INSIDER OWNERSHIP AND BANK PERFORMANCE BEFORE, DURING AND AFTER THE RECENT FINANCIAL CRISIS

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Abstract

This paper examines the relationship between insider ownership and bank performance. We use a sample of U.S. Bank Holding Companies in 2005 (before crisis), 2008 (during crisis) and 2011 (after crisis). We use Tobin's Q, market-to-book ratio, return on asset and return on equity as the dependent variables, and insider ownership as the independent variable in the regressions. We find that insider ownership is strongly related to bank performance before the recent financial crisis, but unrelated to bank performance during the crisis.

Keywords: Bank, Insider Ownership, Performance, Financial Crisis

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1. Introduction

A large literature has examined the relationship between insider ownership and firm performance, and the results are mixed. The earliest study on this topic dates back to 1932, when Berle and Means published the book entitled "The Modern Corporation and Private Property." They argue that when insider ownership is small, the value of the enterprise is likely to be low.

Subsequent researchers have conducted theoretical analysis. The earliest model is developed by Stulz (1988), who shows that firm performance goes up as insider ownership increases, but when insider ownership reaches a threshold level, further increase in insider ownership will cause firm performance to decline. This happens because too much ownership entrenches managers, and as a result entrenched managers are less incentivized to improve firm performance.

However, some studies find no significant relationship between insider ownership and firm performance. For example, Himmelberg, Hubbard, and Palia (1999) find that, after controlling for firm fixed effects, changes in managerial ownership do not affect firm performance.

Researchers have also examined the relationship between insider ownership and bank performance, and the results are mixed as well. While some studies find a nonlinear relationship, others find a negative relationship. In a recent paper, Aebi, Sabato, Schmid (2011) find that standard corporate governance variables such as insider ownership have no impact on bank performance during the recent financial crisis. We review the related literature in the next section.

In this paper, we compare the relationship between insider ownership and bank performance before, during, and after the recent financial crisis. We hypothesize that the relationship between insider ownership and bank performance depends on outside environment. This relationship could be

different before and during the financial crisis, possibly because banks had more exposure to risk during the crisis, thus market value reduced.

In order to test our hypothesis, we use a list of publicly-traded bank holding companies (BHCs) from three years: 2005 (before crisis), 2008 (during crisis), and 2011 (after crisis). We measure bank performance by using four variables: Tobin's Q (Q), market-to-book ratio (MB), return on assets (ROA) and return on equity (ROE). Q is defined as market value of assets divided by book value of assets; MB is defined as market value of equity divided by book value of equity; ROA is defined as net income divided by total assets; ROE is defined as net income divided by equity. We measure insider ownership using the percentage of shares owned by directors and officers as a group. We use the bank size (Size), real estate loans, commercial and industrial loans, consumer loans and deposits as control variables.

Our results can be summarized as follows. Overall, we find no evidence that insider ownership is related to bank performance during the crisis. In contrast, we find strong evidence that bank performance was significantly positively related to insider ownership before the crisis. After crisis, insider ownership was positively related to market value of banks, but unrelated to other measures of bank performance.

The rest of the paper is organized as follows. Section 2 reviews the related literature. Section 3 presents the sample and empirical model. Section 4 reports our empirical results. We conclude in section 5.

2. Literature Review

2.1 Insider ownership and corporate performance

Insider ownership and corporate performance has been the focus of a large number of studies. The relationship can be traced back to 1932, when Berle and Means published the book entitled "The Modern Corporation and Private Property." Their book first proposed the idea that when insider ownership is relatively low, managers are likely to have administrator privileges, and as a result the value of the company will be reduced. Since then, a large literature has examined the relationship between insider ownership and firm performance, but the results are mixed.

According to the so-called exogenous view, insider ownership is an independent exogenous variable. The earliest modeling about the relationship between insider ownership and corporate performance was carried out by Stulz (1988), who found that at first the performance of corporations goes up as insider ownership increases, but when insider ownership reaches a certain level, corporate performance begins to decline.

Morck, Shleifer and Vishny (1988) and McConnell and Servaes (1990) found that the relationship between insider ownership and corporate performance is nonlinear. This is consistent with the model of Stulz (1988).

Chen, Hexter, and Hu (1993) used Fortune 500 companies in 1976, 1980 and 1984 to study the relationship between insider ownership and corporate performance. They found that Tobin's Q is a function of managerial ownership. When managerial ownership lies between 0-5%, Tobin's Q rises. When the managerial ownership increases to 12%, the value of Tobin's Q starts to decrease. When managerial ownership exceeds 12%, the results are sensitive to the sample used.

With regard to the relationship between the company's market value and insider ownership, the results are not always consistent. For example, Knoeber and Mehran (1995), Yermack (1996), Agrawal (1996), and Keasey (1999) found a positive and significant relationship between insider ownership and market value (as measured by Tobin's Q) and accounting performance (as measured by ROA). However, Himmelberg et al. (1999) and Demsetz and Villalonga (2001) found no relationship between insider ownership and firm performance.

2.2 Insider ownership and bank performance

Following the recent financial crisis, researchers have focused on the effect of corporate governance in the banking industry. Most studies examine insider ownership, board structure (external and internal directors) and executive compensation. We focus on a specific governance mechanism, namely the role of insider ownership (IO) in the bank. This is based on agency theory to identify common conflict of interest (Jensen and Meckling, 1976). In their seminal paper, Jensen and Meckling argue that insider ownership can reduce conflicts of interest arising from agency costs, and have a positive impact on market value. However, the positive impact is up to a threshold, beyond which the manager will begin to divert additional revenue, resulting in a nonlinear relationship between insider ownership and firm performance.

Several papers examine insider ownership on bank performance, but the results are mixed. Griffith, Fogelberg, and Zhou (2002) found that CEO's ownership and bank performance is a nonlinear relationship. Hughes et al. (2003) found that higher insider ownership is often associated with worse performance. Belkhir (2004), using a sample of U.S. banks and savings and loan associations, found a significant (negative) relationship between insider ownership and market value (Tobin's Q). This is consistent with the findings of Hughes et al. (2003). Barako and Tower (2007) found that board ownership and performance of government-owned banks are negatively correlated.

Researchers have also studied the effect of the controlling shareholders on bank performance. Caprio, Laeven and Levine (2007) found that a greater cash flow right owned by the controlling shareholders enhances bank valuations. Elyasiani and Jia (2008) found that the stability of institutional ownership has a positive impact on bank holding companies' performance. Westman (2011) used a sample of European financial companies (commercial and investment banks and bank holding companies) over the period 2003-2006. She found a positive and significant relationship between insider ownership and accounting performance.

Some researchers studied the effect of corporate governance on bank performance during the recent financial crisis from 2007 to 2009. Several papers concluded that better-managed banks performed better during the crisis. Farm (2009) found that German banks' loss arose from financial incompetence and failure of Supervisory Board. Peni and Vahamaa (2011) found that with better corporate governance, banks have higher profitability. Rove et al. (2011) found that corporate governance better explains bank loan quality performance.

Other papers concluded that banks with better corporate governance did not perform better during the crisis. Beltratti and Stulz (2011) built a sample of large international banks, and found that the shareholder-friendly boards did not performe better during the crisis. Erkens, Hung, and Matos (2012) found that banks with more independent boards and higher institutional ownership during the crisis had lower stock returns. Aebi, Sabato, Schmid (2011) found the standard corporate governance variables had no impact on bank performance during the crisis.

3. Data

3.1 Data sources

We start with a list of publicly traded bank holding companies (BHCs) from Federal Reserve Bank of New York. We then identify the 200 largest BHCs by market capitalization in 2005 (before crisis), 2008 (during crisis) and 2011 (after crisis) from the CRSP database. After that we obtain accounting data for each bank from the Federal Reserve's FR-Y9C database. Finally, we obtain insider ownership data for each bank from the SEC EDGAR database.

3.2 Measuring bank performance

We measure bank performance using Tobin's Q (Q), market-to-book ratio (MB), return on assets (ROA) and return on equity (ROE). Q is defined as market value of assets divided by book value of assets; MB is defined as market value of equity divided by book value of equity; ROA is defined as net income divided by total assets; ROE is defined as net income divided by equity.

3.3 Measuring insider ownership

To evaluate the relationship between insider ownership and bank performance, we use the percentage of shares owned by directors and officers as a group to define insider ownership. When insider ownership is less than 1%, we set it equal to 0.5%.

3.4 Control variables

We use several control variables in our regressions. These variables are selected following previous studies.

First, we control for size, which is defined as the natural logarithm of assets. It is a major variable affecting bank performance. We expect that large banks to have better performance. This is because large banks are likely to obtain scale and scope economies, thus exhibiting higher market values.

Second, we control for the shares of real estate loans, commercial and industrial loans, and consumer loans in total loans. Finally, we control for the percentage of deposits in total assets. Table 1 summarizes the definition of variables used in our study.

3.5 Summary statistics and correlation matrix

Since some banks closed down, some banks were taken over and some unfound data, as shown in the Tables 2.1, 2.2 and 2.3, our sample finally consists of 167 observations in 2005, 166 observations in 2008 and 173 observations in 2011. The mean of insider ownership is 0.1254 in 2005, 0.1107 in 2008 and 0.0979 in 2011, which shows a tendency of decline. Considering the influence of crisis for recent years, the economy is in a slump and the market downturn cause the decrease of percentage of shares owned by the insiders. The bank size has the bigger standard dividends than other variables, which are 1.4516 in 2005, 1.5297 in 2008 and 1.6961 in 2011. The bank size increased due to the expansion of bank assets.

Table 3.1, 3.2, and 3.3 present presents the correlations among various variables. We focus on the correlation between independent variable (IO) and dependent variables (Q, MB, ROA, ROE). We

find that the correlations between IO and ROA are 0.0698 in 2005, 0.0679 in 2008 and 0.2235 in 2011. The correlations between IO and ROE are 0.0242 in 2005, 0.0618 in 2008 and 0.1570 in 2011. We conclude that the correlation between IO and ROA and the correlation between IO and ROE are more relative after crisis.

3.6 Regression model

As we are interested in understanding the impact of financial crisis on the relationship between insider ownership and bank performance, we use data from three years, namely 2005 (before crisis), 2008 (during crisis) and 2011 (after crisis). The empirical equation is as follows:

$$performance = \alpha + \beta \cdot IO_i + \gamma \cdot IO_i^2 + \omega \cdot controls_i + \varepsilon_i$$

Where α is a constant; β, γ and ω are coefficient estimates; IO^2 is a function of insider ownership to check whether the relationship between insider ownership and bank performance is non-linear (Stulz, 1988; Morck, Shleifer and Vishny, 1988); $controls$ pertain to bank and characteristics; i refers to a specific bank; and ε_i is the error term. We estimate the equation using the ordinary least squares (OLS).

To allow for the impact of the recent financial crisis on the determinants of bank performance, we estimate the model separately for the pre-crisis, during-crisis and after-crisis period.

4. Empirical results

Table 4.1, 4.2 and 4.3 report the regression results for 2005, 2008 and 2011, respectively. In each cell, the first line reports the coefficients and the second line reports the standard errors. We regard a coefficient with a p-value less than 0.05 to be statistically significant.

4.1 Regression results prior to financial crisis (2005)

Table 4.1 reports the regression results for the pre-crisis year 2005. In columns (1) and (2), the dependent variables are Tobin's Q and MB, while in columns (3) and (4), the dependent variables are ROA and ROE. The definitions of these variables are described in Table 1, and they represent the performance of the bank holding companies.

The coefficients on insider ownership (IO) are positive and significant in all of the regressions except ROE, indicating positive correlation between IO and bank performance. This result is consistent with a number of recent studies (e.g., Athanasoglou, Brissimis, and Delis, 2008; Goddard et al., 2010, 2011; Dietrich and Wanzenried, 2011). The coefficient on ROE is not significant, indicating that insider ownership is not well related to return on equity.

The coefficients on control variables are broadly consistent with our expectation. Specifically, in rows (4) and (5), when we regress performance on the control variables capital and real estate loans, we find significant association between these variables and bank performance, indicated by Tobin's Q and ROA for capital, and Tobin's Q, MB ratio, and ROE for real estate loan. There's a difference between the two correlations though, it is that capital and performance is positive correlated, while real estate loans and performance is negatively correlated.

The coefficients on commercial and industrial loan, consumer loan, and deposits are negative but not significant in the Tobin's Q regressions, but not consistent in the regressions on MB ratio, ROA, and ROE. The positive correlation between deposit and ROE indicates that banks with a higher proportion of deposits are more profitable. This is consistent with the empirical fact that interest rates on deposits are usually lower than those on borrowed funds. Taken together, these test results indicate that our regression estimation is well specified.

4.2 Regression results during financial crisis (2008)

Table 4.2 reports the regression results for the crisis year 2008. The coefficient on either insider ownership or insider ownership squared is not significant in any of the regressions. Thus, insider ownership is not related to bank performance during the crisis period.

On the other hand, we continue to find a significant negative correlation between capital and MB ratio, real estate loans and MB and Tobin's Q. In particular, we find that size has a significant negative correlation with all four-performance measurements. This is perhaps because larger banks were more capable of taking risk before the crisis, thus investing a large portion of assets in high-risk instruments. When the financial crisis happened, they had more exposure to the risk, and became more vulnerable compared to the smaller size banks.

Another interesting finding is that deposits are significantly negatively associated with all four performance measurements as well. One possible reason is that when the crisis explored, banks could no longer get funded in the market. By increasing interest rates, they

could borrow money from depositors, thus making deposits significantly negative correlated to bank profitability.

4.3 Regression results after financial crisis (2011)

Table 4.3 reports the regression results for the after-crisis year 2011. The coefficient of insider ownership is positive and significant when ROA is the dependent variable, and insignificant when the other three performance measures are dependent variables. These results indicate that after the crisis, insider ownership has more influence on the bank performance than during the crisis, but the impact is not as significant as it was before the crisis.

The impact of other control variables on bank performance is also weaker compared with pre-crisis years. Size has a negative and significant correlation when MB is the dependent variable. But there's no clear pattern for the other regression results.

5. Conclusion

We have examined the effect of insider ownership on bank performance using a panel of U.S. bank holding companies in 2005, 2008, and 2011. To control for the impact of the recent financial crisis, we run separate regressions for the pre-crisis year 2005, crisis year 2008 and the post-crisis year 2011. Overall, we find no evidence that insider ownership is related to bank performance during the crisis. In contrast, we find strong evidence that bank

performance is significant related to insider ownership before the crisis. After crisis, the results are mixed, depending on how performance is measured.

Our results have an important policy implication. Some researchers have argued that higher insider ownership can improve bank performance. However, our results show that insider ownership has no impact on bank performance during the crisis period, precisely when better performance is needed most. Thus, regulators need to consider other measures to improve bank performance during a financial crisis.

Appendices

Table 1: Definition of variables

Variables	Definition
Tobin's Q	Market value of assets / Book value of assets
Market-To-Book Ratio	Market value of equity / Book value of equity
Return On Assets	Net income / Total assets
Return On Equity	Net income / Equity
Insider Ownership	Percentage of shares owned by directors and officers as a group
Size	Log (total assets)
Capital	Equity / Total assets
Real Estate Loans	Real estate loans / Total loans
Commercial and Industrial Loans	Commercial and Industrial loans / Total loans
Consumer Loans	Consumer loans / Total loans
Deposits	Deposits / Total assets

Table 2: Summary Statistics

Table 2.1: 2005 Year

	Obs.	Mean	Std. Dev.	Min	Max
Tobin's Q	167	1.1163	0.1549	0.9578	2.9753
Market-To-Book Ratio	167	2.2106	0.6870	0.4414	4.3515
Return On Assets	167	0.0190	0.0135	-0.0034	0.1725
Return On Equity	167	0.2025	0.0688	-0.0366	0.4112
Insider Ownership	167	0.1254	0.1263	0.0050	0.6910
Size	167	15.8345	1.4516	14.0342	21.1248
Capital	167	0.0955	0.0535	0.0583	0.7078
Real Estate Loans	167	0.6860	0.1877	0.0000	0.9895
Commercial And Industrial Loans	167	0.1672	0.1100	0.0000	0.7476
Consumer Loans	167	0.0818	0.0986	0.0000	0.6958
Deposits	167	0.6914	0.1571	0.0090	0.9048

Notes: Please see Table 1 for definition of variables.

Table 2.2: 2008 Year

	Obs.	Mean	Std. Dev.	Min	Max
Tobin's Q	166	1.0220	0.0676	0.9046	1.3741
Market-To-Book Ratio	166	1.2437	0.6515	0.1990	3.6043
Return On Assets	166	0.0023	0.0207	-0.1574	0.0589
Return On Equity	166	0.0173	0.2383	-1.8843	0.3410
Insider Ownership	166	0.1107	0.1157	0.0050	0.6720
Size	166	15.7128	1.5297	13.5393	21.5003
Capital	166	0.1017	0.0309	0.0421	0.3807
Real Estate Loans	166	0.7043	0.1646	0.0876	0.9990
Commercial And Industrial Loans	166	0.1747	0.1092	0.0005	0.7222
Consumer Loans	166	0.0623	0.0709	0.0000	0.4776
Deposits	166	0.6853	0.1374	0.0137	0.8935

Notes: Please see Table 1 for definition of variables.

Table 2.3: 2011 Year

	Obs.	Mean	Std. Dev.	Min	Max
Tobin's Q	173	1.0043	0.0853	0.9099	1.9738
Market-To-Book Ratio	173	1.0049	0.4123	0.1448	2.5731
Return On Assets	173	0.0113	0.0182	-0.0705	0.1971
Return On Equity	173	0.0972	0.1073	-0.6911	0.4474
Insider Ownership	173	0.0979	0.1183	0.0018	0.7641
Size	173	15.6678	1.6961	13.4133	21.5412
Capital	173	0.1117	0.0455	0.0626	0.6190
Real Estate Loans	173	0.6937	0.1974	0.0393	1.0017
Commercial And Industrial Loans	173	0.1649	0.1115	0.0013	0.7057
Consumer Loans	173	0.0698	0.0967	0.0000	0.6277
Deposits	173	0.7302	0.1611	0.0131	0.9022

Notes: Please see Table 1 for definition of variables.

Table 3: Correlation matrices

Table 3.1: 2005 Year

	Tobin's Q	Market-To-Book Ratio	Return On Assets	Return On Equity	Insider Ownership	Size	Capital	Real Estate Loans	Commercial And Industrial Loans	Consumer Loans	Deposit
'obin's Q	1.0000										
Iarket-To-ook Ratio	0.4838	1.0000									
.eturn On .ssets	0.9467	0.3908	1.0000								
.eturn On quity	0.2831	0.7501	0.3904	1.0000							
nsider)wnership	0.1345	0.1058	0.0698	0.0242	1.0000						
ize	-0.0286	-0.1394	0.0681	0.0882	-0.3167	1.0000					
'apital	0.8393	0.0182	0.8572	-0.1050	0.0374	0.0169	1.0000				
.eal Estate .oans	-0.3018	-0.1860	-0.3165	-0.1458	0.1743	-0.3662	-0.2411	1.0000			
'ommercial .nd ndustrial .oans	0.0200	0.1030	0.0302	0.0900	-0.0508	-0.0418	-0.0316	-0.4917	1.0000		
'onsumer .oans	0.4800	0.0296	0.5102	-0.0192	-0.1148	0.2877	0.5441	-0.5844	-0.0351	1.0000	
)eposits	-0.2228	0.1261	-0.2267	0.0602	0.1318	-0.6377	-0.2574	0.2960	0.2906	-0.2773	1.0000

Notes: Please see Table 1 for definition of variables.

Table 3.2: 2008 Year

	Tobin's Q	Market-To- Book Ratio	Return On Assets	Return On Equity	Insider Ownership	Size	Capital	Real Estate Loans	Commercial And Industrial Loans	Consumer Loans	Deposits
Tobin's Q	1.0000										
Market-To-Book Ratio	0.9227	1.0000									
Return On Assets	0.4034	0.3337	1.0000								
Return On Equity	0.2906	0.2775	0.9685	1.0000							
Insider Ownership	0.0952	0.0773	0.0679	0.0618	1.0000						
Size	-0.3521	-0.3440	-0.1409	-0.1027	-0.2757	1.0000					
Capital	0.1315	-0.1389	0.2029	0.0712	-0.0747	-0.0509	1.0000				
Real Estate Loans	-0.1123	-0.0598	-0.1738	-0.1507	0.1537	-0.4516	-0.1052	1.0000			
Commercial And Industrial Loans	-0.0738	-0.0574	0.0237	0.0281	0.0218	0.1151	-0.0074	-0.6111	1.0000		
Consumer Loans	0.1204	0.1450	0.1187	0.1297	-0.1633	0.2739	0.0127	-0.4352	-0.0360	1.0000	
Deposits	-0.0241	0.0909	-0.1050	-0.0792	0.2306	-0.5837	-0.1078	0.3109	0.0763	0.0127	1.0000

Notes: Please see Table 1 for definition of variables.

Table 3.3: 2011 Year

	Tobin's Q	Market-To- Book Ratio	Return On Assets	Return On Equity	Insider Ownership	Size	Capital	Real Estate Loans	Commercial And Industrial Loans	Consumer Loans	Deposit
Tobin's Q	1.0000										
Market-To-Book Ratio	0.7205	1.0000									
Return On Assets	0.8000	0.4589	1.0000								
Return On Equity	0.3375	0.4349	0.7225	1.0000							
Insider Ownership	0.1524	0.0615	0.2235	0.1570	1.0000						
Size	-0.0663	-0.1842	0.0262	0.0207	-0.2919	1.0000					
Capital	0.7176	0.1981	0.7039	0.0973	0.0989	0.0207	1.0000				
Real Estate Loans	-0.1873	-0.0501	-0.1963	-0.0916	0.2395	-0.5746	-0.2304	1.0000			
Commercial And Industrial Loans	-0.0536	0.0293	-0.0882	-0.0486	-0.2000	0.1786	0.0034	-0.5213	1.0000		
Consumer Loans	0.3790	0.1091	0.3943	0.1424	-0.0189	0.2251	0.4149	-0.5029	-0.0924	1.0000	
Deposits	-0.2173	0.0344	-0.2938	-0.1379	0.1187	-0.5846	-0.2981	0.4979	0.0784	-0.2359	1.0000

Notes: Please see Table 1 for definition of variables.

Table 4: Regression results

Table 4.1: 2005 Year

	Tobin's Q	Market-To-Book Ratio	Return On Assets	Return On Equity
Insider Ownership	0.0543*	3.2829*	0.0542*	0.0979
	(0.1654)	(1.3445)	(0.0231)	(0.1396)
Insider Ownership Squared	-0.7961*	-5.3592*	-0.0539	-0.0969
	(0.3042)	(2.4733)	(0.0403)	(0.2569)
Size	-0.0034	-0.0148	0.0000	0.0106
	(0.0067)	(0.0539)	(0.0008)	(0.0056)
Capital	2.3347*	0.7080	0.2433*	-0.0316
	(0.1514)	(1.2305)	(0.0251)	(0.1278)
Real Estate Loans	-0.1609*	-1.9346*	-0.0032	-0.1381*
	(0.0616)	(0.5008)	(0.0103)	(0.0520)
Commercial And Industrial Loans	-0.0368	-1.2573	0.0089	-0.1044
	(0.0884)	(0.7190)	(0.0138)	(0.0747)
Consumer Loans	-0.0767	-1.5306	0.0190	-0.1433
	(0.1055)	(0.8575)	(0.0150)	(0.0891)
Deposits	-0.0193	1.0017	-0.0115	0.1234*
	(0.0634)	(0.5158)	(0.0093)	(0.0536)
Observations	167	167	167	167
R-squared	0.7470	0.1496	0.7573	0.0845

Notes: The numbers in parentheses are standard errors. * indicates statistical significance at the 5% level. Please see Table 1 for definition of variables.

Table 4.2: 2008 Year

	Tobin's Q	Market-To-Book Ratio	Return On Assets	Return On Equity
Insider Ownership	0.1033 (0.1131)	0.1986 (1.1337)	0.0055 (0.0390)	0.0139 (0.4668)
Insider Ownership Squared	-0.1259 (0.1995)	-0.2557 (2.000)	0.0196 (0.0688)	0.2749 (0.8236)
Size	-0.0310* (0.0041)	-0.2771* (0.0411)	-0.0057* (0.0014)	-0.0554* (0.0169)
Capital	0.0386 (0.1454)	-4.9346* (1.4573)	0.0880 (0.0502)	0.0905 (0.6000)
Real Estate Loans	-0.1735* (0.0503)	-1.4175* (0.5046)	0.0319 (0.0174)	-0.2841 (0.2078)
Commercial And Industrial Loans	-0.1383* (0.0637)	-1.0874 (0.6385)	-0.0111 (0.0220)	-0.0638 (0.2629)
Consumer Loans	0.1367 (0.0843)	1.5611 (0.8453)	0.0390 (0.0291)	0.5072 (0.3480)
Deposits	-0.1527* (0.0457)	-0.9283* (0.4583)	-0.0407* (0.0158)	-0.4086* (0.1887)
Observations	166	166	166	166
R-squared	0.3510	0.2971	0.1781	0.1090

Notes: The numbers in parentheses are standard errors. * indicates statistical significance at the 5% level. Please see Table 1 for definition of variables.

Table 4.3: 2011 Year

	Tobin's Q	Market-To-Book Ratio	Return On Assets	Return On Equity
Insider Ownership	0.1782 (0.1080)	-0.0886 (0.7407)	0.0542* (0.0231)	0.2571 (0.1957)
Insider Ownership Squared	-0.2486 (0.1891)	0.1811 (1.2963)	-0.0539 (0.0403)	-0.1956 (0.3425)
Size	-0.0064 (0.0040)	-0.0714* (0.0273)	0.0000 (0.0008)	-0.0032 (0.0072)
Capital	1.2161* (0.1178)	1.4193 (0.8075)	0.2433* (0.0251)	-0.0447 (0.2134)
Real Estate Loans	-0.0545 (0.0486)	-0.3823 (0.3331)	-0.0032 (0.0104)	-0.0240 (0.0880)
Commercial And Industrial Loans	-0.0569 (0.0647)	-0.0487 (0.4434)	-0.0089 (0.0138)	-0.0047 (0.1172)
Consumer Loans	0.0550 (0.0703)	0.0796 (0.4818)	0.0190 (0.0150)	0.1182 (0.1273)
Deposits	-0.0191 (0.0435)	0.0200 (0.2980)	-0.0115 (0.0093)	-0.1025 (0.0788)
Observations	173	173	173	173
R-squared	0.5506	0.0954	0.5514	0.0667

Notes: The numbers in parentheses are standard errors. * indicates statistical significance at the 5% level. Please see Table 1 for definition of variables.

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