OPERATING PERFORMANCE OF THE U.S. COMMERCIAL BANKS AFTER IPOS: AN EMPIRICAL INVESTIGATION

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ABSTRACT

This study examines the effects of ownership structure on operating performance within the financial institutions industry by examining 216 bank initial public offerings between 1992 and 1998.

Various financial ratios are utilized to measure bank-operating performance surrounding an initial public offering (IPO). Four possible theories are examined: the windows-of-opportunity theory, the agency cost theory, the window-dressing theory, and the loan-growth-fixation theory. Contrary to the windows-of-opportunity theory, results indicate that the operating performance for the IPO banks at first declines prior to the IPO and then improves in the years following. Banks appear to go public for reasons other than timing the offering to peak performance periods. The results also show that banks going public actually report a smaller loan loss provision relative to net loans following an IPO. In addition, smaller banks report a higher quality loan portfolio which leads to a slightly better net interest margin in the IPO year and the three following years. Finally, the results show that banks going public do not use their newly raised capital to over-emphasize loan growth. While the IPO banks grow their net loans at a rate that exceeds the overall banking industry, they issue riskier loans at the expense of poorer operating performance.

INTRODUCTION

Financial services are perhaps the most significant economic sector in modern societies. In the more advanced service economies, the financial sector is a major source of employment. Given the important role of financial institutions in the economy, any research that helps explain what drives their performance would be beneficial. During the 1990s, due to the stellar performance in the banking industry, most banks had no difficulty in meeting their capital requirements (Bomfim and English, 1999). From 1992 to 1998, the share of the banking industry assets at "well-capitalized" banks rose from around 70% to more than 95%. During this period banks grow their net loan at a rate that exceeds the overall banking industry and actually benefited from using their offering proceeds to enlarge their loan portfolio. During this period, what drives the overall improvements is the focus of our research. The focus attention in this research would be on the

banking institutions that went public during this time and try to bring some plausible explanations for the overall improved subsequent performance of these institutions.

The research focuses on the post-IPO performance of depository institutions within an agency framework and also on the ownership-performance issue surrounding the IPO. Four theories are evaluated to shed light on the post-IPO operating performance of depository institutions: agency cost theory, windows-of-opportunity theory, window-dressing theory, and loan-growth-fixation theory. Each of the four IPO performance theories—the agency cost theory, the windows of opportunity theory, the window-dressing theory, and the loan-growth-fixation theory—results from the inherent conflict of interest between the original owners and the new shareholders. This conflict is exacerbated by asymmetric information. Given that current evidence is inconclusive as to which theory can best explain post-IPO performance, the purpose of this paper is to determine how relevant each of these explanations are in explaining the post-issue performance within the banking industry.

The first research question examines whether banks choose to go public during a period of peak operating performance. Gibson, Safieddine, and Sonti (2004) document that institutions increase their investment in SEO firms significantly more than in a matched sample of non issuers and seasoned equity issuers who experience greatest increase in institutional investors around the offer date outperform their benchmark portfolios in the year following the issue. To address this first question, five operating ratios are calculated for the year prior to going public (year –1), the year of the IPO (year 0), and for the three years following (years +1, +2, +3). If banks go public during a period of unsustainable profitability, each operating performance ratio should decline relative to pre-IPO levels. A subsequent decline in operating performance would support the windows-of-opportunity theory. The second research question examines the relationship between bank ownership by insiders, institutional and large block shareholders and post-IPO operating performance. The important question is: do high levels of ownership by these investors result in superior operating performance relative to the entire industry? The third empirical question investigates whether banks manage their earnings by under-reporting loan loss provisions prior to going public. The final research question examines whether IPO banks use their newly raised capital to over-emphasize loan growth at the expense of greater loan default risk and lower subsequent earnings.

The following section discusses pertinent issues and provides a brief review of the literature. The next section explains the four hypotheses that are tested. Subsequent sections discuss the study group, variables, and methodology used in the study, as well as the results and conclusions

RELEVANT ISSUES AND LITERATURE REVIEW

Since the introduction of Jensen and Meckling's (1976) agency cost theory of financial structure, the relationship between ownership and performance continues to be a vexing, and largely, unresolved issue despite the volume of theoretical and empirical literature. Jensen and Meckling observe that once an entrepreneur sells part of his stake to investors, as in the case of an IPO, there

is a separation between ownership and control that promotes the consumption of perquisites by the entrepreneur. Agency costs are not the only costs of going public. There are also direct costs, underpricing, costs of information disclosure, constraints on the freedom of action in making business decisions, and tax implications. Ransley (1984) ranks the costs of going public as follows: increased pressure on senior management due to closer public scrutiny (a major disadvantage for 25%), disclosure requirements that can sometimes lead to more pay pressure from employee unions (16%), external investor scrutiny (12%), dividend pressure (5%) and unwelcome attention regarding a possible takeover (4%).

While there are significant costs of going public and public trading, the benefits of stock market flotation are just as numerous. Röell (1996) surveys the literature to find the main reasons for listing given by new stock market entrants. He finds that firms primarily issue stock to access new financing for growth opportunities, particularly acquisitions. However, the new issue proceeds are not necessarily devoted to immediate expansion. Surveying the motives that prospective entrants consider important, Ransley (1984) ranks prospects for growth by acquisition (53%) above funds for organic expansion (44%) and refinancing current borrowings (12%). In a more recent survey of first reasons given in prospectus statements, however, Buckland and Davis (1989) find acquisitions (7.6%) less important than capital investment (24.5%) and loan repayment (12.5%).

Many depository institutions in recent decades have gone from being privately held to publicly traded firm by way of an IPO. Among depository institutions, these transitions are motivated by potential scale economies, risk reduction, and asset growth strategies (Masulis, 1987). According to Berger et al. (1999), scale economies in banking have increased in the 1990s, which is consistent with technological progress that favors larger institutions. New tools of financial engineering, such as derivative contracts, off-balance-sheet guarantees, and risk management may be more efficiently produced by larger institutions.

Few research document the increased performance of the stock price and firm performance following a share repurchase. Hirtle (2004), for example, examines the relationship between the stock repurchases and financial performance for a large sample of bank holding companies. The primary result indicates that higher levels of repurchases in one year are associated with higher profitability and a lower share of problems loans in the subsequent year. In this research we do not look at the share repurchase as an indicating variable. Instead we look at the stock ownership in relation to the performance of the banks following an IPO.

HYPOTHESIS DESIGN

Four hypotheses are developed to compare a bank's operating performance for the one year prior to the IPO (year -1) to the year of the IPO (year 0) and the three years following the IPO (year +1, year +2, and year +3).

Hypothesis 1: Windows-of-Opportunity Theory

H_{o1}: There is no difference in a bank's operating performance as measured by *return on assets, return on equity, net interest margin, net non-interest margin,* and *non-interest return on assets* surrounding an IPO.

H_{a1}: There is a significant difference in a bank's operating performance as measured by *return on assets, return on equity, net interest margin, net non-interest margin,* and *non-interest return on assets* surrounding an IPO.

Results supporting the null of Hypothesis 1 would imply that the act of going public has no effect on operating performance. Evidence failing to support the null of Hypothesis 1, but identifying a negative relationship between going public and subsequent operating performance supports the conclusion that the firm takes advantage of asymmetric information in timing its IPO.

Hypothesis 2: Agency Theory

H_{o2}: There is no difference in a bank's operating performance as measured by *return on assets, return on equity, net interest margin, net non-interest margin, and non-interest return on assets* surrounding an IPO for banks that have a high degree (above the median) of *insider, institutional,* and *5% block ownership* and those banks that do not.

H_{a2}: There is a significant difference in a bank's operating performance as measured by *return on assets, return on equity, net interest margin, net non-interest margin, and non-interest return on assets* surrounding an IPO for banks that have a high degree (above the median) of *insider, institutional,* and *5% block ownership* and those banks that do not.

Hypothesis 2 examines how various ownership structures influence a bank's operating performance. The ownership types analyzed are inside management, institutional ownership, and large-block shareholders. Results supporting the null of Hypothesis 2 imply that stock ownership by a bank's top management, outside institutions, and 5% block shareholders have no influence on the operating performance surrounding an IPO.

Agency theory suggests that high insider ownership should have a positive impact on firm performance. If the results indicate a positive relationship between insider ownership and operating performance, and the null of Hypothesis 2 is rejected, one can conclude that banks which retain a high degree of inside ownership following an IPO experience superior operating performance

relative to those banks whose managers do not retain as much equity. Failure to reject the null of Hypothesis 2 would imply that agency theory is not a major determinant of a depository institution's operating performance following an IPO.

In addition to agency costs being mitigated by managerial stock ownership, institutional investors have the potential to reduce agency costs due to their often-large investment. Field (1996) finds that U.S. IPOs with larger institutional holdings at the end of the first quarter following the issue tend to outperform those with little or no institutional holdings. A rejection of the null of Hypothesis 2 concerning institutional ownership would lend support to the notion that institutional ownership has a positive influence on a bank's operating performance.

Institutional investors and large-block owners (those holding 5% or more) theoretically have an incentive to monitor management behavior. If the test results support the null of Hypothesis 2 concerning block ownership, then large-block owners do not influence the operating performance of banks following an IPO. Support of the alternative form of Hypothesis 2 will indicate that large block ownership has influenced the operating performance of banks following an IPO.

Hypothesis 3: Window-Dressing Theory

H_{o3}: There is no difference in *loan loss provision to net loans* surrounding an IPO.

H_{a3}: There is a significant difference in *loan loss provision to net loans* surrounding an IPO.

According to the window-dressing theory, bank manager under-reports loan loss provisions prior to an IPO in order to inflate earnings and improve the offering stock price. If this is the case, the null of Hypothesis 3 will be rejected due to an increase in loan loss provision relative to net loans following the public offering. Failure to reject the null of Hypothesis 3 will mean that there is no evidence that bank managers manipulate earnings through under-reporting loan loss provisions. Loan loss provision to net loans for the IPO banks will also be compared to the industry. The window-dressing hypothesis would be further supported if the IPO banks were found to under report their loan loss provision to net loans relative to the industry. This ratio will also be compared to the industry.

Hypothesis 4: Loan-Growth-Fixation Theory

H_{o4}: There is no difference in (a) *loan loss provision to net loans* and (b) *net interest margin* surrounding an IPO for banks that have above median net loan growth and those that have the below median net loan growth.

H_{a4}: There is a significant difference in (a) *loan loss provision to net loans* and (b) *net interest margin* surrounding an IPO for banks that have above median net loan growth and those that have the below median net loan growth.

Houge and Loughran (1999) suggest that the reason for banks' poor post-IPO performance during the 1980s and early 1990s can be attributed to the use of the new capital influx to grow loans too rapidly. Their research suggests that banks experience lackluster performance following an IPO that appears to be the result of an over aggressive tendency to issue new loans. These new loans are often in activities outside of traditional areas and to marginally riskier clientele.

Support of this theory would lead to rejecting the null of Hypothesis 4, meaning that those banks that grow their loans the fastest have a significantly higher proportion of loans that are not expected to be repaid. This lower quality loan portfolio leads to a decline in operating performance as measured by net interest margin. In addition, these ratios are compared to the banking industry to see if the IPO banks' loan growth differs.

Each of the four hypotheses provides insight into the operating performance surrounding an IPO. If the measures of operating performance were found to increase for the year prior to the IPO and subsequently decline for each of the three years after the IPO, there would be strong evidence to support the windows-of-opportunity theory. However, an opposite finding for loan loss provision to net loans would indicate support for the window-dressing explanation of post-IPO operating performance. To further complicate matters, it is possible that these two theories could coincide with each other and/or the agency cost theory. As a result, one can only look at the overall evidence and determine which theory is "most consistent" with the findings.

DATA AND METHODOLOGY

The study group consists of 216 commercial banks, savings institutions, and bank holding companies (SIC codes include 6021, 6022, 6029, 6035, 6036, and 6712) that enacted an IPO during the 1992 to 1998 period. The IPO sample data was purchased from the Securities Data Company and the accounting information was acquired from the *Wall Street Journal*. The industry accounting information was retrieved from the Federal Deposit Insurance Corporation (FDIC) and is an aggregate of all FDIC insured banks and thrifts. Ownership information was obtained from Compact Disclosure. The region variable tests whether operating in a particular area of the country influences operating performance over the time frame being considered. The United States is divided into six different geographic regions: Northeast, Mid-Atlantic, Southeast, Midwest, Southwest, and West. Regional information for each bank is obtained from *Hoover's Online*. Finally, the natural log of total asset value is included to control for size effects. The following section will present the results.

TABLE 1: DESCRIPTIVE STATISTICS OF BANK IPO SAMPLE

Panel A: Stock exchange and asset size

		Stock Exchange				Median Total Asset alue (in thousands)
IPO Year	Number of IPOs	NYSE	AMEX	NASDAQ	OTC	
92	10	0	0	7	3	$345,580
93	21	0	1	16	4	239,614
94	22	1	0	18	3	298,702
95	35	0	5	30	0	158,973
96	37	1	3	22	11	145,844
97	36	1	2	27	6	221,618
98	55	1	3	40	11	295,311
All Years	216	4	14	160	38	$239,614

Panel B: Median (mean) ownership levels immediately following IPO

		Median (Mean) Percentages		
IPO Year	Available Ownership Information	Insider	Institutional	5% Block
92	7	0.99 (10.21)	7.64 (10.57)	0.00 (0.78)
93	18	6.20 (9.32)	10.07 (9.70)	4.93 (8.86)
94	21	5.48 (9.08)	11.50 (13.32)	7.53 (10.52)
95	35	3.56 (7.47)	18.87 (18.93)	0.00 (5.16)
96	37	2.15 (8.41)	11.51 (15.54)	6.58 (13.93)
97	36	1.59 (7.02)	8.60 (9.99)	0.00 (4.69)
98	55	3.55 (13.48)	8.46 (9.24)	6.25 (15.97)
All Years	209	5.00 (10.94)	9.97 (12.62)	9.91 (17.14)

Table 1 presents the descriptive statistics. The number of banks going public in each year is relatively stable. The least number of IPOs occur in 1992 (10) and the greatest number in 1998 (55). Most of the banks trade on the NASDAQ (160), with relatively few trading on the NYSE (4). Given that the greatest percentage of banks (29%) in the industry had assets between $100 million

to $500 million in 1998 (Federal Deposit Insurance Corporation, 2001), the median total asset value of $239.614 million reveals a balance of large and small banks. In terms of ownership structure, institutional and 5% block owners hold similar median proportions at approximately 10 percent each for all IPO banks over the entire sample period, while insider ownership makes up about half that amount.

In theory, the best indicator of a firm's performance is its stock price. Stock price reflects the investors' evaluation of the firm's performance. The more trading that occurs for a firm's stock, the more accurate the price will reflect the true value of the firm at any given time. While there is an active market for large-bank stocks, there is a less active market for most small-bank stocks (Rosen, 1999). As a substitute for market-value indicators, bank performance can be evaluated based on various profitability and risk ratios. The accounting ratios utilized to measure bank operating performance surrounding an IPO include return on assets, return on equity, net interest margin, net non-interest margin, non-interest return on assets, and loan loss provision to net loans. For each of these ratios, the value for the year preceding the IPO (year -1) is compared with the measure from the year of the IPO (year 0) and the following three years (year +1, year +2, and year +3). The ratios for banks and thrifts engaging in an IPO are then compared to the aggregate banking industry.

The following is the cross-sectional regression of changes in operating performance and firm/offering characteristics:

$$PERF_{it} = \beta_0 + \beta_1 DINSD_i + \beta_2 DINST_i + \beta_3 DBLCK_i + \beta_4 NLGRWTH_i + \beta_5 DREGION_i + \beta_6 LNTA_i + e_i$$

Where, $PERF_{it}$ is the performance change in operating performance of firm *i* as measured by return on assets for year *t* relative to the fiscal year prior to the IPO. The independent variables include: (1) *DINSD,* a dummy variable that accounts for above and below median levels of insider ownership in year 0, (2) *DINST,* a dummy variable that accounts for the above and below median levels of institutional ownership in year 0, (3) *DBLCK,* a dummy variable divided between above and below median levels of 5% block shareholders in year 0, (4) *NLGRWTH,* the growth rate in net loans from year –1 to 0, (5) *LNTA,* the natural logarithm of total asset value in year 0, and (6) *DREGION,* a set of dummy variables that account for six U.S. geographic regions.

The variables measuring the changes in organizational structure are the post-issue levels (changes in ownership for each year were also analyzed with similar results) of equity owned by insiders, institutional investors, and large block holders. The agency hypothesis predicts a positive relationship between these three categories of equity ownership and post-IPO operating performance.

The growth rate of net loans to total assets tests Houge and Loughran's (1999) finding that the underperformance of banks going public primarily comes from institutions that adopt aggressive post-offering growth strategies. Their loan-growth-fixation theory predicts that there is a negative

relationship between loan growth and post-IPO operating performance. If some banks raise too much capital or grow assets too quickly following their IPO, they may be tempted to invest more in loans, lower loan interest rates, or lend to more risky clientele. A consequence of each of these actions is an increase in the risk of a bank's overall loan portfolio.

EVIDENCE ON THE POST-IPO ERFORMANCE

Hypothesis 1: Windows-of-Opportunity Theory

Hypothesis 1 examines the statistical significance of five bank operating return measures surrounding the IPO: net interest margin (NIM), net non-interest margin (NNIM), non-interest return on assets (NIROA), return on assets (ROA), and return on equity (ROE). Each ratio is measured over a five-year window: one year prior to going public (year –1), the year of the offering (year 0), and three years following the IPO (year +1, year +2, and year +3). Ratios are calculated for each IPO bank and compared with the entire banking industry.

TABLE 2: OPERATING PERFORMANCE OF BANK IPO SAMPLE

Panel A: Median change in net interest margin (%)				
	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
Bank IPOs	-0.01	0.14[c]	0.00	0.06
Industry	-0.10[c]	-0.12[c]	-0.18[c]	-0.26[c]
z-statistic	0.60	5.46[c]	3.59[c]	3.31[c]
Panel B: Median change in net non-interest margin (%)				
	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
Bank IPOs	0.02	-0.00	0.11[c]	0.11[c]
Industry	0.08[c]	0.22[c]	0.27[c]	0.45[c]
z-statistic	-2.05[b]	-4.69[c]	-4.46[c]	-5.58[c]
Panel C: Median change in non-interest return on assets (%)				
	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
Bank IPOs	-0.01	0.01	-0.004	0.02
Industry	0.13[c]	0.17[c]	0.36[c]	0.39[c]
z-statistic	-6.42[c]	-9.47[c]	-11.15[c]	-9.17[c]

TABLE 2: OPERATING PERFORMANCE OF BANK IPO SAMPLE

Panel D: Median change in return on assets (%)

	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
Bank IPOs	-0.002	0.14[c]	0.07[a]	0.09
Industry	0.01[c]	0.06[c]	0.04[c]	0.11[c]
z-statistic	-1.71[a]	0.61	-1.38	-2.74[c]

Panel E: Median change in return on equity (%)

	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
Bank IPOs	-3.65[c]	-1.98[c]	-1.49[c]	-0.94[c]
Industry	-0.10	0.38[c]	0.14[c]	0.62[c]
z-statistic	-15.19[c]	-9.77[c]	-8.23[c]	-6.09[c]

Note Table values are for the median change expressed as a percentage for the bank IPO firms during the period 1992 through 1998. Year –1 is the fiscal year preceding the year during which the bank goes public. The significance tests are based on the Wilcoxon signed rank test, which assumes that the observations are independent. The number of observations ranges from 136 (in year +3) to 216 (in year 0).
[a] Indicates significance at the 10% level.
[b] Indicates significance at the 5% level.
[c] Indicates significance at the 1% level.

If managers take advantage of temporary performance high points, one would anticipate performance deterioration immediately after the offering. Table 2, Panel A through E, provides a time series of the five return ratios. With the exception of NIM, each performance measure consistently under-performs the industry, both before and after the IPO.

The results of this study do not reveal a pattern consistent with the windows-of-opportunity theory. In fact, each of the return measures, with the exception of NNIM, at first *declines* (mostly insignificantly) and then *improves* in a majority of the years following the public offering (often significantly). This type of operating performance surrounding an IPO is in direct contrast to what the windows-of-opportunity theory predicts. While NIM increases slightly prior to the IPO, it continues to increase significantly in years +2 and +3 following the offering (0.11 and 0.11, respectively). Non-interest return on assets experiences small and insignificant changes surrounding the IPO.

While the IPO banks tend to slightly improve their operating performance following an IPO, their performance generally does not exceed the overall industry performance. The significance of the differences between the bank IPOs and the industry for each of the ratios in almost all years

suggest that the operating performance for the IPO banks cannot be attributed exclusively to industry trends.

For NNIM and NIROA, the IPO banks show significantly negative differences compared to the industry in each year and these differences worsen over time. It appears that banks going public do not manage their non-interest income sources and non-interest expenses as well as the entire industry. While ROE is significantly less for the IPO banks relative to the industry in each year following the public offering, the difference becomes smaller over time. If the trend in ROE continues, the IPO banks should begin to show an increase soon after three years following an IPO. Net interest margin is the only return ratio in which the IPO banks perform better than the industry and much of that is due to an industry decline in net interest margin.

In summary, the results indicate that while the operating performance of the IPO banks is overall worse than the industry, it generally improves following the public offering. These results are contrary to what the windows-of-opportunity theory predicts. It is possible that banks go public for reasons not necessarily related to their peak operating performance timing.

Hypothesis 2: Agency Theory

Hypothesis 2 divides the sample into three ownership groups (insider, institutional, and 5% block) to test whether these have an influence on bank operating performance surrounding an IPO. The agency theory implies that those banks with a greater percentage of their shares held by inside management, by other institutions, or by shareholders holding more than five percent of the outstanding stock should perform better following an IPO. This superior performance is attributed to greater management incentives to act on behalf of the owners and better management monitoring by outside investors.

Table 3, Panel A through E, divides the sample into above median insider ownership and below median insider ownership during the year of the IPO and compares their operating performance as measured by the five return variables over years 0, +1, +2, and +3. The median portion of stock held by inside management is five percent.

The z-statistics in Table 3 reveal that the operating performance of those IPO banks that retain a larger than median percentage of insider ownership do not perform differently from those banks that retain a smaller than median percentage of insider ownership. While it is difficult to find any consistent performance pattern between the two groups, in the two years in which the difference between the two groups (NIM, year +3 and NNIM, year –1) is significant, Although the operating performance difference between the groups are mostly insignificant, the low insider group outperforms the high insider group for three out of the five return measures in the years following the offering. Both NIROA and ROA for the low insider group exceed that of the high insider group for years +1, +2, and +3 relative to year –1. Panel C shows that NIROA for the low insider group. In years +1, +2, and +3 relative to year –1, it is 0.02, 0.02, and 0.04 respectively. It is 0.01, -0.01,

and 0.02 respectively for the high insider group. Panel D reveals a similar pattern for ROA. For the three years following the offering, the low insider group increased ROA more than the high insider group (0.17, 0.11, and 0.08, versus 0.06, 0.06, and 0.07, respectively). However, there is a lack of sufficient evidence to conclude that post-IPO insider ownership improves operating performance. The third performance ratio in which the low insider group did better than the high insider group is ROE. As shown in Panel E, the low insider group experienced a smaller drop in their ROE not only during the period prior to the offering but also in each of the three years following (-3.59, -1.85, -1.46, -0.84, versus -3.97, -2.84, -1.59, -1.27, respectively).

As in the insider ownership analysis, the bank IPO sample is also divided into above and below median institutional ownership groups, with the results reported in Table 4. The median institutional ownership for the sample is 9.97 percent, almost twice the amount represented by insider ownership. There is not an overall significant difference between the two groups for any of the five performance ratios.

The only difference between the two groups is for the median change in NIROA in years +1 and +2 relative to year –1, which is 0.02 and 0.04 for the low institutional group compared to –0.02 and –0.02 for the high institutional group. Contrary to agency theory, the low institutional group has a significantly better median change in NIROA in the two years following an IPO relative to the year prior to going public.

Despite the lack of differences in operating performance between the two groups, IPO banks that have *less* institutional ownership following the offering appear to perform slightly better (although insignificantly) in terms of operating performance. This result is true for each of the return ratios surrounding the IPO with the exception of net non-interest margin. Panel B shows that those IPO banks with a high degree of institutional ownership are able to outperform their low institutional counterparts in terms of NNIM in years +2 and +3 relative to year –1 (0.11 and 0.16, versus 0.10 and 0.05, respectively). These results support those found by Duggal and Millar (1999) and Demsetz and Lehn (1985) showing that no relation may exist between institutional ownership and firm performance.

Table 5 shows the results for the 5% block ownership analysis. The sample is divided between those IPO banks that have above median 5% block ownership and those that have below median 5% block ownership immediately following the offering. The median 5% block ownership for the sample is 9.91 percent. As in the case of insiders and institutional owners, large block ownership does not have an impact on the post-IPO bank operating performance. However, in the few cases where there is a significant difference in operating performance, the high block group outperforms the low block group. In Panel E, the above median block group experiences a significantly smaller reduction in ROE surrounding the IPO, with the exception of year +2, providing weak support for the monitoring effectiveness of large block shareholders.

TABLE 3: OPERATING PERFORMANCE OF HIGH AND LOW INSIDER OWNERSHIP GROUPS				
Panel A: Median change in net interest margin (%)				
	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
High insider group, ≥ 5% median	-0.02	0.10	-0.01	0.11
Low insider group, < 5% median	-0.01	0.18[c]	0.01	-0.09
z-statistic	0.10	-0.92	0.19	1.80[a]
Panel B: Median change in net non-interest margin (%)				
	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
High insider group, ≥ 5% median	0.07[a]	-0.02	0.07	0.05
Low insider group, < 5% median	-0.04	-0.04	0.13[c]	0.22[c]
z-statistic	1.69[a]	-0.43	-1.22	-1.11
Panel C: Median change in non-interest return on assets (%)				
	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
High insider group, ≥ 5% median	0.001	0.01	-0.01	0.02
Low insider group, < 5% median	-0.01	0.02	0.02	0.04[a]
z-statistic	-0.18	-0.62	-0.94	-0.13
Panel D: Median change in return on assets (%)				
	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
High insider group, ≥ 5% median	0.04	0.06	0.06	0.07
Low insider group, < 5% median	-0.05	0.17[c]	0.11[a]	0.08
z-statistic	1.41	-1.12	-0.16	0.84
Panel E: Median change in return on equity (%)				
	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
High insider group, ≥ 5% median	-3.97[c]	-2.84[c]	-1.59[c]	-1.27[c]
Low insider group, < 5% median	-3.59[c]	-1.85[c]	-1.46[c]	-0.84[a]
z-statistic	0.38	-0.86	-0.62	-0.23

TABLE 4: OPERATING PERFORMANCE OF HIGH AND LOW INSTITUTIONAL OWNERSHIP GROUPS

Panel A: Median change in net interest margin (%)

	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
High institutional group, ≥ 9.97% median	-0.07	0.10	-0.01	-0.17[a]
Low institutional group, < 9.97% median	0.002	0.17[c]	0.08	0.20
z-statistic	-0.87	-1.27	-1.50	-1.58

Panel B: Median change in net non-interest margin (%)

	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
High institutional group, ≥ 9.97% median	-0.01	-0.04	0.11[a]	0.16[c]
Low institutional group, < 9.97% median	0.07	-0.02	0.10[b]	0.05
z-statistic	-1.57	-0.92	-0.48	-0.96

Panel C: Median change in non-interest return on assets (%)

	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
High institutional group, ≥ 9.97% median	-0.02	-0.02	-0.02	0.02
Low institutional group, < 9.97% median	0.004	0.02[b]	0.04[b]	0.02
z-statistic	-1.54	-1.76[b]	-1.74[b]	0.71

Panel D: Median change in return on assets (%)

	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
High institutional group, ≥ 9.97% median	-0.04	0.05	0.06	0.05
Low institutional group, < 9.97% median	0.03	0.18[c]	0.11	0.13
z-statistic	-1.50	-1.30	-0.69	-0.79

Panel E: Median change in return on equity (%)

	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
High institutional group, ≥ 9.97% median	-4.25[c]	-2.28[c]	-1.59[c]	-1.61[b]
Low institutional group, < 9.97% median	-3.50[c]	-1.97[c]	-1.49[c]	-0.84[b]
z-statistic	-1.44	-0.43	0.33	0.06

TABLE 4: OPERATING PERFORMANCE OF HIGH AND LOW INSTITUTIONAL OWNERSHIP GROUPS

Note: Table values are for the median change expressed as a percentage for the bank IPO firms during the period 1992 through 1998. Year –1 is the fiscal year preceding the year during which the bank goes public. The significance tests are based on the Wilcoxon signed rank test, which assumes that the observations are independent. The number of observations ranges from 148 (in year +3) to 208 (in year 0).
[a] Indicates significance at the 10% level.
[b] Indicates significance at the 5% level.
[c] Indicates significance at the 1% level.

The only return measure in which the low block group consistently outperforms the high block group in each of the years surrounding the IPO is with the median change in NIM. Although the difference is insignificant, the low block group experiences an NIM of 0.01, 0.16, 0.02, and 0.09 in years 0, +1, +2, and +3 relative to year –1 compared to the high block group NIM of –0.07, 0.12, –0.03, and –0.01 over the same time period.

In summary, the evidence for each of the three classifications of ownership fail to support any significant influence on the post-IPO operating performance of banks that went public between 1992 and 1998. Only the 5% block ownership group appears to have a positive impact on operating performance. In the case of insider and institutional ownership, the results show that those banks retaining a lower percentage do marginally better following an IPO. Given that managers operate their banks in a highly regulated industry and are closely monitored by federal and state regulators, it is not surprising that the additional monitoring effects of these three ownership structures are generally insignificant. For example, the books of a federally chartered commercial bank can be examined at any time by the Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation, or the Federal Reserve System. Likewise, a state chartered savings and loan can have their books examined by the Office of Thrift Supervision, the Federal Deposit Corporation, the Federal Reserve System, or a state banking commission. These regulators also impose restrictions on the assets a bank can hold.

TABLE 5: OPERATING PERFORMANCE OF HIGH AND LOW 5% BLOCK OWNERSHIP GROUPS

Panel A: Median change in net interest margin (%)

	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
High 5% block group, ≥ 9.91% median	-0.07	0.12[b]	-0.03	-0.01
Low 5% block group, < 9.91% median	0.01	0.16[b]	0.02	0.09
z-statistic	0.20	0.26	-0.99	-1.30

TABLE 5: OPERATING PERFORMANCE OF HIGH AND LOW 5% BLOCK OWNERSHIP GROUPS

Panel B: Median change in net non-interest margin (%)

	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
High 5% block group, ≥ 9.91% median	0.07[a]	-0.02	0.07	0.05
Low 5% block group, < 9.91% median	-0.04	-0.04	0.13[c]	0.22[c]
z-statistic	1.69[a]	-0.43	-1.22	-1.11

Panel C: Median change in non-interest return on assets (%)

	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
High 5% block group, ≥ 9.91% median	-0.01	0.01	0.01	0.01
Low 5% block group, < 9.91% median	-0.003	0.01	-0.002	0.04
z-statistic	-0.30	-0.57	-0.85	0.46

Panel D: Median change in return on assets (%)

	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
High 5% block group, ≥ 9.91% median	0.03	0.19[c]	0.04	0.09
Low 5% block group, < 9.91% median	-0.04	0.05	0.13	0.07
z-statistic	1.41	-1.12[b]	-0.16	0.84

Panel E: Median change in return on equity (%)

	Year relative to IPO fiscal year			
	–1 to 0	–1 to +1	–1 to +2	–1 to +3
High 5% block group, ≥ 9.91% median	-3.62[c]	-1.35[c]	-1.59[c]	-0.79
Low 5% block group, < 9.91% median	-4.00[c]	-3.00[c]	-1.46[c]	-1.63[c]
z-statistic	1.73[a]	2.44[b]	0.43	1.88[b]

Note: Table values are for the median change expressed as a percentage for the bank IPO firms during the period 1992 through 1998. Year –1 is the fiscal year preceding the year during which the bank goes public. The significance tests are based on the Wilcoxon signed rank test, which assumes that the observations are independent. The number of observations ranges from 120 (in year +3) to 206 (in year 0).

[a] Indicates significance at the 10% level.

[b] Indicates significance at the 5% level.

[c] Indicates significance at the 1% level.

Hypothesis 3: Window-Dressing Theory

The window-dressing theory predicts that bank management will under-report provision for loan losses prior to an IPO in order to help smooth earnings. Loan loss provision measures the amount of loans that banks expensed during a given year in anticipation of current and future loan losses. Since some level of discretion by bank management is required when anticipating expected loan losses, it is quite possible for the IPO banks to report lower loan losses prior to the offering in order to inflate reported earnings.

Table 6 provides a time series of the loan loss provision to net loan ratio (LLPNL) for the IPO banks in years –1, 0, +1, +2, and +3. In addition, the percentage change in the ratio from year 0 to +3 is calculated in the final column of each panel. Only those banks with three years of financial information following the IPO are included for this calculation. Panel A compares the LLPNL of the IPO banks to that of the industry for each period. For banks that go public, the LLPNL shows a general decline relative to the year prior to the IPO. The LLPNL is 0.19, 0.14, 0.12, 0.12, and 0.10 percent for years –1, 0, +1, +2, and +3, respectively. Rather than increasing the amount of loan loss provision following an IPO as expected by the window-dressing theory, the IPO banks actually report a smaller amount of loan loss provision relative to net loans.

Over the same periods, industry LLPNL at first increases from 0.54 in year –1 to 0.61 in year 0. Industry LLPNL then decreases to 0.55 in year +1 and levels off at 0.61 in years +2 and +3. IPO banks consistently report significantly less loan loss provisions as a percentage of net loans when compared to the industry. Therefore, while the IPO banks do not appear to significantly change their reported loan loss provisions surrounding an IPO, they do report less than their industry counterparts both before and after the offering. From year 0 to +3, the bank IPOs experience a decline in LLPNL of 27.15 percent compared to an industry increase of 12.96 percent. Overall, the evidence does not support the window-dressing theory.

When the sample is divided to account for size differences based on above and below median total assets, the smaller firms report a lower LLPNL in each period when compared to their larger counterparts, with the difference being significantly less in years –1 and 0. This partly explains why the smaller banks have a slightly larger net interest margin in the IPO year and the three following years. However, while the size of the bank may influence how it reports loan loss provisions leading up to the offering, it does not appear to have much influence on bank operating performance in terms of net interest margin.

TABLE 6: POST-IPO LOAN LOSS PROVISION TO NET LOANS AND NET INTEREST MARGIN OF LARGE AND SMALL BANKS

Panel A: Median loan loss provision scaled by net loans (%)

	Year relative to IPO fiscal year					
	-1	0	+1	+2	+3	change from 0 to +3
Bank IPOs	0.19	0.14	0.12	0.12	0.10	-27.15
Industry	0.54	0.61	0.55	0.61	0.61	12.96
z-statistic	-12.52[c]	-14.03[c]	-16.32[c]	-17.05[c]	-15.13[c]	-0.22

Panel B: Median loan loss provision scaled by net loans (%)

	Year relative to IPO fiscal year					
	-1	0	+1	+2	+3	change from 0 to +3
Large TA group, ≥ $192,308 median	0.22	0.15	0.15	0.13	0.12	-55.04
Small TA group, < $192,308 median	0.18	0.13	0.10	0.12	0.09	-20.05
z-statistic	1.91[b]	1.99[c]	1.16	0.12	0.51	-0.02

Panel C: Median net interest margin (%)

	Year relative to IPO fiscal year					
	-1	0	+1	+2	+3	change from 0 to +3
Large TA group, ≥ $192,308 median	3.18	3.05	3.14	2.99	2.94	-2.68
small TA group, < $192,308 median	3.16	3.13	3.39	3.21	3.02	0.84
z-statistic	-0.00	-0.43	-2.71[c]	-1.48	-0.88	-0.16

Note: The sample is divided into two groups based on median total assets (in thousands) in year –1. Year –1 is the fiscal year preceding the year during which the bank goes public. Firms below the $192,308 threshold are in the small TA group. The industry information is the aggregate of all FDIC insured banks and thrifts. The last column of each panel reports the median change in the specified ratio from year 0 to +3. The significance tests are based on the Wilcoxon signed rank test, which assumes that the observations are independent. The number of observations ranges from 125 (in year +3) to 216 (in year 0).

[a] Indicates significance at the 10% level.

[b] Indicates significance at the 5% level.

[c] Indicates significance at the 1% level.

Hypothesis 4: Loan-Growth-Fixation Theory

By the very nature of going public, a firm generally raises a significant amount of capital. A firm must invest the capital to earn a return sufficient to recover the IPO flotation costs and earn the required shareholder return. Among banks, the primary investment outlet with the most attractive return is new loans. Houge and Loughran (1999) find that banks going public between 1983 and 1991 over-invested in loans to the detriment of their operating performance. Hypothesis 4 tests whether this loan growth-fixation theory holds true for the more recent sample of banks that went public between 1992 and 1998.

Table 7, Panel A, compares the median net loan change for the bank IPOs to the industry for periods –1 to 0, 0 to +1, +1 to +2, and +2 to +3. Net loans are calculated as the difference between total loans outstanding less allowance for loan losses. For each period, the bank IPO sample experiences a significantly greater net loan growth compared to the industry, with the greatest difference in the year immediately following the IPO.

Panels B and C report above and below median net loan growth (from year –1 to year 0) and compare each group to the industry. The median net loan growth from year –1 to year 0 is 13.13 percent. With the exception of the period prior to the IPO for the low growth group, both groups grow their net loans at a rate significantly greater than the industry. Over these periods, net loans for the industry grow at a stable rate of approximately eight percent. In the years subsequent to the IPO, the low growth group experiences a greater growth in net loans, with a peak in the second year.

In Table 8, the sample is again divided into above and below median net loan growth in order to evaluate its influence on the riskiness of a bank's loan portfolio and operating performance. The loan-growth-fixation hypothesis predicts that in order to invest the large amount of capital raised from an IPO, a bank will begin to issue loans in new areas of business in which the bank lacks experience and cannot adequately evaluate the risk. The bank may also begin to make loans to marginally riskier borrowers in order to invest the capital and earn a higher rate of return. These types of actions should result in higher reported LLPNL and thus reduce the bank's NIM.

Panel A shows that the high growth group reports a higher LLPNL in the year of the IPO and for each of the three years following when compared to the low growth group, with the difference being significant only in years +1 and +2. While the higher LLPNL reveals a slightly riskier loan portfolio for the high net loan growth group, both groups experience a decline in their LLPNL over the four-year period. In addition, Panel B reveals that net loan growth does not appear to have a significant operating performance effect. The NIM difference between the two groups is mostly insignificant, with the low growth group experiencing a small advantage in each of the three years following the offering. While the results provide supporting evidence of significant net loan growth for banks that go public relative to their industry counterparts, the evidence weakly supports the notion that this growth leads to a riskier loan portfolio. However, the additional risk does not appear

to cause poorer operating performance. Therefore, the loan-growth-fixation theory cannot be relied upon to be the primary explanation of the post-IPO operating performance of the banking industry.

TABLE 7: BANK IPO SAMPLE CATEGORIZED BY YEAR –1 TO 0 GROWTH IN NET LOANS

Panel A: Median change in net loans, all firms (%)

	Year relative to IPO fiscal year			
	–1 to 0	0 to +1	+1 to +2	+2 to +3
Bank IPOs	13.13	16.57	16.42	12.39
Industry	7.97	7.54	7.97	7.97
z-statistic	10.05[c]	14.85[c]	12.11[c]	5.99[c]

Panel B: Median change in net loans, high growth group (%)

	Year relative to IPO fiscal year			
	–1 to 0	0 to +1	+1 to +2	+2 to +3
High growth group, ≥ 13.13% median	25.33	23.53	17.43	15.07
Industry	7.97	7.54	7.97	7.97
z-statistic	17.92[c]	14.53[c]	9.58[c]	6.16[c]

Panel C: Median change in net loans, low growth group (%)

	Year relative to IPO fiscal year			
	–1 to 0	0 to +1	+1 to +2	+2 to +3
Low growth group, < 13.13% median	6.64	13.53	14.87	9.53
Industry	7.97	7.54	7.97	7.97
z-statistic	-1.34	6.62[c]	7.27[c]	2.88[c]

Note: In Panel B and C the sample is divided into two groups based on the change in net loans between year –1 and 0 scaled by year –1 net loans. Year –1 is the fiscal year preceding the year during which the bank goes public. The median percentage change in net loans from year –1 to 0 is 13.13%. Firms above the 13.13% threshold are in the high growth group. The industry information is the aggregate of all FDIC insured banks and thrifts. The significance tests are based on the Wilcoxon signed rank test, which assumes that the observations are independent. The number of observations ranges from 138 (in year +3) to 216 (in year 0).

[a] Indicates significance at the 10% level.

[b] Indicates significance at the 5% level.

[c] Indicates significance at the 1% level.

TABLE 8: POST-IPO LOAN LOSS PROVISION TO NET LOANS AND NET INTEREST MARGIN OF LOW AND HIGH LOAN GROWTH BANKS

Panel A: Median loan loss provision scaled by net loans (%)

	Year relative to IPO fiscal year			
	0	+1	+2	+3
High growth group, ≥ 13.13% median	0.19	0.16	0.15	0.13
Low growth group, < 13.13% median	0.11	0.10	0.09	0.09
z-statistic	1.53	3.11[c]	2.30[b]	0.08

Panel B: Median net interest margin (%)

	Year relative to IPO fiscal year			
	0	+1	+2	+3
High growth group, ≥ 13.13% median	3.07	3.12	3.06	2.98
Low growth group, < 13.13% median	3.06	3.35	3.15	3.02
z-statistic	-0.20	-1.92[a]	-0.96	-0.08

Note: In Panel B and C the sample is divided into two groups based on the change in net loans between year –1 and 0 scaled by year –1 net loans. Year –1 is the fiscal year preceding the year during which the bank goes public. The median percentage change in net loans from year –1 to 0 is 13.13%. Firms above the 13.13% threshold are in the high growth group. The industry information is the aggregate of all FDIC insured banks and thrifts. The significance tests are based on the Wilcoxon signed rank test, which assumes that the observations are independent. The number of observations ranges from 138 (in year +3) to 216 (in year 0).

[a] Indicates significance at the 10% level.

[b] Indicates significance at the 5% level.

[c] Indicates significance at the 1% level.

Joint Test

In Table 9, the association between operating performance and ownership characteristics is jointly tested by estimating cross-sectional multivariate regressions. The dependent variables include the change in ROA in years +1, +2, and +3 relative to year –1 and the ROA average over the three years following the IPO relative to the year prior. The independent variables include three dummy variables for above and below median insider, institutional, and 5% block ownership. Other independent variables include the percentage change in net loans from year –1 to 0, the natural

logarithm of total assets in year 0 (to control for firm size), and another set of dummy variables is added for regions in which the banks operate.

TABLE 9: ORDINARY LEAST-SQUARES REGRESSIONS OF RETURN ON ASSETS ON OFFERING FIRM CHARACTERISTICS

Variable	Difference in ROA in year +1 relative to year -1	Difference in ROA in year +2 relative to year -1	Difference in ROA in year +3 relative to year -1	Difference in average ROA for years +1, +2, and +3 relative to year -1
1. Intercept	0.009 (0.287)	0.008 (0.256)	0.001 (0.880)	0.006 (0.379)
2. DINSD	-0.001 (0.219)	-0.001 (0.364)	0.001 (0.585)	-0.001 (0.553)
3. DINST	0.002 (0.090)	0.001 (0.292)	0.002 (0.081)	0.002 (0.085)
4. DBLCK	0.003 (0.006)	0.003 (0.001)	0.003 (0.012)	0.003 (0.001)
5. NLGRWTH	0.007 (0.0002)	0.008 (0.0001)	0.007 (0.0001)	0.007 (0.0001)
6. LNTA	-0.001 (0.006)	-0.001 (0.253)	-0.001 (0.779)	-0.001 (0.352)
7. MA	0.004 (0.070)	0.002 (0.284)	0.003 (0.234)	0.003 (0.119)
8. SE	0.003 (0.102)	0.001 (0.438)	0.003 (0.148)	0.002 (0.137)
9. MW	0.0024 (0.070)	0.002 (0.158)	0.001 (0.274)	0.002 (0.101)
10. SW	0.002 (0.372)	0.001 (0.490)	0.002 (0.418)	0.002 (0.361)
11. W	0.002 (0.301)	0.004 (0.061)	0.006 (0.008)	0.004 (0.035)
p-value of *F*-statistic	0.001	0.0001	0.001	0.0001
R^2	0.429	0.538	0.453	0.524
Sample size	215	194	139	136

Note: The IPO sample includes banks, thrifts, and bank holding companies with accounting information available from the Quotes and Research section on the WSJ.com website. Year 0 is the year of the stock offering. DINSD, DINST, DBLCK are dummy variables divided into above and below median ownership for inside management, institutional, and 5% block ownership, respectively, in year 0. NLGRWTH is the percentage change in net loans between year –1 and 0 scaled by year –1 net loans. LNTA is the natural logarithm of total assets in year 0. MA, SE, MW, SW, W are dummy variables representing the regions Mid-Atlantic, Southeast, Midwest, Southwest, and West, respectively. Coefficients for these variables represent bank performance relative to banks operating in the Northeast. The numbers in parentheses beside the coefficient estimates are *p*-values.

With the exception of the third year, high insider ownership has a small and insignificant negative affect on operating performance. This is contrary to what the agency hypothesis predicts, but it agrees with the Wilcoxon ranked sum test results previously presented. Banks with less insider ownership perform slightly better in terms of post-IPO operating performance. Unlike inside management ownership, both institutional and 5% block shareholders exert a small, but significant, influence on a bank's ROA. This positive influence by institutional and large block shareholders on operating performance may be due to the fact that their median holding is about twice that of the inside management group (9.97% and 9.91% versus 5%, respectively), giving them a greater incentive to actively monitor activities.

The loan-growth-fixation theory presented by Houge and Loughran (1999) proposes a new explanation for the poor operating performance of banks following an IPO. By over emphasizing loan growth, an IPO bank is more likely to use the newly raised capital to fund loans that may be unfamiliar to the bank or to customers of greater risk in order to earn a higher return. Either case can ultimately lead to a decline in operating performance. As is the case with the Wilcoxon rank sum tests, the regression results of all four models fail to support the loan-growth-fixation theory. In each model, net loan growth from the year before the IPO to the year of the IPO is positively related to operating performance. Banks going public between 1992 and 1998 benefited from using their offering proceeds to grow their loan portfolio.

The last two sets of independent variables control for bank size and geographic region. Bank size, as measured by the natural log of total assets in the year of going public, is negatively related to operating performance, with statistical significance occurring only in the first model. This supports the evidence provided by the Wilcoxon tests that show smaller IPO banks tend to earn a higher NIM than their larger counterparts do. In order to control for possible location effects on operating performance, the IPO banks are divided into six geographic regions (Northeast, Mid-Atlantic, Southeast, Midwest, Southwest, and West) and five dummy variables are created. When compared, each region fared slightly better than banks operating in the Northeast. However, it does not appear that there are any financial advantages to operating in any particular region.

CONCLUDING REMARKS

Prior research documents the decline in financial performance following an IPO. Our study shows that the evidence about the relevance of agency theory is limited in case of depository institutions that went public during 1992-1998. The results of this study also do not support the windows-of-opportunity theory. In fact, each of the return measures, with the exception of net non-interest margin, at first *declines* and then *improves* in the years following the public offering. This type of operating performance shift is in direct contrast to what the windows-of-opportunity theory

predicts. Banks appear to go public for reasons other than timing the offering to peak performance periods.

When the IPO banks are divided based on high and low net loan growth, one finds that the high net loan growth group has a higher loan loss provision to net loans in the year of the IPO and for each of the three years following. However, both groups consistently experience a decline in their loan loss provision to net loans over the four-year period. The difference in the operating performance between the two groups, as measured by net interest margin, is mostly insignificant. However, the low growth group experiences a small advantage in each of the three years following the offering.

Results from cross-sectional regression analysis tend to support the findings from the Wilcoxon signed rank tests in that a high level of insider ownership has no effect on the post-IPO operating performance of depository institutions, providing no support for the agency theory explanation. However, of the three types of ownership, above median levels of large-block shareholders has the greatest impact on post-IPO operating performance. Regression results also indicate that smaller banks tend to perform slightly better than their larger counterparts. Both the Wilcoxon tests and the regression results fail to support the loan-growth-fixation hypothesis. In each regression model, net loan growth is positively related to operating performance. Therefore, a bank going public between 1992 and 1998 actually benefited from using their offering proceeds to enlarge their loan portfolio.

In summary, banks going public during the period of 1992 to 1998 experience an overall improvement in subsequent operating performance. There is no indication that banks manage their earnings prior to going public or that they use newly raised capital to issue new, riskier loans to the detriment of earnings. It may be the case that these findings are the result of the high rate of economic growth experienced in the U.S. during the sample period.

Finally, it does not appear that high levels of ownership by managers, other institutions, or large block shareholders have any influence on post-IPO bank operating performance. Given the highly regulated nature of the banking industry, in which management behavior is closely monitored by multiple regulators, the additional monitoring benefits associated with these three ownership structures are generally insignificant.

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