

IMPLICATIONS OF SUBCHAPTER S TAX STATUS
FOR COMMERCIAL BANKS

By

Emily S. Breit

Bachelor of Business Administration
Fort Hays State University
Hays, Kansas
1996

Master of Business Administration
Fort Hays State University
Hays, Kansas
2000

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FOR COMMERCIAL BANKS

Dissertation Approved:

Dr. W. Gary Simpson

Dissertation Adviser

Dr. David Carter

Dr. Betty Simkins

Dr. Sandeep Nabar

Dr. A. Gordon Emslie

Dean of the Graduate College

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CHAPTER I

INTRODUCTION

1.1 The Research Problem

Subchapter S of the Internal Revenue Code was created fifty years ago as a mechanism for providing small businesses with a tax advantage. This advantage was meant to allow small firms to more effectively compete with larger corporations. Statements to Congress indicate that banks that receive this tax advantage pass the benefit onto small businesses through increased credit availability (Blankenship, 2008; Bright, 2001).

Since 1997, banks are allowed to convert to this organizational form if they meet the requirements set forth in the statute. Every year banks continue to switch to this status and de novo banks enter into this status.¹ Due to the passage of the Sarbanes-Oxley Act of 2002 banks have other reasons, such as cost savings and reduced exposure to regulation, to reduce their size and operate under this newly available organizational form (SOX, 2002).² In addition, this tax benefit provides commercial banks the opportunity to be on a more level playing field with credit unions.

¹De novo banks will not be included in the sample of Subchapter S commercial banks due to the difference in the performance in the initial years of operation (Brislin and Santomero, 1991; De Young and Nolle, 1996; De Young, 1999).

²Under the Securities Exchange Act of 1934, a company can be considered private and avoid Sarbanes-Oxley requirements if the company has fewer than 300 shareholders; or fewer than 500 shareholders and less than \$10 million in total assets for each of its last three fiscal years.

Though many banks convert to this status, there are many eligible banks which choose not to convert to this organizational form. There is an adequate amount of research on S corporations in various industries, but due to the fairly recent eligibility of financial institutions to this tax status, there is little research on Subchapter S banks. The research to date on Subchapter S banks tends to focus on the characteristics of banks that convert to this status. These studies analyze variables such as ROE, dividend payments, bank size, location (urban v. rural), and other characteristics for predictive purposes. However, the purpose of this legislative act is yet to be investigated. Are these tax savings provided to Subchapter S banks being channeled through to entities such as small businesses, including those in the agriculture industry, through an increase in loan activity? The importance of these small banks to small businesses is critical to our economy and is documented in the literature (Berger et al., 2005; Berger and Frame, 2007; Berger and Udell, 1995; Craig and Hardee, 2007; Ely and Robinson, 2001; Strahan and Weston, 1996). Recently, it was reemphasized by the testimony of Federal Reserve Governor Mishkin (2008) who noted the importance of small banks in utilizing relationship lending and extending credit to small businesses during turbulent economic conditions.

1.2 Purpose of the Research

The purpose of this study is to investigate the important question, what are the banks doing with the tax advantage provided by their Subchapter S status? Are they passing these benefits on to their customers in the form of increased credit availability? If not, are the tax savings staying within the banking organization as increased capital through retention of earnings, an increase in officers and employees' salaries, or

increased dividends for owners? The main concern and the policy issue of this investigation is if these tax savings are being channeled through increased lending activities to the banks' local community including small businesses, for whose benefit the original legislation was intended (Mishkin, 2008). I evaluate if Subchapter S banks have significant differences in their operating characteristics post conversion versus a control group of Subchapter C banks. I investigate some of the unique characteristics of Subchapter S banks and evaluate if their lending relationships are significantly different from the control Subchapter C banks due to this preferential tax treatment

1.3 Results of the Research

An event study approach with a unique matching technique provides a more thorough evaluation of conversion by banks to Subchapter S tax status. Empirical analysis of abnormal performance provides insight into how banks are distributing their tax savings from converting to Subchapter S tax status. Results indicate banks are utilizing the tax benefit primarily to increase dividends. The increase in dividends is shown to be significantly greater than what is necessary to offset the increase in taxes incurred by shareholders. Results of negative abnormal performance in many of the lending categories indicate banks decrease the more risky small business and agricultural lending after converting to Subchapter S. Negative abnormal performance in salaries possibly indicates salaries previously were used to extract funds from the banks to avoid double taxation. The negative abnormal performance in retained earnings corresponds with the increase in dividends.

1.4 Structure of the Research

Chapter II is a literature review that describes the progression of Subchapter S legislation and the legal requirements of electing this status. Chapter III is an analysis and overview of previous studies that investigate the characteristics and performance of banks that convert to Subchapter S status. Chapter IV is a discussion of the importance of funneling the increased tax savings to small businesses. Chapter V is a description of the data and methodology for the empirical analysis and contains the theoretical framework and a set of testable hypotheses. Chapter VI contains the results of an empirical comparison of banks that convert to Subchapter S status and a matched control sample consisting of banks that do not convert. The empirical analysis is an event study utilizing accounting data. Finally, Chapter VII is a discussion of the policy implications of the empirical analysis.

CHAPTER II

LEGAL REQUIREMENTS FOR SUBCHAPTER S CORPORATIONS

Subchapter S of the Internal Revenue Code (IRC) was established as an alternative form of business organization by Congress under the Technical Amendments Act of 1958, which is a revision to the IRC of 1954 (TAA, 1958). The purpose of this hybrid form of business organization is to reduce the tax burden on small businesses by allowing them to operate as a corporation but pay taxes at the individual owner level like a partnership.

An S corporation is defined by the Internal Revenue Code as, “with respect to any taxable year, a small business corporation for which an election under Section 1362(a) is in effect for such year” (U.S.C., §1361(a)(1)). This organizational form receives the benefits of both the corporate organizational form and the partnership form. Thus, an S corporation is allowed to operate with limited liability like a C corporation while receiving the benefit of avoiding double taxation. C corporations are named after Subchapter C of the Internal Revenue Code and are taxed as a separate business entity (U.S.C., §311). S corporations do not pay the federal corporate income tax but instead all taxes are paid at the level of the individual owner. For these eligible S corporations, their income and losses are passed-through (sometimes referred to as flowed-through) to

their shareholders on a pro rata basis, similar to the partnership rules. The individual shareholders are then taxed on their share through their individual income tax returns. Unlike the partnership organizational form, the shareholders of S corporations are typically not subject to self-employment taxes on their distributive shares. Therefore, the company's profits are not subject to double taxation (U.S.C., §1366(a)(1)(A)).³

Due to the tax savings associated with S corporations and the increased number of regulations corporations are required to follow, more organizations are converting to Subchapter S every year as a cost saving mechanism. Scholes and Wolfson (1992) find that as corporate costs increase, so does the benefit from the tax savings and the number of pass-through entities such as S corporations.

Table 1 provides a simplified illustration of the difference in taxation of a C corporation and an S corporation. As indicated in Panel A and Panel B, the tax advantage of Subchapter S increases as the dividend payout increases. Panel C and Panel D illustrate the implication of individual and corporate tax rates on Subchapter S status. The advantage of Subchapter S increases as the corporate tax rate exceeds the individual tax rate. Panel E provides an illustration of the current tax situation. The reduction in the dividend tax rate reduces, but does not eliminate the tax advantage of Subchapter S.

To summarize, the Subchapter S owners are not held personally liable for debts, obligations, and judgments of the business and the profits of the business are taxed only once at the federal income tax rate applicable to the individual shareholders. The highest marginal rate for individual shareholders in 2008 is 35 percent, a significant decrease from the previous high of 91 percent when Subchapter S tax status first became available (Refer to Table 2).

³ Some states do require a state corporate income tax.

Table 1: Illustration of Subchapter S Tax Effect

Two banks with pre-tax income of \$1,000,000. One converts to Subchapter S the other remains under Subchapter C of the IRC.

Panel A: Assumes a 100% Dividend Payout

	<u>Subchapter S</u>	<u>Subchapter C</u>
Pre-tax Income	\$1,000,000	\$1,000,000
Corporate Tax Paid	\$0	\$350,000
After Tax Corporate Income (Loss)	\$1,000,000	\$650,000
Dividend Payout	\$1,000,000	\$650,000
Individual Tax Paid	\$350,000	\$227,500
After Tax Individual Income (Loss)	\$650,000	\$422,500
Cash Position of Individual	\$650,000	\$422,500
Total Tax	\$350,000	\$577,500

Panel B: Assumes a 0% Dividend Payout

	<u>Subchapter S</u>	<u>Subchapter C</u>
Pre-tax Income	\$1,000,000	\$1,000,000
Corporate Tax Paid	0	\$350,000
After Tax Corporate Income (Loss)	\$1,000,000	\$650,000
Dividend Payout	\$0	\$0
Individual Tax Paid	\$350,000	\$0
After Tax Individual Income (Loss)	\$650,000	\$650,000
Cash Position of Individual	(\$350,000)	\$0
Total Tax	\$350,000	\$350,000

Panel C: Assumes a 50% Dividend Payout but a Corporate Tax Rate of 20% and an Individual Tax Rate of 50%.

	<u>Subchapter S</u>	<u>Subchapter C</u>
Pre-tax Income	\$1,000,000	\$1,000,000
Corporate Tax Paid	0	\$200,000
After Tax Corporate Income (Loss)	\$1,000,000	\$800,000
Dividend Payout	\$500,000	\$400,000
Individual Tax Paid	\$500,000	\$200,000
After Tax Individual Income (Loss)	\$500,000	\$600,000
Cash Position of Individual	\$0	\$200,000
Total Tax	\$500,000	\$400,000

Panel D: Assumes a 50% Dividend Payout but a Corporate Tax Rate of 50% and an Individual Tax Rate of 20%.

	<u>Subchapter S</u>	<u>Subchapter C</u>
Pre-tax Income	\$1,000,000	\$1,000,000
Corporate Tax Paid	\$0	\$500,000
After Tax Corporate Income (Loss)	\$1,000,000	\$500,000
Dividend Payout	\$500,000	\$250,000
Individual Tax Paid	\$200,000	\$50,000
After Tax Individual Income (Loss)	\$300,000	\$200,000
Cash Position of Individual	\$300,000	\$200,000
Total Tax	\$200,000	\$550,000

Panel E: Assumes a 50% Dividend Payout, Corporate Tax Rate is 35%, Individual Tax Rate is 35%, Dividend Tax Rate is 15%

	<u>Subchapter S</u>	<u>Subchapter C</u>
Pre-tax Income	\$1,000,000	\$1,000,000
Corporate Tax Paid	\$0	\$350,000
After Tax Corporate Income (Loss)	\$1,000,000	\$650,000
Dividend Payout	\$500,000	\$325,000
Individual Tax Paid	\$250,000	\$48,750
After Tax Individual Income (Loss)	\$250,000	\$276,250
Cash Position of Individual	\$250,000	\$276,250
Total Tax	\$250,000	\$398,750

Assumes all income received is taxed at the top marginal rate. This ignores deductions, exemptions and the rates below the top marginal rate. The highest marginal rate for both individuals and corporations is assumed to be 35% in Panels A and B.

Table 2: Historical Highest Individual Marginal Income Tax Rates

Year	Top Marginal Rate	Year	Top Marginal Rate	Year	Top Marginal Rate
1913	7.00%	1945	94.00%	1977	70.00%
1914	7.00%	1946	86.45%	1978	70.00%
1915	7.00%	1947	86.45%	1979	70.00%
1916	15.00%	1948	82.13%	1980	70.00%
1917	67.00%	1949	82.13%	1981	69.13%
1918	77.00%	1950	91.00%	1982	50.00%
1919	73.00%	1951	91.00%	1983	50.00%
1920	73.00%	1952	92.00%	1984	50.00%
1921	73.00%	1953	92.00%	1985	50.00%
1922	56.00%	1954	91.00%	1986	50.00%
1923	56.00%	1955	91.00%	1987	38.50%
1924	46.00%	1956	91.00%	1988	28.00%
1925	25.00%	1957	91.00%	1989	28.00%
1926	25.00%	1958	91.00%	1990	31.00%
1927	25.00%	1959	91.00%	1991	31.00%
1928	25.00%	1960	91.00%	1992	31.00%
1929	24.00%	1961	91.00%	1993	39.60%
1930	25.00%	1962	91.00%	1994	39.60%
1931	25.00%	1963	91.00%	1995	39.60%
1932	63.00%	1964	77.00%	1996	39.60%
1933	63.00%	1965	70.00%	1997	39.60%
1934	63.00%	1966	70.00%	1998	39.60%
1935	63.00%	1967	70.00%	1999	39.60%
1936	79.00%	1968	75.25%	2000	39.60%
1937	79.00%	1969	77.00%	2001	38.60%
1938	79.00%	1970	71.75%	2002	38.60%
1939	79.00%	1971	70.00%	2003	35.00%
1940	81.10%	1972	70.00%	2004	35.00%
1941	81.00%	1973	70.00%	2005	35.00%
1942	88.00%	1974	70.00%	2006	35.00%
1943	88.00%	1975	70.00%	2007	35.00%
1944	94.00%	1976	70.00%	2008	35.00%

Note: This table contains a number of simplifications and ignores a number of factors, such as a maximum tax on earned income of 50 percent when the top rate was 70 percent and the current increase in rates due to income-related reductions in value of itemized deductions.

2.1 Progression of the Individual Tax Rate

Tax rate changes have important implications for banks when considering election of Subchapter S status. The benefits of converting to Subchapter S status decline when the individual income tax rate increases. Currently the highest individual income tax rate

is lower than the highest corporate income tax rate, but as the tax rate changes so do the incentives and number of organizations opting to elect Subchapter S status.

The top marginal individual tax rate was extremely high during the 1950s through 1970s, ranging from 91 percent to 70 percent. President Ronald Reagan's administration introduced the Economic Recovery Tax Act of 1981 (ERT, 1981) which brought the top individual marginal tax rate down to 50 percent in 1982. Subchapter S status became even more favorable after President Reagan initiated and passed the Tax Reform Act of 1986. This Act reduced the highest individual tax rate from 50 percent to 28 percent, well below the top corporate federal rate, which declined from 50 percent to 35 percent. Also, during 1986 the alternative minimum tax rate (AMT) for corporations was set at 20 percent (TRA, 1986). This greatly increased the benefit to S corporations because S corporations are not subject to the AMT and they also avoid the additional administrative duties and fees associated with computing this tax.

Tax law changes under President George H.W. Bush's administration increased the top individual marginal income tax rate up to 31 percent under the Omnibus Budget Reconciliation Act of 1990 (OBRA, 1990). President Clinton further increased the individual tax rate to 39.6 percent, thus reducing the benefit of electing Subchapter S status (OBRA, 1993). The highest individual marginal tax rate remained at 39.6 percent until George W. Bush took office and initiated his tax cut plan under the Economic Growth and Tax Relief Reconciliation Act of 2001, which reduced the top income rate down to the current rate of 35 percent (EGTRRA, 2001).⁴

⁴ The tax rate reductions created by President George W. Bush are set to expire in 2010 unless legislation is created to extend them (JGTRRA, 2003).

2.2 Comparison of Organizational Forms

S corporations have many characteristics that C corporations have, and thus they are subject to many of the same requirements. They are required to conform to state laws and file an article of incorporation with the Secretary of State, the shareholders are able to vote on major issues, and the organization holds directors and shareholders meetings. In addition both organizational forms benefit from an unlimited life (U.S.C., §1371). The major difference between these organizational forms is taxation. The owners of S corporations are taxed on the profits of the corporations, whether or not the profits are distributed. Thus they are taxed on income they may never receive, whereas a C corporation's shareholders are only taxed on income when it is received as dividends (U.S.C., §1366(a)(1)).

S corporations are similar to another hybrid organizational form, the Limited Liability Corporation (LLC). Although both forms receive limited liability and tax advantages, there are differences in the formation requirements. S corporations are limited to 100 shareholders and all must be in resident status (U.S.C., §1361(b)(1)). Conversely, U.S. residency is not required of LLC shareholders and the number of owners is not limited (U.S.C., §301). LLCs are more flexible with fewer restrictions on the types of eligible owners and in their distribution of profits. They can be owned by C corporations, S corporations, trusts, and LLCs partnerships. Under LLC requirements income is not passed-through on a pro rata basis but rather is distributed based upon an agreement plan set up by the members/owners (U.S.C., §702). Both S corporations and Limited Liability Corporations provide a tax savings to the owners. Sole proprietorships

and straight partnership organizational forms receive the tax savings but do not receive limited liability (U.S.C., § 63).

There are differences among the various organizational forms, but there are also differences within the organizational forms. The benefits of electing Subchapter S status are not equal in all states. Some states do not recognize S corporations as pass-through entities. In these states, organizations filing under Subchapter S experience double taxation with respect to state corporate taxes.⁵

2.3 Requirements for Filing Under Subchapter S of the Internal Revenue Code

The original 1958 Subchapter S requirements have undergone some modifications over the years to allow more companies to elect this organizational form. In order to convert to Subchapter S status under the 1958 legislative ruling, an organization is required to meet certain conditions. One requirement for conversion is all shareholders must agree and required documentation must be filed with the Internal Revenue Service within two months and 15 days after the first day of the taxable year. If at any time the Subchapter S election is lost, the firm could not re-elect the status for five years unless the loss is unintended (U.S.C., §1361(b)(3)(D)).

The 1958 tax provisions included the following requirements for establishing and maintaining Subchapter S status (U.S.C., §1361(b)(1)): (1) The corporation is a domestic corporation, (2) The corporation is not a member of an affiliated group of corporations, (3) The corporation does not have more than one class of stock,⁶ (4) The corporation does not have more than ten shareholders, (5) The corporation's shareholders are individuals

⁵ These states include California, Connecticut, Delaware, Louisiana, Michigan, New Hampshire, New Jersey, North Carolina, Tennessee., Utah, and Vermont.

⁶ A corporation is treated as having only one class of stock if all the outstanding shares have identical rights to distribution and liquidation proceeds. In addition, S corporations are restricted from issuing preferred stock (U.S.C., §1361(b)(D)).

or estates, but are not another organization, and (6) The corporation does not have a shareholder who is a nonresident alien. Of these provisions, the definition of eligible shareholders and the accounting techniques allowed are the major stumbling blocks which prevented financial institutions from converting to Subchapter S status.

The first change to the legislation occurred in 1976 when the number of shareholders provision was increased to 25, but little else changed (TAA, 1976). Congress made some additional transformations to the tax code through the Subchapter S Revision Act of 1982. This Act allowed S corporations to conform more closely to the partnership taxation provisions, but without all the complications (SSRA, 1982). This allowed S corporations to become pass-through entities without all the extra rules associated with partnerships. This Act also increased the maximum number of shareholders to 35 (U.S.C., §1361(b)(1)(A)).

Even with these revisions, banks and other financial institutions were not able to elect Subchapter S status until 1997 following the introduction of the Small Business Job Protection Act of 1996 (SBJPA, 1996). This Act allowed financial institutions to become eligible to elect this status if they met certain requirements and do not use the reserve method of accounting. This Act also liberalized many of the previous restrictions on S corporations. The 1997 Act expanded the eligibility requirements for shareholders by amending the IRC to increase the maximum number of shareholders from 35 to 75 (U.S.C., §1361(b)(1)(A)).⁷ Charitable, tax-exempt organizations and certain non-individual retirement plans became eligible to be S corporation shareholders (U.S.C., §1361(b)(2)). In addition, S corporations are eligible to own 80 percent or more of another C corporation and are allowed to have a subsidiary of another S corporation if it

⁷ Husband and wife count as one shareholder.

was 100 percent owned (U.S.C., §1361(b)(3)).⁸ S corporations are allowed to create an employee stock ownership plan and the IRS provided more flexibility for elections, audits, and litigation requirements. The new provisions allowed the sale by an IRA trust to an IRA beneficiary of bank stock and provided adjustments for earning distributions which occurred in loss years. While these new provisions increased the attractiveness of Subchapter S and allowed many financial institutions to convert to this status, others are still unable to convert due to existing provisions.

The Jobs and Growth Tax Relief Reconciliation Act of 2003 was signed into law on May 28, 2003 by President George W. Bush changing the way double taxation impacts corporate decision making. This law reduced the maximum tax to 15 percent for qualifying dividends paid after January 2003 (JGTRRA, 2003). Dividends qualify for this lower tax if from a domestic corporation or a qualified foreign corporation, but not if they are received from a tax-exempt corporation, an interest payment, or if paid on stock owned by an employee stock ownership plan. Under the Act, dividends are taxed at 15% instead of taxed as ordinary income (JGTRRA, 2003). This change in tax law does not eliminate double taxation, but rather reduced the advantage that S corporations had over C corporations. This tax change is set to expire on December 31, 2010 when the tax on dividends will revert back to that of ordinary income.

Since some of the benefits and effectiveness of Subchapter S status decreased due to the Jobs and Growth Tax Relief Reconciliation Act, Congress relaxed the restrictions on S corporations in order to provide better incentives to small businesses. The American Jobs Creation Act of 2004 (AJCA, 2004) changed the eligibility requirements

⁸ A qualified Subchapter S subsidiary is basically a 100% owned corporation whose identity is ignored for tax purposes so that its assets, liabilities, income, etc. are treated as owned by the S corporation parent company.

for shareholders by increasing the number of eligible shareholders to 100 and expanding the definition of a shareholder. The 2004 Act expanded the definition of who qualifies as a shareholder to include up to six generations of lineal descendants, e.g. a husband, wife, and a great grandparent would all count together as one shareholder. These incentives increased the number of organization qualified to elect Subchapter S status.

Under the current Internal Revenue Code, as updated by the 2004 Amendment (AJCA, 2004), a corporation is eligible to elect Subchapter S status if it meets the following requirements: (1) The corporation is a domestic corporation, (2) The corporation has less than 100 shareholders, (3) The shareholders are a person, an estate or a trust, but not an organization, (4) Shareholders are domestic residents, and (5) The corporation issues only one class of stock (U.S.C., §1361(b)(1)). Corporations are ineligible to file under Subchapter S, according to the Internal Revenue Code if they are: (1) A financial institution which uses the reserve method of accounting for bad debts described in IRC, Section 585, (2) Operating as an insurance company subject to tax under Subchapter L, (3) A corporation which elects to be treated as a possessions corporation under IRC, Section 936, and (4) A current or former Domestic International Sales Corporation (U.S.C., §1361(b)(2)).

2.4 Converting to Subchapter S of the Internal Revenue Code for Financial Institutions

The Small Business Job Protection Act of 1996 first allowed financial institutions to elect Subchapter S status. The American Jobs Creation Act of 2004 (AJCA, 2004) then made it easier for banks seeking Subchapter S status by modifying the definition of shareholders and requirements for who qualifies as shareholders. The primary restrictions that prevented financial institutions from opting into this organizational form

included using the reserve method of accounting for bad debts under IRC, Section 585 or exceeding the passive income limits. Under the previous Internal Revenue Code's provisions, interest income earned by banks was considered passive.⁹ On December 20, 1996 the IRS redefined most interest income and classified it as active income, thus removing the barrier many financial institutions have with the passive income requirement (IRS, 1996). The passive income limits are set at 25 percent of gross receipts.¹⁰ Amounts above this level are taxed at the highest federal level for income. If this occurs in three consecutive years, the Subchapter S status is revoked by the IRS. This was a major change to the previous legislation and is crucial for banks to elect this organizational form.

Thus, the creation of this legislation allowed some banks to choose Subchapter S tax status beginning in 1997. Another restriction preventing some banks and thrifts from converting to Subchapter S deals with their accounting technique. Banks using the reserve method of accounting for loan losses are ineligible for Subchapter S election. Although this provision remains, banks are able to switch to the specific charge-off method and thus become eligible for Subchapter S election.

The Tax Reform Act of 1986 requires large banks with assets greater than \$500 million to use the specific charge-off method. Smaller banks can choose this method or the experience reserve method, which is calculated using a six-year moving average of actual losses (TRA, 1986). If a bank elects Subchapter S status and switches accounting methods, adjustments to the bank's income will occur. Under the current law if the

⁹ The IRS defines passive income as an activity which the taxpayer does not materially participate (e.g. rental income, interest income, dividend income)

¹⁰ If a Subchapter S corporation's passive income is greater than 25 percent of gross receipts for three consecutive years, the institution is ineligible to remain as a Subchapter entity (U.S.C., §1362(d)(3).)

accounting change is made during the first tax year after election the bank may choose to take all adjustments in the last taxable year it was a C corporation (USTRA, 2007). Therefore, adjustments are taxed at the corporate level.¹¹ Although, large banks use the correct method of accounting for eligibility to elect Subchapter S status, other provisions usually prevent them from qualifying for this status. Meanwhile, small banks that are using the reserve method of accounting must switch to the specific-charge off method to become eligible to elect Subchapter S status.

Subchapter S status was created fifty years ago as a way to provide a tax advantage to small businesses. Small businesses are deemed crucial to the U.S. economy and the legislation provided them a tax advantage to help them compete with larger corporations. Small banks often cite their strong community relationships. Various banking groups request Congress to further loosen the restriction on Subchapter S status so that more small banks can become eligible to convert to Subchapter S status (White House Vetoes Relief for Community Banks, 2007; Preserving and Protecting Main Street USA, 2001). Responding to a Presidential veto on less stringent Subchapter S requirements, the Chairwoman for the Committee on Small Business referenced the relationship between small banks and small businesses. She stated, “These reforms would have ensured community banks are able to meet the needs of local business owners and promote further job creation.” She continued by stating, “These reforms will make community banks’ national reach, local ties, and emphasis on small business and farm lending available to more customer in more areas” (White House Vetoes Relief for Community Banks, 2007). Bankers cite the benefits small banks provide by extending

¹¹ Previously if the accounting change was made during the first year of election adjustments are considered in the taxes for both the shareholder and the corporation, but if the change was made prior to election adjustments are only taxed at the corporate level.

credit to their local communities, including small businesses in their arguments (Preserving and Protecting Main Street USA, 2001). Recently, the Independent Community Bankers of America (ICBA), which represents 5,000 community banks, sent a memo to the Counselor to the Secretary of Treasury regarding “helping community banks increase small business lending.” This memo focuses on Subchapter S tax reform (ICBA, 2009). An ICBA representative testified before Congress discussing Subchapter S community banks and their lending to small business customers. The conclusion of the testimony was the “ICBA believes reforming and simplifying onerous Subchapter S corporation rules will create a tax code that is small business friendly and improve community banks’ ability to meet the lending needs in their local communities” (S-corps: Recommended Reforms That Promote Parity, Growth and Development for Small Businesses, 2008). This claim, that after conversion to Subchapter S status these banks are actually extending more credit to their local communities including small businesses and the agriculture industry, is unverified by rigorous empirical evidence.

CHAPTER III

CHARACTERISTICS AND PERFORMANCE OF SUBCHAPTER S BANKS: EMPIRICAL EVIDENCE

Previous research focuses on the differences between Subchapter C banks and those that elect the new Subchapter S tax status. Most of the research evaluates various characteristics of these organizations and develops models to predict which banks are more likely to convert based upon these characteristics. Other research examines how these characteristics may change after conversion.

Empirical analyses of the performance of Subchapter S banks are somewhat limited in scope and number. Few published studies evaluate the characteristics of banks that convert to Subchapter S status. Previous research usually focuses on a limited number of years after the election became possible and lacks an in-depth analysis of the consequences of this status on banks, their shareholders, and the communities they serve.

Investigations that focus on election of Subchapter S status in the banking industry typically don't evaluate differences that may occur throughout the years after conversion. Hodder, McAnally, and Weaver (2003) evaluate the differences between early and late converters, but their sample only included three years of data. Knowing the difference between banks that convert to Subchapter S status and those that remain Subchapter C banks may be of interest. However, an important policy question involves the behavior of Subchapter S banks after conversion. In particular, what happens to the

tax subsidy for Subchapter S banks and precisely who is receiving the tax benefit?

Harvey and Padgett (2000), Hodder, McAnally, and Weaver (2003), Cyree, Hein, and Koch (2005), and Gilbert and Wheelock (2007) directly investigate the performance and characteristics of Subchapter S banks. Previous investigations address the largest obstacles facing banks electing Subchapter S status and evaluate the characteristics of Subchapter S conversions.

3.1 Characteristics of Banks Electing Subchapter S Status

Subchapter S status is not equally beneficial for all commercial banks. For example, if a bank focuses more on retained earnings and pays lower dividends, the tax savings from converting to Subchapter S is much less significant. Therefore, one of the primary characteristics of the banks that are most likely to convert to Subchapter S status are those banks that have higher dividend payments and positive pre-tax earnings. Other characteristics may lead to additional benefits or costs to the converting bank, depending on the provisions.

Hodder et al. (2003) and Cyree, et al. (2005) use logistic regression analysis to investigate the characteristics of banks most likely to convert to Subchapter S status. Hodder et al. (2003) analyze call report data and divide their sample into early (1997) and late (1998, 1999) converters to examine if firm characteristics are different between the two groups. Cyree et al. (2005) also explore why more banks do not elect this seemingly more profitable tax status. Similar to Hodder et al. (2003), Cyree et al. (2005) examine call report data, but extend the sample period to 1997-2003 and utilize a wider set of variables to include rural, urban, and de novo banks. They aggregate the data from 1997-2003, thus differences in the characteristics of banks between years is ignored and they

do not distinguish between early and late converts as in Hodder et al. (2003). Harvey and Padget (2000) employ a sub sample of banks from the Kansas City Federal Reserve Bank District for the years 1997-1999 to evaluate the characteristics of Subchapter S banks. They exclude new banks opening after 1993 and those with assets greater than 1 billion. Gilbert and Wheelock (2007) compare averages of Subchapter S with all Subchapter C banks to evaluate differences in operating performance.

3.1.1 Bank Size/Shareholders

Most Subchapter S commercial banks are small, with asset sizes less than \$1 billion, because of legal restrictions. These small banks accounted for 99.6 percent of the commercial banks that elected Subchapter S status in 1997 and 98.34 percent in 2007 (Refer to Table 3). As of June 2000, 95 percent of Subchapter S banks have total assets less than \$250 million, with the average size of the converted banks being \$63.2 million (Harvey and Padget, 2000).

Table 3: Subchapter S Banks by Year and Size

Year	No. of Subchapter S Commercial Banks	No. of Large Subchapter S Banks (Assets > \$1 billion)
1997	596	2
1998	1,035	3
1999	1,279	5
2000	1,433	7
2001	1,622	7
2002	1,785	7
2003	1,941	8
2004	2,046	15
2005	2,152	25
2006	2,255	31
2007	2,345	39

A possible restriction to growth for banks that convert to Subchapter S status is due to the limitations on the number of shareholders and limitations on the class of stock, both of which potentially restrict banks' access to external capital.¹² Since these banks are restricted on the number of shareholders, they tend to have more family connections because up to six lineal generations count as one shareholder (U.S.C., §1361(c)(B)(ii)).¹³ This is consistent with findings that Subchapter S banks often are closely held (Cyree et al., 2005; Hodder et al., 2003).

Harvey and Padget (2000) find that banks that convert to Subchapter S status have higher capital ratios prior to conversion. Since the various Subchapter S restrictions will limit the ability these institutions have to gain access to external capital after conversion, banks maintain higher capital levels prior to conversion. Thus banks that convert to Subchapter S status are typically banks with fewer growth opportunities and less need for external capital financing (Harvey and Padget, 2000; Hodder et al., 2003; Cyree et al., 2005). These findings coincide with the Subchapter S literature in other industries which suggests that conversion to Subchapter S status restricts an organization's growth opportunities (Ayers et al., 1996).

3.1.2 Dividends and Taxes

Organizations which pay larger dividends and have higher pre-tax earnings are more likely to convert to Subchapter S status (Hodder et al., 2003; Harvey and Padget, 2000; Cyree et al., 2005). Gilbert and Wheelock (2007) find that the profits of

¹²Another area where the capital for banks is possibly restricted after electing Subchapter S status is with the use of trust preferred stock. Trust preferred stock is primarily sold to large institutional investors and under the current provisions of Subchapter S status, this type of capital is limited to 25 percent of the banks capital stock (U.S.C., §1362(d)(3)(D)).

¹³The limitations on obtaining external capital are possibly most restricting on small, family-owned banks. Capital often is already constrained in these banks because family members frequently are heavily invested and not willing to invest additional resources (Cyree et al., 2005).

Subchapter S banks exceed banks that remain as Subchapter C banks of similar size. They use the Uniform Bank Performance Report's hypothetical tax rate conversions, which adjusts for earnings on tax advantaged securities and for the federal corporate income tax to evaluate the performance of Subchapter S banks. They find Subchapter S banks consistently have higher pre-tax earnings, lower operating costs, and a higher dividend payout.¹⁴

Because shareholders of C corporations experience double taxation, they only pay taxes on the dividends and don't pay capital gains taxes until the shares are sold. This allows shareholders to postpone their tax obligation to a more optimal time when they are able to better manage their income and pay a lower tax. Due to the double taxation inherent in C corporations, these organizations may seek ways of decreasing their taxable income. One method is to increase compensation to management. The IRS examines compensation payments to determine if they are reasonable. If they are not, they are reclassified as a non-deductible dividend and taxed at the dividend rate under the 2003 tax changes. Additionally, the IRS may choose to disallow the deduction and tax the compensation as ordinary income (JGTRRA, 2003). Manager-owners of Subchapter S banks may prefer payments through dividends versus salaries due to the employment tax on salaries. This could account for the lower operating expense at Subchapter S banks. However, salaries are an alternative for Subchapter C banks as a way of extracting funds from the bank without being penalized with double taxation. Gilbert and Wheelock (2007) compare Subchapter S banks to Subchapter C banks' personnel expense and do not find a significant difference between the two groups.

¹⁴ They note one problem with using the UBPR conversion is it does not account for different state income taxes.

In addition to the corporate tax savings, S corporations are also exempt from the corporate Alternative Minimum Tax (AMT).¹⁵ Banks are typically subject to the AMT because they hold extensive tax-exempt securities which generate income subject to this tax. Proxies often used for the bank's AMT are the bank's tax-exempt securities which are held by the banks for various reasons (Hodder et al., 2003; Cyree et al., 2005). Banks hold these tax-exempt securities not only for tax reasons, but also for pledging requirements and to help strengthen community relations. Banks with higher investment in these securities, and thus more AMT exposure are more likely to convert. As anticipated, Cyree et al., (2005) and Hodder et al., (2003), find Subchapter S banks tend to have higher tax exempt securities.

Another tax consequence for a bank considering electing Subchapter S status is state of incorporation. Not all states equally recognize this tax status. Several states impose a state corporate tax on the earnings of these organizations. Therefore, in these states Subchapter S banks do not receive the same level of benefits as in other, Subchapter S friendly states. Plesko (1994) finds, consistent with Hodder et al., (2003), that state taxes influence the conversion choice and banks in states with a state corporate tax are less likely to convert to Subchapter S status. Conversely, Cyree et al. (2005) do not find Subchapter S banks in friendly states are significantly different from Subchapter S banks in states where a state corporate tax is present.

3.1.3 Age

Cyree, et al. (2005) argue banks will choose Subchapter S status when the benefits from taxes exceeds the cost of converting or the cost of an election for de novo

¹⁵ Since the income from Subchapter S corporations is passed-through to the shareholders, shareholders could still be subject to the individual AMT.

banks. Cyree et al. (2005) also find that de novo banks typically don't choose Subchapter S status (they represented less than ten percent of the sample in 2003). This is not surprising since the primary advantage of electing Subchapter S status is the tax benefit and this does not become evident until the bank is profitable. Since most de novo banks are not profitable their first few years, it is not surprising only a small percentage have elected this status. This agrees with the findings of Cryee and Wansley (2002) who find the return on assets for a de novo bank typically doesn't meet industry average for approximately 7.5 years. DeYoung and Hasan (1998) find de novo banks don't become efficient until nine years of operation. Using panel data of de novo banks, Huyser (1986) finds a difference between de novo banks and established banks as far out as 13 years past establishment date. Hunter and Srinivasan (1990) find de novo banks underperform seven years after being established. Finally, Brislin and Santomero (1991) find financial statements are quite volatile for de novo banks, specifically during the first few months of operation.

3.1.4 Unrealized Gains

Unrealized gains that exist at conversion to Subchapter S status are taxed at both the corporate and shareholder level. In addition, gains realized within 10 years of conversion are double taxed, since the bank actually earned these gains while operating as a C corporation (U.S.C., §1374(d)(7)). S corporations must pay tax on unrealized gains when realized, whereas C corporations don't have to pay until the earnings are paid out to individuals and thus these gains are delayed (U.S.C., §1374(d)(1)). For banks electing Subchapter S status, these unrealized gains are typically associated with their available-for-sale securities. The higher the gain on the available-for-sale securities in

the banks portfolio, the less likely the bank is to convert. Although predicted to reduce the likelihood of conversion, evidence is mixed.¹⁶ Cyree et al. (2005) find that banks that convert to Subchapter S have a higher level of available-for-sale securities, whereas Hodder et al. (2003) find the opposite result. The differences in these findings are possibly attributed, in part, to differences in sample selection. Hodder et al. (2003) in their logistic regressions use the average available-for-sale securities during the three years prior to election availability (1994-1996) to indicate the level of gains whereas Cyree et al. (2005) measure the level of securities in the year of election.

3.1.5 Bank Holding Companies

A restriction on electing Subchapter S status occurs when a bank is an affiliate of a Bank Holding Company. In order for the bank to convert to Subchapter S status the entire Bank Holding Company must elect the tax status (U.S.C., §1361(b)(B)). Surprisingly, Harvey and Padgett (2000) find in their sample of banks, 85 percent of Subchapter S banks are affiliated with BHCs while only 80 percent of Subchapter C banks are associated with BHCs. Thus the additional requirement of combined election does not create a major obstacle to electing Subchapter S status.

3.1.6 Tax Loss Carry Forwards

C corporations can carry losses back two years and forward twenty years to offset corporate income taxes. When banks convert to Subchapter S status they lose the option to carry forward these losses. Any losses previously experienced and carried forward will be lost, thus reducing the bank's regulatory capital (U.S.C., §1371(b)(1)). This reduction of capital can have negative implications for banks. For instance, when

¹⁶ Both articles used capital gains over assets on available-for-sale securities to represent the firm's built-in gains.

regulatory capital levels fall below minimum standards regulators may intervene increasing costs for the banks. Additional costs also arise due to the risk-adjusted deposit insurance premiums imposed by the Federal Deposit Insurance Corporation because these fees are based upon the bank's capital levels (FDICIA, 1991).

When a bank converts to Subchapter S status the bank's earnings and losses are passed through to the individual shareholders. Shareholders must pay taxes on these earnings, but they can use the losses from the bank to offset their ordinary income. This becomes an attractive option when the individual income tax rate is higher than the corporate tax rate. Conversely, if the bank expects to have profits, Subchapter S status is most beneficial when the individual tax rate is set below that of the corporate rate.

Since tax loss carry forwards are lost upon Subchapter S conversion, banks that currently have these losses are predicted to be less likely to convert. Cyree et al. (2005) find that banks with loss carry forwards are more likely to elect Subchapter S status. This finding is in contrast to theory and the findings of Hodder et al. (2003) and Gilbert and Wheelock (2007).

3.2 Reorganization Prior to Conversion

Theory suggests an organization will elect Subchapter S status when tax savings exceed conversion costs (Scholes and Wolfson, 1992). Thus all banks are not equally good candidates for conversion because some of the provisions make it too expensive for banks to convert to Subchapter S status. These provisions may force a bank's conversion costs to exceed the benefits of the tax advantage. Thus many banks seek ways to reduce these conversion costs prior to electing Subchapter S status. Hodder et al. (2003) find banks who decide to elect Subchapter S status typically begin a reorganization process

prior to conversion. These actions included reducing the number of shareholders, eliminating preferred stock, reducing dividend payments, selling securities, and maximizing the use of tax loss carry forwards. These actions are taken in years prior to conversion to reduce the costs of converting while increasing or emphasizing the benefits.

3.2.1 Bank Size/ Shareholders

The provisions of Subchapter S status restrict the number of shareholders to 100 and only allow for one class of stock (U.S.C., §1361(b)(1)). To qualify for this tax status, banks begin to reorganize their equity by reducing the number of stockholders prior to converting to reduce their costs (Hodder et al., 2003). Harvey and Padgett (2000) argue one of the largest obstacles associated with converting to Subchapter S is restructuring ownership and convincing shareholders of the benefits of conversion because all shareholders must consent to the new ownership structure.

The earnings of S corporations are passed through to the shareholders. Shareholders often are hesitant to elect this status because it typically will increase their taxable income at the personal level. In addition, Subchapter S shareholders are treated as limited partners for tax purposes which complicate their personal tax filings.

3.2.2 Dividends and Taxes

To increase the benefits of converting to Subchapter S status, banks will try to reduce costs if possible. Hodder et al. (2003) find that banks electing Subchapter S status after 1997, tried to increase benefits from electing this status by eliminating preferred dividends and international investors prior to converting. They also find banks begin to reduce the amount of dividend payments (Hodder et al., 2003). These banks decrease

their dividends to reduce the amount of funds subject to double taxation prior to election with the expectation of increasing them in the future when they are only subject to the individual tax rate. Thus, Hodder et al. (2003) find banks more likely to convert to Subchapter S status when conversion allows the bank to reduce their dividend taxes.

3.2.3 Unrealized Gains

Any unrealized gains that a bank has at conversion are subject to double taxation. Based upon these penalties, banks may seek to avoid these costly penalties prior to electing by recognizing gains prior to conversion. Hodder et al. (2003) find banks begin to sell securities to recognize gains and reduce the penalty tax on realized gains prior to their conversion.

3.2.4 Tax Loss Carry Forwards

Banks that convert to Subchapter S status are unable to take advantage of net operating loss carry forwards under the current legislation. In addition, after conversion these banks incur a tax on any unrealized gains that exist. Banks will try to avoid losing this benefit. As indicated by Hodder et al. (2003) building of net operating loss carry forwards decline in the years prior to conversion. Banks may delay electing Subchapter S status until they have used up, or partially used up, their carry forwards. Simultaneously, recognizing gains and using up loss carry forwards, reduces the costs of converting. Cyree et al. (2005) find the opposite of the expected action for loss carry forwards. Banks with losses in the past three years are more likely to convert to Subchapter S status. This goes against the expectation and suggests other factors dominate the decisions to convert.

3.3 Changes in Banks Characteristics After Subchapter S Election

After electing Subchapter S status banks may change some of their operating characteristics. Subchapter S banks will typically increase their dividend payment structure (Cyree et al., 2005; Harvey and Padget, 2000; Hodder et al., 2003; and Gilbert and Wheelock, 2007). Management will increase the amount of dividend payments at least to the point where the shareholders are as well off as if the bank does not convert to Subchapter S status. The shareholders are now taxed on a pro rata basis on the banks earnings, whether or not they are paid out directly to the shareholders in dividends. This suggests banks must pay dividends to shareholders for their increased tax payments and their forfeiture of time preference. As individual income tax rates increase so should the dividend payout (Refer to Table 1).

Harvey and Padget (2000) find that due to the increase in dividend payments, Subchapter S banks show a reduction in their capital levels relative to Subchapter C banks, although the capital levels still remain at acceptable levels. They also find that banks that converted to Subchapter S status subsequently have a decrease in personnel expenses, possibly indicating that these banks previously were utilizing salary expenses as an avenue for extracting money from the banks to avoid the double taxation.

Because the potential after tax returns for the shareholder at the individual level are greater, banks may be encouraged to take on a higher level of loans and thus a higher level of risk. Harvey and Padget (2000) find that both Subchapter S and Subchapter C banks showed little change in their level of non-performing loans after conversion. However, they find that Subchapter S banks have higher profits three years prior to converting to Subchapter S status. This could indicate a higher degree of risk in the

banks' portfolios but bank examination ratings for both Subchapter S and Subchapter C banks showed good overall conditions with no significant increase in shareholders/owners risk (Harvey and Padget, 2000).

One adjustment noted in the Subchapter S banks' portfolios is a reduction in the amount of non taxable state and municipal securities (Harvey and Padget, 2000). This is somewhat surprising because once the banks converts to Subchapter S status, they are no longer subject to the AMT. Under Subchapter C status, banks often don't get the full benefit from the municipal securities due to the AMT. By avoiding the AMT, Subchapter S banks are able to keep more of the benefit from the tax advantage provided by municipal securities.

3.4 Limitations of Previous Empirical Analyses

Previous research on the characteristics of banks most likely to convert to Subchapter S status is limited because it is not possible to know the number of shareholders in the banks since these banks tend to be privately held. This limitation may confuse the results from investigations of banks which are most likely to convert because the shareholder restriction is typically one of the largest obstacles to conversion.

Empirical analysis may be misleading if comparison groups of banks are not similar to the Subchapter S banks being analyzed. Cyree et al. (2005) do not match Subchapter S banks with Subchapter C banks directly on size. Instead, the Subchapter C banks they compared to their Subchapter S bank sample are all Subchapter C banks with total assets less than the total assets of the largest Subchapter S bank, thus inherently leaving in a size bias. In addition, identification markers for Subchapter S status are not included in the 1997 and 1998 Call Reports at the time of their study. They base their

identifications of Subchapter S banks upon positive profits and no taxes, which precludes direct identification of all Subchapter S banks. In their study they are only able to identify 165 out of the 596 1997 Subchapter S banks and 360 out of 1035 of the 1998 Subchapter S banks. Because they are not able to accurately identify all of the Subchapter S banks, some Subchapter S banks are probably included in the matched sample of Subchapter C banks. However, Cyree et al. (2005) improve on the work of Hodder et al. (2003) by looking at differences between rural and urban banks and de novo and established banks.

Gilbert and Wheelock (2007) also have limitations in their analysis. When comparing characteristics of the two groups of banks they only consider averages for Subchapter S bank and Subchapter C banks. They also did not account for differences in state income taxes when comparing performance measures.

Previous investigations were conducted when the number of allowable shareholders was 75 and there were further restrictions on the definition of eligible shareholders (Harvey and Padget, 2000; Hodder et al. 2003; and Cyree et al., 2005). Since the time of these earlier investigations, the number of shareholders permitted has increased to 100 and some of the limitations on who qualifies as shareholders have broadened (U.S.C., §1361(b)(1)(A)). As the restrictions on Subchapter S status have changed, so will the banks that are eligible for election. Due to these changes, it is important to evaluate banks each year instead of grouping banks from all years together.

CHAPTER IV

SMALL BUSINESS LENDING AND SMALL BANKS

Deregulation legislation passed since 1980 has significantly impacted the U.S. banking industry. Both state and federal legislation removed barriers to expansion for large banks. The number of banks operating in the U.S. has declined by approximately 50 percent partially as a result of deregulation. The number of commercial banks operating in the United States has decreased from 14,434 in 1980 to 7,283 as of December 31, 2007 (FDIC, 2008). As consolidation within financial institutions continues, the viability and role of the small bank is being questioned. Small banks continue to lose market share as other financial institutions encroach into their market place (Craig and Harder, 2007).

Small banks play a pivotal role in the U.S. financial system by relying on personal contact, community ties, and close relationships with their borrowers. These institutions typically are pivotal in meeting the needs of small businesses, including farms (Akhavein et al., 2004). Expansion by larger financial institutions can be detrimental for small community banks and their customers (Craig and Harder, 2007; Berger et al., 1998).

4.1 Progression of Deregulation in the Banking Industry

The Depository Institutions Deregulation and Monetary Control Act of 1980 was one of the first pieces of deregulation legislation to affect the financial services industry

since the Great Depression. The act phased out Regulation Q by removing the ceilings on deposit interest rates, allowing banks to more effectively compete with other financial institutions (DIDMCA, 1980). Regulation Q was initiated as part of the Glass-Steagall Act of 1933 when the government imposed limits on the interest rates that banks could pay, including a rate of zero on demand deposits. With the ceiling on rates imposed, this opened the door for competition and led to the growth of money market funds as a substitute for banks traditional deposit accounts (Rose and Hudgins, 2008).

The McFadden Act of 1927 restricted banks' branching ability and provided states with the authority to control their branching activity. The McFadden Act prohibited interstate branching by allowing national banks to branch only within the state in which they are located (McFadden Act, 1927). To increase market share and stimulate demand, states slowly began to allow branching activities within their state. Intrastate branching primarily occurred through mergers and acquisitions. By 1991 a majority of states allowed some type of branching. All states except Arkansas, Iowa, and Minnesota allowed intrastate branching and all states except Hawaii, Kansas, and Montana allowed some type of interstate banking. In 1994, branching activity increased with the passing of the Reigle-Neal Interstate Banking and Branching Efficiency Act. This law took some of the state power away and provided the federal government with regulatory power to authorized interstate banking and branching across lines (RNIBBEA, 1994). Only Montana and Texas opted out of interstate branching. However, banks are still acquired across state lines through the creation of bank holding companies. Bank holding companies allow a bank to acquire another bank and then convert it into a branch, which

encouraged a much more rapid consolidation of the banking industry (Rose and Hudgins, 2008).

The Gramm-Leach-Bliley (GLB) Act of 1999 repealed much of the Glass-Steagall Act of 1933, which forced a separation between commercial banking and investment banking, and the Bank Holding Company Act of 1956, which regulates the functions of holding companies. GLB created financial holding companies and permitted consolidation of insurance companies, commercial banks, and investment banks. Financial holding companies are allowed to engage in a variety of financial activities including: insurance, securities underwriting and agency activities, merchant banking, and insurance company portfolio investment activities (GLB, 1999). GLB ultimately created financial conglomerates that provide a wide array of financial services without geographic restrictions (Rose and Hudgins, 2008).

4.2 The Role of Community Banks

Deregulation of the banking industry has caused an increase in competition and a decline in the number of banks (DeYoung et al., 2004). Because of deregulation, the US banking industry is becoming polarized with two major classifications: large complex banks at one extreme and small community banks at the other (Berger et al., 1995). As the consolidation of the banking industry continues, the survival of the community bank comes into question. The questionable viability of small banks also may threaten the viability of the small businesses they serve.

DeYoung et al. (2004) provide this description of a community bank, “A community bank is a financial institution that accepts deposits from and provides transaction services to local households and businesses, extends credit to local

households and businesses, and uses the information it gleans in the course of providing these services as a comparative advantage over larger institutions. A community bank holds a commercial bank or thrift charter; operates physical offices only within a limited geographic area; offers a variety of loans and checkable insured deposit accounts; and has a local focus that precludes its equity shares from trading in well-developed capital markets.”

Something that is missing from this definition is the importance of small businesses to these small banks. Small banks tend to focus on small business lending because legal lending limits restricts the size of permissible loans. Large banks also provide small business loans, but the literature documents that large banks allocate fewer resources to small business loans (Berger et al., 1995).

Mergers and acquisitions have decreased the number of small banks. It is predicted that small business loan activity is affected by this decreasing number in small banks (Strahan and Weston, 1996; Berger et al., 1998). Evidence provided from The Survey of Small Business Finances suggests that as banks get larger, small businesses have overall less access to capital (Craig and Hardee, 2007). In 1999 small business lending accounted for 25.5 percent of all bank lending for community banks but only accounted for 7.85 of the total lending for banks over \$5 billion in assets (Ely and Robinson, 2001).

4.3 The Role of Small Businesses in the U.S. Economy

The Small Business Act (1953) identifies a small business as "one that is independently owned and operated and which is not dominant in its field of operation." The size of the organization based upon number of employees varies from one industry to

another, as defined by academics and the Small Business Administrations' Office of Advocacy. For research purposes, 500 employees is the typical upper bound in identifying a small business (Office of the Advocacy, 2009). According to the U.S. Small Business Administration (SBA, 2006) small businesses represent 99.7 percent of all employer firms and account for half of all private sector employment. The U.S. Bureau of Census reports that small businesses have generated 60 to 80 percent annually of all new jobs over the past ten years, doubling that created by large firms during the same period (U.S. Census, 2008). In addition, small businesses are leading innovators in the economy producing 13 to 14 times more patents than large firms (CHI Research, 2003). Over 45 percent of the total U.S. private payroll goes to small business employees. These businesses produced 97 percent of all identified exports and 28.6 percent of export value in fiscal year 2004 (SBA, 2008).

4.4 Community Banks and Small Businesses

Small businesses have a major impact on the U.S. economy and typically the largest suppliers of debt capital to these small businesses are smaller commercial banks. The relationship between small businesses and small banks has significant national economic implications due to the importance of small businesses to the economy.

4.4.1 The Use of Relationship Lending by Small Banks

Primarily due to the restriction on the number of shareholders imposed under Subchapter S, Subchapter S banks are typically small banks. These small banks are typically referred to as community banks by those within the banking industry and academia.¹⁷ Small banks have loan portfolios and risk tolerances that are different from

¹⁷ Community banks are typically those with asset size less than \$1 billion (CRA, 2005).

larger banks. Small banks have an important role in the economy as they are an important provider of funds to small businesses and have loan portfolios with a stronger focus on small business lending (Nakamura 1994; Peterson and Rajan 2002). Small banks tend to emphasize lending to small businesses in part due to their use of relationship lending (Berger, et al., 1995). Federal Reserve Governor Mishkin in his testimony before the Committee on Small Business and Entrepreneurship, U.S. Senate, testified that the relationship between small banks and small businesses is crucial to small businesses during the subprime mortgage crisis and the tightening of credit policies by various lending institutions (Mishkin, 2008).

4.4.1.1. Relationship Versus Transaction-Based Lending

Banks focus on the extremes of either relationship lending or transactional lending since the deregulation of the banking industry in the 1980s (DeYoung et al., 2004). Due to the regulatory changes in lending and innovations in technology, large banks are becoming complex organizations which focus more on hard financial information gathered and analyzed using computerized statistical models and centralized decision making. Conversely, small banks tend to focus on relationship lending through the gathering of soft information obtained through personal knowledge acquired over time. Additional information is ascertained through an evaluation and understanding of the customers' business conditions and community (Akhavain, 2004; Berger and Udell, 2002; Berger and Udell, 1995).

Large banks often have diseconomies of scale and thus are less likely to lend to small business which are typically only able to provide "soft" information (Berger et al. 2001). Berger, et al. (2005) use the Herfindahl index to evaluate market saturation and

match small businesses with the bank from which they borrow. They find small banks are better able to use and collect soft information, and therefore tend to focus on lending activities that are best suited for their organizational structure. Furthermore, they conclude that the lending relationships developed by small banks are typically more long-lived and more comprehensive, which perhaps is due to incentives given to loan officers.

4.4.1.2 Gaining Private Information Through Relationships

The use of soft information and relationship lending tends to make small banks more efficient at providing small business loans. The importance of relationship lending to small business is affected very little by regulatory and technological advances (DeYoung et al., 2004). Berger et al. (2005) find that the process of lending to small businesses has changed very little over the last three decades.¹⁸ Loan officers still recognize the importance of gathering soft information and the personal contact required to gather this private information.

Under relationship lending, information is gathered by the lenders which expands beyond the public data available from financial statements, observation of collateral, and other public sources. This private information is acquired over time by the lender through the duration and scope of the banking relationship (Berger and Udell, 1995; Boot and Thakor, 1994). Small banks are able to obtain private information when they have a stronger relationship with a small business. This relationship is further strengthened when the small business utilizes additional services from the lending institution (Degryse and Cayseele, 2000). Small banks are able to monitor changes in the small business's deposits and thus make better loan judgments.

¹⁸ They analyzed loans ranging from \$250,000 to \$15,000,000. This loan size was meant to represent loans provided by community banks, those with asset size less than \$1,000,000,000.

Small businesses are often more informationally opaque than large businesses, primarily because they often do not have certified financial statements nor do they have publicly traded debt or equity securities. Small banks are better suited for providing these loans (Berger and Udell, 2007). Large banks base decisions more on financial data than prior relationships (Cole et al., 2004). The relationship that large banks have with small businesses tend to be less exclusive, less personal, shorter in duration, and extend over a longer geographic distance (Berger et al., 2005). Carter, McNulty, and Verbrugge (2004) find that risk-adjusted yields are higher for small banks. This suggests the better use of information by small banks. Smaller banks can also have an advantage in providing loans to small businesses versus larger business as shown by their ability at charging higher interest rates on loans and lower rates on deposits (Hannan, 1991). Although large banks provide loans to small business, they tend to focus on the larger end of the small business category and still rely on hard information (Strahan and Weston, 1998).

4.4.1.3 Relationship Lending and Decentralized Decision Making

One of the explanations for small banks' competitive advantage is small banks are more efficient processors of soft information which is attributed to fewer managerial levels (DeYoung et al., 2004; Nakamura 1993, 1994; Peterson and Rajan, 1994; and Mester, Nakamura, and Renault, 1998). Berger and Udell (2002) find these small banks are more likely to grant decision making power to managers. Thus the managers are better equipped to extract private information through a strong relationship and make more informed lending decisions. This allows the bank the opportunity to establish a long-term, personal relationship and gather private information from small businesses

(Brickley, Linck, and Smith, 2003; Nakamura, 1993, 1994). Thus relationship lending is profitable for small banks. Evidence shows small community banks will continue to utilize relationship lending since economic shocks have little impact on these banks (Yeager, 2004)

Large banks tend to choose the larger safer loans that are also easier to evaluate. Cole et al. (2004) conclude that larger banks tend to evaluate loans on the basis of financial statements and in general the hard information. Small banks may have a lending advantage due to making better choices in evaluating their customers. This advantage can come from small banks' ability to more efficiently use soft information from their customers by monitoring their deposits (Hein, Koch, and MacDonald, 2005).

4.4.1.4 The Ownership Structure's Impact on Relationship Lending

Studies find that small banks and their relationships with small businesses are not impacted by the banks ownership structure, e.g. affiliates of a bank holding company (Berger, Miller, Petersen, Rajan, and Stein, 2002). This agrees with Stein (2002) who concludes that when the decision making, even in multitier structures is decentralized to the bank/manager level, neither the size of the institution nor its association with a bank holding company matters. Although, Keeton (1995) finds that small banks affiliated with bank holding companies are often like large banks.

4.5 Implications for Agricultural Lending and Small Banks

As the number of community banks continues to decline, the impact of failures, mergers, and acquisitions on these institutions brings into question the viability of the agriculture industry. Previous literature analyzes the strong relationship between community banks and small businesses, including the agriculture sector (Akhvein et al.,

2004). The question that arises is: if community banking continues to decline what will happen to these areas?

Farming is less important to the national economy than in previous years, but many state and local economies still rely heavily on the agriculture industry. The agriculture industry has shrunk from 2,439,510 U.S. farms in 1980 to approximately 2,200,000 in 2008 (USDA, 2009). Agricultural lending is crucial to the survival of small farms and commercial banks are a large source of credit extended to farmers. In 2008 commercial banks held 38 percent of farm business debt, approximately 33 percent of farm real estate loans, and approximately 56 percent of operating loans (USDA, 2009).

The impact of consolidation on agriculture lending is mixed. Some studies find the declining number of commercial banks has led to a decline in small business lending including agricultural lending (Berger et al., 1998, Berger et al., 2004), while other studies find consolidation to have no effect on lending activities to these sectors (Strahan and Weston, 1998; Featherstone, 1996). Keeton (1996) analyzes mergers of banks occurring in the 10th Federal Reserve district and discovers that once a bank is acquired by a larger institution, they reduce their lending to small local farms. This supports the finding of an inverse relationship between the size of the organization and the percent of farm loans to total loans (Gilbert and Belongia, 1988). Others show that the decrease in small bank lending to the agriculture industry is partially offset by the entrance of new banks into the market place (Akhavain et al., 2004).

Often farms are older with well established relationships with their lending institutions. Akhavain et al. (2004) discover older, more established farms receive more credit. For each additional year of existence of the farm, they find an increase of 2.66

percent more agriculture lending. This more favorable lending for more established relationships is well documented (Petersen and Rajan, 1994; Berger and Udell, 1995; Harhoff and Korting, 1998). Although the amount of lending increases as the relationship increases, the overall amount of lending coming from banks declines as the firm ages, especially for farms. This is attributed in part to banks increasing in size and being able to provide more commercial loans. For example, for each marginal \$10 million in assets the bank reduces their ratio of agricultural loans to assets by 0.8 percent (Akhavain, 2004).

Because Subchapter S banks are often small, some studies evaluate how these conversions are disbursed among rural and urban communities. In 2002, community banks accounted for 58 percent of all banking offices and 49 percent of all deposits in rural communities (Federal Reserve Bank of Kansas City, 2003). As expected, more rural banks are beginning to elect Subchapter S status each year. In 1997, one percent of rural banks were Subchapter S banks compared to 45 percent by year end 2003. In comparison to rural banks, less than 25 percent of urban banks converted to Subchapter S status by 2003, while 45 percent of rural banks converted (Cyree et al., 2005). This is not surprising since rural banks are often smaller and these small banks operate in smaller markets and have fewer competitors (Gilbert, 1984)

Agricultural lending is more important for rural banks. Commercial and industrial lending is often more important for urban banks. Operating in limited geographical markets with highly concentrated loan portfolios may encourage managers to choose slower growth and higher capital ratios regardless of tax status. In fast growing markets, managers may choose to increase their risk tolerance in order to grow. Banks in

fast growing markets tend to have less capital, increased operating risk, and are less likely to choose Subchapter S status. Whereas rural banks are more likely to have the characteristics more suited to Subchapter S status (Akhavain, et al., 2004).

Small banks which utilize relationship lending are vital to the success of their local communities, including small businesses and the agriculture industry. These small businesses are in turn vital to the success of the U.S. economy. There is concern over the reduction in the number of banks and their continued viability. Subchapter S tax benefits may enable small banks to compete more efficiently with larger banks. If small banks are able to remain a competitive force in the banking industry, this may increase their survival and the survival of small businesses in our economy.

CHAPTER V

METHODOLOGY AND HYPOTHESES

5.1 Research Question

The research question for this study is, what happens to the tax benefit provided to banks by conversion to Subchapter S status? In the spirit of Subchapter S legislation and as argued by bankers and banking groups, these funds are supposedly passed on to their local communities through increased lending to small business and agriculture. If this occurs, Subchapter S banks are expected to increase the proportion of small businesses loans and agricultural loans following conversion. This analysis investigates if the tax savings are being passed on to the local community or, instead, if the banks use the funds for other purposes such as increasing capital through earnings retention, salary increases, or increased dividends.

5.2 Methodology

5.2.1 Modified Event Study

This study utilizes a modified event study methodology with a unique matching procedure to evaluate the performance of banks that convert to Subchapter S tax status. The modified event study methodology is based upon the methodology proposed by Barber and Lyon (1996) which uses accounting data. The reason this event study must

rely on accounting data is because most small commercial banks are not traded in active national securities markets. As a result, market prices are not available.

This investigation evaluates the impact of bank conversion by examining abnormal changes in bank performance. To calculate abnormal performance around the conversion event, an estimation of what performance would be in the absence of the event is calculated. Therefore, the abnormal performance represents unexpected changes associated with the conversion. To capture unexpected changes, performance is used from 3 years before the event to help represent expected performance.

As suggested in Barber and Lyon (1996), changes in characteristics of banks will provide stronger information than just evaluating levels. Evaluating changes allows the inclusion of the history of the firm relative to the industry benchmark. The methodology of this analysis follows the reasoning and employs changes in performance.

Each bank experiencing a conversion event is matched with a group of control banks based on the matching procedure described later in this chapter. Conclusions are based on changes in the sample Subchapter S banks' characteristics relative to changes in the median value of the control Subchapter C banks characteristics. This framework indicates the expected post performance is equivalent to its past performance plus a change in the benchmark performance. As suggested in Barber and Lyon and expanded in Lie (2001), the expected change is based on the change in the control group. The control group in this study represents banks that remain in Subchapter C tax status through the entire study period. The expected performance of those banks that are in the group that convert to Subchapter S status, if we assume no conversion effect is:

$$E(PERF_{i,t+n}) = PERF_{i,t-3} + (CPERF_{i,t+n} - CPERF_{i,t-3})$$

$$= PERF_{i,t-3} + \Delta CPERF_{i,t+n}$$

where $E(PERF_{i,t+n})$ represents the expected performance of Subchapter S bank i in year $t+n$, t represents the event year, and n represents the abnormal performance sub-windows -2 through +3. $PERF_{i,t-3}$ represents the baseline performance of Subchapter S bank i three years pre event, $(CPERF_{i,t+n} - CPERF_{i,t-3})$ equals the change in matched control bank i from three years before the event.

Any deviations from the expected level indicate abnormal performance. This treatment tests if the change is caused by the conversion or other factors. The abnormal performance (AP) variable for Subchapter S bank i in period n is defined as actual minus expected performance:

$$AP_{i,n} = PERF_{i,t+n} - E(PERF_{i,t+n})$$

The abnormal performance is calculated by taking the difference between the actual performance of Subchapter S bank i and the expected performance. The expected performance indicates what should have occurred to bank i in the absence of the event. The expectation is calculated with the median matched Subchapter C control banks. The abnormal performance (AP) equation can be rewritten in relation to Subchapter S banks and banks that do not convert, Subchapter C banks.

To calculate abnormal performance both an estimation and event period are defined. The estimation period is defined to determine a portion of the expected performance. For this study, the estimation period utilized is three years pre event. The impact that the event has on the performance post estimation period is the event period. The entire event window is defined as (-3,+3), three years pre event to three years post event. The event window is further divided into sub-windows to evaluate abnormal

performance at different intervals through the event window. Abnormal performance is evaluated at the following sub-windows (-3,-2), (-3,-1), (-3,0),(-3,1),(-3,2), and (-3,3). The event windows include pre event years in order to avoid transactional changes from banks preparing for the event. These pre-announcement sub-windows are utilized to detect restructuring by banks in anticipation of the conversion event. The event year is denoted as 0 and represents the approximate time of conversion. The event year represents the financial information at the end of the year that the election to Subchapter S occurred. Since we can not determine exactly when in the year the bank made the conversion choice, changes in the performance variables may be expected around the event date.

In addition to calculating abnormal performance, cumulative abnormal performance is calculated. Cumulative abnormal performance represents the accumulation of the abnormal performance over the six event windows.

$$CAP_{i,n} = CAP_{i,n-1} + AP_{i,n}$$

where $AP_{i,n}$ is abnormal performance from years -3 through +3. The null hypotheses evaluate if abnormal performance and cumulative average abnormal performance is equal to zero by using the Wilcoxon Sign-Ranked tests, which have been shown to be uniformly more powerful in event studies using accounting data (Barber and Lyon, 1996).

5.2.2 Matching Procedure

Both the sample Subchapter S banks and the control Subchapter C banks were based on data in years t-3 through t+3. A bank which elects Subchapter S status at any time during the sample period is ineligible for consideration as a control Subchapter C

bank because these banks start reorganizing components of their operations several years prior to the actual conversion (Gilbert and Wheelock, 2007; Cyree et al., 2005; Hodder, et al., 2003; Harvey and Padget, 2000).

When evaluating the sample of Subchapter S banks, it is important to have a control group of banks that is as similar as possible except for the conversion. Barber and Lyon (1996) suggest the industry comparison group is held constant over time to place the same data requirements on sample and control firms. For this study, the control group is constant for all tests.

For each year in the study each bank that converts to Subchapter S status is matched with a group of non-converting Subchapter C banks using five matching criteria. The matching is done on data three years prior to the event to avoid capturing any discretionary changes made by the bank prior to the event date. Hodder et al. (2003) evaluate variables three years pre event to avoid any transitional changes, since they find that banks began to reduce dividends payout ratios prior to the event as a way to increase tax benefits. Barber and Lyon (1996) show test statistics are well specified only when the sample firms are matched to control firms of similar pre event performance or size and industry. Alderson and Betker (2006) extend Barber and Lyon's (1996) analysis and test matching on pre event levels versus matching on pre event changes. They find matching on pre event changes yields more powerful test statistics than matching on levels. Since banks that elect Subchapter S status have different pre-election financial performance prior to conversion than Subchapter C banks, matching on ROE or ROA is not ideal in this study. Hodder, et al. (2003), Cyree et al. (2005), and Harvey and Padget (2000) find financial performance as one of the main qualities that induces banks to convert to

Subchapter S. Furthermore, Gilbert and Wheelock (2007) caution investigators about using financial performance measures when evaluating Subchapter S banks. Consequently, it is not ideal to use ROE or ROA as a matching criterion in this study. This is of no great consequence, since Barber and Lyon (1996) also find that for event studies, firms matched on size and industry yield test statistics that are well specified for small firms.

For this study, additional matching criteria are included with size to provide stronger matches. The criteria are based upon theoretical considerations presented in previous literature on Subchapter S banks and reviewed in Chapter IV. The matching process is:

1. If a Subchapter C bank converts to Subchapter S at anytime during the sample period it is dropped from the possible matches.
2. Both the Subchapter S bank and the Subchapter C banks are required to be in operation for at least six years prior to the conversion. De novo banks behave differently and it takes several years before they have operating characteristics similar to that of established banks (Cryee and Wansley, 2004; DeYoung and Hasan, 1998; Brislin and Santomero, 1991; Hunter and Srinivasan, 1990; and Huyser, 1986).
3. The matched group of Subchapter C banks are from the same state as the bank that elects Subchapter S status. Since some states impose a state level corporate tax rate on earnings, not all banks receive equal benefits from electing Subchapter S status (Hodder, et al., 2003; Cyree, et al. 2005).

4. The matched control Subchapter C banks have the same charter and match the Subchapter S bank's location as rural or urban.¹⁹ Banks in MSAs behave differently and have different characteristics compared to rural banks (Cyree et al., 2005). By imposing this restriction, differences in location are controlled.
5. Once banks meet all of the previous requirements, the final criterion is the group of control banks chosen must have asset size within 10 percent of its matched Subchapter S bank.

To confirm the validity of the match, parametric paired t-test comparisons and non-parametric Wilcoxon Sign-Ranked tests are conducted. The match is examined to evaluate if there are significant differences in the characteristics of the banks which experienced an event and the control group's median value. Any differences will be controlled through the use of the abnormal performance equation.

Previous literature recognizes that banks begin to reorganize prior to election of the status (Hodder et al., 2003). Thus using a three year pre event matching process, unmanaged, non-transitional variables are obtained. This matching technique provides each Subchapter S bank with a group of matched Subchapter C banks. In traditional market data based event studies, a market model is utilized to control for market effects. In this study using accounting data, matched Subchapter C banks serve as the control mechanisms to separate out event effects from systemic effects. The median values of the matched Subchapter C banks will be utilized in the statistical testing.

¹⁹ The matching criteria was if the S Bank was urban (in a MSA) then the matched C Bank must also be in a MSA.

5.3 Data

The sample for this research consists of 1,658 commercial banks which filed a Report of Condition and Income from June 1994 through June 2008. Reports of Condition and Income, call reports, are available for all banks regulated by the Federal Reserve System, Federal Deposit Insurance Corporation, and the Comptroller of the Currency. All data is on an individual bank basis.²⁰ The data is downloadable from the Federal Reserve Bank of Chicago. This sample is comprised of banks that elect Subchapter S status between the years 1997-2004 and a matched sample of taxable Subchapter C banks. Only commercial banks are included in this study and all other types of financial institutions are excluded from the sample. Since this study utilizes three years pre event data for matching and control purposes, data starting in 1994 is needed to calculate the pre event variables in the empirical testing.

Every bank is required to file a consolidated call report each quarter. However, some schedules are not required to be filed every quarter. For all banks, Schedule RC-C, part II, Loans to Small Businesses and Small Farms, is to be filed *only* as of the June 30 report date. Therefore, the consolidated call reports are used for the majority of the variables, but small business and small farm lending data are not available in the December reports. To obtain these variables, data from the June reports are averaged. Thus for the 1997 sample of banks, December 1997, June 1997, and June 1998 data is utilized.

Banks that convert to Subchapter S status are identified by a binary variable in the Report of Income. This is a one-digit code which indicates whether the bank is, for

²⁰Schedules RC and RC-A through RC-T constitute the Report of Condition and its supporting schedules. Schedules RI, RI-A, RI-B, RI-D, and RI-E constitute the Report of Income and its supporting schedules.

federal income tax purposes, either a Subchapter S corporation or a qualifying Subchapter S subsidiary (U.S.C., §1361).

Lists of the variables for the matching process sequence as well as those for the hypotheses are available in Table 4 and Table 5. These tables provide the FDIC variable identification numbers as well as their definitions.

Table 4: Variables Used in Hypotheses Testing

Variable	Definition	FDIC Variable ID
SB1	Small Business Loan with original amount of \$100,000 or less	RCON5571
SB2	Small Business Loan with original amount of more than \$100,000 through \$250,000	RCON5573
SB3	Small Business Loan with original amount of more than \$250,000 through \$1,000,000	RCON5575
AG1	Loans to finance agriculture production and other loans to farmers with original amount of \$100,000 or less	RCON5584
AG2	Loans to finance agriculture production and other loans to farmers with original amount of more than \$100,000 through \$250,000	RCON5586
AG3	Loans to finance agriculture production and other loans to farmers with original amount of more than \$250,000 through \$1,000,000	RCON5588
FARM1	Loans secured with farmland with original amount of \$100,000 or less	RCON5579
FARM2	Loans secured with farmland with original amount of more than \$100,000 through \$250,000	RCON5581
FARM3	Loans secured with farmland with original amount of more than \$250,000 through \$1,000,000	RCON5583
DIVIDENDS	Cash dividends declared on common stock during the calendar year.	RIAD4460
SALARIES	Salaries and benefits of all officers and employees of the bank and its consolidated subsidiaries.	RIAD4135
RET_EARN	Retained Earnings less any net unrealized loss in the marketable equity securities portfolio and less the carrying value of Treasury stock.	RCON3632

Table 5: Variables Used in Matching Process

Variable	Definition	FDIC Variable ID
SDUM	A one-digit code indicating whether the bank is, for federal income tax purposes, is either an "S corporation" or a "qualifying subchapter S subsidiary," as defined in Internal Revenue Code Section 1361, as of the report date	RIADA530
TA	Total assets. The sum of all asset items.	RCFD2170
CHARTER	A code indicating the type of entity based on either the legal documents issued by the chartering or licensing authority or other documents of formation or the generally accepted name that summarizes the characteristics and business activities of the entity when a formal charter is not issued.	RSSD9048
STATE	A two-character state abbreviation	RSSD9200
MSA	A four-digit numeric code assigned to the Metropolitan Statistical Area (MSA) or Primary Metropolitan Statistical Area (PMSA) where the entity is physically located. A city with a population of at least 50,000.	RSSD9180

5.3.1 Characteristics of Subchapter S and Subchapter C Banks

Since commercial banks had access to Subchapter S status, the number of commercial banks choosing this status increased from 596 in 1997 to 2,345 as of December, 2007. In total, 2,376 financial institutions have elected Subchapter S status; only 31 are not commercial banks.²¹ At the end of 2007, 4,876 (67.5 percent) commercial banks continued to operate as taxable Subchapter C banks (Table 6). Commercial banks with Subchapter S status in 1997 accounted for 6.54 percent of

²¹ These 31 financial institutions include: 7 Nondeposit Trust Companies, 18 Savings Banks, and 6 Industrial Banks (including thrift and loan institutions and Morris Plan Banks).

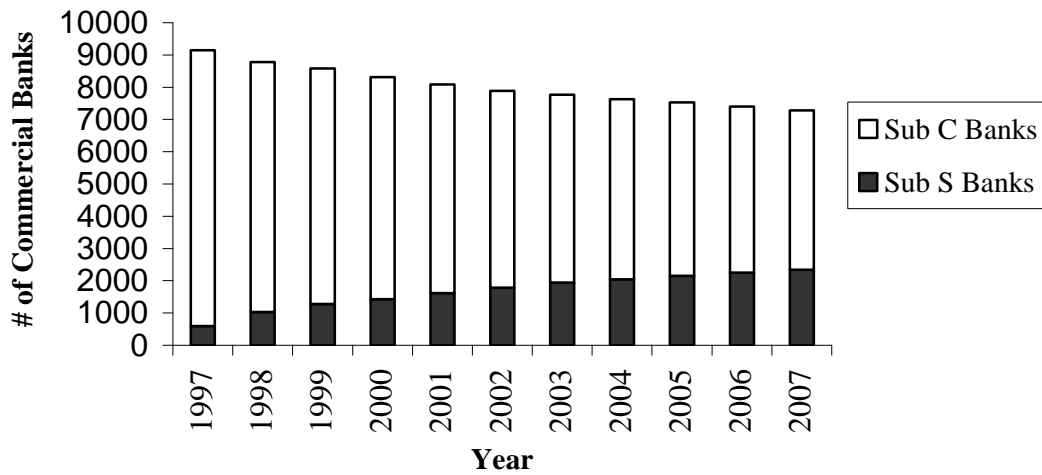
commercial banks in operation in the U.S. in 1997 and increased to 32.2 percent of the 7,283 commercial banks at year end 2007.

Table 6: Banks Leaving Subchapter S Status

Year	New Subchapter S Banks	Total Subchapter S Banks	Dropped Subchapter S Status
1997	596	596	0
1998	461	1,035	22
1999	285	1,279	41
2000	212	1,433	58
2001	216	1,622	30
2002	207	1,785	47
2003	194	1,941	38
2004	152	2,046	48
2005	158	2,152	54
2006	178	2,255	75
2007	160	2,345	72

Figure 1: Number of Subchapter S and Subchapter C Commercial Banks

Commercial Banks by Type in the U.S.



Banks that convert to Subchapter S status are smaller than their Subchapter C counterparts. The mean total assets of all Subchapter C banks in 1997 was \$572,836,000 compared to a mean total asset value of \$78,432,030 for banks Subchapter S banks (Table 7). Since there are some very large Subchapter C banks, median values provide a better indicator of the differences between groups. These values indicate that banks choosing Subchapter S status tend to be smaller than the Subchapter C banks in operation.

Table 7: Comparison of Total Assets of Subchapter S Banks With All Subchapter C Banks

Year	C Banks			S Banks		
	N	Mean	Median	N	Mean	Median
1997	8,548	\$572,836,000	\$72,735,500	596	\$78,432,030	\$48,359,000
1998	7,742	\$679,637,000	\$80,423,000	1,035	\$85,067,950	\$52,690,000
1999	7,303	\$753,679,000	\$85,272,000	1,279	\$90,950,260	\$57,104,500
2000	6,882	\$864,275,000	\$90,354,000	1,433	\$98,354,670	\$59,981,000
2001	6,460	\$964,833,000	\$99,731,000	1,622	\$105,712,200	\$63,526,000
2002	6,103	\$1,097,215,000	\$109,100,000	1,785	\$114,340,300	\$67,891,000
2003	5,829	\$1,228,461,000	\$118,239,000	1,941	\$122,691,500	\$73,044,000
2004	5,585	\$1,406,228,000	\$126,651,000	2,046	\$138,047,900	\$77,116,000
2005	5,374	\$1,559,037,000	\$137,644,500	2,152	\$151,034,200	\$84,384,000
2006	5,146	\$1,802,894,000	\$147,058,000	2,255	\$164,173,000	\$88,886,000
2007	4,938	\$2,045,760,000	\$152,436,000	2,345	\$177,276,800	\$96,769,000

5.4 Hypotheses

5.4.1 Hypothesis One: Small Business Lending

The first hypothesis tests the extent to which banks are using the tax savings to increase lending to small businesses. The hypothesis is tested by evaluating abnormal performance and cumulative abnormal performance.

To more fully explore the hypothesis, I analyze three origination amounts of small business lending (Refer to Table 4). The different origination amounts provide an analysis of small business loans with origination amounts less than \$100,000 to large small business loans with origination amounts up to \$1,000,000.

Hypothesis 1: The abnormal performance in the proportion of small business lending by banks after conversion to Subchapter S is zero.

$$AP_{i,n} = SBL_PERF_{i,t+n} - E(SBL_PERF_{i,t+n}) = 0$$

The change in proportional small business lending by banks that convert to Subchapter S bank status is compared to the median value of a group of control non-converting Subchapter C banks during the same time period. Under the null hypothesis abnormal performance is predicted to be zero. Abnormal performance is calculated for all sub-event windows.

If the event does produce positive abnormal performance in banks, then this confirms what various banking organizations and representatives conjecture. This would indicate that banks are utilizing the tax advantage to benefit small businesses through increased lending. If the event induces negative abnormal performance in banks, this may suggest that banks may have changed their risk tolerance. Small business loans tend to be more informationally opaque. Berger et al. (2001) anticipate a reduction in these informationally opaque small business loans due to the difficulty in accessing and quantifying their risk level. Murphy (1983) found economies of scale in the commercial loan market; small loans to small firms are relatively more costly loans for lenders. Another possible explanation for a decline in small business lending could be attributed to a diversion of funds from small business lending to an increase in dividend payout. If

there is no difference post event, then the conclusion is that banks are not changing their small business lending behavior after the conversion event.

5.4.2 Hypothesis Two: Agricultural Lending

Commercial banks are the most important suppliers of loans to the agriculture industry, especially to small farms (Akhavain et al., 2004). Small community banks, especially those in rural areas, tend to place a stronger emphasis on agricultural related lending. This hypothesis explores the change in the agricultural-based lending behavior of banks post conversion.

There are two different types of agricultural lending analyzed. The first classification is loans to finance agriculture production and other loans to farmers. This type of lending is separated into three origination categories (Refer to Table 4).

In addition to loans to finance agricultural production, banks make loans secured with farmland. These loans are also divided into three categories on the basis of the origination amount (Refer to Table 4).

Hypothesis 2: The abnormal performance in the proportion of agricultural lending by banks after conversion to Subchapter S is zero.

$$AP_{i,n} = AGL_PERF_{i,t+n} - E(AGL_PERF_{i,t+n}) = 0$$

Both types of agricultural related loans are evaluated to examine if the conversion event produces abnormal performance in these loans. Abnormal performance indicates a change in the proportion of agricultural related loans induced by the event. If positive abnormal performance is detected then this is evidence in support of claims by various banking groups that Subchapter S status benefits local communities. If negative abnormal performance is found then this indicates a decline in lending to the agriculture sector due

to conversion. A possible explanation for a decline in agriculture lending could be due to the increasing risk found in the agriculture industry (Henderson and Akers, 2009). During the sample period, weak farm markets led to an increase in delinquencies in agricultural loans (Meyer, 1999). Another explanation could be the funds from agricultural related lending are being used to supplement dividends.

5.4.3 Hypothesis Three: Dividends

The third hypothesis explores how conversion impacts the distribution of dividends to owners. Banks that elect Subchapter S tax status are able to avoid the federal corporate income tax, but taxes are calculated as if earnings are passed-through to the shareholders. Thus the shareholders are taxed not only on what is paid in dividends, but also the earnings that are not distributed. This will probably increase the shareholders taxes.

The effect of the conversion event will depend on the individual income tax rate, the tax rate on dividends, and the corporate tax rate. To make the shareholders as well off in the current time period as before the conversion to Subchapter S, dividend payments must increase after conversion to an amount that allows owners to pay any additional taxes. Therefore, some increase in dividends is expected.

Hypothesis 3: The abnormal performance in dividends paid by banks post conversion to Subchapter S is zero, or negative.

$$AP_{i,n} = DIV_PERF_{i,t+n} - E(DIV_PERF_{i,t+n}) \leq 0$$

Positive abnormal performance would confirm findings by Cyree et al. (2005), Gilbert and Wheelock (2007), Cyree et al. (2005), Hodder et al. (2003), and Harvey and

Padget (2000) that banks increase their dividend payments after conversion to Subchapter S status.

5.4.4 Hypothesis Four: Salaries Paid

The fourth hypothesis further explores how the tax savings is being distributed. More precisely, are employees reaping the benefit of additional salary income after the event? Abnormal performance is predicted to be negative, if salaries were previously used as a mechanism to provide funds to the managers/owners of the banks without exposing the funds to double taxation. Now that the double taxation consequence on dividends is removed, salaries are not the only option to extract funds and avoid double taxation, as supported by a decrease in personnel expenses found by Harvey and Padget (2000). Conversely, if the event is used to benefit management through higher wages, a positive abnormal performance is predicted. If the event does not influence banks distribution of salaries there will be no abnormal performance.

Hypothesis 4: The abnormal performance in salaries and benefits paid by banks after conversion to Subchapter S is zero.

$$AP_{i,n} = SAL_PERF_{i,t+n} - E(SAL_PERF_{i,t+n}) = 0$$

6.4.5 Hypothesis Five: Retained Earnings

This hypothesis evaluates if the bank keeps any tax savings as retained earnings. Negative abnormal performance in the proportion of retained earnings paid by banks after conversion indicates banks have reduced their retained earnings. This corresponds with Hypothesis Three and an increase in dividends. Since the increase in dividends is greater than the tax benefit received, a decrease in retained earnings is anticipated. Harvey and

Padget (2000) found that after conversion, banks showed a significant reduction in their capital levels.

Hypothesis 5: The abnormal performance in retained earning by banks post conversion to Subchapter S is positive.

$$AP_{i,n} = RE_PERF_{i,t+n} - E(RE_PERF_{i,t+n}) > 0$$

5.4.6 Overview of Hypotheses

Previous research evaluated bank performance characteristics prior to conversion (Gilbert and Wheelock, 2007; Cyree et al., 2005; Hodder, et al., 2003; Harvey and Padget, 2000) and focus on “average” changes after conversion (Cyree et al., 2005; Harvey and Padget, 2000). The present investigation explores a different question from previous analysis of Subchapter S banks. This study employs an innovative event study approach to control for systemic changes and focuses on how Subchapter S banks performance changes relative to banks that do not convert. The evaluation of the change in specific characteristics of these banks in an event study framework utilizing accounting data and a multi-dimensional matching technique results in a more comprehensive and thorough analysis of the effect of the tax benefit provided for Subchapter S banks.

CHAPTER VI

EMPIRICAL RESULTS

6.1 Statistical Evaluation of Matching Process

The matching process was performed for each year of the study following the guidelines provided in Chapter V. The results of the matching process are presented in Table 8 through Table 15. Tables 8 through 15 reveal no difference between the total assets of the banks converting to Subchapter S banks and the control banks three years before conversion. All eight years consistently show the converting banks and the control banks were the same size three years before conversion. Three years is used as the baseline for the testing of the hypotheses. While the banks that converted to Subchapter S status and the control banks were the same size before the conversion date, their performance as measured by the hypotheses variables was not the same.

6.1.1 Results of Matching Process on Hypothesis Variables

6.1.1.1 Small Business Lending

In all years and in all origination amounts the banks that eventually converted to Subchapter S allocated a higher proportion of their assets to small business lending (Refer to Tables 8 through 15). This effect is significant at the 0.10 level for most of the origination amounts in almost all years. In 1997, 1998, 1999, 2001, and 2003 the Subchapter S banks provided a significantly (0.10 level) higher proportion of small

business loans in all three origination amounts. In 2000, 2002, and 2004 the Subchapter S banks provided a higher proportion of small business loans in general, but the amounts were only significant in some of the origination amounts.

Table 8: Tests of Matching Criteria: Banks Converting to Subchapter S in 1997

In 1997, 596 banks elected Subchapter S status. After the matching 438 Sub.S banks remained in the sample. The match is made in 1994, 3 years pre-event year. Median values of the control groups are used for all calculations. The variable *Mean* represents the mean value of the sample of banks that convert to Subchapter S in 1997 and the control groups. *Median* represents the median value of the two groups at time of the match. *Mean Dif* represents the difference in the mean values of Subchapter S bank and the control banks. All variables are divided by Total Assets (except Total Assets).

Variables	Mean	Median	Mean Dif	t Value	Pr > t 	Wilcoxon	Pr > S
Total Assets							
Sub. S Banks	52,848	39,973	71.40	0.53	0.5941	1737	0.5129
Control Banks	52,777	40,222					
SB Loans 1							
Sub. S Banks	0.0190	0.0051	0.0085	6.17	<0.0001	7715.5	<0.0001
Control Banks	0.0105	0.0000					
SB Loans 2							
Sub. S Banks	0.0106	0.0000	0.0046	5.18	<0.0001	6269.5	<0.0001
Control Banks	0.0060	0.0000					
SB Loans 3							
Sub. S Banks	0.0115	0.0000	0.0045	4.31	<0.0001	4267.5	<0.0001
Control Banks	0.0069	0.0000					
Farm Loans 1							
Sub. S Banks	0.0075	0.0000	0.0050	5.99	<0.0001	5563.5	<0.0001
Control Banks	0.0026	0.0000					
Farm Loans 2							
Sub. S Banks	0.0063	0.0000	0.0038	5.26	<0.0001	4820.5	<0.0001
Control Banks	0.0025	0.0000					
Farm Loans 3							
Sub. S Banks	0.0029	0.0000	0.0019	3.86	0.0001	2082	<0.0001
Control Banks	0.0011	0.0000					
Ag Loans 1							
Sub. S Banks	0.0200	0.0000	0.0113	4.79	<0.0001	4126.5	<0.0001
Control Banks	0.0088	0.0000					
Ag Loans 2							
Sub. S Banks	0.0092	0.0000	0.0046	3.71	0.0002	3040	<0.0001
Control Banks	0.0046	0.0000					
Ag Loans 3							
Sub. S Banks	0.0051	0.0000	0.0021	2.29	0.0225	1439.5	0.0012
Control Banks	0.0029	0.0000					
Common Dividends							
Sub. S Banks	0.0075	0.0061	0.0034	8.39	<0.0001	23077.5	<0.0001
Control Banks	0.0040	0.0035					
Salaries							
Sub. S Banks	0.0165	0.0158	0.0000	-0.15	0.8821	-550.5	0.8358
Control Banks	0.0165	0.0159					
Retained Earnings							
Sub. S Banks	0.0574	0.0484	0.0043	2.17	0.0308	2548.5	0.3369
Control Banks	0.0531	0.0528					

Table 9: Tests of Matching Criteria: Banks Converting to Subchapter S in 1998

In 1998, 461 banks elected Subchapter S status. After the matching 341 Sub.S banks remained in the sample. The match is made in 1995, 3 years pre-event year. Median values of the control groups are used for all calculations. The variable *Mean* represents the mean value of the sample of banks that convert to Subchapter S in 1998 and the control groups. *Median* represents the median value of the two groups at time of the match. *Mean Dif* represents the difference in the mean values of Subchapter S bank and the control banks. All variables are divided by Total Assets (except Total Assets).

Variables	Mean	Median	Mean Dif	t Value	Pr > t 	Wilcoxon	Pr > S
Total Assets							
Sub. S Banks	54,859	42,349	167.09	1.28	0.2023	2968.5	0.1033
Control Banks	54,692	42,556					
SB Loans 1							
Sub. S Banks	0.0172	0.0000	0.0058	3.93	0.0001	3443.5	0.0004
Control Banks	0.0114	0.0000					
SB Loans 2							
Sub. S Banks	0.0087	0.0000	0.0030	3.44	0.0007	2881.5	0.0012
Control Banks	0.0058	0.0000					
SB Loans 3							
Sub. S Banks	0.0102	0.0000	0.0029	2.31	0.0212	1577	0.0344
Control Banks	0.0073	0.0000					
Farm Loans 1							
Sub. S Banks	0.0071	0.0000	0.0041	4.98	<0.0001	3130	<0.0001
Control Banks	0.0030	0.0000					
Farm Loans 2							
Sub. S Banks	0.0073	0.0000	0.0043	4.55	<0.0001	2541	0.0003
Control Banks	0.0030	0.0000					
Farm Loans 3							
Sub. S Banks	0.0029	0.0000	0.0017	3.58	0.0004	1157	0.0049
Control Banks	0.0012	0.0000					
Ag Loans 1							
Sub. S Banks	0.0199	0.0000	0.0117	4.97	<0.0001	2700	0.0002
Control Banks	0.0082	0.0000					
Ag Loans 2							
Sub. S Banks	0.0092	0.0000	0.0055	4.48	<0.0001	2097	0.0003
Control Banks	0.0037	0.0000					
Ag Loans 3							
Sub. S Banks	0.0045	0.0000	0.0022	2.41	0.0163	836	0.0280
Control Banks	0.0023	0.0000					
Common Dividends							
Sub. S Banks	0.0062	0.0051	0.0018	3.86	0.0001	9624.5	<0.0001
Control Banks	0.0044	0.0034					
Salaries							
Sub. S Banks	0.0166	0.0164	0.0005	1.82	0.07	3508.5	0.0549
Control Banks	0.0161	0.0154					
Retained Earnings							
Sub. S Banks	0.0594	0.0504	0.0071	2.95	0.0034	3353.5	0.0656
Control Banks	0.0523	0.0508					

Table 10: Tests of Matching Criteria: Banks Converting to Subchapter S in 1999

In 1999, 285 banks elected Subchapter S status. After the matching 201 Sub.S banks remained in the sample. The match is made in 1996, 3 years pre-event year. Median values of the control groups are used for all calculations. The variable *Mean* represents the mean value of the sample of banks that convert to Subchapter S in 1999 and the control groups. *Median* represents the median value of the two groups at time of the match. *Mean Dif* represents the difference in the mean values of Subchapter S bank and the control banks. All variables are divided by Total Assets (except Total Assets).

Variables	Mean	Median	Mean Dif	t Value	Pr > t 	Wilcoxon	Pr > S
Total Assets							
Sub. S Banks	64,916	51,285	329.34	1.12	0.2661	1242	0.1329
Control Banks	64,586	50,574					
SB Loans 1							
Sub. S Banks	0.0174	0.0000	0.0041	1.86	0.0640	923.5	0.0598
Control Banks	0.0133	0.0032					
SB Loans 2							
Sub. S Banks	0.0085	0.0000	0.0024	2.17	0.0315	1090	0.0127
Control Banks	0.0061	0.0000					
SB Loans 3							
Sub. S Banks	0.0102	0.0000	0.0035	2.60	0.0099	852	0.0399
Control Banks	0.0067	0.0000					
Farm Loans 1							
Sub. S Banks	0.0061	0.0000	0.0019	1.95	0.0526	581	0.1098
Control Banks	0.0043	0.0000					
Farm Loans 2							
Sub. S Banks	0.0058	0.0000	0.0019	1.69	0.0916	434.5	0.172
Control Banks	0.0038	0.0000					
Farm Loans 3							
Sub. S Banks	0.0043	0.0000	0.0025	2.12	0.0352	238.5	0.1918
Control Banks	0.0018	0.0000					
Ag Loans 1							
Sub. S Banks	0.0145	0.0000	0.0053	2.23	0.0269	755	0.0345
Control Banks	0.0092	0.0000					
Ag Loans 2							
Sub. S Banks	0.0082	0.0000	0.0029	1.72	0.0879	398	0.1724
Control Banks	0.0053	0.0000					
Ag Loans 3							
Sub. S Banks	0.0044	0.0000	0.0020	1.80	0.0740	196	0.2644
Control Banks	0.0025	0.0000					
Common Dividends							
Sub. S Banks	0.0059	0.0049	0.0015	3.38	0.0009	2194	0.0055
Control Banks	0.0044	0.0037					
Salaries							
Sub. S Banks	0.0165	0.0158	0.0007	2.05	0.042	1349.5	0.1023
Control Banks	0.0158	0.0150					
Retained Earnings							
Sub. S Banks	0.0571	0.0505	0.0020	0.75	0.4567	370.5	0.6548
Control Banks	0.0552	0.0547					

Table 11: Tests of Matching Criteria: Banks Converting to Subchapter S in 2000

In 2000, 212 banks elected Subchapter S status. After the matching 156 Sub.S banks remained in the sample. The match is made in 1997, 3 years pre-event year. Median values of the control groups are used for all calculations. The variable *Mean* represents the mean value of the sample of banks that convert to Subchapter S in 2000 and the control groups. *Median* represents the median value of the two groups at time of the match. *Mean Dif* represents the difference in the mean values of Subchapter S bank and the control banks. All variables are divided by Total Assets (except Total Assets).

Variables	Mean	Median	Mean Dif	t Value	Pr > t 	Wilcoxon	Pr > S
Total Assets							
Sub. S Banks	56,558	44,381	-43.31	-0.21	0.8371	155	0.7849
Control Banks	56,602	43,568					
SB Loans 1							
Sub. S Banks	0.0154	0.0000	0.0029	1.35	0.1801	369.5	0.1851
Control Banks	0.0124	0.0000					
SB Loans 2							
Sub. S Banks	0.0090	0.0000	0.0022	1.30	0.1964	510	0.0579
Control Banks	0.0068	0.0000					
SB Loans 3							
Sub. S Banks	0.0114	0.0000	0.0050	2.57	0.011	510	0.0197
Control Banks	0.0064	0.0000					
Farm Loans 1							
Sub. S Banks	0.0072	0.0000	0.0037	2.74	0.007	406	0.0649
Control Banks	0.0034	0.0000					
Farm Loans 2							
Sub. S Banks	0.0080	0.0000	0.0040	2.57	0.0113	387	0.0788
Control Banks	0.0040	0.0000					
Farm Loans 3							
Sub. S Banks	0.0037	0.0000	0.0022	2.28	0.0242	278.5	0.0298
Control Banks	0.0015	0.0000					
Ag Loans 1							
Sub. S Banks	0.0171	0.0000	0.0082	2.58	0.0109	371	0.0922
Control Banks	0.0088	0.0000					
Ag Loans 2							
Sub. S Banks	0.0101	0.0000	0.0050	2.58	0.0107	363	0.0759
Control Banks	0.0051	0.0000					
Ag Loans 3							
Sub. S Banks	0.0062	0.0000	0.0038	2.38	0.0187	242	0.0673
Control Banks	0.0024	0.0000					
Common Dividends							
Sub. S Banks	0.0069	0.0051	0.0029	4.87	<0.0001	2576	<0.0001
Control Banks	0.0039	0.0036					
Salaries							
Sub. S Banks	0.0164	0.0159	0.0005	1.17	0.2430	536	0.3446
Control Banks	0.0160	0.0155					
Retained Earnings							
Sub. S Banks	0.0650	0.0522	0.0079	2.21	0.0284	707	0.212
Control Banks	0.0571	0.0558					

Table 12: Tests of Matching Criteria: Banks Converting to Subchapter S in 2001

In 2001, 216 banks elected Subchapter S status. After the matching 155 Sub.S banks remained in the sample. The match is made in 1998, 3 years pre-event year. Median values of the control groups are used for all calculations. The variable *Mean* represents the mean value of the sample of banks that convert to Subchapter S in 2001 and the control groups. *Median* represents the median value of the two groups at time of the match. *Mean Dif* represents the difference in the mean values of Subchapter S bank and the control banks. All variables are divided by Total Assets (except Total Assets).

Variables	Mean	Median	Mean Dif	t Value	Pr > t 	Wilcoxon	Pr > S
Total Assets							
Sub. S Banks	74,916	48,250	469.74	1.38	0.1689	14	0.9801
Control Banks	74,446	48,407					
SB Loans 1							
Sub. S Banks	0.0206	0.0103	0.0094	4.43	<0.0001	1318	<0.0001
Control Banks	0.0112	0.0000					
SB Loans 2							
Sub. S Banks	0.0133	0.0032	0.0065	4.04	<0.0001	1145	0.0001
Control Banks	0.0069	0.0000					
SB Loans 3							
Sub. S Banks	0.0174	0.0000	0.0085	3.63	0.0004	870.5	0.0006
Control Banks	0.0088	0.0000					
Farm Loans 1							
Sub. S Banks	0.0102	0.0000	0.0074	4.72	<0.0001	1294	<0.0001
Control Banks	0.0028	0.0000					
Farm Loans 2							
Sub. S Banks	0.0119	0.0000	0.0082	4.70	<0.0001	1181	<0.0001
Control Banks	0.0037	0.0000					
Farm Loans 3							
Sub. S Banks	0.0073	0.0000	0.0058	4.64	<0.0001	992.5	<0.0001
Control Banks	0.0015	0.0000					
Ag Loans 1							
Sub. S Banks	0.0250	0.0000	0.0169	4.51	<0.0001	1204.5	<0.0001
Control Banks	0.0080	0.0000					
Ag Loans 2							
Sub. S Banks	0.0183	0.0000	0.0129	3.95	0.0001	940.5	<0.0001
Control Banks	0.0054	0.0000					
Ag Loans 3							
Sub. S Banks	0.0129	0.0000	0.0097	3.73	0.0003	772	<0.0001
Control Banks	0.0032	0.0000					
Common Dividends							
Sub. S Banks	0.0055	0.0049	0.0015	3.26	0.0014	1417	0.0087
Control Banks	0.0040	0.0037					
Salaries							
Sub. S Banks	0.0161	0.0161	0.0007	1.88	0.0619	1183	0.0341
Control Banks	0.0154	0.0152					
Retained Earnings							
Sub. S Banks	0.0633	0.0549	0.0038	1.15	0.2534	129	0.8186
Control Banks	0.0595	0.0593					

Table 13: Tests of Matching Criteria: Banks Converting to Subchapter S in 2002

In 2002, 207 banks elected Subchapter S status. After the matching 147 Sub.S banks remained in the sample. The match is made in 1999, 3 years pre-event year. Median values of the control groups are used for all calculations. The variable *Mean* represents the mean value of the sample of banks that convert to Subchapter S in 2002 and the control groups. *Median* represents the median value of the two groups at time of the match. *Mean Dif* represents the difference in the mean values of Subchapter S bank and the control banks. All variables are divided by Total Assets (except Total Assets).

Variables	Mean	Median	Mean Dif	t Value	Pr > t 	Wilcoxon	Pr > S
Total Assets							
Sub. S Banks	72,306	49,465	499.68	1.22	0.2252	451	0.385
Control Banks	71,807	49,330					
SB Loans 1							
Sub. S Banks	0.0164	0.0049	0.0036	1.62	0.1069	552	0.0691
Control Banks	0.0128	0.0023					
SB Loans 2							
Sub. S Banks	0.0098	0.0023	0.0023	1.60	0.1112	371.5	0.2098
Control Banks	0.0075	0.0000					
SB Loans 3							
Sub. S Banks	0.0124	0.0000	0.0022	1.16	0.2467	321.5	0.2199
Control Banks	0.0101	0.0000					
Farm Loans 1							
Sub. S Banks	0.0059	0.0000	0.0026	2.24	0.0267	528	0.0359
Control Banks	0.0033	0.0000					
Farm Loans 2							
Sub. S Banks	0.0077	0.0000	0.0040	2.98	0.0034	717	0.0024
Control Banks	0.0037	0.0000					
Farm Loans 3							
Sub. S Banks	0.0050	0.0000	0.0033	3.40	0.0009	485.5	0.0014
Control Banks	0.0017	0.0000					
Ag Loans 1							
Sub. S Banks	0.0137	0.0000	0.0070	2.87	0.0047	513.5	0.0262
Control Banks	0.0067	0.0000					
Ag Loans 2							
Sub. S Banks	0.0094	0.0000	0.0060	3.75	0.0003	685	0.0007
Control Banks	0.0034	0.0000					
Ag Loans 3							
Sub. S Banks	0.0063	0.0000	0.0041	3.08	0.0025	409.5	0.0033
Control Banks	0.0021	0.0000					
Common Dividends							
Sub. S Banks	0.0051	0.0038	0.0010	1.89	0.0603	685	0.1683
Control Banks	0.0040	0.0033					
Salaries							
Sub. S Banks	0.0170	0.0166	0.0009	1.43	0.1537	719	0.1652
Control Banks	0.0161	0.0158					
Retained Earnings							
Sub. S Banks	0.0619	0.0580	-0.0006	-0.16	0.8735	-29	0.9555
Control Banks	0.0625	0.0583					

Table 14: Tests of Matching Criteria: Banks Converting to Subchapter S in 2003

In 2003, 194 banks elected Subchapter S status. After the matching 123 Sub.S banks remained in the sample. The match is made in 2000, 3 years pre-event year. Median values of the control groups are used for all calculations. The variable *Mean* represents the mean value of the sample of banks that convert to Subchapter S in 2003 and the control groups. *Median* represents the median value of the two groups at time of the match. *Mean Dif* represents the difference in the mean values of Subchapter S bank and the control banks. All variables are divided by Total Assets (except Total Assets).

Variables	Mean	Median	Mean Dif	t Value	Pr > t 	Wilcoxon	Pr > S
Total Assets							
Sub. S Banks	96,507	59,727	58.99	0.10	0.9189	381.0	0.3383
Control Banks	96,448	58,809					
SB Loans 1							
Sub. S Banks	0.0244	0.0172	0.0080	2.94	0.0039	874.5	0.0053
Control Banks	0.0164	0.0140					
SB Loans 2							
Sub. S Banks	0.0132	0.0086	0.0031	1.84	0.0675	552.5	0.0773
Control Banks	0.0101	0.0068					
SB Loans 3							
Sub. S Banks	0.0222	0.0110	0.0069	2.27	0.0250	610.0	0.0228
Control Banks	0.0153	0.0044					
Farm Loans 1							
Sub. S Banks	0.0081	0.0000	0.0041	2.85	0.0052	520.0	0.0269
Control Banks	0.0040	0.0000					
Farm Loans 2							
Sub. S Banks	0.0087	0.0000	0.0029	1.95	0.0531	307.0	0.1955
Control Banks	0.0058	0.0000					
Farm Loans 3							
Sub. S Banks	0.0059	0.0000	0.0024	2.25	0.0265	255.0	0.1118
Control Banks	0.0035	0.0000					
Ag Loans 1							
Sub. S Banks	0.0151	0.0000	0.0075	2.72	0.0074	485.5	0.0502
Control Banks	0.0077	0.0000					
Ag Loans 2							
Sub. S Banks	0.0093	0.0000	0.0042	2.21	0.0291	416.5	0.0492
Control Banks	0.0050	0.0000					
Ag Loans 3							
Sub. S Banks	0.0055	0.0000	0.0025	1.80	0.0751	291.5	0.0400
Control Banks	0.0030	0.0000					
Common Dividends							
Sub. S Banks	0.0054	0.0036	0.0016	2.21	0.0290	472.0	0.2121
Control Banks	0.0037	0.0033					
Salaries							
Sub. S Banks	0.0164	0.0158	0.0001	0.20	0.8379	218.0	0.5842
Control Banks	0.0163	0.0157					
Retained Earnings							
Sub. S Banks	0.0578	0.0514	0.0018	0.47	0.6419	15.0	0.9700
Control Banks	0.0560	0.0582					

Table 15: Tests of Matching Criteria: Banks Converting to Subchapter S in 2004

In 2004, 152 banks elected Subchapter S status. After the matching 97 Sub.S banks remained in the sample. The match is made in 2001, 3 years pre-event year. Median values of the control groups are used for all calculations. The variable *Mean* represents the mean value of the sample of banks that convert to Subchapter S in 2004 and the control groups. *Median* represents the median value of the two groups at time of the match. *Mean Dif* represents the difference in the mean values of Subchapter S bank and the control banks. All variables are divided by Total Assets (except Total Assets).

Variables	Mean	Median	Mean Dif	t Value	Pr > t 	Wilcoxon	Pr > S
Total Assets							
Sub. S Banks	80,262	56,643	-485.22	-1.17	0.2453	-440.5	0.1134
Control Banks	80,747	55,545					
SB Loans 1							
Sub. S Banks	0.0234	0.0193	0.0075	2.62	0.0103	523.5	0.0209
Control Banks	0.0159	0.0149					
SB Loans 2							
Sub. S Banks	0.0122	0.0093	0.0017	1.13	0.2606	289	0.1992
Control Banks	0.0104	0.0077					
SB Loans 3							
Sub. S Banks	0.0215	0.0110	0.0054	1.62	0.1083	366	0.0735
Control Banks	0.0160	0.0062					
Farm Loans 1							
Sub. S Banks	0.0103	0.0000	0.0049	2.3	0.0237	333.5	0.0664
Control Banks	0.0055	0.0003					
Farm Loans 2							
Sub. S Banks	0.0121	0.0000	0.0060	2.84	0.0054	336	0.0588
Control Banks	0.0061	0.0000					
Farm Loans 3							
Sub. S Banks	0.0065	0.0000	0.0038	2.81	0.0061	270	0.0263
Control Banks	0.0027	0.0000					
Ag Loans 1							
Sub. S Banks	0.0177	0.0000	0.0071	1.85	0.0673	316.5	0.0635
Control Banks	0.0105	0.0001					
Ag Loans 2							
Sub. S Banks	0.0117	0.0000	0.0062	2.65	0.0095	345.5	0.0119
Control Banks	0.0055	0.0000					
Ag Loans 3							
Sub. S Banks	0.0080	0.0000	0.0046	2.29	0.0240	271	0.0031
Control Banks	0.0033	0.0000					
Common Dividends							
Sub. S Banks	0.0046	0.0034	0.0014	2.59	0.0110	779	0.0033
Control Banks	0.0033	0.0027					
Salaries							
Sub. S Banks	0.0162	0.0155	-0.0001	-0.11	0.9124	-52.5	0.8513
Control Banks	0.0162	0.0156					
Retained Earnings							
Sub. S Banks	0.0613	0.0528	0.0016	0.33	0.7389	-108.5	0.6984
Control Banks	0.0598	0.0596					

6.1.1.2 Agricultural Related Lending

The matching results presented in Tables 8 through 15 were fairly consistent across both production and land loans. For all years and all origination amounts, Subchapter S banks provide a higher proportion of assets to agricultural lending. This result is significant (0.10 level) for all origination amounts in years: 1997, 1998, 2000, 2001, 2002, and 2004. In years 1999 and 2003 the difference was significant for most of the origination amounts.

6.1.1.3 Dividends

The statistical tests presented in Tables 8 through 15 revealed a significant (0.10 level) difference three years before conversion between the proportions of dividends paid by the two groups. In all years, the amount of dividends paid by the banks that converted to Subchapter S status is greater than the proportion of assets paid as dividends by banks that remain as Subchapter C banks. This difference is significant at the 0.10 level for all years under both t-test and Wilcoxon Sign-Ranked tests except 2002 and 2003, where it is only significant in one of the two tests.

6.1.1.4 Salaries

The results presented in Tables 8 through 15 reporting the proportion of salaries paid out between the two groups provide mixed evidence. In some of the years there was not a significant difference (0.10 level) between the two groups. The following years indicate a significant higher proportion of assets paid out in salaries by banks that converted to Subchapter S in three years: 1998, 1999, 2001, and 2002.

6.1.1.5 Retained Earnings

Results presented in Tables 8 through 15 indicate that in most years there is no significant (0.10 level) difference before conversion between the two groups of banks. Banks that eventually converted to Subchapter S status had a higher proportion of retained earnings relative to total assets in 1997, 1998, and 2000.

6.1.1.6 Interpretation of Matching Results

The results of the statistical analysis indicate that the matching process controlled well for size because there is not a significant difference between the two groups of banks in any of the years. The results of the statistical analysis of the performance variables indicate that in most instances banks that later converted to Subchapter S had different performance characteristics from the control banks before conversion. This is not surprising because previous studies suggest that banks that convert to Subchapter S are different from other banks before conversion (Gilbert and Wheelock, 2007; Cyree et al., 2005; Hodder, et al., 2003; Harvey and Padget, 2000). The results in Tables 8 through 15 indicate that Subchapter S banks and C banks have different levels of the variables of interest before conversion. As indicated by Barber and Lyon (1996), Lie (2001), and Alderson and Betker (2006) evaluating levels is not sufficient in detecting abnormal performance, evaluating changes is necessary for well specified results. The present analysis investigates changes in performance by comparing the differences in Subchapter S banks and Subchapter C banks before and after conversion. This approach should capture performance differences that result from conversion.

6.2 Results of Hypothesis Tests

6.2.1 Hypothesis One Results

Table 16 provides the results of the hypothesis tests for all three of the origination amounts of small business lending.

6.2.1.1 Small Business Lending 1

The results of the empirical analysis of abnormal and cumulative performance for small business lending with origination amounts less than \$100,000 is presented in Table 16, Panel A.

The results reported in Panel A of Table 16 indicate significant (0.10 level) abnormal negative performance in all sub-event windows. The (-3,-2) window shows a significant but modest decline in small business lending (Wilcoxon p-value 0.0071) after conversion. This suggests that banks began to make modifications prior to conversion. The sub-window (-3,-1) indicates significant negative abnormal performance in small business lending (Wilcoxon p-value 0.0063). Depending on when the bank made the Subchapter S election in the event year, the sub-window (-3,0) may capture the event tax benefit to varying degrees. Again, negative abnormal performance is detected (Wilcoxon p-value 0.0030). The most dramatic decline in small business lending occurs in sub-window (-3,1). The negative abnormal performance doubles from -0.0011 to -0.0023 (Wilcoxon p-value <0.0001). This significant decline is interpreted as an effect of conversion. Negative abnormal performance is detected in both of the last two sub-windows (-3,2) and (-3,3) (Wilcoxon p-value <0.0001, Wilcoxon p-value <0.0001). The negative abnormal performance reported in Panel A of Table 16 suggests the proportion of low principal amount small business lending significantly declines for banks that

Table 16: Abnormal and Cumulative Abnormal Performance in Small Business Lending

An evaluation of abnormal performance and cumulative abnormal performance in banks converting to Subchapter S from 1994 to 2004. This is a sample of 1,658 of the 2,262 banks converted to Subchapter S during this time period.

Panel A: Abnormal Performance and Cumulative Abnormal Performance in Small Business Lending with origination amounts less than \$100,000.

	AP		CAP		AP		CAP	
	AP	CAP	Wilcoxon	p-value	Wilcoxon	p-value	Wilcoxon	p-value
-2	-0.0008 ***	-0.0008 ***	-34547	0.0071	-34547	0.0071	-34547	0.0071
-1	-0.0010 ***	-0.0018 ***	-38308	0.0063	-39086	0.0057	-39086	0.0057
0	-0.0011 ***	-0.0029 ***	-43932.5	0.0030	-42562.5	0.0055	-42562.5	0.0055
1	-0.0023 ***	-0.0052 ***	-69505	<0.0001	-52933	0.0010	-52933	0.0010
2	-0.0033 ***	-0.0085 ***	-91889.5	<0.0001	-67688.5	<0.0001	-67688.5	<0.0001
3	-0.0040 ***	-0.0124 ***	-103584	<0.0001	-79962	<0.0001	-79962	<0.0001

Panel B: Abnormal Performance and Cumulative Abnormal Performance in Small Business Lending with origination amounts between \$100,000-\$250,000.

	AP		CAP		AP		CAP	
	AP	CAP	Wilcoxon	p-value	Wilcoxon	p-value	Wilcoxon	p-value
-2	-0.0002	-0.0002	-16934.5	0.1637	-16934.5	0.1637	-16934.5	0.1637
-1	-0.0004 *	-0.0006 *	-24412.5	0.0694	-23306.5	0.0859	-23306.5	0.0859
0	-0.0006 *	-0.0011	-23516.5	0.0992	-23568.5	0.1088	-23568.5	0.1088
1	-0.0007 ***	-0.0018 *	-38709	0.0092	-27097	0.0808	-27097	0.0808
2	-0.0010 ***	-0.0028 **	-54538.5	0.0007	-36131	0.0299	-36131	0.0299
3	-0.0014 ***	-0.0042 **	-66440.5	<0.0001	-44377	0.0103	-44377	0.0103

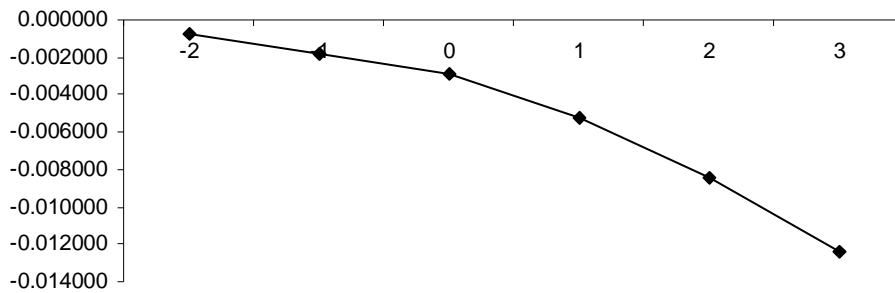
Panel C: Abnormal Performance and Cumulative Abnormal Performance in Small Business Lending with origination amounts between \$250,000-\$1,000,000.

	AP		CAP		AP		CAP	
	AP	CAP	Wilcoxon	p-value	Wilcoxon	p-value	Wilcoxon	p-value
-2	-0.0002	-0.0002	-12732	0.2322	-12732	0.2322	-12732	0.2322
-1	-0.0002	-0.0004	-8792.5	0.4558	-12135	0.3069	-12135	0.3069
0	-0.0002	-0.0005	-5606	0.6596	-5595	0.6681	-5595	0.6681
1	-0.0003	-0.0009	-15712.5	0.2427	-6492	0.6436	-6492	0.6436
2	0.0004	-0.0004	-9944	0.4945	-4105	0.7863	-4105	0.7863
3	0.0005	0.0001	-14369.5	0.3577	-4671.5	0.7733	-4671.5	0.7733

convert to Subchapter S. A graphical illustration of the cumulative abnormal performance from Table 16, Panel A is provided in Figure 2 and visually reemphasizes the results of the abnormal performance.

After converting to Subchapter S, banks provide a smaller proportion of their assets to small business loans with origination amounts less than \$100,000. The Wilcoxon Sign-Ranked test was significant in all sub-event windows. Therefore the null hypothesis of no change in small business lending for this origination amount is rejected.

**Figure 2: Cumulative Abnormal Performance
Small Business Loans 1**

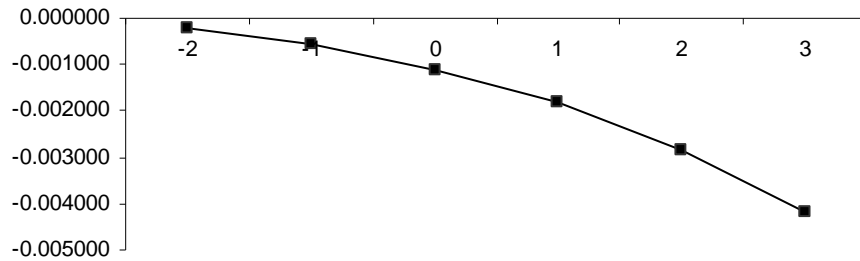


6.2.1.2 Small Business Lending 2

The abnormal performance metrics for small business loans with origination amounts between \$100,000 and \$250,000 are presented in Table 16, Panel B. The results indicate abnormal performance in most of the sub-event windows. Significant negative abnormal performance occurs in sub-event windows (-3,-1),(-3,0),(-3,1),(-3,2), and (-3,3). After the conversion year, the negative abnormal performance declines from -0.0006 (Wilcoxon p-value =0.0992) to -0.0014 (Wilcoxon p-value <0.0001). This is reflected in Figure 3 and the cumulative abnormal performance. There is a significant negative cumulative abnormal performance post event for this origination amount of small

business lending. The null hypothesis under Hypothesis One of no change in small business lending is rejected. This indicates the conversion did change the behavior of banks.

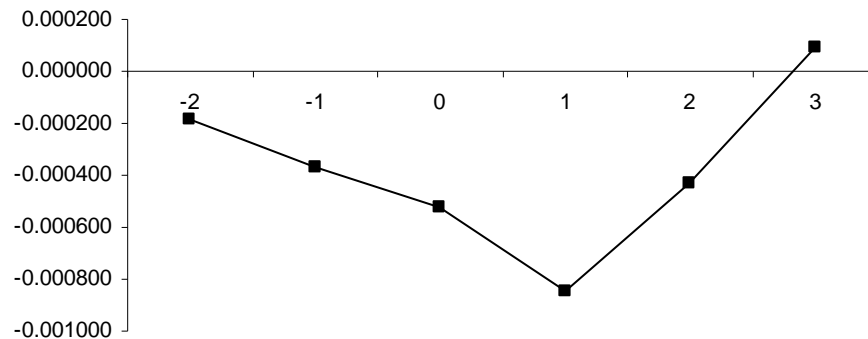
**Figure 3: Cumulative Abnormal Performance
Small Business Loans 2**



6.2.1.3 Small Business Lending 3

The abnormal and cumulative abnormal performance results for the largest origination amounts for small business lending, amounts between \$250,000 and \$1,000,000 are presented in Table 16, Panel C. The abnormal performance results indicate no significant difference between groups. Although the cumulative abnormal performance results presented in Figure 4 illustrate an increase in lending by Subchapter S banks following conversion, this increase is not significant and the figure can not be presumed to have a pattern. The analysis does not indicate significance in either abnormal or cumulative abnormal performance and we can not reject the null hypothesis of no change in small business lending for this origination amount. Banks that convert to Subchapter S do not change their lending behavior for this origination amount of small business lending.

**Figure 4: Cumulative Abnormal Performance
Small Business Loans 3**



6.2.1.4 Small Business Lending Summary

The results of Table 16 indicate that for the smallest two origination amounts of small business lending, banks which experience a conversion event experience a significant decline in their small business lending. For the largest category of small business lending, with origination amounts between \$250,000 and \$1,000,000 there is no change in their small business lending behavior. Overall the null hypothesis is rejected for the smallest two origination amounts. The decline in small business lending could be attributed to banks changing their risk tolerance or a reallocation of these funds to dividends payments after conversion. Detection of negative abnormal performance in the pre event sub-windows may indicate banks began reorganizing prior to conversion as found in previous research (Gilbert and Wheelock, 2007; Cyree et al., 2005; Hodder, et al., 2003; Harvey and Padget, 2000).

6.3.1 Hypothesis Two Results

Hypothesis Two examines if banks change their lending to the agricultural sector after converting to Subchapter S. Table 17 and Table 18 present the results of the analysis of abnormal and cumulative abnormal performance by banks. Table 17 presents

the results of the statistical analysis for agricultural production loans and Table 18 presents the results of the analysis of agricultural land loans.

Table 17: Abnormal and Cumulative Abnormal Performance in Farm Lending

An evaluation of abnormal performance and cumulative abnormal performance in the proportion of loans secured with farmland for banks converting to Subchapter S from 1994 to 2004. This is a sample of 1,658 of the 2,262 banks converted to Subchapter S during this time period.

Panel A: Abnormal Performance and Cumulative Abnormal Performance in Farm Lending with origination amounts less than \$100,000.

	AP		CAP		AP		CAP	
	AP	CAP	Wilcoxon	p-value	Wilcoxon	p-value	Wilcoxon	p-value
-2	-0.0001	**	-0.0001	**	-21520.5	0.0373	-21520.5	0.0373
-1	-0.0007	***	-0.0008	***	-35250	0.0025	-33150.5	0.0049
0	-0.0006	***	-0.0014	**	-37175	0.0028	-29783.5	0.0212
1	-0.0010	***	-0.0024	***	45292.5	0.0004	-36794	0.0079
2	-0.0013	***	-0.0037	***	-58068	<0.0001	-44802.5	0.0027
3	-0.0015	***	-0.0053	***	-71074.5	<0.0001	-51786.5	0.0010

Panel B: Abnormal Performance and Cumulative Abnormal Performance in Farm Lending with origination amounts between \$100,000-\$250,000.

	AP		CAP		AP		CAP	
	AP	CAP	Wilcoxon	p-value	Wilcoxon	p-value	Wilcoxon	p-value
-2	0.0003		0.0003		-5104.5	0.5996	-5104.5	0.5996
-1	0.0001	*	0.0004		-18971	0.0880	-14260.5	0.2051
0	0.0006		0.0010		-4553	0.7030	-9027.5	0.4684
1	0.0006		0.0016		-10616.5	0.3938	-7498.5	0.5755
2	0.0005	*	0.0021		-25034.5	0.0647	-12212	0.4015
3	0.0002	***	0.0022		-36965.5	0.0098	-19009	0.2164

Panel C: Abnormal Performance and Cumulative Abnormal Performance in Farm Lending with origination amounts between \$250,000-\$1,000,000.

	AP		CAP		AP		CAP	
	AP	CAP	Wilcoxon	p-value	Wilcoxon	p-value	Wilcoxon	p-value
-2	0.0003		0.0003		9036.5	0.1552	9036.5	0.1552
-1	0.0004		0.0007		7606.5	0.3127	10273	0.1763
0	0.0008		0.0014	*	13061.5	0.1304	17186	0.0580
1	0.0011		0.0025	**	14132.5	0.1344	22592	0.0264
2	0.0014		0.0039	**	16075.5	0.1298	25908.5	0.0248
3	0.0015		0.0054	**	15623.5	0.1878	27623.5	0.0320

Table 18: Abnormal Performance in Agricultural Lending

An evaluation of abnormal performance and cumulative abnormal performance in the proportion of loans to finance agricultural production for banks converting to Subchapter S from 1994 to 2004. This is a sample of 1,658 of the 2,262 banks converted to Subchapter S during this time period.

Panel A: Abnormal Performance and Cumulative Abnormal Performance in Agricultural Lending with origination amounts less than \$100,000.

	AP		CAP		AP		CAP	
	AP	CAP	Wilcoxon	p-value	Wilcoxon	p-value	Wilcoxon	p-value
-2	-0.0009	**	-0.0009	**	-23339.5	0.0188	-23339.5	0.0188
-1	-0.0022	***	-0.0031	***	-42569	0.0001	-41491	0.0002
0	-0.0022	***	-0.0053	***	-44705	0.0002	-45442	0.0003
1	-0.0031	***	-0.0084	***	-55448	<0.0001	-49974.5	0.0002
2	-0.0038	***	-0.0122	***	-68056.5	<0.0001	-57379	<0.0001
3	-0.0040	***	-0.0162	***	-76049.5	<0.0001	-63826.5	<0.0001

Panel B: Abnormal Performance and Cumulative Abnormal Performance in Agricultural Lending with origination amounts between \$100,000-\$250,000.

	AP		CAP		AP		CAP	
	AP	CAP	Wilcoxon	p-value	Wilcoxon	p-value	Wilcoxon	p-value
-2	-0.0002		-0.0002		-7455.5	0.3754	-7455.5	0.3754
-1	-0.0004	**	-0.0006	*	-24241.5	0.0120	-16282	0.0943
0	-0.0003	**	-0.0010	**	-26819.5	0.0109	-24331.5	0.028
1	-0.0007	***	-0.0017	**	-32367.5	0.0036	-28920	0.0153
2	-0.0007	***	-0.0024	***	-40056	0.0007	-34584	0.0073
3	-0.0007	***	-0.0031	***	-43591	0.0006	-36401.5	0.0080

Panel C: Abnormal Performance and Cumulative Abnormal Performance in Agricultural Lending with origination amounts between \$250,000-\$1,000,000.

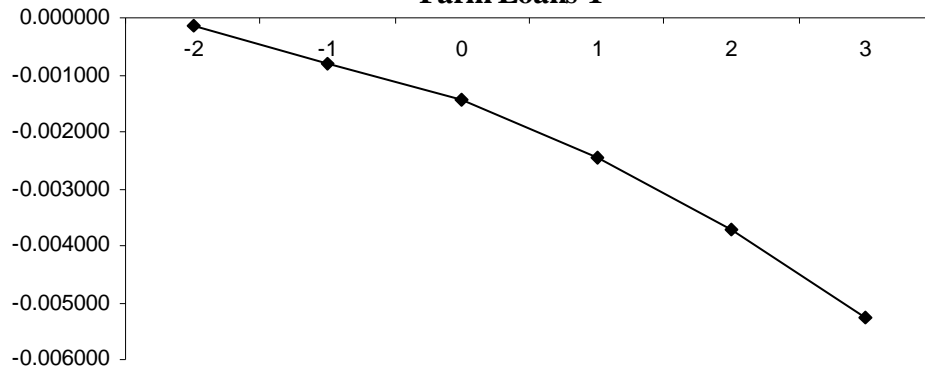
	AP		CAP		AP		CAP	
	AP	CAP	Wilcoxon	p-value	Wilcoxon	p-value	Wilcoxon	p-value
-2	-0.0001		-0.0001		2398.5	0.6792	2398.5	0.6792
-1	0.0001		-0.0000		-9726	0.1444	-2727	0.6858
0	0.0004		0.0004		-2473	0.7407	-2120	0.7874
1	0.0006		0.0011		3463	0.6657	2302.5	0.7908
2	0.0010		0.0020		9394	0.2916	5488	0.5758
3	0.0009		0.0029		6436.5	0.5074	8851.5	0.4176

6.3.1.1 Farm and Agricultural Lending 1

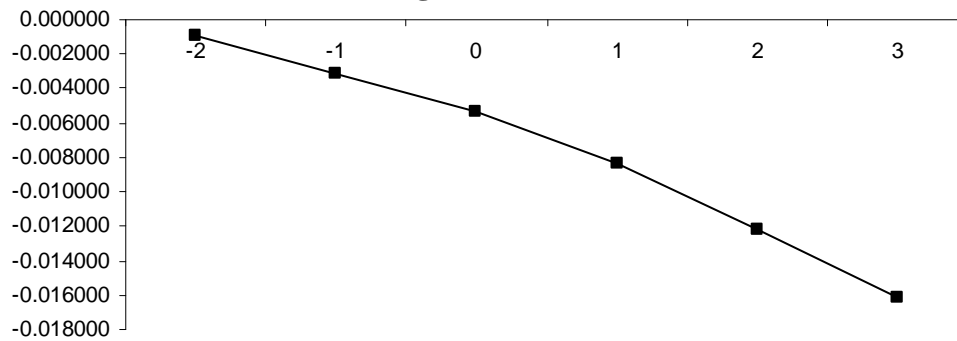
Table 17, Panel A provides the results of the hypothesis tests on loans secured with farmland with origination amounts less than \$100,000. Negative abnormal performance and negative cumulative abnormal performance is detected in all six sub-event windows. Abnormal performance is negative and becomes more negative as the event approaches and after conversion. The abnormal performance was -0.0001 (Wilcoxon p-value 0.0373) in sub-window (-3,-2) and had decreased to -0.0015 (Wilcoxon p-value <0.0001) in sub-window (-3,3). For origination amounts of the same size for loans to finance agricultural production the results are very similar (Table 18, Panel A). In all sub-event windows, significant negative abnormal and cumulative abnormal performance is detected. The abnormal performance is negative and significant in the first sub-event window (-3,-2) at -0.0009 (Wilcoxon p-value = 0.0188) and declined to -0.0040 (Wilcoxon p-value <0.0001). The accumulation of these results is presented in Figure 5 and Figure 6. These figures show a steady and significant decline in the proportion of agricultural related lending post event for this origination amount.

The results of negative abnormal performance for agricultural related lending in origination amounts less than \$100,000 cause a rejection of the null hypothesis of no change in agricultural lending due to the conversion to Subchapter S.

**Figure 5: Cumulative Abnormal Performance
Farm Loans 1**



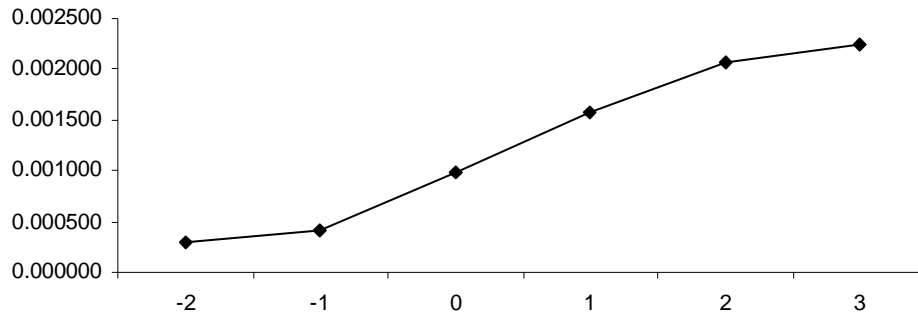
**Figure 6: Cumulative Abnormal Performance
Agriculture Loans 1**



6.3.1.2 Farm and Agricultural Lending 2

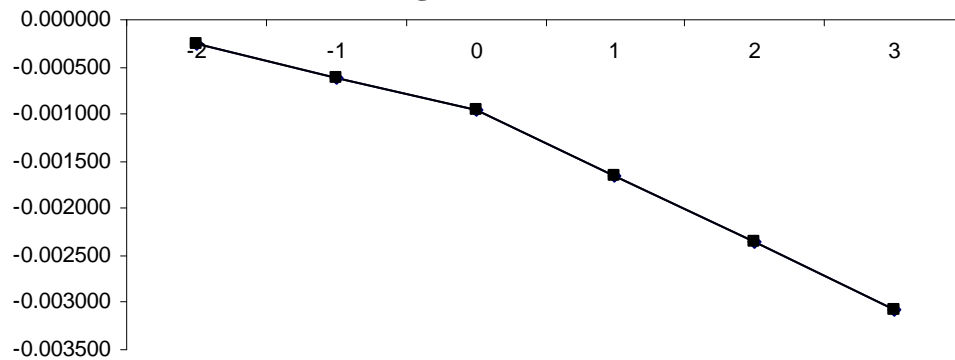
Table 17, Panel B and Table 18, Panel B provide the results of the hypothesis tests for the proportion of agricultural related loans with origination amounts between \$100,000 and \$250,000. For loans secured with farmland, the abnormal performance is positive but becomes smaller in sub-windows (-3,2) and (-3,3). Figure 7 illustrates the cumulative effect which becomes significant in the last two sub-windows

**Figure 7: Cumulative Abnormal Performance
Farm Loans 2**



For loans to finance agricultural production, Table 18, the abnormal performance is significantly negative and becomes more negative through the time period analyzed. In sub-event window (-3,-1) abnormal performance was -0.0004 (Wilcoxon p-value 0.0120) and decreased to -0.0007 (Wilcoxon p-value 0.0006). Figure 8 depicts the cumulative abnormal performance and indicates a continuing and significant decline in the proportion of loans to finance agricultural production in origination amounts between \$100,000 and \$250,000.

**Figure 8: Cumulative Abnormal Performance
Agriculture Loans 2**

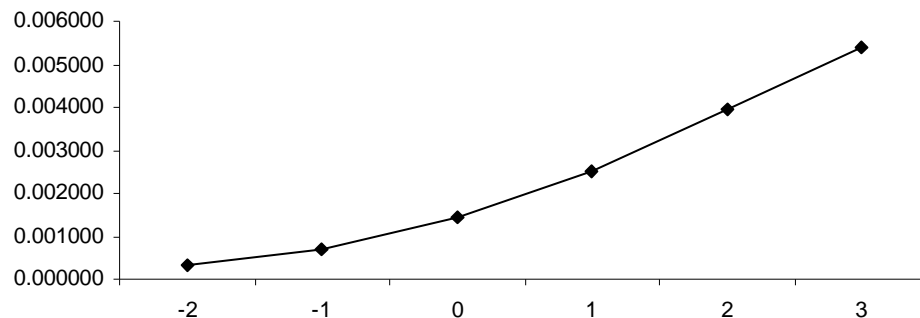


The results of agricultural lending in origination amounts between \$100,000 and \$250,000 both reject the null hypothesis of no change due to the conversion, although the analysis produced some mixed results. For loans secured with farmland Subchapter S banks increased their proportional lending, but for loans for agricultural production they decreased their lending. One possible explanation is due to risk tolerance. Loans secured with farmland provide collateral for the lending institution and thus a lower degree of risk than loans for agricultural production.

6.3.1.3 Farm and Agricultural Lending 3

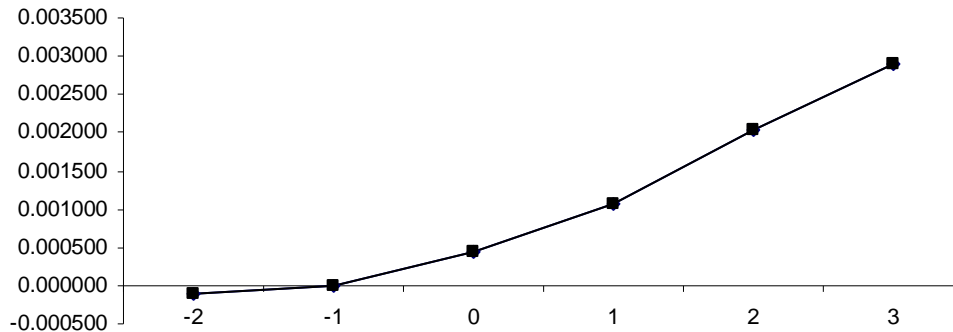
Table 17, Panel C provides the results of the abnormal performance for loans secured with farmland with origination amounts between \$250,000 and \$1,000,000. The abnormal performance is not significant, although the cumulative abnormal performance is positive and becomes significant in post event sub-windows. For instance, in sub-window (-3, 0) cumulative abnormal performance is 0.0015 (Wilcoxon p-value 0.0580) and increases to 0.0054 in sub-window (-3,3) (Wilcoxon p-value 0.0320). This is illustrated graphically in Figure 9.

**Figure 9: Cumulative Abnormal Performance
Farm Loans 3**



For loans to finance agricultural production with the same origination amounts, Table 18, Panel, C, neither the abnormal performance nor the cumulative abnormal performance is significantly different from zero. Although Figure 10 appears to indicate a significant increase in proportional lending post event, it is not significant. The null hypothesis is not rejected which indicates banks do not change their lending for agricultural production for origination amounts between \$250,000 and \$1,000,000.

**Figure 10: Cumulative Abnormal Performance
Agriculture Loans 3**



6.3.1.4 Agricultural Lending Summary

The results indicate significant negative abnormal lending proportions in many of the agricultural lending levels. For loans to finance agricultural production there has been a significant decline for origination amounts up to \$250,000. For loans secured with farmland there appears to be a slight increase in the amount of loans provide with larger origination amounts, but a significant decline in loans with originations less than \$100,000. The finding of the first two hypotheses tends to refute the idea that the tax advantage is being passed onto the local community through an increase in lending. Rather, the results indicate a change in the risk tolerance of banks or a redistribution of funds to increase dividends.

6.4.1 Hypothesis Three Results

The third hypothesis further examines if banks change their behavior after conversion. The two previous hypotheses evaluate if lending to small businesses or the agricultural industry by banks converting to Subchapter S is impacted. More specifically, these hypotheses investigate what the banks are doing with their tax benefit. As indicated in the previous results sections, banks decrease their lending to most of these areas after the conversion event. Therefore, the third hypothesis explores further where the tax benefit is being distributed.

Since the owners are taxed on all income under Subchapter S, versus only on dividends paid under Subchapter C, this hypothesis explores if the owners receive an increase in dividends to offset this increase in taxes paid by the owners. In preparation for conversion, banks decrease their dividends to increase the tax advantage post conversion (Hodder et al., 2003).

The abnormal and cumulative abnormal performance in the proportion of dividends paid by banks which convert to Subchapter S is provided in Table 19. The table indicates a steady and dramatic increase in the proportion of dividends paid by Subchapter S banks. In event sub-window (-3,-1) abnormal performance was significant at 0.0012 (Wilcoxon p-value <0.0001). The event effect increases dramatically in the event year (-3,0) to 0.0041 (Wilcoxon p-value <0.0001) and then continues a modest increase to 0.0051 in event sub-window (-3,3).

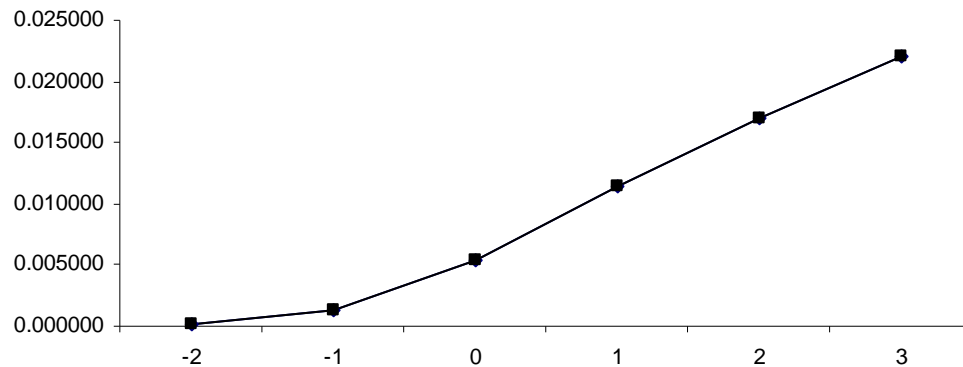
Table 19: Abnormal and Cumulative Abnormal Performance in Dividends

An evaluation of abnormal performance and cumulative abnormal performance in the proportion of dividends for banks converting to Subchapter S from 1994 to 2004. This is a sample of 1,658 of the 2,262 banks converted to Subchapter S during this time period.

	AP		CAP		AP		CAP	
	AP		CAP		Wilcoxon	p-value	Wilcoxon	p-value
-2	0.0001		0.0001		-3972	0.4183	-3972	0.4183
-1	0.0012	***	0.0013	***	73950.5	<0.0001	74418.5	<0.0001
0	0.0041	***	0.0054	***	390341	<0.0001	288110	<0.0001
1	0.0059	***	0.0114	***	495011.5	<0.0001	402770.5	<0.0001
2	0.0055	***	0.0169	***	470851	<0.0001	442988.5	<0.0001
3	0.0051	***	0.0221	***	441910.5	<0.0001	460461.5	<0.0001

The event effect is depicted in Figure 11 which emphasizes the cumulative effect in the change in dividends. This indicates that after the event of converting, banks increase their dividends to the shareholders. These results are consistent with previous research and confirm the expected performance of banks that convert to Subchapter S status.

Figure 11: Cumulative Abnormal Performance Dividends



To explore if the increase in dividends is greater than what is necessary to offset the increase in taxes, additional analysis is performed. The pre conversion dividend payout ratio was applied to the three year post conversion net income. The highest marginal individual and the dividend tax rate were then used to determine what the

shareholders would have received if taxed under Subchapter C. This amount is then compared to what the shareholders actually received under Subchapter S.²² Wilcoxon Sign-Ranked tests and t-tests examine if there is a significant difference between the payouts. The results indicate Subchapter S banks pay a significantly higher amount of dividends than what is necessary to offset the increase in tax expense (Refer to Table 20).

Table 20 : Evaluation of Dividend Payout

The sample of 1,658 banks that convert to Subchapter S were analyzed three years post conversion to evaluate if the proportion of dividends paid was more than necessary to offset the additional tax expenses. *Mean* represents the mean value of dividends received under each tax structure. *Median* represents the median value of dividends received. *Mean Dif* represents the mean difference between the amount of dividends received and what was expected had the bank remained under Subchapter C. All values are in 000s.

	Mean	Median	Mean Dif	t Value	Pr > t	Wilcoxon	Pr > S
S Tax	691.16	362.723	123.03	3.8971	0.0001	164705	<0.0001
C Tax	568.13	261.67					

The highest individual marginal tax rate was 39.6% from 1994-2000; 39.1% in 2001; 38.6% in 2002 and 35% from 2002-2008.

The dividend tax rate was 15% from 2002-2008.

6.5.1 Hypothesis Four Results

Hypothesis Four evaluates if banks that convert to Subchapter S tax status significantly change their salary distributions. The abnormal and cumulative abnormal performance results in Table 21 indicate a significant decline in salaries post event. The abnormal performance in sub-window (-3,-2) is insignificant at -0.0000 (Wilcoxon p-value 0.1932) but becomes significant in the event year (-3,0), at -0.0004 (Wilcoxon p-

²² For example, the dividends of banks that converted to Subchapter S in 1997 were analyzed in 2000. A pre conversion dividend payout ratio was applied along with the individual tax rate of 39.6% to determine what the shareholders would have received under Subchapter C. This value is compared to what the shareholders actually received. This value is based upon dividends received minus net income taxed at the individual rate of 39.6%. Subchapter S shareholders are taxed on all income, whether or not distributed as dividends.

value <0.0001). This abnormal performance continues to decline to -0.0005 in sub-event window (-3,3).

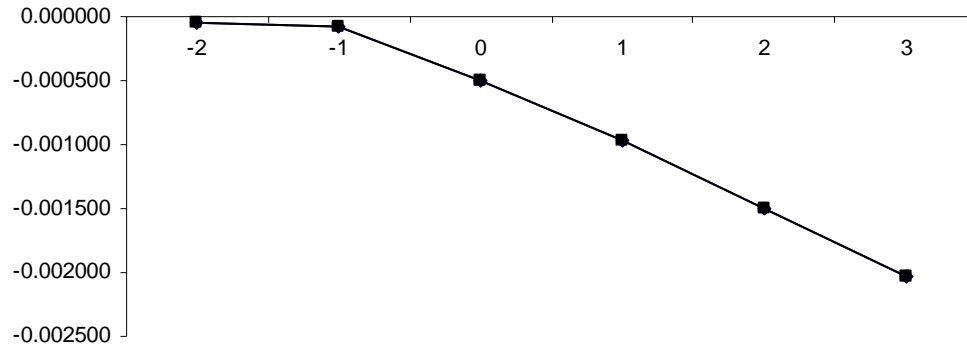
Table 21: Abnormal and Cumulative Abnormal Performance in Salaries

An evaluation of abnormal performance and cumulative abnormal performance in the proportion of salaries paid by banks converting to Subchapter S from 1994 to 2004. This is a sample of 1,658 of the 2,262 banks converted to Subchapter S during this time period.

	AP		CAP		AP		CAP	
	AP	CAP	Wilcoxon	p-value	Wilcoxon	p-value	Wilcoxon	p-value
-2	-0.0000	-0.0000	-25377.5	0.1932	-25377.5	0.1932	-25377.5	0.1932
-1	-0.0000	-0.0001	-3769.5	0.8468	-11938.5	0.5405	-11938.5	0.5405
0	-0.0004 ***	-0.0005 **	-79654.5	<0.0001	-44368.5	0.0228	-44368.5	0.0228
1	-0.0005 ***	-0.0010 ***	-78606.5	<0.0001	-63526.5	0.0011	-63526.5	0.0011
2	-0.0005 ***	-0.0015 ***	-84021.5	<0.0001	-72229.5	0.0002	-72229.5	0.0002
3	-0.0005 ***	-0.0020 ***	-66554.5	0.0006	-75834.5	<0.0001	-75834.5	<0.0001

The cumulative abnormal performance in Figure 12 is negative and significant post event. This contradicts the analysis of Gilbert and Wheelock's (2007) who find no significant difference in salary expense by banks converting to Subchapter S. The results of my analysis could indicate that salaries have previously been used as a means of extracting funds from the banks and avoiding the double tax but now this tactic is no longer necessary. Another possible explanation could be due to the decrease in small origination amount lending, fewer employees/loan officers are needed. The results of negative abnormal performance reject the null hypothesis of no change. These results indicate conversion to Subchapter S changes the behavior of banks.

Figure 12: Cumulative Abnormal Performance Salaries



6.6.1 Hypothesis Five Results

The tests of Hypothesis Five explore if the tax benefit received by conversion to Subchapter S influences the banks retained earnings. Table 22 provides the results of the hypothesis tests and indicates a significant change in the behavior of banks that elect to convert to Subchapter S.

Table 22: Abnormal and Cumulative Abnormal Performance in Retained Earnings

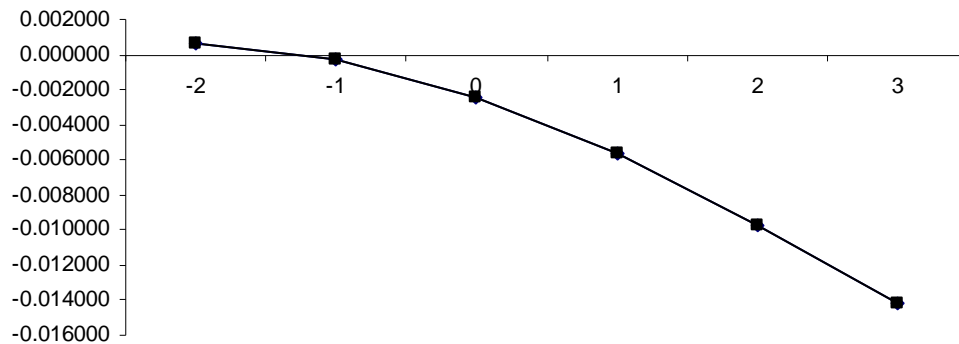
An evaluation of abnormal performance and cumulative abnormal performance in the proportion of retained earning by banks converting to Subchapter S from 1994 to 2004. This is a sample of 1,658 of the 2,262 banks converted to Subchapter S during this time period.

	AP		CAP		AP		CAP	
					Wilcoxon	p-value	Wilcoxon	p-value
-2	0.0007	***	0.0007	***	78227.5	<0.0001	78227.5	<0.0001
-1	-0.0010		-0.0003		-14438.5	0.2295	15085.5	0.2197
0	-0.0021	**	-0.0024		-40561.5	0.0188	-15863.5	0.2080
1	-0.0032	***	-0.0056	**	-87898.5	<0.0001	-44002.5	0.0120
2	-0.0041	***	-0.0097	***	-110782	<0.0001	-64175.5	<0.0001
3	-0.0045	***	-0.0141	***	-118514	<0.0001	-77557.5	<0.0001

A decline in retained earnings is indicated by a significant negative abnormal performance. Sub-event window (-3,0) indicates the approximate start of the event. In this window abnormal performance is -0.0021 (Wilcoxon p-value 0.0188). The following three sub-event windows all indicate a steady decline in the proportion of

retained earnings by banks converting to Subchapter S status. In the last sub-window analyzed (-3,3), abnormal performance in retained earnings declined to -0.0045 (Wilcoxon p-value <0.0001). Table 21 also provides the cumulative abnormal performance results which illustrate a significant change in banks retention of earnings post event. Figure 13 provides a visual presentation of how banks behavior changed post event. Cumulative abnormal performance is negative and significant in periods 1, 2, and 3. These results allow us to reject the null hypothesis and indicate that banks may be using their retained earning to increase the dividends paid to shareholders. This also confirms previous findings of a decline in capital levels after conversion (Harvey and Padget, 2000).

**Figure 13: Cumulative Abnormal Performance
Retained Earnings**



CHAPTER VII

CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

Banks first became eligible to elect Subchapter S tax status in 1997. As of January 1, 2008 there are 2,345 Subchapter S banks. Converting from Subchapter C status of the IRC to Subchapter S status allows an organization the opportunity to avoid double taxation. Earnings are passed through to the owners, with the avoidance of the corporate tax. The owners are taxed on all earnings whether or not they are distributed as dividends, foreseeably increasing their individual tax burden.

This study utilizes an event study approach using accounting data to detect any abnormal changes occurring due to the conversion to Subchapter S. An adequate control group is created by expanding on the matching technique from Barber and Lyon (1996). Non-parametric Wilcoxon Sign-Ranked tests are utilized to detect abnormal performance by the converting banks.

An examination of banks converting to Subchapter S tax status between 1997 and 2004 reveal some interesting results. Results support the distribution of the tax savings to shareholders in the form of an increase in dividends. This expected result indicates banks are trying to compensate shareholders for the increase in taxes due to conversion to Subchapter S. Additional analysis indicates Subchapter S banks increase their dividends

more than necessary to compensate shareholders for their increase in tax expense.

Results also indicate a decline in retained earnings by converting banks. Positive abnormal performance is detected prior to the conversion, but after conversion negative abnormal performance is found. This confirms findings that banks decrease their capital levels after conversion (Harvey and Padget, 2000). The decrease in retained earnings after conversion coincides with the increase in dividends.

Negative abnormal performance is detected in the proportion of salaries expense. Banks converting to Subchapter S significantly reduce their salary expense, which could indicate that salaries were previously used as an avenue for extracting funds from the bank while avoiding double taxation.

Evaluation of lending activities by banks converting to Subchapter S produced mixed results. Only for loans secured with farmland with origination amounts greater than \$100,000 is there positive abnormal performance. For both categories of agricultural lending with origination amounts less than \$100,000 and for loans to finance agricultural production with origination amounts between \$100,000 through \$250,000 negative abnormal performance is detected. Negative abnormal performance is also discovered in small business lending with origination amounts less than \$250,000. This does not support arguments provided by various bank groups which state converting to Subchapter S increases lending to this sector. One possible explanation for the decreases in small business and agricultural related lending, primarily in small origination amounts, is due to a reduction in risk tolerance by banks converting to Subchapter S tax status. These informationally opaque loans are often considered riskier to the financial

institution. Another explanation is banks are diverting funds from small business and agricultural related lending to increase dividends.

7.2 Contributions of this Research

This is the first study to evaluate conversion to Subchapter S tax status by commercial banks in an event study framework. Evaluation of banks converting to Subchapter S from three years before conversion to three years after provides a unique perspective on the conversion effect. Utilizing a multi-dimensional matching technique results in a more comprehensive and thorough analysis of the effect of the Subchapter S tax benefit.

The results of this research contradict claims made by various banking related groups. These groups assert that by providing banks with this tax advantage the banks can then reach out to their communities including small businesses and the agricultural industry.

The results of this study address five different hypotheses to try to explain what impact the conversion to Subchapter S status has on banks. This event study finds that banks that convert to Subchapter S status are primarily utilizing the tax savings to increase the proportion of dividends paid to their shareholders. Thus the benefit of the tax savings is not going to the customers or the employees, but to the shareholders/owners of the banks.

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VITA

Emily S. Breit

Candidate for the Degree of

Doctor of Philosophy

Dissertation: IMPLICATIONS OF SUBCHAPTER S TAX STATUS FOR
COMMERCIAL BANKS

Major Field: Business Administration

Biographical:

Education: Received Bachelor of Business Administration degree in Management and a Master of Business Administration degree from Fort Hays State University, Hays, Kansas, in December, 1996 and May, 2000, respectively. Completed the degree requirements for the Doctor of Philosophy degree in Business Administration with a major in Finance at Oklahoma State University, Stillwater, Oklahoma in December, 2009.

Experience: Employed as a Graduate Teaching Assistant at Oklahoma State University, Stillwater, Oklahoma, from August, 2002 to July, 2005. Employed as Instructor of Finance at Fort Hays State University, Hays, Kansas, from August, 2005 to present.

Professional Memberships: American Finance Association, Financial Management Association, Southwestern Finance Association.

Name: Emily S. Breit

Date of Degree: December, 2009

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: IMPLICATIONS OF SUBCHAPTER S TAX STATUS FOR
COMMERCIAL BANKS

Pages in Study: 102

Candidate for the Degree of Doctor of Philosophy

Major Field: Business Administration

Scope and Method of Study: Banks first became eligible to elect Subchapter S of the Internal Revenue Code in 1997. Subchapter S status provides institutions the ability to maintain limited liability while avoiding double taxation. The earnings flow through to the individual shareholders on a pro rata basis and are taxed only at the individual level. This paper examines the effect conversion to Subchapter S tax status has on commercial banks. A sample of 1,658 banks that convert to Subchapter S from 1997-2004 are analyzed to detect changes in performance that occur due to the conversion to Subchapter S. I use an event study methodology modified to accommodate accounting data. A sample of banks that did not convert to Subchapter S status is matched with the converting banks to control systemic changes. The primary research question is to determine what banks do with the corporate tax savings that result from conversion.

Findings and Conclusions: The empirical analysis indicates that the sample banks that convert to Subchapter S increase dividends. Furthermore, the results indicate that Subchapter S banks increase dividends more than the added personal taxes incurred by shareholders as a result of paying taxes on all income, whether distributed as dividends or not. The analysis indicates that banks converting to Subchapter S status reduce some types of small business and agricultural lending, reduce the proportion of earnings retained as capital, and reduce salaries. The analysis supports the conclusion that Subchapter S banks direct the tax benefits of conversion to shareholders rather than increasing the amount of small business and agricultural lending, increasing bank capital, or increasing salaries and benefits.

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