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Kristen Goodman

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**CEO DUALITY AND ITS IMPACT ON**  
**LARGE PUBLICLY TRADED BANK**  
**HOLDING COMPANIES**

by  
**Kristen Goodman**

**NORTHERN ILLINOIS UNIVERSITY**

**CEO DUALITY AND ITS IMPACT ON LARGE PUBLICLY TRADED BANK**

**HOLDING COMPANIES**

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by

Kristen Goodman

DeKalb, Illinois

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Student name: Kristen Goodman

Approved by: *Ally Mearns*

Department of: Finance

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## **Abstract**

### **CEO DUALITY AND ITS IMPACT ON LARGE PUBLICLY TRADED BANK HOLDING COMPANIES**

The objective of this paper is to examine the relationship between CEO duality (chairman of the board and CEO are the same individual) and firm performance and efficiency for a sample of large publicly traded bank holding companies. Prior research in this area is conflicting on whether or not management structure is of significance in regards to performance and cost efficiency. The motivation for this line of research is that firms are questioning if principal-agent conflicts are involved when the CEO is also chairman of the board. The performance measures used in this study are: return on assets, Tobin's q, and market-to-book value. The efficiency measure used is general selling and administration expenses to total assets. This study is particularly unique in the way top management structures are grouped. Top management structures are grouped by chairman to avoid the possible principal-agent conflicts that may occur when a chairman is not CEO but holds another executive position. There was no evidence provided by this study that banks where the CEO is also chairman of the board underperform those banks where the CEO is not chairman of the board.

## **INTRODUCTION**

The two positions within a corporation that are endowed with the most power are the chief executive officer (CEO) and the chairman of the board. The structure of these two positions within the banking industry are of particular interest in this study. The board of directors must decide whether to have one person hold both the CEO and chairman titles or to have separate people hold those positions. The ultimate decision, from a shareholder's perspective, should be based on the structure that gives the company the highest performance and the highest cost efficiency. This paper empirically investigates variations in performance and the relationships between performance, top management team and ownership structures for a sample of large publicly traded bank holding companies.

## **REVIEW OF PAST RESEARCH**

Prior research regarding the performance and efficiency impact of CEO duality (when the CEO also serves as the chairman of the board) is conflicting. For example, some research suggests that an independent bank structure, where the positions of CEO and Chairman are performed by separate people, is more cost efficient (Rechner and Dalton, 1991). However, other research suggests that a firm's choice of managerial structure does not have a significant impact on a firm's performance (Baliga et al., 1994). The motivation for this line of research is that corporations are questioning if principal-agent conflicts are involved with the CEO also being chairman of the board. Also, the CEO duality issue has risen in importance recently in the restructuring at General Motors and IBM (Baliga et al.,

1994). Corporations want to know what the implications of CEO duality are on performance and efficiency.

Baliga, Moyer and Rao (1994) suggest that, on average, the market is indifferent to changes in a firm's duality status. Baliga, et al., in an examination of the relationship between CEO duality and firm performance, use the industry-adjusted, standardized market value added ratio to investigate the announcement effects of changes in duality status, accounting measures of operating performance for firms that have changed their duality structure, and long-term measures of performance for firms that have had a consistent history of duality structure. There proved to be little evidence of operating performance changes around changes in duality status. In their study some evidence was found that when a duality structure (the same person holding both CEO and chairman positions) is adopted, other management disciplining mechanisms are put in place, such as capital structure and dividend policy changes.

Pi and Timme (1993) provide the motivation for the current study. Their results show that, on average, banks in which the CEO is also chairman underperform those banks where the CEO is not chairman. Also, their results indicated that the difference in performance was greater for ROA (performance measure) than for cost efficiency. This indicates that Chairman-CEO banks are more output inefficient (ability to generate revenues) than they are input inefficient (ability to control costs) compared to the Nonchairman-CEO banks. From Pi and Timme's results, it can be implied that for those banks where the CEO is also chairman, internal monitoring

controls may not be as effective as if those two positions were separated.

The argument of proponents of duality is that it provides better strategic visioning, consistency in goals, objectives and strategies and clear cut leadership and managerial responsibility (Anderson and Anthony, 1986). However, opponents of duality claim that duality inhibits board independence and reduces the possibility that the board can properly execute its oversight and governance role (Fizel and Louie, 1990).

One of the main issues CEO duality raises is that of principal-agent conflicts. Pi and Timme (1993) report that when the CEO is also chairman of the board, principal-agent conflicts are likely to occur because of the consolidation of the decision management and the decision control processes. In this situation, internal control monitoring devices may be deficient. Given that one of the board's central functions is to monitor the performance of top management, allowing the CEO to perform both rolls is thought to compromise the desired system of checks and balances (Rechner and Dalton, 1991). The CEO would seem to be more easily tempted to perform acts that benefit his/her own interest instead of what is in the company's best interest. This is why there is the potential for the principal-agent conflict to exist in a CEO duality structure.

#### Differences in this study

There are several differences between this study and the research performed by Pi and Timme (1993). One of the main differences in this study from Pi and Timme is the Chairman/CEO title designations. Pi and Timme grouped their sample by CEO

as follows: 1) CEO who is also chairman of the board and president, 2) CEO who is chairman of the board and another individual who is president, and 3) CEO who is president and another individual who is chairman of the board. This study compares the performance and performance-ownership and board structure relationships for banks in which the CEO is also president but not chairman, henceforth referred to as the 'Nonchairman/CEO' group and banks in which the CEO is chairman and possibly also president, henceforth referred to as the 'Chairman/CEO' group.

The grouping of the top management structures by the chairman position, as done here, is advantageous because it considers firms in which the chairman holds another executive position as having a duality structure. This is important because principal-agent conflicts could conceivably occur if the chairman was allowed an executive position. The role of top management is the management of decisions and the role of chairman is the control of decisions. These functions should be separated to prevent principal-agent conflicts. A chairman who also holds an executive position has a potential principal-agent conflict and must be considered in the Chairman/CEO group.

The next important difference between this research and Pi and Timme's is the performance and efficiency measures used. In Pi and Timme's study, ROA and a percentage production cost efficiency derived from a stochastic cost frontier model are used. This study uses three performance measures: return on assets, market-to-book value, Tobin's q, and one efficiency measure, general selling and administration expenses to total assets. In the bank performance literature, return on book assets and

return on book equity are most commonly used, in addition to Tobin's  $q$ . All three performance measures were chosen in this study for purposes of comparison. Expenses to total assets was chosen as a cost efficiency measure because it was accessible from COMPACT DISCLOSURE. A drawback to this measure is that it does not take into account banks differing by the scale and/or mix of outputs (Pi and Timme, 1993).

A third difference is the ownership structure used. Pi and Timme use CEO percentage ownership and this study uses officer and director percentage ownership. Using CEO percentage ownership would have been preferred, however, it was not accessible from COMPACT DISCLOSURE.

The final difference is in the model used to examine the hypotheses. The base study used two additional control variables: the five bank concentration ratio using total banking assets associated with the state in which the bank has its headquarters, and a dummy variable which equals 1 if a bank is located in a state with statewide banking laws and zero otherwise. These variable would have been very difficult to obtain and therefore were not used in this study.

## **BACKGROUND AND DEFINITIONS**

### Chairman/CEO title designations

Top management structures were of three types, grouped by chairman: (1) chairman who is also CEO, (2) chairman who is not CEO, but who holds another executive position, and (3) chairman who is not CEO and holds no other executive position.

The breakdown of the three management structures in the sample are as follows: the chairman is also CEO in 82% of the sample, the chairman is not CEO but holds another executive position in 2% of the sample, and the chairman is not CEO and holds no other executive position in 16% of the sample.

In the model described in the next section, if a bank's chairman is also CEO or some other executive officer, a dummy variable (Chair&CEO) is assigned a value of one, and the subgroup is referred to as the Chairman/CEO group. If the chairman is not the CEO or another executive officer, the dummy variable is zero. This subgroup is referred to as Chairman/NonCEO.

#### Performance and efficiency measures

In this study, the performance of the bank holding companies is examined using the following three performance measures: return on assets (ROA) market-to-book value (MV/BV), and Tobin's q (Q). Also, one cost efficiency measure is examined, general selling and administration expenses to total assets (EFF). Tobin's q is defined as the sum of book value of debt plus market value of equity divided by the sum of book value of debt plus book value of equity.

The drawback to using return on assets is that it relies on accounting earnings and book value of assets. Market-to-book value and Tobin's q provide good tools of comparison because they take into account market value.

#### Ownership structure

Many studies have related management ownership to a firm's performance

showing a correlation between the amount of management ownership and a firm's performance. The more management has invested in a firm, the more they want to see that firm's performance do well. This effect is taken into account in this study. Management ownership is measured as the end-of-year officer and director percentage ownership. Insider ownership reduces the principal-agent conflicts because performance not in accordance with the firm's best interest will harm managers because they will incur a larger share of the costs.

## **DATA, MODEL SPECIFICATIONS AND STATEMENT OF HYPOTHESES**

### The data

The Chairman/CEO titles and all other data were retrieved from COMPACT DISCLOSURE. The data for all bank holding companies as of the year ending 12/31/93 were retrieved from the first quarter 1995 COMPACT DISCLOSURE database. The December 1993 COMPACT DISCLOSURE database was then examined to ensure the continuity of duality structure. If a bank holding company had the chairman being a different person from the CEO in the first quarter 1995 COMPACT DISCLOSURE and then had the chairman being the same person as the CEO in the December 1993 COMPACT DISCLOSURE, then this was considered to be a change in duality structure. All banks with changing duality structure in this time period were not included in the study. The entire sample consisted of 144 bank holding companies. The constraining factors to come to this sample size from a population of 6,712 bank holding companies were banks with assets greater than one billion dollars and limited to those banks having all information needed.

### The model

The model used to investigate the hypotheses in this study is specified as:

$$\pi = B_0 + B_1 \text{Chair\&CEO} + B_2 \% \text{Off\&Dir} + B_3 \text{Chair\&CEO} * \% \text{Off\&Dir} + \Gamma' X + n.$$

In the model,  $\pi$  is either ROA, MV/BV, Q, or EFF for the year ending 1993, and %Off&Dir is the officer and director ownership at the end of that year.

Chair&CEO is a dummy variable which equals 1 if the chairman is also CEO or another executive officer and 0 otherwise.  $\Gamma$  is a vector of estimated coefficients for the control variables in X for the same time period and n is an additive error term.

The control variables in X are the log of total assets for each bank and the total loan to total assets for each bank. These control variables control for the different sizes of the bank holding companies in the sample and are used in Pi and Timme's study.

### Statement of hypotheses:

The above model is used to test the following null hypotheses:

H.1: There will be equality of performance for Chairman/CEO and Chairman/NonCEO banks.

H.2: There will be no relationship between performance and Off/Dir ownership for Chairman/NonCEO banks.

H.3: There will be no relationship between performance and Off/Dir ownership for Chairman/CEO banks.

H.4: There is no structural differences in the performance-Off/Dir ownership relationship for Chairman/NonCEO and Chairman/CEO banks.

## EMPIRICAL RESULTS

### Summary statistics

Summary statistics for the performance and efficiency, ownership, and control variables classified for Chairman-CEO and Chairman-NonCEO banks are presented in Table 1. Table 1 shows that the mean ROA for the Chairman/CEO sample banks is 1.10%, which is significantly different from the mean ROA for the Chairman/NonCEO sample banks of 0.95%. The mean market-to-book value of the two sample groups is not significantly different with means of 1.44% and 1.43% for the Chairman/CEO and the Chairman/NonCEO groups, respectively. The results for Tobin's q also follow this pattern with a mean of 1.34 for the Chairman/CEO group and a mean of 1.29 for the Chairman/NonCEO group.

The efficiency measure of expenses to total assets is significantly different between the two groups. The Chairman/CEO has a mean of 3.84% with a median of 3.67%, indicating that the data is slightly skewed toward higher expenses to total assets. The Chairman/NonCEO group has a mean of 3.04% with a median of 3.30%, indicating that the data is slightly skewed toward lower expenses to total assets.

The officer and director ownership structure for the sample banks is significantly different from that of Pi and Timme (1993). Pi and Timme have a much lower percentage because their study used CEO ownership. The mean (median) values of Off/Dir ownership for the Chairman/CEO group and the Chairman/NonCEO group are 9.50% (5.68%) and 16.83% (15.31%), respectively.

**TABLE 1**  
**Summary Statistics for 144 Large Publicly Traded Bank Holding Companies**  
**(standard deviations in parentheses)**

<b>Performance &amp; Efficiency Measures</b> <b>12/31/93</b>					
	<b>Chair/CEO</b> <b>N=118</b>		<b>Chair/NonCEO</b> <b>N=26</b>		
	<b>Mean</b>	<b>Median</b>	<b>Mean</b>	<b>Median</b>	<b>Diff. in means (t-stat.)</b>
Return on Assets	1.10% (.0037)	1.11%	.95% (.0039)	1.00%	0.15% (4.96) <sup>b</sup>
Market-to-Book	1.44% (.5132)	1.36%	1.43% (.5138)	1.46%	0.01% (0.00)
Tobin's Q	1.34 (.3719)	1.27	1.29 (.3090)	1.23	0.05 (0.00)
Expenses to Total Assets	3.84% (.0145)	3.67%	3.04% (.0104)	3.30%	0.80% (1.92) <sup>a</sup>

  

<b>Officer &amp; Director Ownership</b> <b>12/31/93</b>					
	<b>Chair/CEO</b> <b>N=118</b>		<b>Chair/NonCEO</b> <b>N=26</b>		
	<b>Mean</b>	<b>Median</b>	<b>Mean</b>	<b>Median</b>	<b>Diff. in means (t-stat.)</b>
Officer & Director	9.50% (.1263)	5.68%	16.83% (.1089)	15.31%	-7.33% (-.09)

  

<b>Control Variables</b> <b>12/31/93</b>					
	<b>Chair/CEO</b> <b>N=118</b>		<b>Chair/NonCEO</b> <b>N=26</b>		
	<b>Mean</b>	<b>Median</b>	<b>Mean</b>	<b>Median</b>	<b>Diff. in means (t-stat.)</b>
Total Assets (\$000s)	18,828,191 (34,543,759)	6,530,530	8,068,917 (25,248,274)	2,535,784	10,759,274 (0.00)
Loans to Total Assets	58.08% (.1120)	59.24%	58.77% (.1462)	63.30%	-0.69% (-.02)

<sup>a</sup>Significant at the 0.05 level

<sup>b</sup>Significant at the 0.01 level

The difference between the two groups is not statistically significant.

Finally, Table 1 presents the summary statistics for the control variables. The mean statistics show that the Chairman/CEO sample banks on average have \$18.8 billion in total assets, whereas the Chairman/NonCEO sample banks on average have \$8.1 billion in total assets. However, both groups have much lower medians at \$6.5 billion and \$2.5 billion for the Chairman/CEO group and the Chairman/NonCEO group, respectively, indicating that the data is skewed toward banks having higher total assets. Additionally, both groups have a similar percentage of loans to total assets.

Performance, Chairman/CEO designation, and Director/Officer ownership relationships

The regression results using ROA, Tobin's  $q$ , market-to-book value, and expenses to total assets are reported in Table 2. Test statistics for the hypotheses H.1-H.4 for the performance management ownership relationships are reported in Table 3 for ROA,  $Q$ , MV/BV, and EFF. The test statistics reported in Table 3 are derived from the regression results in Table 2.

*Equality of return on assets, Tobin's  $q$ , and market-to-book value*

The test of the hypothesis of equality of ROAs for Chairman/NonCEO and Chairman/CEO groups (H.1), reported in Table 3, indicates that the hypothesis cannot be rejected. The hypothesis also cannot be rejected for the equality of Tobin's  $q$ , and market-to-book value. This indicates that there is no statistical evidence that there is inequality of performance for Chairman/CEO and Chairman/NonCEO banks. This evidence is not consistent with Pi and Timme's results in that the hypothesis could be

**TABLE 2**  
**Regression Results for Relationship Between Performance, Chairman/CEO**  
**Designations and Inside Ownership Structure for Publicly Traded Bank Holding**  
**Companies (standard errors in parentheses)**

	Return on Assets	Tobin's Q	Market-to-Book Value	Expenses to Total Assets
<b>Independent Variables</b>				
Intercept	.0018 (.0065)	2.377 (.6111) <sup>b</sup>	2.6771 (.8763) <sup>b</sup>	-.0117 (.0234)
Chair&CEO	.0025 (.0015) <sup>a</sup>	.2012 (.1401)	.0406 (.2009)	.0136 (.0054) <sup>b</sup>
% Officer & Director	.0098 (.0071)	.6521 (.6703)	-.0393 (.9613)	.0417 (.0256)
Chair&CEO * % Off&Dir	-.0062 (.0076)	-.7379 (.7168)	.0103 (1.0279)	-.0432 (.0274)
<b>Control Variables</b>				
Total Assets	.0004 (.0003)	.0478 (.0257) <sup>a</sup>	-.0449 (.0369)	.0017 (.0010) <sup>a</sup>
Loans/Total Assets	-.0033 (.0027)	-.2563 (.2593)	-.4380 (.3718)	-.0040 (.0099)
Adjusted R <sup>2</sup>	.0220	.0063	-.0148	.0529

<sup>a</sup>Significant at the .10 level.

<sup>b</sup>Significant at the .01 level.

rejected and suggested that Chairman/CEO banks underperform Nonchairman/CEO banks statistically and economically. One of the reasons we cannot say there is inequality of performance for Chairman/CEO and Chairman/NonCEO banks may be that the management structure does not have a significant impact on performance. This is possibly shown by the fact that there are so many bank holding companies with a duality structure.

One thing to consider regarding CEO duality is that there are many bank holding companies, firms and corporations that have a duality structure. This is of interest because with the assumption of market efficiency, why would the duality structure be prominent if it was inferior to the independent structure?

*Return on assets, Tobin's q, market-to-book value and Officer and Director ownership*

The test statistics in Table 3 show that when the Chair&CEO variables are included, there is not a significant positive relationship between Chairman/NonCEO ownership and ROA. Hence, the hypothesis of no relationship between performance and Chairman/NonCEO ownership (H.2) cannot be rejected. This follows for Tobin's q, market-to-book value, and expenses to total assets. The results in Table 3 also show that the hypothesis of no relationship between ROA, Q, MV/BV and Chairman/CEO ownership (H.3) cannot be rejected. Finally, the hypothesis (H.4) of no structural difference in the performance-ownership relationship for Chairman/NonCEO and Chairman/CEO banks cannot be rejected. Pi and Timme were able to reject hypotheses H.2 and H.4, but were not able to reject H.3. One possible reason for this study not being able to reject H.2 and H.3, may be because Officer and Director ownership was used instead of CEO ownership. CEO ownership is more directly correlated to the performance of duality structures.

*Equality of cost efficiency*

The test statistic in Table 3 for the hypothesis of equal cost efficiency for Chairman/CEO and Chairman/NonCEO banks (H.1) is not significantly different from zero and therefore suggests that the hypothesis cannot be rejected. Pi and Timme find

**TABLE 3**  
**Estimated Values From Tests of Hypotheses for the Relationships Between**  
**Performance, Ownership and Board Structure for Chairman/NonCEO and**  
**Chairman/CEO banks.**

**Performance, and Performance-Officer & Director Ownership Relationships**  
**using the model:**

$$\pi = B_0 + B_1 \text{Chair\&CEO} + B_2 \% \text{Off\&Dir} + B_3 \text{Chair\&CEO} * \% \text{Off\&Dir} + \Gamma'X + n$$

Hypotheses and Parameter Restrictions	Return on Assets	Tobin's Q	Market-to-Book Value	Expenses to Total Assets
H.1 Equality of performance for Chairman/NonCEO and Chairman/CEO banks ( $B_1 + B_3 = 0$ )	.3324	.7776	.0012	1.6193
H.2 No relationship between performance and Off/Dir ownership for Chairman/NonCEO banks ( $B_2 = 0$ )	.0098 (1.3780)	.6521 (.9370)	-.0393 (-.0410)	.0417 (1.627)
H.3 No relationship between performance and Off/Dir ownership for Chairman/CEO banks ( $B_2 + B_3 = 0$ )	1.3972	.0885	.0144	.0183
H.4 No structural differences in the performance-Off/Dir ownership relationship for Chairman/NonCEO and Chairman/CEO banks ( $B_3 = 0$ )	-.0062 (-.8140)	-.7379 (-1.0290)	-.0103 (-.0100)	-.0432 (-1.5760)

T-statistics in parentheses.

similar results. Again, this may be consistent with the theory that management structure does not have a significant impact on efficiency, which may be evidenced by the fact that so many bank holding companies have a duality structure.

*Cost efficiency and officer and director ownership*

The test statistic in Table 3 for H.2 indicates that the hypothesis of no

relationship between efficiency and Chairman/NonCEO ownership cannot be rejected. Also as shown in Table 3, the test statistic for the hypothesis H.3 cannot be rejected. Finally, the hypothesis (H.4) of no structural differences in the cost efficiency-ownership relationship for the Chairman/NonCEO and Chairman/CEO groups cannot be rejected. Pi and Timme were able to reject all three hypotheses. Again, this may be due to the use of Officer and Director ownership instead of CEO ownership.

#### *Results versus Pi and Timme's results*

Pi and Timme's results suggest that performance is lower for Chairman/CEO banks and positively (negatively or not) related to Nonchairman/CEO (Chairman/CEO) ownership. These results are not inconsistent with the hypothesis that CEOs who are also chairman exhibit excess power, which may be due to lack of separation of the decision management and decision control processes. The results suggest that for both ROA and cost efficiency, the negative effects of this consolidation of power are emphasized with increases in CEO ownership.

The results of this study are inconsistent with the Pi and Timme's results. The evidence was not consistent with being able to reject the null hypotheses. Therefore, this study can not conclude that Chairman/NonCEO banks outperform Chairman/CEO banks on a performance or cost efficiency basis. Also, this study can not conclude on the relationship between officer and director ownership and performance.

## **DISCUSSION**

Something of particular interest noted in this study is that there seems to be a high tendency for bank holding companies to have in place a duality structure. This

conclusion is made from the sample containing 118 banks having a duality structure and only 26 having an independent structure. Why would such a large percentage of the sample banks have a duality structure if a duality structure underperforms and is less efficient than an independent structure? If the independent structure was preferred, wouldn't the market realize this and show a greater percentage of bank holding companies with an independent structure?

In conclusion, the results of this study show that the evidence was not consistent with Pi and Timme. Pi and Timme (1993) were able to reject the null hypotheses and conclude that on average banks where the CEO is also chairman of the board underperform those banks where the CEO is not chairman of the board. Also, Pi and Timme's results indicated that the relative difference in performance was greater for ROA than for cost efficiency. This study was not able to conclude this for any of the performance measures (return on assets, market-to-book value) or for the efficiency measure (expenses to total assets).

## Works Cited

Anderson and Anthony, *The New Corporate Directors*. John Wiley & Sons, New York, 1986.

Baliga, Moyer and Rao, "CEO Duality and Firm Performance: Evidence and Implications", working paper, Wake Forest University, 1994.

Fizel and Louie, "CEO Retention, Firm Performance and Corporate Governance", *Managerial and Decision Economics*, July 1990, pp. 167-176.

Pi and Timme, "Corporate Control and Bank Efficiency", *Journal of Banking and Finance*, 17, 1993, pp. 515-530.

Rechner and Dalton, "CEO Duality and Organizational Performance: A Longitudinal Analysis", *Strategic Management Journal*, 12, 1991, pp. 155-160.