

Effects of the Dodd-Frank Act on community bank mergers and acquisitions

Kevin Batts
Madisonville Community College

Steve Lacewell
Murray State University

ABSTRACT

After the Great Recession and Sub-Prime Mortgage Crisis in the United States., Congress enacted legislation known as the Dodd-Frank Act in an effort to mitigate such crises in the future. While the goal of the legislation was to target large systemically important institutions, the regulations and restrictions also have major effects on community banks. This paper examines the effects of the Dodd-Frank Act on community bank mergers and acquisitions since 2010 with a focus on restrictions stemming from the Act and compliance costs for banks.

Keywords: Dodd-Frank Act, community bank, mergers and acquisitions, compliance costs

INTRODUCTION

The years 2007 to 2009 marked a substantial economic downturn for the United States. The Great Recession not only had major impacts on U.S. financial markets but also markets around the globe. During this time, credit markets tightened, home prices plunged, and equity markets plummeted. Bank failures during this time were at unusual highs.

Since the Great Recession and sub-prime mortgage crisis, Congress enacted legislation in hopes of preventing future financial disasters. The Dodd-Frank Act was passed in 2010 and addressed two major areas including the identification of financial institutions that are of significant economic importance (those with greater than \$50 billion dollars in assets) as well as increasing the oversight of such institutions. (Brewer and Russell, 2015)

The Dodd-Frank Act ultimately presents challenges for banks of all sizes, from the largest money-center banks to the smallest community banks. The Act places over 10,000 new restrictions on U.S. banks (Brewer and Russell, 2015). This increase in oversight inevitably places undue hardships on community banks who lack sufficient assets to manage compliance with these restrictions. A recent bank survey from researchers at George Mason University found that 25% of respondent banks were considering mergers in the wake of the Dodd Frank Act. (Peirce, Robinson, and Stratmann, 2014)

There is no doubting that the recent decline in the total number of banks is the greatest since the Great Depression. As indicated in Figure 1 (Appendix), in the two years following the end of the Great Recession (2009-2011,) the number of community banks declined by over 800, and by year-end 2011 there were just over 6,000 active community banks. This tumultuous time in banking saw numerous mergers as well as bank failures, which account for the sharp decline. Furthermore, since 2009 the number of community bank mergers and acquisitions (those with <\$1 Billion in assets) seem to continue rising. As indicated in Figure 2 (Appendix), there was a sharp rise in the number of community bank mergers and acquisitions in 2010 and from 2012 to 2016. The existing literature surrounding this trend finds that community banks often times voluntarily merge to increase efficiency through economies of scale, increase bank revenues, and reduce bank risk stemming from more diversified asset portfolios. When reviewing the conditions of acquired community banks, prior studies indicate that profitability and efficiency are the primary contributors to acquisition decisions. (Kowalik, Davig, Morris, and Regehr, 2015)

Dodd-Frank inevitably added to the annual compliance expenditures of banks. Not only have banks reported an increase in the number of compliance employees since Dodd-Frank was passed, but they have also reported an increase in spending for consulting services as a result of the Act. The survey from the Mercatus Center at George Mason University revealed that 83% of respondent banks reported an increase of at least 5% in annual compliance costs. Even small banks who contained a relatively large in-house compliance team reported increases in compliance staff after the Dodd-Frank Act. Additionally, only about one-fourth of the banks stated they did not expect to engage with external consultants as a result of the Act. (Peirce, Robinson, and Stratmann, 2014)

A recent article from Arthur E. Wilmer, Jr. at The George Washington University Law School reinforces the Mercatus Center survey findings through an in-depth study of the Dodd-Frank Act. Wilmer identifies specific community bank regulatory burdens within the Dodd-Frank Act including significant mortgage servicing requirements and CFPB compliance requirements. Augmenting the costs of compliance is the fact that many community banks

choose to service their own mortgages to help customer relations. (Wilmarth, Jr., 2015) Therefore, community banks are expected to incur significant ongoing costs associated with Dodd-Frank compliance.

DATA AND ANALYSIS

When analyzing the effects of the Dodd-Frank Act on community banks, it is important to understand the costs for banks to comply with new regulations as well as the number of new regulations. This data, in combination with the total number of community bank mergers and acquisitions since Q1 2011, should present a conceptual framework for analyzing the effects of Dodd-Frank on community banks.

This data can be difficult to identify given the scale of the Dodd-Frank Act and its nearly 2,300 pages. Rulemaking is an ongoing process as the FDIC and the Fed implement the requirements of the Act. This data was compiled using estimations obtained within rulemaking progress reports from the DavisPolk Regulatory Tracker.

Data for community bank mergers and acquisitions and compliance expenditures were obtained from FedFis. The company utilizes call reports to generate the data. Community banks for this project are defined as banks with less than \$1 Billion in assets. The number of community banks included in the data ranged from 5,000-7,000. Data was also included for the number of completed community bank mergers and acquisitions each quarter since first quarter of 2010. Bank expenditure data (which included legal fees, accounting/auditing expenses, and consulting/advisory expenses) were aggregated on a quarterly basis. As indicated in Figure 3 (Appendix), compliance expenditure data yields a surprising trend. Compliance expenditures rose during the financial crisis and in the years leading up to the Dodd-Frank Act. Aggregate expenditures rose sharply again in the year following the passing of the Dodd-Frank Act. Surprisingly, however, according to the data total compliance expenditures have mostly fallen since 2012. Despite the rising number of restrictions placing upward pressure on compliance expenditures, the rapidly decreasing number of community banks has led to declining total compliance costs.

Aggregate quarterly expenditures for legal fees, accounting and auditing expenses, and consulting and advisory expenses were summed for each quarter to determine the annual bank compliance costs, denoted as C . The quarterly number of total restrictions stemming from the Dodd-Frank Act since first quarter of 2010 is denoted T_{df} . Compliance costs (C) and total number of restrictions (T_{df}) since first quarter for 2010 are independent variables in the model while number of bank mergers and acquisitions (Q_{ma}) is the dependent variable in the model.

The model assumes the following:

$$Q_{ma} = f(C, T_{df})$$

The formula for the model is as follows:

$$Q_{ma} = \alpha + \beta C + \theta T_{df}$$

where α is the constant and β and θ are the coefficients for C and T_{df} respectively.

A multiple regression was performed for the dependent variable Q_{ma} and the independent variables C , T_{df} . This regression was used to determine if the variables are statistically significant as well as the relationship among the variables.

Adding to the scope of this study, the data was also examined to see if a time lag exists among the independent variables and dependent variable. For example, 22 restrictions from the Dodd-Frank Act were implemented in the third quarter of 2011. One would assume that a time lag would exist before these restrictions and added compliance costs led to a community bank merger or acquisition. Additional lag tests were performed to determine if any specific time lag was evident in the data. These tests were conducted at regular 3-month intervals ranging from 3 months lag to 1 year and 6 months lag. The results of the regressions are discussed in the following section.

RESULTS

As noted earlier, this model attempts to answer two questions. First, “Do compliance costs and number of regulatory restrictions from the Dodd-Frank Act lead to community bank mergers and acquisitions?” Second, “Is there a lag that exists between the time the number of restrictions rise and compliance costs increase to the time that mergers and acquisitions rise.

The regression included a population of 20 observations for each variable representing each quarter from first quarter 2011 to fourth quarter 2015. The 20 observations per variable should provide a good indication of the statistical relationships among the variables in the equation.

The results of the regression were encouraging. Granted a high percentage of the variance was expected to be explained by the regressors C and T_{df} , the results for R-squared proved promising. The R-squared value of 62% indicates that a relatively high percentage of the variance was explained in the model.

The independent variable T_{df} proved to be statistically significant at the 95% confidence level as indicated in Table 1 (Appendix). The regression included a two-tailed test and produced a p-value for T_{df} of 0.000066. Given that this paper tests for additional restrictions, half of this p-value is appropriate as it corresponds with a positive one-tailed directional hypothesis research test (Cho and Abe, 2013.) The data for the second independent variable, C , produced a p-value of 0.0849 under a two-tailed test. Again, half of this p-value is appropriate given that the tests are for additional compliance costs in a positive direction. Therefore, the p-value of 0.04245 is applicable and denotes that C is statistically significant. Supporting this method is the logic that increased costs and regulatory restrictions would presumably lead to additional community bank mergers and acquisitions. Furthermore, the test yielded positive coefficients for both variables which provides additional validation to following this method. Ultimately, total community bank mergers and acquisitions are explained by compliance costs and number of restrictions from Dodd-Frank.

The tests for the second research question, pertaining to time lag, yielded surprising results. The first regression in testing for time lag utilized 3-months lag at the 95% confidence level. R-squared dropped just below 50% and the p-values proved the compliance costs were not statistically significant at the 95% confidence level. It is important to note that total number of restrictions, T_{df} , was proven statistically significant with 3-months lag. The second test, this time for a 6-month lag, yielded similar results. Compliance costs were not proven statistically significant, yet T_{df} remained statistically significant. The results of the regression, in regards to statistical significance determined by p-values, remained the same at the 9-month and 12-month lags as well. The 15-month lag and 18-month lag proved all independent variables were not statistically significant. Considering the overall results of lag tests, the results did not decisively

prove a time lag exists for rising compliance costs and regulatory restrictions compared to community bank mergers and acquisitions.

CONCLUSION

Based on the results of the research, the null hypothesis is rejected for the first research question and the tests indicate compliance costs and number of regulatory restrictions from Dodd-Frank Act do impact the quantity of community bank mergers and acquisitions. In regards to the second research question, the null hypothesis is accepted. There is not an apparent time lag that exists among compliance costs, regulatory restrictions, and community bank M&As. This is surprising given that one would assume a time lag exists for the impacts to M&A decisions from new restrictions and added compliance costs.

REFERENCES

Brewer, B., & Russell, L. (2016, May). *Impact of Dodd-Frank on Small Community Lenders*. In 2016 Annual Meeting, July 31-August 2, 2016, Boston, Massachusetts (No. 235986). Agricultural and Applied Economics Association.

Cho, H.-C., & Abe, S. (2013). *Is two-tailed testing for directional research hypotheses tests legitimate?*. Journal of Business Research, 66, 1261-1266.

Kowalik, M., Davig, T., Morris, C. S., & Regehr, K. (2015). *Bank Consolidation and Merger Activity Following The Crisis*. Economic Review-Federal Reserve Bank of Kansas City, 31.

Peirce, H., Robinson, I. C., & Stratmann, T. (2014). *How Are Small Banks Faring under Dodd-Frank?*. Mercatus Center, George Mason University

Wilmarth, Jr., A. (2015). *A Two-Tiered System of Regulation Is Needed to Preserve The Viability of Community Banks and Reduce the Risks of Megabanks*. Michigan State Law Review.

APPENDIX

Figure 1: Active Community Banks

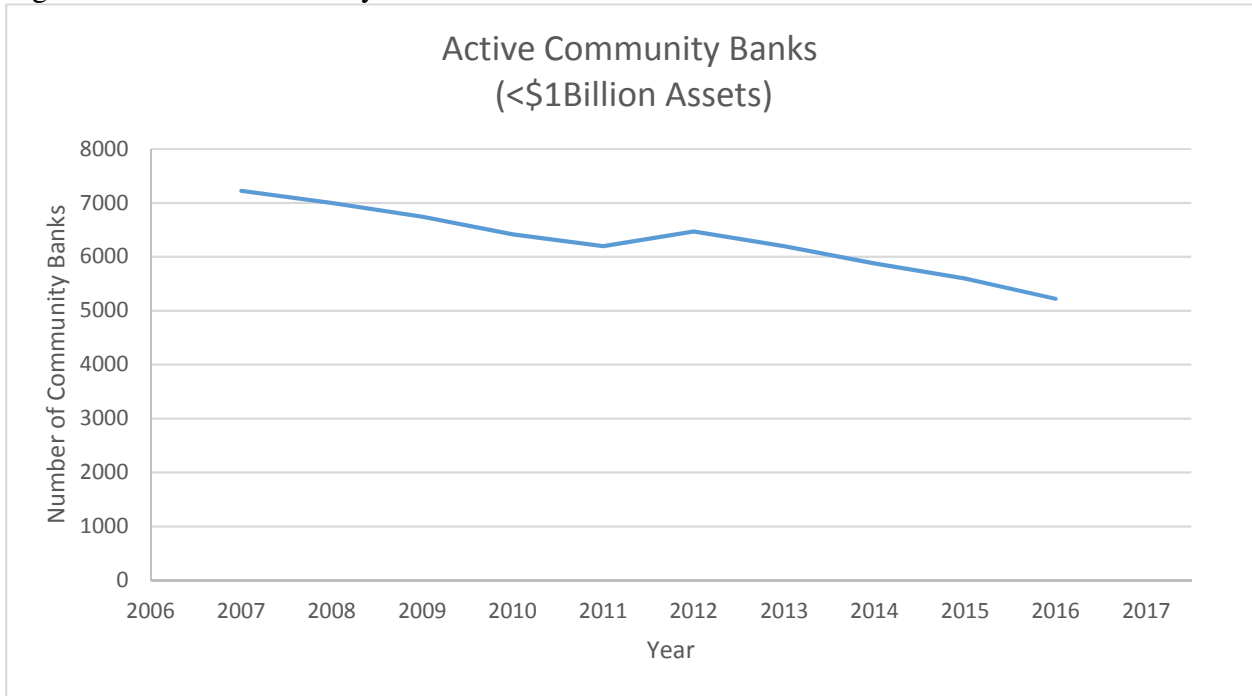


Figure 2: Total Community Bank M&As

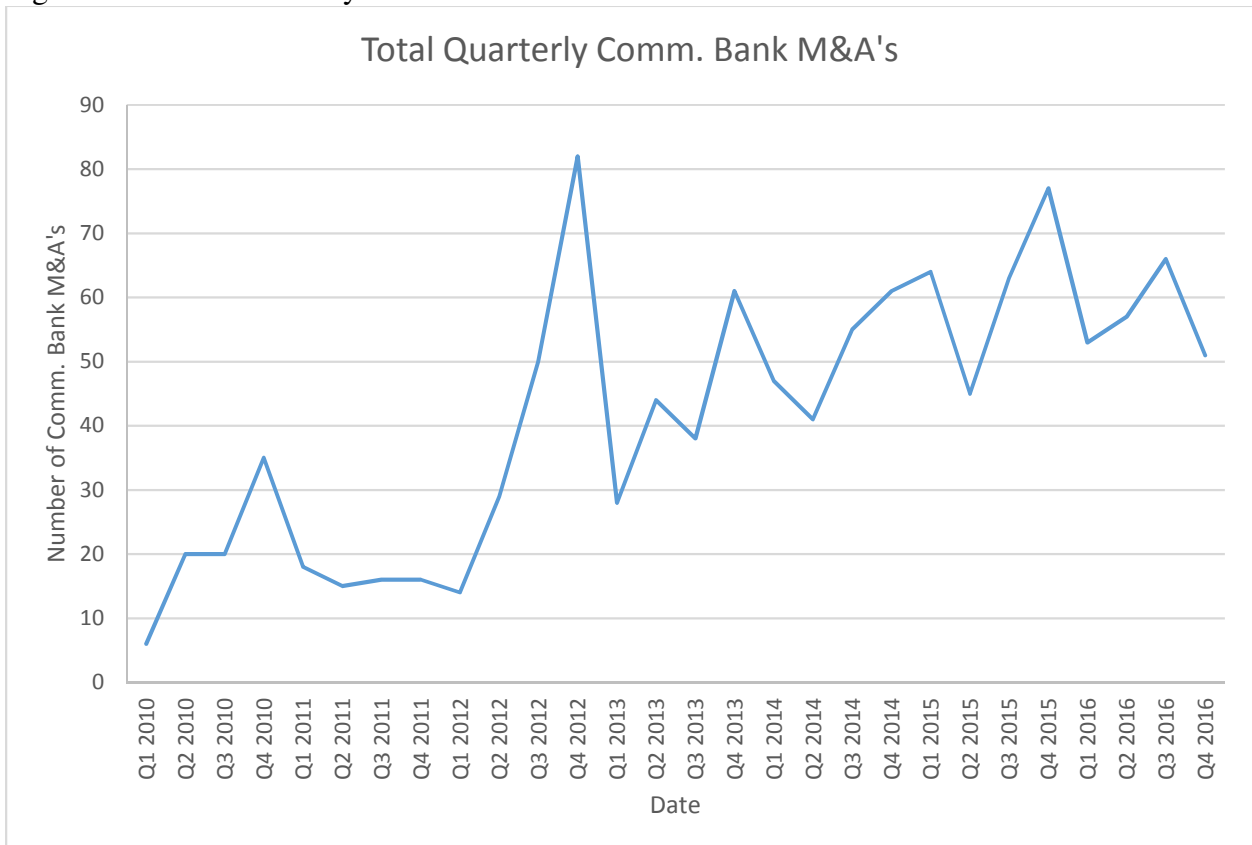


Figure 3: Community Bank Aggregate Compliance Expenditures

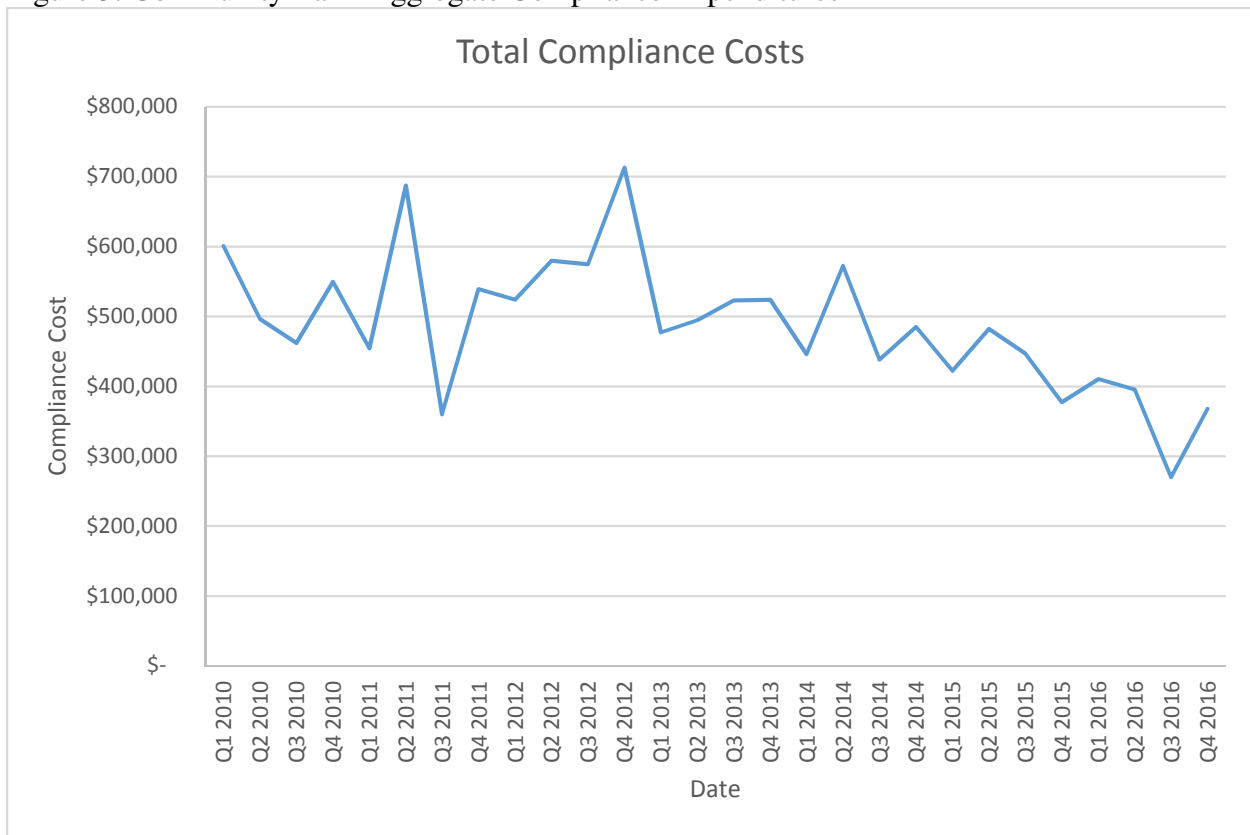


Table 1: Results under Two-Tailed Test

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-26.9482	23.30152	-1.1565	0.26347054
C	7.09E-05	3.88E-05	1.829401	0.084934925
Tdf	0.687861	0.131166	5.244208	5.95235E-05