
The Impacts of the Financial Services Modernization Act of 1999 on Small Banks

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We examine the impact of the Financial Services Modernization Act (FSMA) of 1999 on small banks. The small banks are less likely to benefit from this deregulation due to their small size which limits their capacity to expand the product services into investment and insurance industries. The results indicate that the market reacts negatively to the FMSA for small banks. The losses are negatively related to bank size. We suggest that this result is attributable to the decline in the competitiveness of small banks and the relative increase in risk of such banks.

Keywords: Bank regulations/deregulations, financial modernization, small banks

Before 1999, the Glass-Steagall Act of 1933 placed a firewall between the commercial and investment banks. The purpose of this firewall was to prevent commercial banks from involving in over-risky businesses by separating commercial bank businesses from investment bank and insurance businesses. In 1999 the Glass-Steagall Act was repealed by the Financial Service Modernization Act (FSMA), also known as the Gramm-Leach-Bliley Act. The FSMA provides the opportunity for banks to combine the commercial banking with investment banking and insurance within one organization to gain from the economies of scale, the economies of scope, and risk sharing by providing diversified financial products.

Studies on the impact of the FSMA were conducted by Akhigbe and Whyte (2001), Carow and Heron (2002), and Mamun, Hassan, and Maroney (2005). While these studies report that the FSMA has a positive impact on medium and large banks, we suggest that small banks are less likely to benefit from the FSMA due to their limited capacity of expanding into investment and insurance industries. In fact, small banks may result in loss because of their disadvantages. Medium and large banks benefit from product diversification which effectively lowers their risk. In addition, the consolidation within financial industries leads these medium and large banks to become large enough to benefit from “too big to fail” guarantees. Overall, small banks may lose market share due to their relative increased risk. Even though the FSMA is intended to benefit large banks, this deregulation may impose unwanted negative spillover effects to small banks. We believe a study on the effect of the FSMA on small banks is warranted to assist regulatory bodies in determining the overall impact of this deregulation on the banking industry.

Our analysis indicates that the market reacts negatively on the FSMA for small banks. Our study supports to the hypothesis of the relative decline in the comparative advantage of small banks due to their limited capacity of expanding the services and products into investment banking and insurance. In addition, we also find that the losses are negatively related to bank size.

The paper proceeds as follows. Section 2 describes the events leading up to and including the passage of the FSMA. Section 3 provides a literature review and the development of the hypothesis. Section 4 describes the data and methodology. Section 5 presents the empirical results. Section 6 concludes.

Events Leading Up To and Including the Passage of the FSMA

On November 5, 1999, Congress passed the FSMA legislation which dramatically reshaped the financial services industry by removing barriers between banks, insurance companies, and investment firms. These barriers had existed since the Great Depression. There were five important events related to the passage of the FSMA. The first event was *The Wall Street Journal* (WJS) release, which was announced that the House approved the legislation to modify the regulation on financial services on July 2, 1999. The WSJ commented that the announcement had created “optimism that legislation would be sent to President Clinton for his signature by the end of the summer.” On October 20, 1999, news came out that the legislation may face a veto due to the disagreements related to community lending

Table 1

Events Leading Up To and Including the Passage of the FSMA

This table describes the five important events reported on *The Wall Street Journal* during the passage of the FSMA.

Event	Publish Date	Event
1	July 02, 1999	House approved the legislation to modify the regulation on financial service industries on July 1, 1999, according to <i>The Wall Street Journal</i> release.
2	October 20, 1999	Glass-Steagall overhaul may face veto. House and Senate leaders failed to reach agreement with Treasury Secretary Lawrence Summers over community-lending requirements.
3	October 25, 1999	Congress and the White House reach Glass-Steagall compromise over community-lending requirements.
4	November 05, 1999	Congress Pass Financial-Services Modernization Bill.
5	November 15, 1999	President Clinton signs into law a “truly historic” financial-services overhaul.

provisions. On October 25, 1999, House and Senate conferees and the White House reached a compromise that eliminated the uncertainty and implied that the bill would become law. The bill was approved by the Congress on November 5, 1999, and was signed by President Clinton on November 15, 1999.

Table 1 provides a summary of the five major events. The passage of the FSMA allows the financial holding companies to participate in financial activities in insurance and securities underwriting industries. These changes will eventually create opportunities for cross-industry mergers of banks, brokerage firms, and insurance companies.

Literature Review

The impacts of the FSMA have been investigated by several studies. Carow and Heron (2002) find that investment banks’ and insurance companies’ stock prices respond positively to the passage of the FSMA and larger investment banks and insurance companies gain more than smaller ones. They also find that the FSMA largely benefits large financial conglomerates. Czynnik and Klein (2004) examine the wealth effects of commercial banks, investment banks, and thrifts during the financial service regulation reforms in the 1990s. They suggest that the FSMA benefits the whole financial service industry, and there is no industry segment loss from this deregulation. Akhigbe and Whyte (2001) show that the FSMA has positive impacts on large and medium banks, brokerage firms, and insurance companies. Bhargava and Fraser (1998) argue that large banks have the great potential for

expanding into underwriting securities. Large banks are more likely to capture new investment opportunities and benefit from cost efficiencies during the joint with brokerage firms and insurance companies. The overall cost of funds for large banks may decline and their competitiveness should be enhanced. Large and medium banks will gain more market shares from small banks.

The economic theory of Stigler (1971) posits that one group or coalition can use the regulatory process to improve its relative competitive position within the industry. More specifically, Stigler (1974) argues that the incentive of large firms within the industry may differ substantially from their smaller counterparts. Empirical evidences supporting these views include James (1983) and Cornett and Tehranian (1989). James (1983) finds that bank deregulation of deposit rate ceilings result in gains for wholesale banks but losses for commercial banks. Cornett and Tehranian (1989) find that the banking deregulation passed in 1980 benefits stockholders of large banks and savings and loans but produces negative abnormal stock returns for small banks and savings and loans.

According to the above studies, the FSMA may create a negative spillover effect on small banks. We suggest that the source of gains for medium and large banks may be attributable to an increase in their comparative advantage of in terms of product diversification and the potential of “too big to fail” guarantees. Since small banks have limited capacities, they may not be able to take advantage of these opportunities. Consequently, the market may react negatively to the FSMA for small banks. We expect that small banks will experience loss when the FSMA legislation is passed.

Hypothesis: *The events leading up to and including the passage of the FSMA have a negative impact on small banks' stocks.*

Table 2
Descriptive Statistics for a Sample of the Small Banks

This table shows the sample size and the mean total assets, equity capital, and the equity-to-assets ratio for small banks. (Median values are in parentheses.) Financial data for small banks in 1998 are collected from Compustat.

	All small banks	Quartile1	Quartile 2	Quartile 3	Quartile 4
Sample Size	246	62	61	62	61
Total Assets (\$million)	1,449.18 (635.82)	216.37 (210.51)	476.81 (469.08)	1,065.86 (1,025.06)	4,064.16 (3,089.07)
Total equity (\$million)	130.31 (63.87)	22.02 (21.76)	46.44 (43.13)	93.08 (86.56)	362.09 (300.72)
Equity/Assets (in %)	9.66 (9.17)	11.11 (9.59)	9.71 (9.24)	8.86 (8.61)	8.94 (8.77)

Data and Methodology

We obtain the daily returns from the Center for Research in Securities Prices (CRSP) and financial statement reports Compustat database. Our initial sample comprises of 486 small banks which are listed on the NYSE, NASDAQ, and AMEX. We eliminate banks without available financial statements or daily returns. Our final sample includes 246 small banks. Small banks are defined as banks with total assets less than \$10 billion.

Table 2 provides summary statistics of the sample. The mean total asset of the sample of all small banks is \$1,449.18 million. We divide the sample in quartiles according to total assets. In the smallest quartile, the mean total asset is \$216.37 million compared to a value of \$4,064.16 million for the largest quartile.

To test our hypothesis, we use the daily returns of small banks for the year 1999 to estimate the following multiple regression model:

$$R_{it} = \alpha_0 + \alpha_1 R_{mt} + \sum_{k=1}^5 \lambda_k D_{kt} + e_{it} \quad (1)$$

- R_{it} the return of bank i on day t
- α_0 the intercept term
- α_1 the systematic risk
- R_{mt} the value-weighted return of the CRSP market index on day t
- λ_k the coefficient measuring the abnormal return for event k ($k=1, \dots, 5$)
- D_{kt} dummy variable equals 1 for event k and 0 otherwise
- e_{it} the error term of bank i on day t

According to our hypothesis, we expect negative coefficients for D_1 , D_3 , D_4 , and D_5 . Since events 1, 3, and 4 portend that the financial service overhaul bill is more likely to become law and event 5 brings the bill into law. The negative response of small banks to these events would be consistent with our hypothesis. On the other hand, we expect to get the non-negative coefficient for D_2 , since event 2 suggests that the bill may face a veto which will hinder the bill to become law. A non-negative response of small banks to this event would be consistent with our hypothesis.

Empirical Results

The Impact of the Events Leading to the FSMA on Small Banks

We build a Panel Data (Random Effect, RE) model and use the Weighted Least Square method to estimate the stock price response of the small banks. We have created five event windows to capture the abnormal returns of small banks for each event leading to the passage of FSMA. The (0, 1) event window is designed to capture the post-event abnormal returns of small banks. During the legislative process, there are many public discussions that occur prior to congressional votes. These public discussions will continuously release relevant information to investors.

Table 3
Abnormal Returns for Small Banks

This table shows the abnormal returns for all 246 small banks in response to the five events leading up to and including the signing of the FSMA into law. The weighted least square panel data estimation uses daily returns for all trading days for which data are available in 1999. The estimation equation is as follows:

$$R_{it} = \alpha_0 + \alpha_1 R_{mt} + \sum_{k=1}^5 \lambda_k D_{kt} + \epsilon_{it}$$

Where R_{it} is the return on the small bank i on day t , α_0 is the intercept term, α_1 measures the mean systematic risk of the small banks, R_{mt} is the return on the CRSP value-weighted market index on day t , λ_k is the coefficient measuring the abnormal return in response to event k ($k = 1, 2, 3, 4, 5$), D_k is equal to 1 for event k and 0 otherwise, ϵ_{it} is the error term on the portfolio on day t . Robust t-statistics in parentheses.

Parameters	[0]	[0,1]	[-3,0]	[-5,0]	[-10,0]
α_0	-.038*** (-3.13)	-.035*** (-2.82)	-.042*** (-3.30)	-.046*** (-3.56)	-.055*** (-4.14)
α_1	.223*** (19.57)	.227*** (19.83)	.223*** (19.39)	.221*** (19.07)	.216*** (18.83)
λ_1	.062 (.33)	-.108 (-.83)	.135 (1.35)	.216*** (2.77)	.209*** (3.88)
λ_2	.133 (.75)	-.047 (-.37)	.084 (.81)	.074 (.85)	.085 (1.11)
λ_3	-.116 (-.59)	.027 (.21)	.035 (.38)	.024 (.27)	-.090 (-1.12)
λ_4	.300 (1.49)	.013 (.10)	.255*** (2.62)	.232*** (2.88)	.341*** (5.29)
λ_5	-.023 (-.12)	-.169 (-1.35)	-.211*** (-2.62)	-.157** (-2.35)	-.109* (-1.86)
Chi-square	410.86***	408.6***	424.52***	431.72***	454.21***
Significance of the model	.000	.000	.000	.000	.000
Highest VIF	1.01	1.02	1.07	1.33	2.25
Mean VIF	1.01	1.01	1.03	1.12	1.51

*** Indicates significance at 1 percent level

** Indicates significance at 5 percent level

* Indicates significance at 10 percent level

Therefore we create several ex ante event windows ((-3, 0), (-5, 0), and (-10, 0)) to capture the abnormal returns that are related to the information leakage.

Table 3 shows the abnormal returns during five event windows, (0), (0, 1), (-3, 0), (-5, 0), and (-10, 0) for each event. Small banks experience consistent loss during event 5. On average, small banks have a loss of 0.211% at the 1% significance level in the (-3, 0) event window, a loss of 0.157% at the 5% significance level in the (-5, 0) event window, and a loss of .109% at the 10% significance level in the (-10, 0) event window in response to the event that President Clinton signed the bill (D5). Market's negative responses for small banks indicate that investors observe (or foresee) President Bill Clinton will sign the bill. Event 2 indicates that the bill may face a veto. The results show that small banks have non-negative abnormal returns. This is consistent with our hypothesis that the small banks experience non-negative abnormal returns when the law is less likely to be passed. Overall, the FSMA have a negative impact on small banks.

We have also observed ex ante positive returns for events 1 and 4, which are inconsistent with our hypotheses. We attribute these inconsistencies to the information leakage incurred by the public discussions before these events. The Senate approved its version of the FSMA in early May 1999. However, two challenges made the fate of the bill unpredictable. One was the difference between the Senate and House versions on requirements for lending in low-income areas and on regulatory and privacy issues, and the other was the threat from President Clinton that he might veto the final legislation if it did not satisfy his position on those issues. Before the congress passed the bill, there were several reports discussing that lawmakers were still wrangling over language for interpreting the bill, and it might delay the passage of the bill.¹ The negative and positive responses from the stock market reflect that investors were uncertain about the fate of the bill.

Since events 3, 4, and 5 are very close, the (-5, 0) and (-10, 0) event windows may cause the potential multicollinearity issue in these regression models. We have tested the variance inflation factors (VIF) for all the regression models. The average VIF and highest VIF for each regression model indicate that there is no serious multicollinearity in these regression models.

Bank Size Effect

In this section, we examine the relationship between bank size and abnormal returns. We use the following model to study this relationship.

$$AR_i = \alpha_0 + \alpha_1 TA_i + \epsilon_i \quad (2)$$

Where

AR_i the abnormal return of bank i on the final event day (Nov. 15, 1999)

α_0 intercept of the regression model

α_1 the coefficient of total assets (TA)

TA_i the natural log of total assets of bank i

ϵ_i error term of the model

Table 4
Banks Size and Abnormal Returns

This table presents the results of the regression model used to explain the relationship between bank size and abnormal returns.

The model is as follows:

$$AR_i = \alpha_0 + \alpha_1 TA_i + \epsilon_i$$

Where

AR_i the abnormal return of bank i on the final event day (Nov. 15, 1999)

α_0 intercept of the regression model

α_1 the coefficient of total assets (TA)

TA_i the natural log of total assets of bank i

ϵ_i error term of the model

Parameter	Coefficients	t-statistics	Standard Error	P- Value
α_0	-3.166***	-3.18	.995	0.002
α_1	.452***	3.06	.148	0.002
Sample size	246			
F-value	9.33***			
R2	.0368			
Adjusted R2	.0329			

*** Indicates significance at 1 percent level.

** Indicates significance at 5 percent level.

* Indicates significance at 10 percent level.

From the results of Table 3, we expect that α_0 be negative and coefficient α_1 be positive, since the abnormal returns are expected to increase with bank size.

Table 4 shows the relationship between bank size and abnormal returns. The intercept is -3.17% at the 1% significance level and the coefficient estimate of the proxy for bank size, TA, is 0.452 at the 1% significant level. The estimated regression equation implies that small banks' abnormal returns are increasing with bank size. Using the intercept and the coefficient of variable "TA," we can predict small banks' market reaction to the passage of FSMA. The result indicates that smaller banks experience more loss compared to larger banks. This result is consistent with our prediction.

Conclusion

We examine the impact of the events leading up to and including the passage of the FSMA of 1999 on small banks. The results indicate that small banks experience negative abnormal returns on the event days when the FSMA is more likely to become law. On the event day when the bill may face a veto, small banks experience positive abnormal returns. We also find that the abnormal returns are increasing with bank size.

These results provide evidence supporting the view that the small banks may lose due to their limited capacity of expanding into investment banking and insurance industry. The results support our hypothesis that the FSMA puts the small banks at disadvantage as large banks can benefit from product diversification, synergies, and “too big to fail” guarantees. Small banks do not experience these gains due to their limited capacity. Since the FSMA puts the small banks at disadvantage, these small banks experience a decline in the competitive market power. We believe an analysis of the effect of the FSMA on all banks (large, medium, and small) is warranted in assisting regulators to assess the overall impacts of this deregulation.

Footnote

¹ Bank Overhaul Delayed by Wrangling Over Language for Interpreting the Bill, By Michael Schroeder. *The Wall Street Journal*, (Eastern edition), New York, N.Y., Oct 29, 1999, pg. 1

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