2.53**
Real estate loans to assets	-0.128	-0.75	-0.101	-0.49
Asset growth	-0.099	-0.78	-0.116	-0.92
Liquidity	-0.651	-2.54**	-0.493	-2.47**
Div before & after dummy	1.390	3.37***	1.678	3.11***
Dividend initiation dummy	0.024	1.04	0.041	1.12
Insider ownership	0.511	4.97***	0.863	4.61***
R-Squared, adjusted	42.7%		39.3%	

continued

Table 9, continued

Explanatory Variable	Panel C		Panel D	
	Coefficient	t-statistic	Coefficient.	t-statistic
Intercept	0.029	0.83	0.054	1.01
Insider ownership	2.726	3.41***	3.093	2.86***
Institutional ownership	1.849	3.67***	2.374	3.75***
Board size	0.014	0.99	0.017	1.15
Board outsiders	0.299	3.35***	0.314	3.18***
Outside director ownership	1.121	2.96***	1.263	3.11***
CEO tenure	0.025	1.05	0.032	1.20
Underwriter reputation	0.049	2.36**	0.071	3.03***
Number underwriters	-0.014	-0.72	-0.022	-0.62
ROE	1.432	4.38***	1.463	4.69***
Loan ratio	-0.0002	-0.15	-0.0003	-0.30
Loan loss reserves	-1.221	-2.19**	-1.572	-2.12**
Non-interest expense	-2.362	-2.80***	-2.112	-2.59**
C&I ratio	-0.136	-0.77	-0.101	-0.51
Real estate loans to assets	-0.085	-0.70	-0.109	-0.87
Asset growth	-0.599	-2.47**	-0.478	-2.39**
Liquidity	1.465	3.49***	1.736	3.29***
Div before & after dummy	0.021	0.97	0.045	1.05
Dividend initiation dummy	0.743	5.19***	0.913	4.74***
R-Squared, adjusted	44.8%		40.9%	

* Indicates statistical significance at 0.10 level.

** Indicates statistical significance at 0.05 level.

*** Indicates statistical significance at 0.01 level.