Avoiding Double Taxation: The Case of Commercial Banks

Ken B. Cyree
University of Mississippi
School of Business Administration, 227 Holman Hall
University, MS 38677-1848
E-mail: kcyree@bus.olemiss.edu

Scott E. Hein
Texas Tech University
Rawls College of Business Administration
Finance Department, MS 2101
Lubbock, TX 79409-2101
E-mail: odhen@ba.ttu.edu

Timothy W. Koch
University of South Carolina
Moore School of Business
Columbia, SC 29208
E-mail: tkoch@moore.sc.edu

February 5, 2005

For presentation consideration at the Financial Management Association Meetings, October 2005.

Abstract

Recently, there has been a marked increase in banks choosing to form as Subchapter-S Corporations. The apparent motivation is tax avoidance as Subchapter S firms do not pay federal income taxes on income at the firm level, but transfer income to stockholders where it is taxed at personal tax rates. We empirically investigate reasons for the selection of Subchapter S status. Results indicate that Sub-S banks are significantly smaller, pay higher dividends, have lower taxable income before Sub-S formation and higher accounting performance, lower capital, rely more on core deposits, and have higher agricultural but lower commercial and overall lending. Sub-S banks are consistently more likely to be rural, and less likely to be de novo or public.

Avoiding Double Taxation: The Case of Commercial Banks

1. Introduction

The Small Business Job Protection Act of 1996 authorized qualifying insured commercial banks to be taxed as Subchapter S-corporations (Sub-S) effective in 1997. Prior to this Act, most commercial banks were effectively prohibited from electing to be organized as an S-corporation. The primary benefit is that S-corporations do not pay corporate income taxes on any income that is transferred directly to stockholders. S-corporation banks thus avoid the double taxation of dividends associated with C-corporations.

Not surprisingly, the number of banks that have selected Sub-S status has increased sharply, rising from 604 in 1997 to 2,146 in 2004. During the second quarter of 2004, Sub-S banks reported an average return on assets of 2.02 percent, which exceeded the average for similar-size peer institutions by one percent.[1] Given the favorable tax treatment, an obvious question is 'Why don't all banks choose Sub-S status?' The following discussion documents limitations on which banks qualify for Sub-S status and addresses issues that affect the choice of converting to Sub-S status. One of the most important limitations on electing Sub-S status is that the firm can have no more than 75 shareholders.[2] Shareholders cannot be partnerships, corporations, or other limited liability entities. Finally, to be incorporated as an S-corporation, the entity can have only one type of shares outstanding. In addition to these restrictions, there are other costs and complications associated with converting to S-corporate status.

---

[1] Data are from the Graph Book available from the FDIC's web site, www.fdic.gov.

[2] This limitation increased to 100 shareholders in the corporate tax reform legislation passed by the U.S. Congress in 2004, but remained at 75 shareholders for our entire test period.

The purpose of this paper is to detail the extent to which existing banks converted from C Corporations to Sub-S corporations and investigate what factors influence a bank's choice of S-corporate tax status. To date, little information has been provided as to why banks choose S-corporate status. This is likely due to the fact that large commercial banks that dominate the banking environment operate as C-corporations. However, more than one in four U.S. commercial banks currently operate as S-corporations with the number increasing each year.

2. Data and Background Information on S-Corporation Banks

The data we examine are from the Call and Income reports for 1997 to 2003 from the Federal Reserve. While the data from 1999 to 2003 have an indicator variable for Sub-S status, no such indicator exists for the first two years of our sample. Because of this, we construct our own indicator variable by coding any bank with positive profits and zero taxes in either year as a Sub-S bank. Using this method, we identify 165 and 360 banks as Sub-S in 1997 and 1998, respectively.[3]

We initially provide background information comparing S-corporation banks to non-S-corporation banks which demonstrates that these entities are very different in a number of dimensions. Table 1 reports mean values of key performance measures for Sub-S versus non-Sub-S banks from 1997 - 2003 and the associated t-tests regarding hypotheses that the means of variables for Sub-S banks are not different than the means of the same measures for non-Sub-S banks. Non Sub-S banks are separated into all banks and a sample of banks matched on the basis of asset size with Sub-S banks. The findings indicate that, on average, Sub-S banks are

[3] This classification ignores the fact that some C-corporation banks may have loss carry forwards from prior years that eliminate their current year tax liabilities. To the extent that this occurs, the Sub-S sample is misidentified. To help offset this possibility, we coded banks with no profit in 1997 and 1998 as Sub-S if they were Sub-S in 1999 because the vast majority should still be Sub-S in 1999 if they elected the status in prior years.

significantly smaller and have significantly lower capital ratios, loan-loss reserves to assets, loans to deposits and asset growth over the prior three years. De novo banks are less likely to be Sub-S. Not surprisingly, Sub-S banks have higher dividend payout ratios..

Initially, Sub-S banks are compared with non Sub-S banks of all sizes. Clearly, Sub-S banks differ substantially in terms of geographic markets served, business strategy and other key performance metrics from a general pool of C-corporation banks. The average size of banks that are not Sub-S is about $110 million larger as might be expected based on Sub-S stockholder restrictions. We also compare Sub-S banks and non-Sub-S banks in Table 1 on a pre-tax return basis because Sub-S banks would obviously have higher after-tax return performance as they pay no federal income taxes. On this basis, Sub-S banks have a significantly higher pre-tax return-on-assets and higher pre-tax return-on-equity. They also have a significantly higher net-interest margin. Sub-S banks exhibited significantly lower profit growth than their C-corporation counterparts. Finally, Sub-S banks have significantly more commercial and industrial loans and agricultural loans as a fraction of assets, and higher liquid asset ratios, but fewer total loans as a fraction of either assets or deposits. This result suggests considerably less retail and mortgage lending for Sub-S banks.

In order to better control for size differences, Table 2 presents univariate results for Sub-S banks versus a "size-constrained" sample of banks; all non-Sub-S banks that reported total assets no greater than the amount of total assets for the largest Sub-S bank in that year. While this matched sample is somewhat arbitrary, the procedure eliminates banks that are least likely to choose Sub-S tax status.

Interestingly, the average bank in the matched sample has almost $60 million more in assets than the average Sub-S bank. The size-constrained non-Sub-S banks still have significantly higher taxable income to assets, asset growth over the prior three years, capital ratios, loans-to-deposits, loans-to-assets and net charge-offs to assets. On average, the Sub-S banks have higher dividend payout rates, pre-tax ROA, pre-tax ROE, net interest margin, agricultural and commercial loans as a fraction of total assets, core deposits to total assets and large deposits to total assets. A higher proportion of commercial loans and agriculture loans to assets could reflect a riskier asset mix. However, Sub-S banks do not report significantly different net charge offs-to-assets ratios, which indicates comparable risk in their loan portfolios.

Key variables suggest that Sub-S banks are significantly more profitable using pre-tax ROE and ROA. The difference in ROE (ROA) between the two groups is 130 (10) basis points and the differences in both profitability measures are highly significant. The difference in asset growth is highly significant suggesting that non-Sub-S banks grew at sharply higher rates over the prior three years, on average. Given that we haven't controlled for whether banks compete in limited geographic markets, the differential growth may simply reflect that more non-Sub-S banks operate in metropolitan areas as shown by a significantly higher proportion of Sub-S banks in rural areas. Profit growth is significantly higher for Sub-S banks over the prior three years. Collectively, these results suggest that Sub-S banks have higher profits, but lower asset growth than their peer institutions, on average.[4]

The findings in Tables 1 and 2 shed some light on key differences in Sub-S banks and non-Sub-S banks over the last six years. The information provided in Tables 1 and 2, however, is aggregated: It does not differentiate between whether the S-corporation bank elected this status in 1997 or 2003, whether the bank operates primarily in rural or urban markets, and whether the bank was newly formed as a de novo bank or converted from a C-corporation.

[4] Given the univariate tests, these results should be interpreted with caution.

The differences might be due to structural differences in banks that elect to become Sub-S. Alternatively, the differences might be due to performance differences in performances after banks elect the Sub-S structure. In the empirical analysis below, we try and disentangle these two issues. We initially focus on the characteristics of banks electing the Sub-S structure. We then attempt to identify differences in performance and risk associated with banks' Sub-S election. Data in the next few tables contrast S-corporation banks and C-corporation banks screening by year, trade are (rural versus urban) and de novo versus established banks.

Table 3 provides means for key variables associated with rural banks, Sub-S (panel A) versus C-corporate (panel B). Rural banks, as a rule, are smaller and focus more on agricultural lending, likely have more closely held ownership and often don't have the same growth opportunities as urban banks. The data document a gradual migration of rural banks to the S-corporate structure. In 1997 less than 1% of rural banks were S-corporations with the percentage increasing to over 45% by 2003. Comparing the ratio of agricultural loans to total loans across Table 3 and Table 2 indicates that rural banks do indeed make more agricultural loans than non-rural banks.

Comparing rural Sub-S banks to rural C-corporate banks, we see again that the Sub-S banks generally pay proportionately more in dividends, have lower asset growth and lower capital, but are more profitable and have greater growth in profits than their C-corporate counterparts. Rural Sub-S banks are less likely than their C-corporate counterparts to be public even though some rural Sub-S banks are publicly traded.

Table 4 examines the same variables for urban banks, considering Sub-S (panel A) and C-corporate (panel B) banks separately. Urban banks are indeed seen to be much larger in asset size than rural banks, one reason for separating the analysis. Like rural banks, urban banks have slowly been gravitating to the S-corporate status. However, not as many urban banks have elected the S-corporate status as observed with rural banks. For example, in 2003 less than 25% of all urban banks were S-corporate, whereas over 45% of all rural banks are S-corporate. As noted, agricultural lending is generally more important for rural banks than urban banks. Comparing rural and urban banks we also see that commercial and industrial lending is relatively more important for urban banks. Finally, comparing urban S-corporate and urban C-corporate banks again supports the notion that S-corporate payout more in the way of dividends, are generally more profitable on a pretax basis and have a little less capital.

Table 5 presents means for key variables associated with de novo banks with panel A containing information on Sub-S banks and panel B containing information on their C-corporate counterparts The tax advantage of Sub-S status is not beneficial until banks become profitable. Because de novo banks typically operate at a loss during the first few years, they have little incentive to initially file as S corporations. It is thus non surprising that in 2003 less than 10% of all de novo banks were Sub-S banks. This ratio is far less than what we find for all rural banks and even for urban banks. This result is buttressed by DeYoung and Hasan (1998) who find that de novo banks do not become as efficient as established banks until the ninth year, on average, after formation. Cyree and Wansley (2004) similarly find that de novo banks do not achieve the industry ROA for 7.5 years on average. Comparing the data in panels A and B demonstrates that Sub-S banks are generally more profitable, have slightly less capital, grow assets a little less rapidly, but grow profits a little more rapidly. For de novo banks, however, the difference in dividend payouts between S-corporate and C-corporate is not large, probably due to the lack of profitability. Sub-S banks still have statistically higher dividend ratios.[5]

---

[5] We present the t-statistics for difference in means tests between Sub-S and C-Corp. banks across these sub-groups in Table 7.

Table 6 rounds out the comparison of S-corporate banks (panel A) and C-corporate banks (panel B) by considering the patterns for established (non-de novo) banks. The same general pattern emerges with Sub-S banks having smaller size, higher dividend payouts, lower asset growth, and higher ROA and ROE.

Table 7 provides T-statistics testing the difference in means for Sub-S vs. C-Corporation banks for the various ratios by sub-group. The table presents two-tailed t-statistics for differences in means such that a positive sign indicates that the associated measure is larger for C-Corporation banks.. As demonstrated, C-Corp. banks are significantly larger across all sub-groups. The negative sign on dividend payout ratio indicates that Sub-S banks have higher dividend payouts across all groups. C-Corp. banks have higher taxable income, which is expected, and are younger than Sub-S banks, on average, given that de novo banks are less likely to choose Sub-S status.

Asset growth is higher for C-Corp. banks, but profit growth is higher for Sub-S banks. Higher profit growth for Sub-S banks is likely influenced by conversion from tax-paying to corporate income tax avoidance status. Sub-S banks have higher pre-tax ROA and ROE in all cases, offering strong support for better performance using these traditional accounting measures. Sub-S banks report significantly higher net interest margins, with the exception of rural banks. Some of the improved aggregate profit performance appears to be due to lower loan-loss reserves for Sub-S banks, with the exception of urban banks.

Measures of balance sheet risk and product mix tell much of the same story. Sub-S banks have lower capital, with the exception of de novo banks; higher proportions of agricultural loans, even in urban areas; and lower commercial and industrial loans. However, the higher loan-to-asset ratios observed in the overall sample do not translate into our sub-groups with the exception of de novo banks. Sub-S banks have higher core deposits, with the exception of rural banks, and lower loans to deposits, with the exception of rural banks. Collectively, Sub-S banks are significantly smaller, pay higher dividends, have lower taxable income and higher accounting performance, lower capital, rely more on core deposits, and have higher agricultural but lower commercial and overall lending.

When comparing the means of our sub-group variables to those used by Hodder et al. (2003), we find contrasting results for capital gains on investment securities scaled by assets (BUILTIN) which is higher for Sub-S banks while our indicator variable for losses exceeding profits (LOSSCF) is significantly greater for Sub-S banks across all sub-groups. Hodder et al.(2003) find the opposite in each case. The differences likely arise because Hodder et al. (2003) use data for only one year and we have a time series of seven years and are not capturing the "early converters." This can be seen by the disparate numbers for BUILTIN across the rows in every sub-group with figures in some years very low and others substantially higher. We also get a much different result for STATEREG, which is an indicator for banks being in states that are more favorable [We need to indicate how this measure is constructed.] for Sub-S formation. However, this variable is more a function of rural states adopting Sub-S friendly legislation than banks with more urban centers.

LOSSCF, which indicates the proportion of banks with the prior three year's losses greater than the current year's profit, is significantly higher for Sub-S banks in our analysis, in contrast to Hodder et al. The LOSSCF variable shows a declining trend for C-Corp. banks that are rural or urban, but not de novo. This implies that much of the higher proportion of banks with losses in the Hodder et al. results may have been due to 1997 and is not indicative of normal conditions. Our results indicate that the ability to offset prior losses may not be as important after the initial surge in Sub-S formation although much of the difference appears to be a decline in C-Corp. bank loss carry forwards. Finally, AMT captures average income on tax-exempt securities, which should be unattractive to Sub-S corporations; however, only rural banks have higher tax-exempt income for C-Corp. banks with all other groups indicating the opposite. This is also in contrast to Hodder et al. and again may be our time series effect.

3. Selecting S-corporation Status: Related Literature and Hypotheses

There is little research regarding factors that potentially influence the decision for banks to convert from a C-corporation to a S-corporation. This is somewhat surprising given the growth in the number of conversions since 1997 when they were first available. Hodder, McAnally and Weaver (2003) (HMW) examine factors that influence the decision to convert for non-publicly traded commercial banks for the period 1997 to 1999. They identify issues that influence the decision to convert, focusing mostly on tax matters. They find evidence during this period that banks are more likely to convert to S-corporation status when the conversion reduces dividend taxes and state income taxes and helps avoid the alternative minimum tax. Alternatively, banks with limited access to capital markets or those with significant corporate tax loss carry-forwards are less likely to convert.

While HMW presents key factors that might influence the choice to convert, the analysis considers only the early conversions. We examine a more extensive sample period, 1997 through 2003, because most Sub-S banks have been established after 1999. We further extend the analysis by examining a wider range of financial and demographic factors that motivate the election of S-corporation status, including the breakdown of rural versus urban and de novo versus established banks. Rural banks are likely to be smaller, often times are closely held by a family or takeover group and therefore probably have fewer shareholders, making them more likely to convert to Sub-S corporate status. These arguments presume that stockholders can find the expertise to go through the conversion process and understand the potential tax savings. In contrast, de novo banks are less likely to have profits so avoiding double taxation is not as economically meaningful. De novo banks are thus less likely to choose Sub-S status.

A. The Theory

Our basic premise is simple: A commercial bank will elect S-corporate status when the tax-saving benefits exceed the costs of converting, or in the case of a de novo, the cost of electing this status, as opposed to the C-corporate status. On the surface, it would appear that since the S-corporate status avoids double taxation that all banks would elect to incorporate or convert to this status. However, as detailed above there are certain restrictions imposed on banks that elect the S-corporate status: S-corporate banks can have only one type of outstanding stock, with less than 75 shareholders (100 following the 2004 tax reform), and shareholders cannot be partners, corporations or other limited liability entities. Banks with publicly-traded stock and those with different classes of shares would see the costs of converting to S-corporate status as prohibitive. On the other hand, if the bank only has a limited number of shareholders of one class of stock and most shareholders are individuals, then the cost of conversion, including stock buybacks and reverse stock splits, is likely to be small.

B. Income Tax Savings

The comparison of tax benefits requires an analysis of expected taxable income and dividend payouts. It is easy to exaggerate the tax savings from conversion to S-corporate. In certain situations, individual tax obligations for shareholders are small and inconsequential. For example, consider a commercial bank that pays no dividends, but retains all earnings. While it is true that this entity if incorporated as a C-corporation must pay corporate taxes, the double taxation might be minimal as the individual taxes are small for two reasons. First, if the shareholder doesn't realize any capital gain by selling shares, there is no current individual tax burden associated with the bank shares. The shareholder can thus effectively postpone the individual tax obligation to the distant future so the present value of this burden is reduced. Moreover, when the shareholder receives the capital gain, it will be taxed at a capital gains tax rate, which is generally lower than the individual tax rate.

Still, for commercial banks that pay a substantial amount of the net income as cash dividends to shareholders, the possibility of avoiding any corporate tax is likely to be quite attractive. Thus, we expect those banks to elect the S-corporate status, ceteris paribus, to have positive expected pre-tax earnings and relatively high dividend payout ratios. Banks that don’t choose Sub-S status either have low expected pre-tax earnings and low or no cash dividend payouts.

C. Capital Issues

While Sub-S status clearly increases aggregate profitability via the tax advantage, it presents potential problems for banks that want to grow assets at high rates. There are three sources of potential growth limitations. First, to qualify for Sub-S status the number of stockholders cannot exceed 75. With so few distinct stockholders, management has more limited access to new stock offerings when accessing external capital because only the existing pool of stockholders can invest.. A related impact is that many banks are family-owned. While Sub-S status increases the potential payout to stockholder, many family members may have such a highly concentrated exposure to their bank investment that they are less willing to commit more capital.. Second, many Sub-S banks have recognized capital constraints and have accessed capital via the issuance of trust preferred stock (TPS), which is sold largely to institutional investors. Because there are limits as to how much capital can be raised in the form of TPS, currently 25% of core capital, TPS can support a fixed amount of assets. Recent efforts to limit the accounting, regulatory and tax advantages of TPS would further limit future growth opportunities if implemented.[6] Finally, in order to be cash flow neutral, management may need to make cash dividend payments at least equal to the stockholders' personal tax liabilities. Any associated reduction in retained earnings slows capital formation. Thus, management may not have a practical choice to cut cash dividends.

The behavior of Sub-S banks likely contrasts sharply with that for similar banks taxed as C corporations. Considerable research has addressed the relationship between the cost of raising new capital and financing or investing decisions. Froot and Stein (1998) demonstrate that for banks with illiquid risks, capital budgeting and risk management activities are linked. A bank that chooses not to hedge can reduce risk by operating with high levels of capital or investing less in non-hedgeable assets when the cost of raising capital is high. Harrington and Niehaus (2002), in turn, demonstrate that institutions with high external financing costs operate with higher target levels of capital and have capital to liability ratios that are more sensitive to earnings.[7] Sub-S banks likely face greater costs of raising capital externally than otherwise comparable non-Sub-S banks for two reasons. First, Sub-S banks have fewer stockholders such that new equity offerings are constrained by the financial limitations of these investors. Of

[6] Trust preferred stock is normally issued via a special purpose entity and the issuing bank pays tax-deductible interest to cover dividend payments on the TPS. The federal government has occasionally proposed that issuers of TPS not be allowed to deduct the associated interest payments and that the debt appear on the issuer's balance sheet. Limitations on the volume of TPS issuance apply to all banks.

[7] Harrington and Niehaus (2002) examine mutual versus stock insurance companies for which capital to liability ratios are an indicator of solvency risk. Commercial banks focus more on equity to asset and equity to risk-weighted asset ratios for which there are minimum regulatory requirements.

course, there might be ways to mitigate this concern by looking for "deep pocket" investors. Lerner and Schoar (2004) document how private equity funds have placed transfer restrictions on investors to mitigate a similar problem in these funds. Second, cash dividend requirements are likely higher, ceteris paribus, given that Sub-S shareholders must pay taxes on the flow-through earnings. This would especially be true if personal income tax rates exceed corporate tax rates. As such, banks electing to be Sub-S banks would be expected to have higher capital ratios and their ratios should be more positively related to earnings.

The extent to which capital constraints are binding for Sub-S banks likely depends on a bank's growth opportunities. During recent years, many banks have pursued high growth strategies with the intent of capturing increased market share. The objective may be enhancing cross-sell opportunities or simply positioning the institution for sale. Historically, banks must reach some minimum size, typically measured by assets and/or core deposits within a geographic market, before they either realize significant scale economies or become targets of potential acquirers. In slow-growth geographic markets banks operate with limited investment opportunities such that they cannot reasonably grow without branching or buying banks outside their trade area. By operating within a limited geographic market, highly concentrated loan portfolios may induce managers to choose slower growth and higher capital ratios regardless of tax status. In contrast, bank managers in fast-growing geographic markets generally face more binding capital constraints and may choose to increase their risk tolerance due to earnings pressures in order to continue growing. Such banks may operate with less capital, ceteris paribus, and greater operating risk.[8] As such, one might expect to find that rural commercial banks are more likely to elect the S-corporation status than faster growing urban commercial banks.

[8] To the extent that Sub-S bank owners are wealthy, binding capital constraints are reduced as managers simply call on deep pocket owners to invest more capital.

Importantly, however, other factors may alter this relationship. Specifically, there is widespread support for the conjecture that small, locally owned banks have a competitive advantage over large banks in some markets. For example, Brickley, Linck and Smith (2003) argue that local asset ownership in small, rural banks mitigates agency problems associated with implementing decisions, particularly those directed at small businesses. Officers at small banks typically live in the community, know many of the bank's borrowers and depositors personally, and obtain more and better opaque information via the close banking relationship.[9] Because of the superior private information that such banks have and because agency problems between shareholders and management are likely to be less sizeable for Sub S banks, they may have an advantage in generating earnings and managing risks. Such informational advantages combined with stronger incentives via close ownership may allow small banks to make portfolio choices that appear to increase risk, say by increasing lending, but actually reduce overall risk due to the mitigating effects of asymmetric information problems by local asset ownership.[10] Berger and Udell (2002) also argue that smaller banks, are likely to be more willing to grant local decision making authority to managers, which better allows these banks to exploit information asymmetries. To the extent that Sub-S banks are smaller that other banks, this line of reasoning would suggest that Sub-S banks also allow greater local decision making by managers.

Sub-S banks are likely to be closely held firms with substantial insider holdings by managers who are original owners or were hired by the original owners and their families. As shown by DeYoung, Spong, and Sullivan (2001), managerial holdings create greater profit

---

[9] Brickley, Linck and Smith (2003) differentiate between transparent information – that which is publicly available – and opaque information – that which is obtained through a direct banking relationship with the bank's borrower and/or depositor.

[10] Nakamura (1994), Berger, Klapper and Udell (2001) and Peterson and Rajan (2002) demonstrate that smaller banks have loan portfolios that are more concentrated in small business customers and the self-employed. Yeager (2004), in turn, concludes that such loan concentrations and geographic concentrations in small markets have not adversely affected small banks' operating performance.

efficiency for small banks when the manager is hired. As hired-manager holdings increases, an inverted U-shape emerges for profit efficiency with respect to managerial holdings, consistent with principal-agent alignment up to a certain point, and then entrenchment when too many shares are accumulated by the hired manager. DeYoung, et al. obtain the ownership information from regulatory reports that are unavailable publicly, so we cannot directly test if their findings relate to Sub-S banks. However, their results suggest that Sub-S banks have lesser agency problems than C-corporation banks to the extent that shareholder ownership is more concentrated.

Capital Constrained Banks

Sub-S banks should have higher capital ratios to allow greater asset growth possibilities and offset difficulties in raising external capital. Sub-S capital ratios will be more positively related to earnings, as these banks try to generate more internal capital. Finally, Sub-S firm-specific risk measures should be lower compared with non-Sub-S banks. This hypothesis follows from the observation that Sub-S banks have more limited opportunities and therefore likely higher costs of raising external capital.

Information advantage considerations:

If Sub-S banks are advantaged in their ability to exploit information asymmetries due to lower agency costs of equity, Sub-S banks are likely to have lower capital ratios than non-Sub-S banks. Moreover, their capital ratios will be less positively related to earnings. Finally, if Sub-S banks have superior information to make informed decisions relative to non-Sub-S banks, one again might expect firm-specific risk measures to be greater compared with non-Sub-S banks in certain areas. This hypothesis derives from the lower agency costs associated with concentrated ownership at Sub-S banks versus banks taxed as C corporations.

A bank's growth opportunities may complicate the above comparison. Specifically, capital ratios at banks without growth constraints will not likely differ between Sub-S and C corporation tax status. Capital ratios will also likely be lower for all banks in high growth markets and lower for Sub-S banks versus otherwise comparable banks taxed as C corporations. The growth in Sub-S banks thus raises important policy questions regarding whether Sub-S banks in high growth markets have an increased tolerance for risk, whether greater risk is evidenced in capital ratios and other key performance measures and whether any difference in risk is realized.

D. Size Issues

It would appear that Sub-S banks will generally be smaller that non-Sub-S banks, due amongst other things to the limitation on the number of shareholders. However, not all shareholders hold the same amount of stock, so asset size might not be closely related to the number of shareholders. It is unfortunate that public information on the number shareholders in banks is not readily available. In lieu of such a variable, asset size is used to proxy for the number of shareholders.

4 Empirical Tests

We initially investigate what factors contribute to the choice of Sub-S tax status. One of the key variables we anticipate being linked to the election of Sub-S status is the dividend payout rate. The explanation of this effect relates to the tax timing option provided shareholders of bank stock discussed above. The implication is that Sub-S banks will have higher dividend payout rates versus banks that choose to be taxed as C corporations.

We model the choice of Sub-S formation via a logistic regression with a binary indicator variable of Sub-S tax status. We begin by asking what factors increase the probability of choosing this tax status during the year of choice of Sub-S status. Data for Sub-S banks are omitted for years other than the year of choice of Sub-S status. We add dummy variables for yearly fixed-effects, and variables for asset growth, profit growth, pre-tax ROA, net interest margin (NIM), and variables to help control for differential risks associated with capital adequacy, credit quality and liquidity. The basic model is:

Sub-S = f (Yearly Dummies, STATEREG, PUBLIC, RURAL, DENOVO, AGE, DIVPAY, TAXINC, BUILTIN, LOSSCF, AMT, ASSETGRO, PROFGRO, CAPRATIO, LNASSETS, EBTROA, NIM, LLR2TA, AGLOANS, LOAN2TA, CNILOANS, COREDEPS, LOAN2DEP),

with Sub-S equal to one if the bank chooses to be a Sub-S corporation for the first time in that year, and zero otherwise; Yearly dummies, Y1998-Y20002 are indicator variables that equal one if in the year suffix and zero otherwise; STATEREG is an indicator if states are friendly to Sub-S formation (value equals one), defined as states that allow combined reporting for bank holding companies and recognize Sub-S status for state tax reporting purposes; PUBLIC is an indicator equal to one for publicly traded banks and zero otherwise; RURAL is one if the bank is not in an MSA and zero otherwise; DENOVO is one if the bank is less than five years old and zero otherwise; AGE is bank age in years from charter date; DIVPAY is the bank’s total dividends for the year divided by operating profits; TAXINC is taxable income divided by the maximum rate as in Hodder et al.; BUILTIN is capital gains on investment securities scaled by assets if positive and zero if a capital loss; LOSSCF is an indicator for the prior three years’ losses being greater than this year’s profit; AMT is the alternative minimum tax, defined as tax-exempt interest divided by assets as in Hodder et al.; ASSETGRO is the past three years’ average growth rate in total assets; PROFGRO is the past three years’ average growth rate in profit; CAPRATIO is equity divided by assets; LNASSETS is the log of total assets; EBTROA is before-tax return on assets; NIM is net-interest margin; LLR2TA is loan-loss reserves-to-total assets ; AGLOANS is agricultural loans to assets; LOAN2TA is total loans-to-total assets; CNILOANS is commercial and industrial loans-to-assets; COREDEPS equals transactions deposits and time deposits less $100,000 to total assets; and LOAN2DEP is the ratio of loans-to-deposits.

Table 8 contains the results from the logistic regression to indicate what factors are related to the choice of Sub-S status. The dependent variable is one if management selects to be a Sub-S bank that year and zero otherwise, with all Sub-S bank observations deleted for subsequent years after the initial choice. This sample selection allows us to compare the characteristics of banks that elect the Sub-S status with banks that choose to remain C corporations. A positive coefficient estimate indicates that an increase in the independent variable increases the probability of being a Sub-S bank.

The first two columns of data present the full sample results with Sub-S banks compared to banks of all sizes.[12] The yearly effects in this regression show that the probability of being a Sub-S bank increases monitonically throughout our sample period and the probability of a bank selecting Sub-S status in all years considered is greater than that for 1997, the first possible year. The coefficient on the dividend payout rate variable has the anticipated sign and is significantly different from zero. Indeed, banks that elect to become Sub-S banks generally have higher dividend payout rates. One downside of the Sub-S status is that shareholders cannot postpone

[12] We also estimated the logistic regression in Table 8 excluding all de novo banks. All coefficients in Table 8 retain the same sign and are generally similar in magnitude. Moreover, the statistical significance is not impacted in any case by this modification. We do not report these results since they are so similar to Table 8, but they are available from the authors upon request.

personal tax obligations by having the bank retain all earnings. Those banks that have not exploited this option by paying out dividends are more likely to find Sub-S status more attractive.

Asset growth, however, is not significantly different for Sub-S banks and non-Sub-S banks. Thus growth constraints on size appear negligible prior to conversion. In contrast, profit growth is positive and highly significant indicating that banks growing earnings quickly are more likely to choose Sub-S status.. A high rate of earnings growth apparently signals the increasing likelihood and value of expected earnings especially if tax sheltered, ceteris paribus.

The level of Sub-S bank performance appears superior to that of all other banks given that they are significantly more likely to have higher pre-tax ROA. In contrast, banks with higher NIMs are less likely to choose Sub-S status, perhaps because more successful spread management associated with lending and deposit gathering is associated with more favorable pricing relative to risk given the different balance sheet composition. These findings suggest that banks electing the Sub-S status are generally more profitable are consistent with the information advantage hypothesis discussed above.

Table 8 also includes ratios typically used to assess the riskiness of a bank's operations. The risk variables shown in Table 8 indicate that banks electing Sub-S status are more likely to have lower capital ratios. This finding suggests that those banks that decided to become Sub-S banks did not feel compelled to have more capital to offset any capital constraints that might arise in the future. The coefficient estimate on the loan-to-asset ratios for Sub-S choice is positive, indicating banks that choose Sub-S status have higher proportions of lending than other banks, which suggests more credit risk, all else constant. Sub-S banks use relatively more core liabilities to fund operations than non-Sub-S banks, which is confirmed by the positive and significant coefficient on the ratio of core deposits to total assets. This combination of higher loans and higher core deposits normally leads to higher NIMs. The fact that Sub-S banks report lower NIMS, on average, indicated that loan pricing is lower, ceteris paribus. This result is consistent with the observation that loan loss reserves-to-total assets is statistically lower at Sub-S banks, indicating that banks that elect the Sub-S status have set aside smaller reserves in anticipation of fewer problem loans in the year they choose Sub-S status.[14]

We include selected variables from Hodder et al.(2003) in our logistic regression. The indicator for states friendly to Sub-S formation (STATEREG) is positive in our model similar to Hodder et al., but our estimate is not significant. Bank age is positive and highly significant consistent with Hodder et al. and indicates that older banks are more likely to choose Sub-S status. This is likely because more established banks have positive profits and can benefit from the tax exemption, and this hypothesis is supported by the negative coefficient on DENOVO. Banks with higher taxable income are more likely to remain C-corp. banks, contrary to conventional wisdom, but consistent with Hodder et al. Our coefficient for investment capital gains to assets (BUILTIN) is negative consistent with Hodder et al., but our estimate is not significant. Another contrast is with LOSSCF, the indicator for a bank not being able to carry forward all prior losses, where we find higher loss of tax benefits associate with higher probabilities of Sub-S election. The LOSSCF result indicates that banks are not as concerned about tax losses, or more likely that other benefits off set these write-offs. Similarly, we also find a difference in AMT, the tax-exempt to assets variable, where higher tax-exempt securities are associate with higher probabilities of Sub-S election.

---

[14] The variable loans past due more than 90 days-to-assets had to be removed in the pooled regressions because of severe multicollinearity with loan loss reserves-to-assets.

The last two columns of data contain the logistic regression results for the size-constrained sample. We report these findings to verify that our conclusions are not driven by disparate asset sizes of our two groups.[15] The estimates for the size-constrained sample essentially confirm our findings for the full sample. The coefficient estimates are slightly different for the two samples, but the statistical significance of individual coefficients remains the same.

5. Summary and Conclusions

Commercial banks in the United States with 75 shareholders or less have been able to elect the Sub-chapter S corporate structure since 1997. Sub-S banks do not pay federal income taxes as long as the income is passed through to shareholders. Many banks have either elected to convert to Sub-S status or started as de novo banks with the Sub-S charter. Sub-S banks appear to be different from banks that remain C-corporate in structure in many ways. We examine operating characteristics of Sub-S banks versus other banks using call and income data for 1997 – 2002. As expected due to the limited number of shareholders, Sub-S banks are smaller on average than C-corporate banks, exhibit lower asset growth, lower capital ratios and lower loan-to-deposit ratios.

In an effort to disentangle whether these observed differences are due to the characteristics of the banks that elect the Sub-S status, or whether these observed differences are driven by the divergent tax status, we analyze the characteristics of banks that elect to form as Sub-S banks. Using logistic regression analysis, we find that Sub-S banks in their first year of operation have a higher dividend payout rate than non-Sub-S banks and do not experience

[15] Note that to be more certain of Sub-S formation likelihood, it would be useful to know the number of shareholders for each bank. Unfortunately, the vast majority of these banks are not publicly traded and therefore this information is not available.

different asset growth, but do have higher profit growth.Those banks that select Sub-S status have lower ratios of loans-to-assets or loans-to-deposits, but have proportionately more agricultural or commercial and industrial loans, indicating some specialized lending focus. Sub-S also rely more on core deposits, and are consistently more likely to be rural, and less likely to be de novo or public.

Variable Definitions:

Variable	Description
TOTASSET	Total Assets in $1000s
DIVPAY	Dividend payout divided by pre-tax profits
TAXINC	Taxable income defined as taxes divided by the 35% corporate rate.
AGE	Bank age in number of years since inception
ASSETGRO	One year asset growth rate
PROFGRO	One year profit growth rate
LLR2TA	Loan-loss reserves divided by total assets
EBTROA	Pre-tax ROA
EBTROE	Pre-Tax ROE
NIM	(Interest income – Interest Expense)/ Total assets
CAPRATIO	Equity divided by total assets
PD902TA	Past-due loans scaled by assets
AGLOANS	Agriculture loans to assets
LOAN2TA	Total loans to total assets
CNILOANS	Commercial and Industrial loans to assets
COREDEPS	Core deposits, defined as total transactions accounts plus small time deposits, to total assets
LOAN2DEP	Total loans to total deposits
RURAL	An indicator variable equal to one if the bank is in a MSA and zero otherwise.
DENOVO	An indicator variable equal to one if the bank is less than five years old and zero otherwise.
PUBLIC	An indicator variable equal to one if the bank is publicly traded and zero otherwise.
STATEREG	An indicator variable equal to one if the bank is in a state that recognizes Sub-S formation.
BUILTIN	Capital gains in the investment securities available for sale (higher market value than book value), scaled by assets
LOSSCF	An indicator equal to one if prior period losses cannot be fully absorbed by this period’s profits and zero otherwise.
AMT	A proxy for the Alternative Minimum Tax, defined as income from tax-exempt securities, scaled by assets

Table 1: Key Performance Measures: Sub-S Banks vs. All Other Banks
Descriptive statistics and t-tests for differences in means between Subchapter-S banks and all other banks 1997-2003.

Variable	C-Corp. Mean	Sub-S Mean	t-test for difference
Total Assets (thousands)	223776	109833	29.45**
Dividend to Pre-tax Income Ratio	0.0047	0.0100	-66.17**
Taxable Income scaled by assets	0.0051	0.0006	217.70**
Bank Age (in years)	70.6972	75.6559	-11.28**
Asset Growth over the prior three years	0.1095	0.0802	22.20**
Profit Growth over the prior three years	0.1201	0.1792	-9.31**
Loan-Loss Reserves-to-Assets	0.0019	0.0018	2.41*
Pre-tax Return on Equity (ROE)	0.1546	0.1668	-13.69**
Pre-tax Return on Assets (ROA)	0.0148	0.0158	-13.16**
Net Interest margin (NIM)	0.0385	0.0392	-8.05**
Capital Ratio (Equity-to-Assets)	0.1007	0.0992	3.90**
Agriculture Loans-to-assets	0.0829	0.1264	-23.34**
Total Loans-to-assets	0.6158	0.6109	2.88**
Comm. & Indust. Loans-to-assets	0.1489	0.1577	-7.37**
Core Deposits to Total Assets	0.5335	0.5525	-14.27**
Loans-to-Deposits	0.7310	0.7186	5.83**
Net Charge offs-to-assets	0.0022	0.0023	-1.08
Rural indicator (1 if rural)	0.5617	0.6887	-20.40**
De novo indicator (1 if < 5 years old)	0.0379	0.0159	12.14**
Public indicator (1 if publicly traded)	0.0582	0.0048	36.44**
STATEREG (1 if state encourages Sub-S form)	0.2695	0.2617	1.32
BUILTIN = capital gains on securities	0.0019	0.0023	-9.00**
LOSSCF = 1 if prior losses cannot be absorbed	0.0578	0.2836	-39.84**
AMT = tax-exempt income scaled by assets	0.0021	0.0022	-5.59**

N = 6614 bank-years for Sub-S and 38,750 for C-corporation (non Sub-S)
** indicates significance at the one-percent level
* indicates significance at the five-percent level.

Table 2: Key Performance Measures: Sub-S Banks vs. Non Sub-S Size Constrained Banks
Descriptive statistics and t-tests for differences in means between Subchapter-S banks and size-constrained matching banks from 1997-2003.

Variable	C-Corporation Mean	Sub-S Mean	t-test for difference
Total Assets (thousands)	167526	109833	25.07**
Dividend to Pre-tax Income Ratio	0.0047	0.0100	-66.61**
Taxable Income scaled by assets	0.0051	0.0006	215.96**
Bank Age (in years)	70.4401	75.6559	-11.86**
Asset Growth over the prior three years	0.1081	0.0802	21.21**
Profit Growth over the prior three years	0.1182	0.1792	-9.58**
Loan-Loss Reserves-to-Assets	0.0019	0.0018	2.23*
Pre-tax Return on Equity (ROE)	0.1538	0.1668	-14.63**
Pre-tax Return on Assets (ROA)	0.0148	0.0158	-13.70**
Net Interest margin (NIM)	0.0386	0.0392	-7.52**
Capital Ratio (Equity-to-Assets)	0.1009	0.0992	4.41**
Agriculture Loans-to-assets	0.0839	0.1264	-22.74**
Total Loans-to-assets	0.6156	0.6109	2.78**
Comm. & Indust. Loans-to-assets	0.1487	0.1577	-7.51**
Core Deposits to Total Assets	0.5363	0.5525	-12.22**
Loans-to-Deposits	0.7293	0.7186	5.03**
Net Charge offs-to-assets	0.0022	0.0023	-1.28
Rural indicator (1 if rural)	0.5686	0.6887	-19.27**
De novo indicator (1 if < 5 years old)	0.0383	0.0159	12.31**
Public indicator (1 if publicly traded)	0.0019	0.0023	-9.14**
STATEREG (1 if state encourages Sub-S form)	0.2692	0.2617	1.27
BUILTIN = capital gains on securities	0.6042	0.6359	-4.94**
LOSSCF = 1 if prior losses cannot be absorbed	0.0584	0.2836	-39.71**
AMT = tax-exempt income scaled by assets	0.0021	0.0022	-4.99**

N= 6614 bank-years for Sub-S banks and 38,189 for C-corp. (non Sub-S) banks.
** indicates significance at 1-percent level of significance
* indicates significance at 5-percent level of significance

Table 3 Yearly means of Rural Banks by Sub-S status

Panel A: Sub-S Banks							
Variable	1997 (N=38)	1998 (N=104)	1999 (N=731)	2000 (N=836)	2001 (N=842)	2002 (N=939)	2003 (N=1086)
TOTASSET	54104	64214	68807	73020	82743	89593	94248
DIVIDEND	0.0081	0.0096	0.0096	0.0102	0.0107	0.0108	0.0105
TAXINC	0.0000	0.0000	0.0009	0.0007	0.0006	0.0004	0.0004
AGE	65.3243	72.2019	80.2843	80.4115	81.3670	82.8115	82.6701
ASSETGRO	0.0690	0.0730	0.0638	0.0679	0.0651	0.0696	0.0710
PROFGRO	0.2773	0.2315	0.1903	0.1665	0.1155	0.1658	0.1506
LLR2TA	0.0016	0.0015	0.0016	0.0018	0.0020	0.0020	0.0017
EBTROE	0.1781	0.1837	0.1777	0.1667	0.1522	0.1582	0.1507
EBTROA	0.0184	0.0180	0.0164	0.0162	0.0149	0.0160	0.0150
NIM	0.0433	0.0407	0.0393	0.0396	0.0375	0.0389	0.0376
CAPRATIO	0.1063	0.1005	0.0960	0.1009	0.1022	0.1057	0.1036
AGLOANS	0.1554	0.1562	0.1896	0.1753	0.1679	0.1538	0.1499
LOAN2TA	0.5544	0.5504	0.5995	0.6130	0.6016	0.6025	0.6033
CNILOANS	0.1374	0.1549	0.1536	0.1522	0.1487	0.1478	0.1477
COREDEPS	0.5868	0.5917	0.5954	0.5854	0.5722	0.5546	0.5473
LOAN2DEP	0.6355	0.6284	0.6972	0.7210	0.7084	0.7136	0.7172
NETCHARG	0.0030	0.0022	0.0019	0.0023	0.0025	0.0026	0.0023
RURAL	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
DENOVO	0.0270	0.0288	0.0055	0.0096	0.0119	0.0075	0.0102
PUBLIC	0.0000	0.0096	0.0028	0.0036	0.0048	0.0043	0.0037
STATEREG	0.3243	0.2981	0.2788	0.2871	0.2862	0.2886	0.2779
BUILTIN	0.0005	0.0015	0.0022	0.0000	0.0009	0.0030	0.0053
LOSSCF	0.2162	0.2885	0.1526	0.2201	0.2399	0.3056	0.3494
AMT	0.0017	0.0023	0.0027	0.0025	0.0025	0.0024	0.0022

Table 3 Rural Banks cont.
Panel B: C-Corp. Banks

Variable	1997 (N=4248)	1998 (N=4033)	1999 (N=3206)	2000 (N=2960)	2001 (N=2520)	2002 (N=2403)	2003 (N=2373)
TOTASSET	81204	89539	100786	110684	126944	133191	142167
DIVIDEND	0.0057	0.0059	0.0056	0.0054	0.0054	0.0052	0.0049
TAXINC	0.0054	0.0047	0.0048	0.0048	0.0044	0.0048	0.0044
AGE	77.1935	78.3427	78.0006	78.2486	79.3385	79.5239	79.3118
ASSETGRO	0.0785	0.0849	0.0838	0.0839	0.0857	0.0904	0.0860
PROFGRO	0.1240	0.1022	0.0791	0.0741	0.0746	0.1225	0.1110
LLR2TA	0.0017	0.0018	0.0018	0.0019	0.0022	0.0023	0.0020
EBTROE	0.1679	0.1572	0.1554	0.1479	0.1354	0.1417	0.1355
EBTROA	0.0168	0.0156	0.0149	0.0148	0.0135	0.0145	0.0138
NIM	0.0404	0.0389	0.0388	0.0389	0.0368	0.0381	0.0367
CAPRATIO	0.1049	0.1038	0.1008	0.1046	0.1041	0.1079	0.1073
AGLOANS	0.1561	0.1499	0.1281	0.1223	0.1129	0.1042	0.0997
LOAN2TA	0.5942	0.5848	0.6068	0.6220	0.6122	0.6097	0.6037
CNILOANS	0.1421	0.1439	0.1439	0.1432	0.1409	0.1388	0.1384
COREDEPS	0.6006	0.5942	0.5749	0.5665	0.5525	0.5322	0.5212
LOAN2DEP	0.6896	0.6814	0.7167	0.7392	0.7287	0.7304	0.7251
NETCHARG	0.0022	0.0022	0.0022	0.0022	0.0027	0.0029	0.0028
RURAL	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
DENOVO	0.0031	0.0055	0.0134	0.0203	0.0262	0.0312	0.0341
PUBLIC	0.0238	0.0240	0.0246	0.0264	0.0278	0.0283	0.0287
STATEREG	0.2646	0.2578	0.2536	0.2524	0.2548	0.2568	0.2575
BUILTIN	0.0008	0.0017	0.0023	0.0002	0.0009	0.0025	0.0050
LOSSCF	0.1401	0.0227	0.0140	0.0260	0.0230	0.0341	0.0405
AMT	0.0025	0.0027	0.0025	0.0025	0.0026	0.0025	0.0025

Table 4 Yearly means of Urban Banks by Sub-S status

Panel A: Sub-S Banks							
Variable	1997 (N=19)	1998 (N=63)	1999 (N=333)	2000 (N=348)	2001 (N=371)	2002 (N=435)	2003 (N=490)
TOTASSET	143029	188587	143485	157457	176342	175635	189582
DIVIDEND	0.0066	0.0086	0.0089	0.0099	0.0098	0.0091	0.0092
TAXINC	0.0000	0.0000	0.0008	0.0007	0.0004	0.0005	0.0004
AGE	51.7895	47.9365	61.7958	63.9425	63.4259	64.5126	64.6959
ASSETGRO	0.1163	0.1194	0.1071	0.1096	0.1004	0.1162	0.1017
PROFGRO	0.4045	0.3721	0.2265	0.1900	0.1900	0.2367	0.2307
LLR2TA	0.0022	0.0017	0.0016	0.0017	0.0020	0.0022	0.0020
EBTROE	0.2089	0.2124	0.2015	0.1917	0.1732	0.1706	0.1662
EBTROA	0.0182	0.0176	0.0168	0.0171	0.0155	0.0158	0.0153
NIM	0.0457	0.0424	0.0421	0.0419	0.0398	0.0402	0.0389
CAPRATIO	0.0902	0.0857	0.0871	0.0933	0.0936	0.0960	0.0951
AGLOANS	0.0321	0.0269	0.0462	0.0453	0.0402	0.0399	0.0369
LOAN2TA	0.6257	0.5838	0.6182	0.6342	0.6272	0.6329	0.6393
CNILOANS	0.1904	0.1740	0.1862	0.1836	0.1817	0.1668	0.1641
COREDEPS	0.5831	0.5419	0.5447	0.5335	0.5174	0.5018	0.4870
LOAN2DEP	0.7042	0.6679	0.7183	0.7412	0.7352	0.7436	0.7577
NETCHARG	0.0027	0.0018	0.0016	0.0018	0.0023	0.0024	0.0024
RURAL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
DENOVO	0.0000	0.0159	0.0150	0.0172	0.0243	0.0460	0.0408
PUBLIC	0.0000	0.0159	0.0090	0.0086	0.0081	0.0046	0.0041
STATEREG	0.3158	0.2063	0.2072	0.2184	0.2022	0.2069	0.2184
BUILTIN	0.0004	0.0010	0.0020	0.0000	0.0008	0.0025	0.0043
LOSSCF	0.2632	0.2857	0.2162	0.3103	0.3073	0.3701	0.4102
AMT	0.0013	0.0013	0.0020	0.0020	0.0019	0.0018	0.0017

Table 4 cont.
Yearly means of Urban Banks by Sub-S status

Panel B: C-Corporation Banks							
Variable	1997 (N=2865)	1998 (N=2677)	1999 (N=2348)	2000 (N=2265)	2001 (N=2101)	2002 (N=2072)	2003 (N=2148)
TOTASSET	173877	191405	228820	261316	291358	300392	322133
DIVIDEND	0.0039	0.0042	0.0039	0.0036	0.0034	0.0032	0.0031
TAXINC	0.0059	0.0055	0.0055	0.0054	0.0050	0.0054	0.0050
AGE	59.9264	60.7762	61.3922	60.8119	60.4246	58.4097	57.4199
ASSETGRO	0.1206	0.1316	0.1363	0.1447	0.1424	0.1592	0.1522
PROFGRO	0.1734	0.1462	0.1259	0.1032	0.1124	0.1646	0.1702
LLR2TA	0.0018	0.0017	0.0018	0.0020	0.0021	0.0023	0.0019
EBTROE	0.1741	0.1668	0.1642	0.1544	0.1426	0.1486	0.1411
EBTROA	0.0161	0.0152	0.0146	0.0141	0.0130	0.0139	0.0132
NIM	0.0412	0.0395	0.0394	0.0389	0.0368	0.0373	0.0356
CAPRATIO	0.0965	0.0956	0.0934	0.0958	0.0954	0.0976	0.0979
AGLOANS	0.0324	0.0303	0.0257	0.0230	0.0197	0.0171	0.0157
LOAN2TA	0.6122	0.6011	0.6362	0.6512	0.6465	0.6451	0.6480
CNILOANS	0.1612	0.1656	0.1626	0.1621	0.1545	0.1499	0.1440
COREDEPS	0.5487	0.5346	0.5012	0.4907	0.4687	0.4456	0.4297
LOAN2DEP	0.7101	0.7025	0.7600	0.7795	0.7769	0.7765	0.7873
NETCHARG	0.0020	0.0019	0.0017	0.0017	0.0021	0.0022	0.0020
RURAL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
DENOVO	0.0192	0.0273	0.0464	0.0786	0.0857	0.1105	0.1304
PUBLIC	0.0789	0.0837	0.0860	0.0852	0.0885	0.0849	0.0875
STATEREG	0.2757	0.2719	0.2841	0.2887	0.2946	0.2934	0.2924
BUILTIN	0.0011	0.0020	0.0026	0.0006	0.0014	0.0026	0.0043
LOSSCF	0.1253	0.0366	0.0405	0.0587	0.0690	0.0830	0.0861
AMT	0.0017	0.0017	0.0015	0.0015	0.0014	0.0014	0.0013

Table 5
Yearly means of De Novo Banks by Sub-S status

Panel A: Sub-S Banks							
Variable	1997 (N=1)	1998 (N=4)	1999 (N=9)	2000 (N=14)	2001 (N=19)	2002 (N=27)	2003 (N=31)
TOTASSET	78397	51466	44051	55789	69609	93518	109902
DIVIDEND	0.0009	0.0025	0.0020	0.0028	0.0023	0.0015	0.0015
TAXINC	0.0000	0.0000	0.0011	0.0004	0.0006	0.0004	0.0003
AGE	3.0000	3.2500	3.7778	3.6429	3.8421	3.7407	4.0645
ASSETGRO	0.0513	0.2172	0.2845	0.2750	0.3388	0.3997	0.2967
PROFGRO	0.6340	0.8793	0.3348	1.0827	0.5310	0.6233	0.4077
LLR2TA	0.0000	0.0022	0.0023	0.0025	0.0026	0.0022	0.0021
EBTROE	0.2183	0.1399	0.1494	0.1556	0.1160	0.1045	0.1088
EBTROA	0.0198	0.0132	0.0127	0.0159	0.0113	0.0091	0.0100
NIM	0.0409	0.0387	0.0404	0.0428	0.0354	0.0347	0.0339
CAPRATIO	0.0907	0.0939	0.0877	0.1050	0.1022	0.0909	0.0924
AGLOANS	0.0767	0.0398	0.0580	0.1056	0.1001	0.0229	0.0111
LOAN2TA	0.5186	0.4799	0.6199	0.6815	0.6474	0.6845	0.6780
CNILOANS	0.1128	0.1863	0.2047	0.1866	0.2411	0.2297	0.1964
COREDEPS	0.6919	0.5288	0.5198	0.5090	0.5087	0.4837	0.4753
LOAN2DEP	0.5723	0.5327	0.7019	0.8068	0.7548	0.8050	0.7999
NETCHARG	0.0012	0.0020	0.0011	0.0021	0.0027	0.0008	0.0013
RURAL	1.0000	0.7500	0.4444	0.5714	0.5263	0.2593	0.3548
DENOVO	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
PUBLIC	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STATEREG	0.0000	0.0000	0.2222	0.1429	0.2632	0.2963	0.2903
BUILTIN	0.0000	0.0011	0.0015	0.0000	0.0003	0.0016	0.0023
LOSSCF	0.0000	0.5000	0.5556	0.6429	0.6316	0.7778	0.7097
AMT	0.0001	0.0013	0.0006	0.0008	0.0002	0.0003	0.0007

Table 5 De Novo Banks cont.
Panel B: C-Corp. Banks

Variable	1997 (N=68)	1998 (N=95)	1999 (N=152)	2000 (N=238)	2001 (N=246)	2002 (N=304)	2003 (N=361)
TOTASSET	96924	108273	106248	102525	112023	128203	134251
DIVIDEND	0.0009	0.0011	0.0008	0.0005	0.0004	0.0002	0.0003
TAXINC	0.0050	0.0049	0.0047	0.0039	0.0037	0.0041	0.0038
AGE	3.9118	3.7263	3.6053	3.8613	3.9634	3.8914	3.9889
ASSETGRO	0.3575	0.4225	0.4321	0.4029	0.3886	0.4144	0.3688
PROFGRO	0.1967	0.0144	0.0709	0.0321	0.0793	0.0766	0.2472
LLR2TA	0.0027	0.0028	0.0029	0.0031	0.0031	0.0034	0.0029
EBTROE	0.1212	0.1201	0.1188	0.1030	0.0907	0.0982	0.0983
EBTROA	0.0107	0.0104	0.0100	0.0089	0.0077	0.0087	0.0089
NIM	0.0383	0.0363	0.0358	0.0361	0.0339	0.0347	0.0330
CAPRATIO	0.0910	0.0939	0.0890	0.0919	0.0907	0.0934	0.0961
AGLOANS	0.0188	0.0183	0.0255	0.0213	0.0236	0.0160	0.0147
LOAN2TA	0.6500	0.6599	0.6851	0.6994	0.6982	0.7046	0.6997
CNILOANS	0.2195	0.2236	0.2223	0.2235	0.2114	0.2057	0.1836
COREDEPS	0.5348	0.5036	0.4905	0.4908	0.4770	0.4541	0.4504
LOAN2DEP	0.7456	0.7638	0.8097	0.8284	0.8305	0.8333	0.8305
NETCHARG	0.0020	0.0015	0.0016	0.0021	0.0020	0.0020	0.0017
RURAL	0.1912	0.2316	0.2829	0.2521	0.2683	0.2467	0.2244
DENOVO	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
PUBLIC	0.0882	0.0632	0.0592	0.0294	0.0285	0.0428	0.0416
STATEREG	0.2353	0.2211	0.2368	0.2437	0.2967	0.3092	0.3269
BUILTIN	0.0004	0.0006	0.0008	0.0000	0.0004	0.0011	0.0022
LOSSCF	0.1176	0.2842	0.2303	0.3445	0.3943	0.4243	0.4238
AMT	0.0006	0.0005	0.0004	0.0003	0.0002	0.0001	0.0002

Table 6
Yearly means of Established (non-De Novo) Banks by Sub-S status

Panel A: Sub-S Banks

Variable	1997 (N=55)	1998 (N=163)	1999 (N=1045)	2000 (N=1170)	2001 (N=1194)	2002 (N=1347)	2003 (N=1535)
TOTASSET	84382	112597	92817	98341	112035	117301	124364
DIVIDEND	0.0077	0.0094	0.0094	0.0102	0.0106	0.0104	0.0103
TAXINC	0.0000	0.0000	0.0009	0.0007	0.0005	0.0005	0.0004
AGE	61.7818	64.5153	75.0517	76.4316	77.0260	78.4870	78.5199
ASSETGRO	0.0857	0.0874	0.0757	0.0778	0.0717	0.0780	0.0763
PROFGRO	0.3147	0.2699	0.2006	0.1625	0.1320	0.1796	0.1709
LLR2TA	0.0018	0.0015	0.0016	0.0018	0.0020	0.0021	0.0018
EBTROE	0.1880	0.1959	0.1855	0.1742	0.1593	0.1633	0.1565
EBTROA	0.0183	0.0180	0.0165	0.0165	0.0152	0.0161	0.0152
NIM	0.0442	0.0414	0.0402	0.0403	0.0382	0.0394	0.0381
CAPRATIO	0.1011	0.0950	0.0933	0.0986	0.0995	0.1028	0.1011
AGLOANS	0.1142	0.1091	0.1450	0.1375	0.1293	0.1197	0.1166
LOAN2TA	0.5797	0.5650	0.6053	0.6185	0.6089	0.6107	0.6133
CNILOANS	0.1562	0.1615	0.1636	0.1611	0.1575	0.1523	0.1519
COREDEPS	0.5836	0.5740	0.5799	0.5709	0.5562	0.5390	0.5295
LOAN2DEP	0.6604	0.6460	0.7039	0.7260	0.7160	0.7214	0.7285
NETCHARG	0.0029	0.0021	0.0018	0.0021	0.0024	0.0026	0.0023
RURAL	0.6545	0.6196	0.6861	0.7077	0.6968	0.6919	0.6938
DENOVO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PUBLIC	0.0000	0.0123	0.0048	0.0051	0.0059	0.0045	0.0039
STATEREG	0.3273	0.2699	0.2565	0.2684	0.2605	0.2621	0.2586
BUILTIN	0.0005	0.0013	0.0022	0.0000	0.0009	0.0028	0.0051
LOSSCF	0.2364	0.2822	0.1694	0.2419	0.2546	0.3170	0.3616
AMT	0.0016	0.0019	0.0025	0.0024	0.0023	0.0022	0.0021

Table 6 Established Banks cont.
Panel B: C-Corp. Banks

Variable	1997 (N=7045)	1998 (N=6585)	1999 (N=5402)	2000 (N=4987)	2001 (N=4375)	2002 (N=4171)	2003 (N=4160)
TOTASSET	118740	130680	156282	179488	206739	216614	235779
DIVIDEND	0.0050	0.0053	0.0050	0.0048	0.0047	0.0046	0.0044
TAXINC	0.0056	0.0051	0.0051	0.0051	0.0048	0.0052	0.0048
AGE	70.8788	72.2779	72.8750	73.8793	74.4937	74.5476	74.5445
ASSETGRO	0.0929	0.0990	0.0968	0.0963	0.0959	0.1010	0.0956
PROFGRO	0.1434	0.1213	0.0997	0.0893	0.0925	0.1468	0.1298
LLR2TA	0.0017	0.0017	0.0018	0.0019	0.0021	0.0022	0.0019
EBTROE	0.1709	0.1617	0.1602	0.1530	0.1414	0.1483	0.1416
EBTROA	0.0166	0.0155	0.0149	0.0148	0.0136	0.0146	0.0139
NIM	0.0407	0.0392	0.0392	0.0390	0.0370	0.0379	0.0364
CAPRATIO	0.1016	0.1006	0.0979	0.1012	0.1007	0.1038	0.1034
AGLOANS	0.1071	0.1032	0.0865	0.0820	0.0732	0.0674	0.0637
LOAN2TA	0.6010	0.5904	0.6174	0.6316	0.6239	0.6204	0.6182
CNILOANS	0.1491	0.1516	0.1498	0.1479	0.1435	0.1394	0.1373
COREDEPS	0.5801	0.5713	0.5453	0.5357	0.5165	0.4949	0.4801
LOAN2DEP	0.6974	0.6888	0.7329	0.7533	0.7462	0.7458	0.7481
NETCHARG	0.0021	0.0021	0.0020	0.0020	0.0025	0.0026	0.0025
RURAL	0.6011	0.6046	0.5855	0.5815	0.5609	0.5581	0.5510
DENOVO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PUBLIC	0.0456	0.0477	0.0504	0.0529	0.0569	0.0554	0.0579
STATEREG	0.2694	0.2641	0.2673	0.2693	0.2715	0.2712	0.2695
BUILTIN	0.0009	0.0018	0.0025	0.0004	0.0012	0.0027	0.0049
LOSSCF	0.1343	0.0246	0.0194	0.0257	0.0242	0.0300	0.0308
AMT	0.0022	0.0023	0.0022	0.0022	0.0022	0.0021	0.0021

Table 7
T-statistics for differences in means across Sub-S types

Variable	Overall Sample	Rural Banks	Urban Banks	De Novo Banks	Established Banks
TOTASSET	25.07**	16.45**	12.75**	4.84**	25.25**
DIVIDEND	-66.61**	-49.51**	-40.94**	-4.56**	-66.03**
TAXINC	215.96**	173.69**	126.86**	22.24**	217.15**
AGE	-11.86**	-6.09**	-3.78**	0.80	-8.69**
ASSETGRO	21.21**	11.93**	11.70**	3.32**	17.23**
PROFGRO	-9.58**	-8.60**	-6.13**	-3.15**	-9.25**
LLR2TA	2.23*	2.62*	-0.24	4.65**	0.88
EBTROE	-14.63**	-9.47**	-13.23**	-2.81**	-13.10**
EBTROA	-13.70**	-7.36**	-11.52**	-3.52**	-11.65**
NIM	-7.52**	-0.15	-12.82**	-2.14*	-6.21**
CAPRATIO	4.41**	5.51**	4.96**	-0.83	5.06**
AGLOANS	-22.74**	-14.86**	-9.55**	-2.93**	-21.76**
LOAN2TA	2.78**	0.27	0.91	2.32*	1.41
CNILOANS	-7.51**	-5.98**	-7.22**	-0.32	-8.75**
COREDEPS	-12.22**	-0.14	-8.72**	-2.11**	-10.96**
LOAN2DEP	5.03**	0.81	3.78**	2.63*	3.72**
NETCHARG	-1.28	1.36	-2.40*	1.24	-1.22
RURAL	-19.27**	-	-	-3.49**	-17.80**
DENOVO	12.31**	4.10**	8.87**	-	-
PUBLIC	32.78**	15.36**	27.56**	8.11**	32.29**
STATEREG	1.27	-3.70**	7.57**	0.83	1.12
BUILTIN	-9.14**	-11.58**	-1.07	-1.85	-8.57**
LOSSCF	-39.71**	-32.13**	-24.41**	-6.59**	-40.84**
AMT	-4.99**	3.57**	-7.10**	-2.32*	-3.28**

Notes: TOTASSET is total assets in $000's; DIVIDEND is dividends paid scaled by pre-tax profit; TAXINC is current tax provision divided by the maximum tax rate, scaled by assets ; AGE is bank age in years; ASSETGRO is the growth in assets averaged over the last three years; PROFGRO is the growth in profit averaged over the last three years; LLR2TA is loan-loss reserves to total assets; EBTROA is profit before taxes divided by total assets; EBTROE is profit before taxes divided by total equity; NIM is interest income less interest expense, scaled by assets; CAPRATIO is equity divided by assets; AGLOANS is total agricultural loans scaled by assets; LOAN2TA is total loans to total assets; CNILOANS is commercial and industrial loans to assets; COREDEPS are transactions accounts and small time deposits scaled by assets; LOAN2DEP is total loans to total deposits; NETCHARG is net chargeoffs to total assets; RURAL is an indicator equal to one if the bank is not in a MSA; DENOVO equals one if the bank is less than five years old and zero otherwise; PUBLIC is an indicator equal to one if the bank is publicly traded; STATEREG is an indicator for favorable tax treatment of Sub-S status ; BUILTIN is market less book value of investment securities, scaled by assets; LOSSCF is one if the prior three year's losses are greater than the current year profit; AMT is income from tax-exempt securities divided by assets for the prior three years.
**Indicates statistical significance at the 0.01 level.
*Indicates statistical significance at the 0.05 level.

Table 8 Logistic regression with Sub-S selection equal to one in the year of conversion.

	Full Sample (Sub-S = 1928, C-corp. = 38749)		Size-constrained sample (Sub-S = 1,928, C-corp. = 37317)	
Variable	estimate	p-value	estimate	p-value
Intercept	-10.1777**	<.0001	-10.3507**	<.0001
YR98	1.4983**	<.0001	1.5010**	<.0001
YR99	6.8262**	<.0001	6.8351**	<.0001
YR00	6.9929**	<.0001	7.0019**	<.0001
YR01	7.2130**	<.0001	7.2205**	<.0001
YR02	7.2841**	<.0001	7.2897**	<.0001
YR03	7.3968**	<.0001	7.4028**	<.0001
STATEREG	0.0484	0.4328	0.0483	0.434
PUBLIC	-1.7308**	<.0001	-1.6898**	<.0001
RURAL	0.0028	0.9675	0.0020	0.9768
DENOVO	-1.9943**	<.0001	-1.9925**	<.0001
AGE	0.0036**	<.0001	0.0037**	<.0001
DIVIDEND	101.2000**	<.0001	101.4000**	<.0001
TAXINC	-1394.6000**	<.0001	-1394.8000**	<.0001
BUILTIN	-0.0234	0.9975	-0.2577	0.9725
LOSSCF	0.6633**	<.0001	0.6609**	<.0001
AMT	-215.6000**	<.0001	-221.7000**	<.0001
ASSETGRO	0.4908	0.1483	0.4746	0.164
PROFGRO	0.1834**	<.0001	0.1825**	<.0001
CAPRATIO	-11.5531**	<.0001	-11.5889**	<.0001
LNASSETS	-0.0002	0.9953	0.0185	0.6406
EBTROA	373.9000**	<.0001	373.9000**	<.0001
NIM	-19.6161**	0.0007	-19.1372**	0.001
LLR2TA	-9.0977	0.4533	-8.1792	0.5005
AGLOANS	2.2669**	<.0001	2.3014**	<.0001
LOAN2TA	2.7864**	0.0003	2.5049**	0.0014
CNILOANS	1.7844**	<.0001	1.7889**	<.0001
COREDEPS	0.7802*	0.0289	0.7664*	0.0321
LOAN2DEP	-1.2281*	0.0432	-1.0401	0.0895

Notes: YRXX is an indicator equal to one in year XX and zero otherwise; STATEREG is an indicator for favorable tax treatment of Sub-S status ; PUBLIC is an indicator equal to one if the bank is publicly traded; RURAL is an indicator equal to one if the bank is not in a MSA; DENOVO equals one if the bank is less than five years old and zero otherwise; AGE is bank age in years; DIVIDEND is the proportion of dividends to pre-tax income; TAXINC is current tax provision divided by the maximum tax rate, scaled by assets ; BUILTIN is market less book value of investment securities, scaled by assets; LOSSCF is one if the prior three years' losses are greater than this year's profit; AMT is the prior three years tax-exempt income scaled by assets; ASSETGRO is the growth in assets averaged over the last three years; PROFGRO is the growth in profit averaged over the last three years; CAPRATIO is equity divided by assets; LNASSETS is the log of total assets; EBTROA is profit before taxes divided by total assets; NIM is interest income less interest expense, scaled by assets; LLR2TA is loan-loss reserves to total assets; AGLOANS is agriculture loans to total loans; LOAN2TA is total loans to total assets; CNILOANS is commercial and industrial loans to assets; COREDEPS are core deposits to total deposits; LOAN2DEP is total loans to total deposits. **Indicates statistical significance at the 0.01 level.* Indicates statistical significance at the 0.05 level.

References

Berger, Alan, L Klapper and Gregory Udell, "The Ability of Banks to Lend to Informationally Opaque Small Businesses," *Journal of Banking and Finance*, 25, 2001, 2127-2167.

Berger, Allen N. and Gregory F. Udell. "Small business credit availability and relationship lending: The importance of bank organizational structure". *The Economic Journal* 112, no. 477, 2002 : 32-53.

Brickley, James, Linck, James and Clifford Smith, Jr., "Boundaries of the Firm: Evidence from the Banking Industry," *Journal of Financial Economics*, 70, 2003, 351-383.

Cyree, K.B., and J.W. Wansley, "De Novo Bank Growth Choices and Performance: Implications for the Future of Community Banking," 2004 Working Paper.

DeYoung R. and I. Hasan, "The Performance of De Novo Commercial Banks: A Profit Efficiency Approach," Journal of Banking and Finance, 22, 1998, 565-587.

DeYoung, R., K. Spong, and R. J. Sullivan, 2001, Who's Minding the Store? Motivating and Monitoring Hired Managers at Small, Closely Held Commercial Banks, *Journal of Banking and Finance* 25, 1209-1243.

Froot, Kenneth and Jeremy Stein, "Risk Management, Capital Budgeting, and Capital Structure Policy for Financial Institutions: An Integrated Approach," *Journal of Financial Economics*, January 1998, 55-82.

Harrington, Scott and Greg Niehaus, "Capital Structure Decisions in the Insurance Industry: Stocks versus Mutuals," *Journal of Financial Services Research*, 21 (2002), 145-163.

Hirtle, B.,"Stock Repurchases and Bank Holding Company Performance," *Journal of Financial Intermediation*, 2004, 13, 28-57.

Hodder, L., M.L. McAnally and C.D. Weaver, "The Influence of Tax and Nontax Factors on Banks' Choice of Organizational Form," *The Accounting Review*, 78-1 (2003), 297-325.

Irvine, Paul and James Rosenfeld, "Raising Capital Using Monthly-Income Preferred Stock: Market Reaction and Implications for Capital-Structure Theory," *Financial Management*, 2000, 5-20.

Lerner, J. and A. Schoar, "The Illiquidity Puzzle: Theory and Evidence from Private Equity," *Journal of Financial Economics*, 2004, 72, 3-40.

Nakamura, L, “Small Borrowers and the Survival of the Small Bank: Is Mouse Bank Mighty or Mickey?” *Business Review*, Federal Reserve Bank of Philadelphia, November-December 2004, 3-15.

Peterson, M and R Rajan, “Does Distance Still Matter? The Information Revolution in Small Business Lending,” *Journal of Finance*, 57, 2002, 2533-2570.

Yeager, Timothy, “The Demise of Community Banks? Local Economic Shocks are not to Blame,” *Journal of Banking & Finance*, September 2004, Vol. 28, No. 9, 2135-2153.