

Bank Failures: A Study of Georgia Banks

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Our study considers why a much large proportion of failed U.S. banks, between the years 2007 through 2018, were located in the State of Georgia. Georgia politicians, and certain local bankers, postulated this was due to overzealous regulators. We reviewed various capital ratios and loan risk indicators in the years prior to failure to analyze bank health. Our study found the indicators for bank health in Georgia were significantly worse as compared to the other failed banks. Georgia bank failures were more likely due to undercapitalization, too much loan risk, and insufficient loan loss reserve, rather than overzealous regulators.

Keywords: Capital Ratios, Banking, Bank Failures, Georgia Bank Failures, Loan Risk, Stakeholder Theory, Regulators, BASEL

INTRODUCTION

Since the downturn in 2008-2009, many banks have failed in the United States. Of interest were the large number of failed banks located in the State of Georgia. In reviewing the FDIC State Banking Summary of FDIC-Insured Institutions, they reported a 53% decrease in the number of reporting banks located in Georgia from 2007 to 2018 (QDP State Tables). In 2008, Georgia had 48 banks which were less than three years old (Breitkoff, 2008, p. 3). Many of those banks had insufficient capital to survive the downturn. However, a large percentage of the banks that failed or were placed in FDIC receivership in Georgia had been operating for greater than five years in the State. The FDIC Bank Failure List shows 91 Georgia bank failures of the 528 banks that failed nationally since 2008.

Regulators are required to remediate banks deemed to be significantly undercapitalized. And, if a banks' conditions decline to the point that they are severely undercapitalized, regulators (including state and federal) are generally required by law or statute to close the institution if it cannot be recapitalized (Office of Inspector General, p.7). FDIC Regulation 2000-325.103 part b defines significantly undercapitalized and critically undercapitalized banks: *Significantly undercapitalized*: (i) A total risk-

based capital ratio that is less than 6.0 percent; or (ii) A Tier 1 risk-based capital ratio that is less than 3.0 percent; or (iii) A leverage ratio that is less than 3.0 percent. *Critically undercapitalized*: if the insured depository institution has a ratio of tangible equity to total assets that is equal to or less than 2.0 percent.

Many authors challenged the number of bank failures in Georgia as unnecessary. Bill (H.R. 2056) drafted by Representative Lynn Westmoreland (R-GA) and cosponsored by Representative David Scott (D-GA) instructed the Inspector General of the FDIC to study the impact of the causes of bank failures and the impact of fair value accounting. However, in requesting this bill, Rep. Westmoreland said,

I understand that some of these banks failed because they needed to fail. But when you see high failure rates like we have in Georgia --- with 25 percent of our banks failing since 2008 --- you have to look for the underlying causes. According to the bankers that I've spoken to, some of the blame lies with overly zealous regulators.

This prompted the questions: Were the banks in Georgia treated differently than the banks located in the rest of the U.S. and did the Georgia banks that failed have better capital and less loan risk than the other banks in the U.S.?

Additionally, some claimed indifference on the part of the regulators relative to the impact of the bank failures. BB&T Chief Executive Officer Kelly King said, "If you are sitting at the Federal Reserve in Washington, you care about the global economy" and "you don't necessarily care about 2,000 people in Southern Georgia. But, if you happen to live in Southern Georgia in that little town, that is the economy." (Matthews, 2019, p. 4) Similarly, former Chief Economist at the Office of Thrift Supervision said, "Many banks were too small to save, and other banks were too big to allow to fail. There is an inequity here." (saa, p.7)

So, why don't all troubled banks fail irrelevant of size? Unlike in other industries, the banking regulators have programs to assist in the rehabilitation for troubled banks. The Office of the Comptroller of the Currency Administrator of National Banks guide *An Examiner's Guide to Problem Bank Identification, Rehabilitation and Resolution* (2001) details the many steps taken by those regulators to rehabilitate the troubled banks under their purview. The Federal Reserve regulators have similar programs. Additionally, through history, several other programs have been created to ensure the safety and surety of the banks including the FDIC insurance program, the overnight borrowing window and the TARP Program established and implemented during the 2008-2009 downturn.

The bank regulators work to review and rehabilitate banks deemed troubled. The Office of the Comptroller of the Currency (OCC) Administrator of the National Banks' *An Examiner's Guide to Problem Bank Identification, Rehabilitation, and Resolution* says:

The rehabilitation process is based on the development of a specific and viable plan for corrective action for each troubled institution and subsequent monitoring to ensure adherence to the plan. At the conclusion of this stage of problem bank resolution, a bank normally returns to a safe and sound condition or advances to treatment as a resolution candidate. (2001, p. 27)

The determination on the safety and soundness of the banks includes review of bank capital ratios in conjunction with: 1) internal controls and information systems, 2) internal audit systems, 3) loan documentation, 4) credit underwriting, 5) interest rate exposure, 6) asset growth, 7) asset quality, 8) earnings, and 9) compensation fees and benefits. (saa, p. 31-32)

In reviewing the question of whether all of the troubled banks should be allowed to fail, many claim the rehabilitation process by the regulators and the lack of bank receiverships during periods of stable markets provide proof of the capture of the regulators by the banking industry. Capture theory presents the idea that regulations and regulators are controlled by those parties with the most power which is generally represented by those with the most money (Posner, p. 337). However, regulators appear to consider multiple parties in their evaluation of bank receivership. The *Examiner's Guide to Problem Bank*

Identification, Rehabilitation and Resolution (2001) considers of the impacts on other parties and not just on the banking industry.

In consideration of whether all troubled banks should be allowed to fail, the concept of stakeholder theory and the regulators' stakeholder approach should be considered. Stakeholder theory is a prevalent theory in modern management. Its concepts are traditionally only applied to the management of a corporation. Stakeholder theory presents the idea that managers should weigh the impact of all decisions on the stakeholders of the corporation. Managers have a fiduciary duty to consider all stakeholders which would include suppliers, customers, employees, stockholders and the local community (Freeman, 2001, p. 39).

Although this concept is normally for managers, it could be expanded to any decision in which all parties for the decision are weighed (Freeman, 2015). In expanding stakeholder theory to the regulators, the parties primarily impacted by a bank closure would be the taxpayers, investors, creditors, customers, employees, and the local community. Also, depending on the size of the bank or the number of the banks that failed, the global markets could be impacted. In other industries, the failure of a business normally only impacts its direct stakeholders. However, due to the FDIC insurance program, the deposits of banks are insured by the federal government and are subsequently covered by taxpayer dollars. Additionally, the federal government lends to the banks through many programs from the Federal Reserve, the Federal Home Loan Bank and other governmental entities. Consequently, in the case of many banks, some of the creditors of the banks are the federal government. In a bank failure, the bank could default on their loans from the government. Hence, in bank receivership, the excess costs of the bank failure is ultimately born by the taxpayers. In this, the regulators appear to use a pseudo stakeholder theory and review all impacts of bank receivership in their treatment of the banks.

LITERATURE REVIEW

Capital Adequacy Regulations

The International Convergence of Capital Measurement and Capital standards (BASEL I) was published in July 1988. This accord was established to reduce the riskiness of the global financial institution industry. It focused on credit risk and the appropriate risk weighting of assets. It segregated the assets of banks into five credit risk-weighting categories of: 1) 0% (such as cash, bullion, and home country treasuries), 2) 10% (securities maturing in less than 1 year), 3) 20% (such as securitizations with AAA ratings or securities over 1 year), 4) 50% (such as municipal or residential bonds) or 5) 100% (most corporate debt). The committee set the target standard ratio of capital to weighted risk assets at 8% with 4% required to be made up with core capital elements. It established the definitions of capital for the capital base into two tiers. The first tier is made up of paid-up share capital/common stock and disclosed reserves. The second tier of capital is made up of undisclosed reserves, asset revaluation reserves, general provision/general loan-loss reserves, hybrid (debt/equity) capital instruments and subordinated debt. These are combined with some exceptions to meet the capital requirements.

On March 17, 2010, the Office of the Comptroller of the Currency, the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporations, the Office of the Thrift Supervision and the National Credit Union Administration in conjunction with the Conference of State Bank Supervisors issued the *Interagency Policy Statement on Funding and Liquidity Risk Management*. Per the publication, it summarized the principles of sound liquidity risk management and to harmonize the principles issued by the BASEL Committee (BASEL III).

Prior to the downturn in 2008-2009, there were already concerns on the effectiveness of the BASEL II capital requirements. In his article, "Financial Regulation, Credit Risk and Financial Stability" from 2005, Goodhart wrote on some problems that included: 1) appropriate diversification allowances, 2) differing objectives between banks and regulators, 3) the need for a buffer over regulatory minima, and 4) the distinction between expected and unexpected losses. (118)

Repullo and Suarez, in their article “The Procyclical Effects of Bank Capital Regulation”, compared and contrasted the bank capital regulations for BASEL I, II, and III using a dynamic equilibrium model. In a comparison of BASEL I and BASEL II, they found BASEL II as more procyclical than the original BASEL Accord. Additionally, they found that it made banks safer. However, it was not wholly effective in removing the risk. Per the authors, the BASEL III regulations would be more effective. They wrote that with high social costs of bank failure, as shown by the 2009 downturn, the optimal capital requirements should be higher and less cyclically varying as in BASEL III. (452)

Schnieder, Xu, and Lyons, in their article “Application of Recent Liquidity Regulations to Banking Organizations and Key Impacts When Implementing Them”, explores the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR). The LCR targets short-term liquidity with the focus on maintaining high-quality liquid assets in periods of stress. The NSFR targets longer-term funding and liquidity by requiring that the financial institutions to have stable liabilities and capital to offset their loan portfolio and other assets. The LCR became effective January 1, 2015 with a two-year phase-in period thereafter. Covered banks are required to notify the appropriate banking regulator on any business day that their LCR falls below the minimum requirement for three consecutive business days. If a regulator believes that a bank is out of compliance with the LCR, they can require a banking organization to submit a liquidity plan. The final NSFR became effective January 1, 2018.

Berger, DeYoung, Flannery, Lee, and Oztekin, in their article “How do large banking organizations manage their capital ratios?” reviewed the BASEL II capital requirements and the equity being held at the banks. The article shows that prior to the passage of the BASEL III regulations US banks were holding more equity than required. Per the authors, the evidence showed banks actively managed capital ratios well above required ratios and, especially poorly capitalized banks, made rapid adjustments toward their targets.

Stakeholder Theory

Traditionally, corporations had a shareholder view. Berle & Means (1932) explained the relationship and “legal link” between ownership and management. Abrams (1951) expanded the responsibility of managers from stockholders and profits to include employees, customers and public interest. Friedman (1970) argued that the duty of managers and a business was to increase profits not to society. Jensen & Meckling (1976) reviewed the relationship between managers and owners. Managers will attempt to maximize their personal utility through perquisites. To control for this, ownership structure should be designed to limit agency costs and to maximize value of the firm.

Ansoff (1965, 1976), one of the first authors of stakeholder theory, wrote that the objectives of the firm should be derived from balancing the conflicting claims of the various “stakeholders” in the firm: managers, workers, stockholders, suppliers, vendors. Per Ansoff, the firm has a responsibility to all of these and must configure its objectives so as to give each a measure of satisfaction. Profit which is a return on investment to the stockholder is one of such satisfactions but does not receive special predominance in the objective structure.

Cyert & March (1963) expanded this theory and explained that the objective of a firm is to meet the needs and purposes of those who participate in it. They explained that a corporation is a part-oriented organization that serves the purposes of all its participants and those affected by the corporation’s behavior. Taylor (1976) expanded the power of stakeholders to help or damage a business. Ackoff (1974) and Ackerman (1975) integrated the stakeholder theory of Ansoff with the profit maximization theory of Friedman.

Freeman (1984), Donaldson & Preston (1995), and Freeman, Harrison & Wicks (2007) further explained how stakeholder theory is defined today and linked business success with a stakeholder perspective. In this, a focus on stakeholders’ interests helps a firm create value for both the firm and the stakeholders. Per Freeman, in the traditional management concepts, the shareholders or stockholders are the owners of the company, and the firm has a binding financial obligation to put their needs first and to increase value for them. However, in direct contrast, stakeholder theory argues that there are other parties involved: including governmental bodies, political groups, trade associations, trade unions, communities,

financiers, suppliers, employees, customers and even competitors are counted as stakeholders. The parties' status is derived from their capacity to affect the firm and its other stakeholders.

Derkinderen & Crum (1979) expanded the profit concept to explain that in a decision process different stakeholder groups would have different weights. For instance, the priority would be given to equity stakeholders. Other stakeholder interests can be viewed as a "means-ends chain" with goals that can be compatible, contrasting or contradictory. Given this, the prime objective of the firm is long-run economic value maximization while incorporating the other goals as constraints.

Hussey & Langham (1979) presented a slightly different stakeholder theory. They used the term to describe any party with an interest in the firm including shareholder, employees, suppliers, customers and the community. The authors explain that, in previous versions of the theory, the primary stakeholders were shareholders and employees since they could close down the company. However, per the authors, the customers have a large amount of power since they can also exercise a large amount of influence by ceasing to buy. Harrison & Wicks (2013) developed a four-factor perspective to define values that include: stakeholder utility associated with actual goods and services, stakeholder utility with organizational justice, stakeholder utility from affiliation and stakeholder utility associated with perceived opportunity costs.

Traditional focus of stakeholder theory has been on corporate managers and corporate theory. However, Freeman (2016) wrote that stakeholder theory would apply to regulators. Per the Freeman, this theory would apply to anyone including regulators that had to make a decision weighing the impact on multiple parties.

Capture Theory

Pigou (1920) began the discussion of capture theory when explaining how externalities can be costs imposed on or benefits conferred on others unknown or not taken into account by the person taking an action. He presented the concept that negative actions such as pollution creation would generate a negative effect on parties other than the polluter. Without government intervention, the polluter would continue the activity. Also, education of one person could positively benefit those around him. To accommodate the negative effects, Pigou advocated taxes on the activities and to accommodate for positive effects he advocated subsidies. This theory was categorized as public interest theory. This idea was expanded by Davis & Matchett (1955). In their description, there is a struggle between the public and the regulated group that yields the ultimate effect of the regulatory agency adopting the position of serving the regulated group.

Hotelling (1938) questioned the payment for the building of bridges and tunnels or public utilities through fees levied on utility users. In this, the well-being of some were purchased through the sacrifices of others. He conceived an economic policy where all decisions were made randomly as small changes to cancel each other out and efficiencies would result for all. Kaldor (1939) further expanded this idea. He wrote that economists should favor all changes in economic policy that improve the efficiency of the economic system. He explained that this decision should be irrelevant to the policy inflicting losses upon some people or if they are compensated for their losses from the gainer's gain.

Coase (1960) directly challenged public interest theory on regulations. Coase (1960) wrote, "Analysis in terms of divergence between private and social products concentrates attention on particular deficiencies in the system and tend to nourish the belief that any measure which will remove the deficiency is necessarily desirable." (p. 21) He further explains that the corrective measure may cause more harm than good when applied to the original deficiency.

Stigler (1971) and Posner (1974) challenged public interest in regulation and presented the idea that regulators are constantly under pressure from producers and consumers. Stigler's premises were the fundamental asset of the state is its power to coerce cooperation and all parties seek to influence the state's coercive powers; but this is expensive. Therefore, the largest pressure is from producers causing regulations to be written to benefit their interests. Posner wrote that "public interest" does not hold up because no evidence is found of additional regulations in highly concentrated industries or in industries that generate substantial external costs or benefits. Per Posner, since the coercive power of government

can be used to give valuable benefits to particular individuals or groups, economic regulation – the expression of that power in the economic sphere – can be viewed as a product of whose allocation is governed by laws of supply and demand.

Kahn (1988) wrote concerning the necessity, role and effects of regulation. Regulation does and can have an important effect on society in that it helps in review of monopolies or monopolistic industries, preventing discrimination of consumers, informing consumers of health concerns, etc. Peltzman (1976) further expanded this idea and challenged the Stigler theory. He wrote that the scope is Stigler's theory is too general. He expands the theory to a more generalized model in which each identifiable group contains winners and losers, and even where all winners are in a group they end up short changed. Per Peltzman, power relationships play a role analogous to tastes in consumer choice theory. In this, they shape the regulator's utility function.

DATA COLLECTION AND RESEARCH METHODOLOGY

This study used the data presented in the *Bank Financial Quarterly Reports* published by IDC Financial Publishing, Inc. The ratios reviewed were:

- Tier 1 capital as a percent of total assets (T1)
- Tier 1&2 capital as a percent of risk-based capital (T2)
- Tier 1 capital as a percent of risk-based capital (T3)
- Loan loss reserve as a percent of tier 1 capital (LLL)
- Loan risk (defined as nonaccrual loans plus repossessed real estate from loans) are as a percent of tier 1 capital (LR)

The bank data used in the analysis includes the ratio data for each of five years prior to bank failure for the failed banks within and outside of Georgia. This included only those banks that were located for five years in the same state.

The analysis reviewed the ability of the ratios to predict group membership between the failed or troubled groups of banks. The research hypotheses for the analysis are:

H1₁: Tier 1 capital as a percentage of total assets for Georgia banks are greater than the ratios for the other banks (T1)

H2₁: The combination of Tier 1&2 capital as a percent of risk-based capital for Georgia banks are greater than the ratios for other banks (T2)

H3₁: Tier 1 capital as a percentage of risk-based assets for Georgia banks are greater than the ratios for the other banks (T3)

H4₁: Changes in loan loss reserve are less for Georgia banks than other banks (LLL)

H5₁: Changes in loan risk are less for Georgia banks than other banks (LR)

EMPIRICAL RESULTS

Statistical t-tests analysis was processed on the data reviewing the ratios comparing the Georgia bank failures' ratios to the ratios of the other banks that failed for one to five years prior to the banks' failures. Five years prior to all banks' failures, the ratios for Georgia banks were statically similar to the ratios for the other failed banks. Also, all the banks in the analysis showed high levels of loan risk five years prior to failure. With this, the loan failures at the Georgia banks decreased as the banks moved toward failure. But, per banking regulations, banks are required to charge-off nonaccrual loans when they reach 180 days past due.

At a 90% statistical significance, the Georgia banks had less capital and higher levels of loan risk defined as changes of nonaccrual loans plus repossessed real estate for failed loans for the four years prior to their failure compared to the other bank failures. With this, even though they were taking more loan losses, they held similar loan loss reserves to the other banks. With higher loan risk, this was unusual for banks. At the 95% level of statistical significance, the Georgia banks had less capital two to four years prior to failure. And, the Georgia banks showed higher loan risk for one to three years prior to failure compared with the other banks that failed. With this, the Georgia banks held statistically similar loan loss reserves in comparison with the other banks.

**TABLE 1
T-TEST RESULTS**

Year	Health Indicator	Other Banks		Georgia Banks		Significance
		μ	σ	μ	σ	p-value
1	Capital Ratio 1	3.12	2.38	2.54	1.96	0.07 *
1	Capital Ratio 2	5.52	3.53	4.69	2.82	0.70
1	Capital Ratio 3	4.3	3.3	3.54	2.66	0.08 *
1	Loan Loss Reserves	170	238	151	203	0.58
1	Loan Risk	481	331	715	298	0.00 ***
2	Capital Ratio 1	7.15	2.56	5.98	1.97	0.00 ***
2	Capital Ratio 2	10.65	3.71	9.03	2.37	0.00 ***
2	Capital Ratio 3	9.27	3.59	7.78	2.37	0.00 ***
2	Loan Loss Reserves	35.9	27.1	33.7	19.8	0.50
2	Loan Risk	142	133	288	240	0.00 ***
3	Capital Ratio 1	9.13	3.75	7.92	2.28	0.00 ***
3	Capital Ratio 2	12.6	5.98	10.9	2.63	0.00 ***
3	Capital Ratio 3	11.32	5.96	9.72	2.65	0.00 ***
3	Loan Loss Reserves	23.8	69.3	19.3	12.9	0.36
3	Loan Risk	70	106	156	160	0.02 **
4	Capital Ratio 1	10.02	4.29	9.33	2.96	0.15
4	Capital Ratio 2	13.52	6.06	12.17	3.28	0.03 **
4	Capital Ratio 3	12.33	6.06	11.03	3.32	0.04 **
4	Loan Loss Reserves	13.9	14.8	13.37	6.67	0.67
4	Loan Risk	32.5	54.7	43.6	79.6	0.34
5	Capital Ratio 1	12.2	10.9	12.3	11.3	0.95
5	Capital Ratio 2	16.7	22.3	17.2	22.9	0.84
5	Capital Ratio 3	15.5	22.4	16.1	22.9	0.88
5	Loan Loss Reserves	11.7	10.8	11.98	7.86	0.83
5	Loan Risk	19.3	41.8	21	54.4	0.83

Results of the Analysis

- 1) For hypothesis 1, Tier 1 capital as a percentage of total assets for Georgia banks was statically less than for the other failed banks for four of the five years prior to their failure causing a failure to reject the null hypothesis.

- 2) For hypothesis 2, the combination of Tier 1&2 capital as a percent of risk-based capital for Georgia banks was statistically less than the ratios for the other failed banks for three of the five years prior to their failure causing a failure to reject the null hypothesis.
- 3) For hypothesis 3, Tier 1 capital as a percentage of risk-based assets for Georgia banks was statistically less than for the other banks for four of the five years prior to their failure causing a failure to reject the null hypothesis.
- 4) For hypothesis 4, changes in loan loss reserve for Georgia banks were consistent with the other failed banks causing a rejection of the null hypothesis.
- 5) For hypothesis 5, changes in loan risk were statistically greater for the Georgia banks compared with the other failed banks for the three years prior to failure causing a failure to reject the null hypothesis.

CONCLUSIONS

In reviewing the failed banks from Georgia compared with the other bank failures, the results showed worse ratios for the Georgia banks compared to the other failed banks. As the Georgia banks moved toward their ultimate failure, their loan risk dramatically increased and was statistically higher than the other failed banks without an offsetting increase in their loan loss reserves. Additionally, for two to four years prior to their failure, they held statistically less capital than the other failed banks. With this, the Georgia banks showed that they were severely undercapitalized in the years prior to their failure.

Due to the requirements on the regulators to close banks that are severely undercapitalized if they cannot be recapitalized, it appears that the regulators were following laws and statutes by closing the Georgia banks. Therefore, in consideration of the Georgia bank failures, the statistical analysis showed the Georgia bank failures were more likely due to undercapitalization, too much loan risk, and insufficient loan loss reserve accounts, and not overzealous regulators. In this, the regulators showed a clear stakeholder view of the bank losses and ultimate closures.

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