

Votes without Dividends: Managerial Control through Bank Trust Departments

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Abstract

In this paper we examine the effects of fiduciaries holding stock in themselves in a fiduciary capacity. These shares provide no direct incentives to the fiduciary manager, since the beneficiary has the claim to all cash-flows from the stock. In his capacity as fiduciary manager, however, the manager may be able to vote these shares and thus increase his voting control over his own corporation. Using a unique sample of data on 210 of the 300 largest banks in 1966, we document that the amount of voting rights banks may control in themselves through their trust departments may be significant. We use this fact to investigate the effect of managerial voting control on firm value, as proxied by Tobin's Q. In our sample firm value does not decrease as banks (and hence managers) obtain more shares that have some voting control when voting stakes are not too large. In certain specifications we find an inverse U-shaped relation between firm value and voting control.

State laws differ in the extent to which they restrict the voting of shares held in trust. Given the nature of our data we are able to exploit this variation to address the potential endogeneity of voting control in our regressions in an instrumental variable framework. Our results are robust to various specifications and to using return on assets as an alternate performance measure, and are generally consistent with theory.

1 Introduction

In 1932, Berle and Means pointed out the conflict of interest inherent in the separation between ownership (by shareholders) and control. Since then agency theory has explored the potential adverse effect the concentration of control in the hands of managers may have for shareholders. With more control managers may run the firm to their own benefit, to the detriment of shareholders (e.g. Jensen and Meckling 1976). Managerial control, however, may not be all bad as, for example, Bolton and Scharfstein (1998) point out, since it may also provide managers with an incentive to invest in firm-specific human capital. The purpose of this paper is to evaluate the effect the concentration of managerial control through voting rights has on the value of the firm.

Berle and Means (1932) identified two main sources of control: share ownership and legal devices. Legal devices may include 1) pyramiding, 2) nonvoting common stock, 3) stock with disproportionate voting power, and 4) the voting trust. Most empirical studies of the effect of a concentration of managerial control on firm value in the United States have focussed on control through share ownership because these other legal devices are relatively uncommon. For example, out of the thousands of corporations with publicly traded stock in 1980, De Angelo and De Angelo (1985) were able to identify only 78 corporations that assigned shares on other than a one-share-one-vote basis.

Thus, it is difficult to use any of the four legal devices to evaluate the costs and benefits of increasing managerial control in the United States. Evaluating the effect of an increase in managerial control through share ownership, however, is subject to its own problems. Shares may provide managers not only with voting rights, but also cash-flow rights, which may align their incentives with those of shareholders. Thus the effects of cash-flow rights and voting rights may oppose each other. As a consequence, Stulz (1988), for example, hypothesizes that the incentive effects of ownership *may* counteract the detrimental effect of too many inside voting rights resulting in a monotonically increasing relationship between firm value and managerial ownership.

Empirically the effects of voting control are difficult to disentangle from the incentive effects of ownership. This is particularly true if voting control has some positive effects. A finding that firm value is positively related to ownership could mean either that both incentives and voting control have positive effects or that the incentive effects of ownership dominate the adverse control effects of ownership. La Porta, Lopez-de-Silanes, Shleifer and Vishny (2002) and Claessens, Djankov, Fan and Lang (2002) argue that the problems of disentangling the incentive effects from the control effects of ownership are particularly severe for U. S. data. For

that reason they both use international ownership data in their studies. However, La Porta, Lopez-de-Silanes, Shleifer and Vishny (2002) point out that the problems of disentangling the incentive from the control effects may also plague international ownership data.

While Berle and Means (1932) did not discuss these issues in their earlier work, by 1959 Berle (also Berle and Means 1968) was deeply concerned with the rising importance of another mechanism of control: the intervention of the fiduciary institution. Berle argued (1959, p. 63-64) that the rapid rise of mutual funds, pension trusts and insurance companies was leading to the final divorce of ownership from control:

Now this stock certificate, carrying a right to receive certain distributions and to vote, begins to split. Once it is bought by a fiduciary institution, be it pension trust, mutual fund or insurance company, that institution becomes the "stockholder," holds legal title to the stock certificate and to its right to vote. But it has by contract dedicated the dividends or other benefits to distribution among beneficiaries under the pension contract, the fund arrangement, or the insurance policy. The one remaining power by which the recipient of corporate profits might have direct relation to corporate ownership has been divided from the benefit itself.

Since 1959 several papers have examined the conflict of interest between the beneficiaries and the fiduciaries of a stock, but they have focused on the implications of this conflict for institutions other than the fiduciary institution (e.g. Jarrow and Leach 1991, Payne, Millar and Glezen 1996, Brickley, Lease and Smith 1988). However, the conflict of interest between fiduciary managers and beneficiaries is likely to be greater when the object of concern is the fiduciary manager's own corporation. Thus, a situation in which fiduciaries hold stock in *themselves* in a fiduciary capacity provides a unique setting to examine the effects of managerial control. These shares provide no direct incentives to the fiduciary manager, since the beneficiary has the claim to all cash-flows from the stock. In his capacity as fiduciary manager, however, the manager may be able to vote these shares and thus increase his voting control over his own corporation.

Attention to this issue first emerged when a study by the Subcommittee on Domestic Finance published in 1964 (U.S. House 1964) detailing the 20 largest stockholders of record in the member banks of the Federal Reserve System in 1962 found that "brokerage houses and nominees of bank trust departments appeared among the 20 largest stockholders of record in bank after bank" (U.S. House 1964, p. 799).¹ Concerns with these holdings led the Subcommittee to undertake another study (U.S. House 1966) to determine to what extent bank managers could control their bank through shares held in a fiduciary capacity in their trust departments. Since

¹ A nominee is the registered owner of a stock or bond if different from the beneficial owner. For example, if the actual owner does not wish to be identified, he may appoint a nominee.

non-financial firms are generally not allowed to vote their own treasury stock to prevent them from accumulating control in themselves, the authors of the study asked, why should banks be allowed to vote their own shares held through their trust business? For 210 of the 300 largest commercial banks surveyed, the subcommittee found that 196 banks held shares in themselves in a fiduciary capacity. More importantly, 162 of those had voting power over the shares they held in themselves in a fiduciary capacity. These studies highlight, therefore, that fiduciaries hold their own stock in a fiduciary capacity sufficiently often to provide a unique opportunity to study the effect of managerial control on firm value.²

The Subcommittee on Domestic Finance discussed at length the implications for the separation between ownership and control of the ability of fiduciaries to hold shares in themselves in a fiduciary capacity, but, to our knowledge, the Subcommittee never analyzed the data in a systematic way. Our contribution (beyond drawing attention to this issue again) is to examine the effect that managerial voting power obtained in this way has on the value of the firm (here: the fiduciary institution).

Berle (1959) did not mention bank trust departments as important fiduciary institutions, however at the time relatively little was known about the size of fiduciary holdings in different institutions. There is evidence that the banking sector trust business grew rapidly in the middle of the 20th century.³ The security offered by the extensive federal and state regulatory oversight they were subject to, as well as their ability to offer pooled investment funds was very attractive to many trust settlers. The growth of various types of employee benefit plans after World War II also contributed to a rapid growth of the bank trust business.

By 1966 the Subcommittee determined that “most trust business is carried out by banks” (U.S. House 1966, p. 811),⁴ therefore a natural choice of data set for our purposes here is the data the Subcommittee itself collected. This data includes detailed information on fiduciary ownership and voting control for 210 of the 300 largest banks in 1966 as well as market values for the sample firms. Besides quantifying the amount of voting control banks have over the shares they hold in themselves in their trust departments (henceforth: own-bank shares), this data

² In the conclusion we also point out that this is not just a historical phenomenon.

³ National banks gained trust powers only with the Federal Reserve Act of 1913, but many of them entered the trust business prior to 1913 by affiliating with trust companies (Herrick (1909) and Barnett (1911)). See Herman (1975) for an analysis of the evolution of the trust business in the U.S. until the early-1970s.

⁴ The National Banking Review (1966) estimated that the value of holdings in bank trust departments, \$215 billion at the end of 1965, was larger than the total value of assets held by each of these financial institutions: savings and loan associations, all mutual funds, all insurance companies, and the deposits of all the mutual savings banks in the entire United States in that year. Also in a congressional report (U.S. House 1966), it was estimated that commercial banks held \$93 billion in common stocks in their trust

has other features that make it particularly attractive for our purposes here. For example, firms in our sample are fairly homogeneous since they are all banks and in 1966 banking activities were still heavily restricted. Kaplan and Gertner (1996), Romano (1996) and Hermalin and Weisbach (2001) argue that optimal governance may differ across industries, making it difficult to identify the effect of governance on performance in multi-industry samples. The homogeneity of our sample may make it easier for us to identify the effect of managerial control through voting power on firm value, especially since Boyd and Runkle (1993) argue that mismeasurements in market-based measures of performance, such as Tobin's Q, may be less severe in the banking industry than in manufacturing.

Based on theories about managerial voting control we expect to see a non-linear relationship between managerial voting control and firm value in our data. For example, Stulz (1988) argues that some voting control by insiders (management) may increase firm value because it ensures a higher bid premium in a hostile takeover contest, but too much voting control in the hands of insiders may prevent value-enhancing takeovers. Alchian and Demsetz (1972) and Fama (1980) also argue that some voting control in the hands of management may be beneficial. If outside stockholders can transfer control to another management group, managerial voting control may reduce the need for costly communication, as well as encourage managers to invest in organization specific capital. If information about managerial performance and investment opportunities is difficult to communicate to outsiders then insider-managers' voting rights may deter relatively uninformed outside stockholders from mistakenly replacing the incumbent management team with a less productive group (Alchian and Demsetz 1972). Similarly, vote ownership can shield management from the appropriation of the returns to organizational-specific investment by other management teams (Fama 1980).⁵

We examine the relationship between voting control and firm value using a proxy for Tobin's Q as a measure of firm value. Our primary proxy for managerial voting power is the proportion (relative to total shares outstanding) of own-bank shares managers can vote. This represents the "wedge" between total control by bank managers and managerial direct ownership and thus measures the extent to which control by managers is not affected by managerial incentives (see also La Porta, Lopez-De-Silanes, Shleifer and Vishny (2002) and Claessjens, Djankov, Fan and Lang (2002)). Since managerial direct ownership also comes with voting rights, we also use the

accounts which was almost the amount that all combined pension funds, investment companies, insurance companies, banks, and State and local trust funds held directly as of 1965 (\$105.8 billion).

⁵ This list of theories about the benefits of managerial voting power is not exhaustive. For example, Grossman and Hart (1988) argue that a controlling voting stake may be efficient when private benefits are a return to large sunk investments. See also Harris and Raviv (1988).

sum of managerial direct holdings and own-bank shares with voting rights as a measure of total voting control in some specifications.

We first identify the relationship between voting control and Tobin's Q in an OLS framework. Then we address the potential endogeneity of voting control in an instrumental variable framework. To do this we need instruments that are correlated with voting control but uncorrelated with firm value except through variables that are included in the equation explaining firm value. In 1966 there was considerable variation in state law regarding the ability of trustees to vote shares they hold in a fiduciary capacity. Thus we use dummy variables characterizing how lenient different states are with respect to the trustee's ability to vote as instrumental variables. Since these legal dummies are specifically related to the ability of the trustee to vote shares held in a fiduciary capacity, we have no reason to believe that these variables should be correlated with firm value other than through the effect that own-bank votes have on firm value. On the other hand, since the laws underlying our instruments restrict the trustees' ability to vote own-bank shares to varying degrees, we believe that they must be correlated with own-bank voting power.

In our OLS regressions we find that firm value generally does not decrease as managerial voting control increases for small voting stakes. In general there appears to be a non-linear relationship between Tobin's Q and voting control: Tobin's Q increases with voting control until voting control reaches 16.70%-19.99%, then it declines again. Once we address the potential endogeneity of voting control the effect of voting control on Tobin's Q becomes insignificant. However, the results still exhibit an inverse-U shape, consistent with the OLS regressions. In the 2SLS specifications Tobin's Q starts declining at much smaller levels of voting power, indicating that there may be some endogeneity due to feedback in the OLS regressions.

When we use ROA as an alternate measure of performance, we also find an inverse U-shaped relation between voting control and performance that is significant in some of the 2SLS specifications. Our results are thus similar across specifications. Overall, our results are consistent with theory. Since the maximum increase in Tobin's Q due to voting control ranges between $\frac{1}{2}$ to $1\frac{1}{2}$ times the standard deviation of Tobin's Q in our sample, we conclude that our results also appear to be economically significant.

The remainder of the paper is organized as follows. In section 2 we put our paper in the context of the literature. In section 3 we discuss institutional details concerning banks' ability to hold and vote their own shares through their trust departments. In section 4 we describe our data and proxies for managerial voting control. Section 5 describes the empirical relationship between Tobin's Q and voting control. In section 6 we perform various robustness checks and discuss the

economic significance of our results. In section 7 we briefly discuss the implications of the fiduciary relationship for the relationship between firm performance and beneficial ownership. Section 8 concludes.

2 Related literature

There is vast literature on corporate votes. Our paper is primarily related to papers that have examined the effect of voting control by one shareholder on the non-controlling shareholders, i.e. on the total value of the firm. Several papers have examined the effect of *managerial* voting control through ownership on firm value.⁶ Morck, Shleifer and Vishny (1988) find a non-linear relationship between Tobin's Q and managerial ownership and argue that the negative effects of voting rights attached to ownership dominate the incentive effects over certain ranges of ownership. McConnell and Servaes (1990) and Holderness, Kroszner and Sheehan (1999) provide similar interpretations for the non-linear relationships between Tobin's Q and inside ownership they describe. However, in general these papers do not distinguish between cash-flow rights and voting rights attached to ownership.⁷

Several papers have recently tried to disentangle the two effects. Grullon and Kanatas (2001) define cash-flow rights separately from voting rights in a sample of firms with a dual class structure.⁸ While the focus of their paper is primarily on the relation between managerial incentives and capital structure, they find a positive (negative) relationship between voting rights by insiders and firm value when voting rights are below 5% (above 25%), which is consistent with the non-linear (inverse U-shaped) relationship we find. However, owning shares in oneself in a fiduciary capacity is relatively more common for banks (at least in 1966) than dual class structures in the United States, thus we are able to analyze a bigger cross-section of firms.⁹

Another set of papers (e.g. Chang and Mayers 1992, Gordon and Pound 1990, Dhillon and Ramirez 1994, Chaplinsky and Niehaus 1994) use ESOPs to examine the effect of

⁶ Even if the number of shares managers own is equal to the number of voting rights, managers' effective voting power may be affected by other factors other than their direct control of votes. Examples of these factors are capital structure changes or staggered voting rules for directors (see Stulz 1988 and Mikkelsen and Partch 1989). We do not address these issues in this paper.

⁷ For a more extensive survey of this literature, see Demsetz and Villalonga (2001).

⁸ There are other papers on dual class structures that we do not describe in detail here. Lease, McConnell and Mikkelsen (1983, 1984) first documented that superior voting shares in firms with dual class shares trade at a premium. Zingales (1995) argues that this premium reflects the value of the private benefits of control to the controlling shareholder. Other papers focus on stock market responses to the announcements of the introduction of a dual class of shares (e.g. Jarrell and Poulson 1988, Partch 1987). In general the results of these papers are mixed.

managerial voting power on firm value. These papers are very similar to ours since the trustee of an ESOP may be able to vote at least the unallocated shares in the ESOP without being entitled to all the corresponding cash-flow claims. The shares a bank holds in itself in its trust department may also include its unallocated ESOP shares. However, there are several key differences between ESOP shares and the non-ESOP trust shares a bank holds in itself. The first is that, as Chaplinsky and Niehaus (1994) point out, non-managerial employees typically control ESOP shares, thus ESOP shares measure managerial voting power to the extent that the employees' incentives are aligned with those of management. In contrast non-ESOP trust shares are more directly controlled by management. Second, some of the non-ESOP trust shares may have been given to the bank to hold in trust by the trust client instead of being put in trust by management. In addition bank managers do not automatically obtain the voting rights over non-ESOP shares held in trust. This means that potential endogeneity problems may be smaller in samples of trust department shares than in ESOP samples (as well as in dual class samples).

Perhaps more importantly, ESOPs are often introduced to achieve a variety of non-control related objectives, including 1) to provide incentives for employees, 2) to obtain tax advantages or 3) to obtain cheap financing, since the cost of borrowing may be lower through an ESOP (e.g. Chang and Mayers 1992). In addition courts have ruled that CEOs that act as trustees of their firm ESOP plan should step down in favor of more neutral trustees in cases involving takeover attempts, whereas we are unaware of similar rulings concerning non-ESOP trust shares.¹⁰ Thus it may be difficult to interpret empirical results using ESOP shares purely in terms of managerial control. In contrast, non-ESOP shares that banks hold in themselves in trust will not provide incentives for employees. They provide no clear tax advantages to the banks and, since the shares in trust are purchased with the funds from the trust and not a debt obligation, as is often the case for ESOPs, they have no clear benefit for financing.¹¹ Thus we believe that it may be easier to interpret results using trust shares banks hold in themselves to measure voting control as providing direct evidence on the effect of managerial control.

In general the ESOP papers have analyzed stock price reactions to ESOP announcements. Chang and Mayers (1992), Gordon and Pound (1990), Dhillon and Ramirez (1994) and Chaplinsky and Niehaus (1994) all find some evidence of managerial entrenchment. In cross-sectional analyses of abnormal announcement returns, however, Chang and Mayers (1992),

⁹ Over the whole time period 1963-1997 their sample selection criteria identified only 74 dual-class firms. However, they are able to follow their firms over time, thus they have 645 firm-years of data.

¹⁰ See Krikorian (1995) for a presentation and discussion of several court cases involving ESOPs.

Dhillon and Ramirez (1994) and Chaplinsky and Niehaus (1994) find that there are beneficial effects of ESOPs at low levels of managerial ownership. Thus the conclusions of these papers are similar to ours, although the methodology is different.

Our paper is also related to two recent papers that argue that the divergence between ownership and control is greater outside the United States and analyze the implications of this separation for shareholder value (Claessjens, Djankov, Fan and Lang 2002, La Porta, Lopez-De-Silanes, Shleifer and Vishny 2002). The firms in the samples in these papers are generally controlled by a large shareholder. Thus the focus of these papers is on the conflict of interest between the large shareholder and the minority shareholder. As the authors of these studies note, in contrast to firms in Europe, Asia and Latin America corporations in the United States tend to be widely held. This difference is important, because as Berle and Means (1932) argued, the relevant conflict for the widely held corporation is the conflict between managers and minority shareholders. In our paper, we focus on the effect of managerial control.¹² Moreover, since we do not have measures of cash-flow rights separate from voting rights, we also focus primarily on voting rights, rather than on both cash-flow and voting rights as those papers do.

Contrary to our paper, Claessjens, Djankov, Fan and Lang (2002) find no positive effect of control on firm value. This is not surprising since the effect of managerial control on firm value may be different than the effect a controlling shareholder has on firm value. Since a large shareholder need not be directly involved in the day-to-day management of the firm, he may not need to invest in firm-specific human capital or worry about expropriation by outside shareholders. Thus while the literature predicts a positive relation between large shareholder cash-flow rights and firm value (e.g. Shleifer and Vishny 1986), to our knowledge it does not generally predict a positive relation between control by large shareholders and firm value.

Other than through ESOPs, the mechanism of obtaining control through shares held in a fiduciary capacity we describe here is unique to financial institutions. Thus although ultimately more general in focus, our paper also contributes to the relatively small literature on the governance of banks and financial institutions in general. One paper in this literature is Gorton and Rosen (1995), which focuses primarily on the relationship between ownership by banking firm managers and managerial risk-taking, but also examines the relationship between firm performance, as measured by return on assets (ROA) and inside ownership, which is not

¹¹ Trust shares may provide indirect incentives for bank managers, because the bank gets paid for managing the trust portfolio and this pay may increase with the performance of the trust portfolio. Since the trustee's stock is likely to be only one component of the portfolio, it is not clear that these incentives are very strong.

significant in their sample. Gorton and Rosen's (1995) inside ownership data includes shares held by the bank's trust department, but they do not distinguish between cash-flow rights and voting rights attached to the shares. Our data suggests that the divergence between cash-flow rights and voting rights for fiduciary institutions may be significant. This divergence also suggests that financial institutions may be different from non-financial institutions in their ownership structures at least in the United States.

One major difference between our paper and other papers examining the relationship between control and firm value is that our data allows us to address the potential endogeneity of control in an instrumental variable framework. In addition most papers that have addressed the endogeneity of ownership in regressions of firm value on ownership (e.g. Demsetz and Lehn 1985, Hermalin and Weisbach 1988, Himmelberg, Hubbard and Palia 1999, Demsetz and Villalonga 2001, Palia 2001, Kole 1996, Cho 1998, Loderer and Martin 1997), focus primarily on the *incentive* effects of ownership, not on the *control* effects. For example, Demsetz (1983) and Demsetz and Lehn (1985) argue that inside ownership is endogenous for reasons related to managerial incentives, not because of the ability of management to manipulate votes. More explicitly, Palia (2001) looks at the relationship between managerial *compensation* and firm performance, not ownership and firm performance, and includes options in his calculation of managerial pay-for-performance sensitivity, which have no voting rights.

It is important to note that we are able to examine the potential endogeneity of control precisely because of the unique nature of our sample. Because voting power is obtained through shares held in a fiduciary capacity in our paper, we can exploit variation in state law regarding the ability of trustees to vote these shares. Such laws would not be obviously useful as instruments for managerial direct holdings of shares (i.e. shares they hold for their own accounts), nor could they be used as instruments for ESOP control after 1974, since ERISA governs all private pension plans and supersedes all state laws regarding private pension plans.

3 The Trust Business of Banks

To fully understand the bank trust business, it is important to consider both bank trust activities and the regulatory framework applicable to these activities. We briefly discuss these issues in this section and review in more detail two issues directly related to our research: bank

¹² The banks in our sample are big, thus they are likely to be widely held. If they were not it is likely that they were family controlled. We believe the relevant conflict in family controlled corporations is also between management and minority shareholders.

ownership and voting of its own stock held in a fiduciary capacity. We focus on the conditions that existed in the late 1960s because our data corresponds to this time period, but also indicate major changes in the law that have occurred since then.¹³

3.1 The Regulatory Environment of Bank Trust Services

In the 1960s, as today, the trust services a bank could provide were determined by the type of charter it held, the state in which it was incorporated, and the trust powers it had received regulatory permission to provide. National banks, for example, had to seek permission from the Comptroller of the Currency to offer trust services. The OCC in turn could only grant trust powers that were granted by state law to state banks where the national bank was headquartered.

Trust powers typically include authority to act as a trustee and to hold and manage assets as an agent or in other capacities, such as receiver, executor, or guardian. Bank trust activities usually range from simple services, as to provide a depository account or limited administrative functions, to complex services, including the selection of trust investments and the exercise of the voting rights of the stock held in trust.

A key federal law on pension plans, the Employee Retirement Income Security Act, was passed only in 1974, but beforehand a bank that wanted to offer trust services had already to meet a vast array of obligations.¹⁴ These included fiduciary duties of the state and federal fiduciary law, provisions of the state and federal banking and securities law, regulations of the bank's supervisor, and trust accounts and pension plan's requirements.

As a trustee, a bank had the duty of loyalty, that is, to act solely in the interests of and for the exclusive purpose of benefiting account and plan beneficiaries. It also had the duty of care, that is, to act with the care and diligence of a prudent person acting in a like capacity. The bank also had to meet the federal and state banking law on trust business and regulations of its supervisory agency.

In the case of national banks, the federal law imposed only few restrictions on their trust businesses. Some of these restrictions dealt with the requirement that funds held in trust could not be used in the conduct of the bank's business without first setting aside an equivalent amount of approved securities as collateral. Other restrictions prohibited banks to lend any funds held in trust to bank directors, officers and employees. National banks also had to meet the regulations

¹³ See PricewaterhouseCoopers (1999) for a summary of the statutory, regulatory, and judicial principles on trust activities of financial institutions and Krikorian (1995) a very detailed account of this body of law.

promulgated by their supervisor, the Comptroller of the Currency. These regulations, called Regulation 9, can be grouped into a few general categories such as operational matters, compliance with other bodies of law, and investment standards (more on this below).

State chartered banks were not subject to Regulation 9. They had, however, to meet some restrictions imposed by their supervisory agency, the Federal Reserve System in the case of member banks and the Federal Deposit Insurance Corporation in the case of non-member banks. In addition, and more importantly, they had to meet the state trust law where they were chartered.

It is beyond the scope of this paper to discuss state trust laws because they vary significantly across states and have also changed over time. However, as a reference and also because of its importance, it is worth reviewing some of the main provisions of New York State trust law. This law authorized banks to, among other things, act as guardian, receiver, and trustee with such duties and powers as may be conferred upon it by any person, corporation or court. It also authorized banks to establish common trust funds. Banks that offered trust business, however, had to meet a set of specific provisions that were part of the General Regulations of the Banking Board, which included restrictions on their trust investments and other fiduciary standards similar to those of Regulation 9.

3.2 Investment in the Bank-Owned Stock through the Trust Department

Banks must invest the funds held in a fiduciary capacity according to the fiduciary principles, the terms of state law where they are headquartered, their supervisor's regulations, and the terms of the trust instrument.¹⁵ The duty of loyalty requires a trustee not to have any personal interest in transactions involving trust property that might affect his judgement about the interests of the beneficiaries. To avoid conflicts of interest, a bank should not purchase for the trust shares of its own stock or other interests in the corporation or its subsidiaries unless the beneficiary has consented to it in advance.¹⁶ The OCC imposed similar restrictions on national banks through section 9.12 of Regulation 9, which contains rules against self-dealing. This section prohibits national banks to purchase shares of its own stock for a customer's account unless properly authorized by the terms of the governing instrument, court order, or local law.

¹⁴ ERISA was a major development in fiduciary law because it regulated the terms and administration of employee benefit plans of private sector employees and set out fiduciary rules and standards applicable to these plans.

¹⁵ See Bogert and Bogert (1973), Chapter 12, for a detailed discussion of the duties of trustees in the selection of investments.

¹⁶ Under ERISA, pension plan assets may be invested in a fiduciary institution if the investment is expressly authorized by the plan documents or another properly empowered fiduciary.

A trustee also needs to account for its duty of care. States originally adopted either the “Prudent Man Rule” or the “Legal List” also called the New York rule to determine what investments met this duty, but by the mid of the 20th century the former rule had become dominant because the list approach had proven too inflexible.¹⁷

Finally, in choosing the investments a trustee needs to consider the terms of the trust instrument. Some instruments may give banks full investment discretion while others may require them to exercise it in consultation with a cotrustee, settlor, or some other designated fiduciary. Some trust settlors or pension plans sponsors may also choose to retain investment discretion for themselves or delegate it to a third party.

In sum, a bank as any other corporation, can become the “owner” of a portion of its own stock by investing in it part of its pension plan funds or by establishing an ESOP. In contrast to most of the other corporations, a bank, however, by operating a trust department can further increase such equity stake. The bank, for example, may become the trustee for trust accounts or pension plans for other corporation that have invested the bank’s own stock. In addition, and in the cases where the trust instrument specifically allows, the bank may choose to invest some of the trust funds in its own stock.

3.3 Bank Ability to vote its Own Stock held in Trust

Banks are often granted authority to vote the shares they hold in a fiduciary capacity.¹⁸ Their voting discretion may, however, be subject to varying degrees of control imposed by the settlor or sponsor of the funds being managed.¹⁹ Banks have full discretionary power over shares acquired for their collective investment funds. When a bank is the investment manager for assets not placed in collective accounts, it generally has voting as well as investment discretion over shares acquired with those assets. But some clients require banks to observe restrictions, share the voting authority with other parties, or delegate the voting power entirely to a third party.

¹⁷ ERISA established a prudent person rule for employee benefit accounts that differs from the common law concept in that it applies to the total portfolio rather than to individual investments within the portfolio.

¹⁸ According to a Greenwich Associates survey conducted in the mid 1980s cited by Krikorian (1995), two-thirds of 1,499 large U.S. corporations have granted managers of their pension plans “complete freedom in proxy voting on such issues as anti-takeover provisions and voting for directors.”

¹⁹ Note that in the case of the bank’s own pension plan or its ESOP the bank in general will have a great deal of authority over the voting rights of the shares in these plans because the trustees or other entity with voting and investment discretion over these plans’ shares will typically be company directors, officers or other persons controlled by management.

When a bank has voting authority, its own portfolio or fund managers usually provide the first level of decision making on proxy matters.²⁰ Controversial proxy proposals are frequently reviewed by the head of the investment research department, a committee of senior bank officers and, sometimes, a committee of the board of directors. For shares held in a custodial capacity, the bank may be instructed to vote with management on routine corporate matters and send the proxies—signed in blank—to the investment manager for action in all other cases.

Federal and state law allow banks to vote the stock they hold in a fiduciary capacity, regardless of whether this stock is of banks or any other corporation, but it imposes some restrictions on corporations, including banks, voting their own stock held in a fiduciary capacity.

Federal law provides only one significant restriction on the voting of stock held by a bank in a fiduciary capacity and this restriction applies only to national banks. Under 12 U.S.C., section 61, “in the case of national banks, in an election of directors, shares of its own stock held by a national bank as a sole trustee, whether in its own name as such trustee, or in the name of its nominee, shall not be voted by the registered owner unless under the terms of the trust the manner in which such shares shall be voted may be determined by a donor or beneficiary who actually directs how such shares shall be voted”. National banks can, therefore, vote their own shares they hold as a sole fiduciary on all matters other than the election of bank directors.²¹

With respect to state banks, as expected there is little uniformity in state law in this regard. However, a survey of state laws in the 1960s cited in our data source reveals that states could be grouped in four different categories (see table 1). At one end of the spectrum there are 7 states with a specific statutory provision prohibiting corporations to vote their own shares held in a fiduciary capacity. The remaining 43 states allowed corporations to vote their stock held in a fiduciary capacity. 24 of these 43 states had no statutory provision on the power of the trustee to vote the shares held by him. Based on the general common law rule this implied that the trustee had the power to vote the shares held by him in a fiduciary capacity. Another 13 states had statutory provisions, which codified that general common law rule and thus gave general power to the trustee to vote the shares held by him in a fiduciary capacity. The remaining 6 states had provisions which provided specific authority to corporate trustees to vote their own shares held in

²⁰ In the case of national banks, section 9.7 of Regulation 9 vests responsibility for the “the proper exercise of fiduciary powers” with the board of directors of the bank, which in turn may assign “the administration of such of the bank’s fiduciary powers as it may consider proper to such director(s), officer(s), employee(s), or committee(s) as it may designate.”

²¹ When the bank is co-fiduciary of its own stock along with other parties, the other trustee votes the stock as if it were sole trustee.

a trust. Thus, as many as 43 of the 50 states permitted a trustee to vote stock held by it in a fiduciary capacity, including its own stock, without any substantial restriction.²²

In summary, the business of trust gives banks some unique opportunities to become the beneficial owners of important portions of their own stock, that is, to have the power to vote or direct the voting of the stock, without being the legal owners of it. The federal and state law together with banking regulation impose limits on how banks can exercise this voting power, but they leave plenty of room for bank managers to use it. In doing so, bank managers still need to account for their fiduciary responsibility as trustees which require them to act solely in the interest of their beneficiaries. But, here too, the definition of fiduciary duties in the law leaves bank managers significant room to exercise such voting power.

4 Data

4.1 Sample Collection

Our primary data source is the data that was collected for the study “Bank Stock Ownership and Control” for the Subcommittee on Domestic Finance of the Committee on Banking and Currency in 1966 (U.S. House 1966). This data was collected via a survey of potential holders of bank stock identified from this earlier study. Recipients of the survey included corporations, foundations, bank nominees, stockbrokers, mutual savings banks and insurance companies and others who might be holding bank shares for the benefit of other parties. The survey participants were asked to furnish 3 pieces of information: the name of the bank in which they held shares as of March 1, 1966 and the number of shares they held, the names of each beneficial owner of each bank stock held and the arrangements under which the bank stock was voted.²³ From this data the Subcommittee constructed a detailed description of the number of shares 210 of the 300 largest banks held in themselves (own-bank shares).²⁴ This group of banks represented less than 2 percent of all banks at the time but it controlled over 60 percent of all bank deposits in the country. According to the Subcommittee (U.S. House, 1966), in almost

²² Note that this stands in sharp contrast with the general, almost universal, rule in state law corporation prohibiting corporations from voting their own stock held as treasury stock.

²³ To reduce the burden of paperwork, no information on beneficial owners or voting arrangements was requested for stockholders of record who together with their nominees owned less than 1% of the outstanding shares of a commercial bank. According to rule 13d-3 of the Securities and Exchange Act of 1934, the beneficial owners of a security include any person who directly, or indirectly, through any contract, arrangement, understanding, relationship, or otherwise has or shares: 1. Voting power that includes the power to vote, or to direct the voting of, such security; and/or 2. Investment power which includes the power to dispose, or to direct the disposition of, such security.

all cases these shares were held by the banks in their trust departments or were held by the bank's nominees.²⁵

For each of the 210 banks the report lists the name of the bank, the city and state the bank is located in, how many shares it holds in itself and the number of those shares it has no voting power, partial voting power or sole voting power over. A bank has sole voting power over its shares when bank officers have the right to vote the shares without consultation with others not officially connected with the bank or the bank nominee. The bank has no voting rights when the beneficial owner or some other entity unconnected with the bank has the voting rights. The bank has partial voting rights in all the intermediate situations, for example,²⁶ when 1) the bank or nominee may proceed to vote the stock if, after notifying someone else, it is not given instructions on how to vote, or 2) the bank or its nominee votes the stock in favor of management on all routine noncontroversial matters after having received no instructions from the beneficial owner and it has forwarded all materials to the beneficial owner with or without recommendations on how to vote on all controversial issues, or 3) it is restricted from voting the stock held in its own bank in trust on particular issues (such as the election of directors in the case of national banks).

The main limitation of the ownership data from the 1966 report is that it does not contain information on *all* components of inside ownership, such as the shares owned by managers.²⁷ To the extent that a bank manager's own shares are not held in the bank's trust department (which may be the case when the bank's trust department administers the bank's profit-sharing plan or pension plan or a manager's family trust) our data understates total inside ownership.²⁸ However, we rely on the conclusion reached by many researchers that managerial ownership is stable over

²⁴ The ownership information was only compiled for 210 of the banks at the time the report was published.

²⁵ Since the bank appoints the nominee, shares held by under the name of the nominee for the bank are treated as being owned by the bank.

²⁶ For a complete description of partial voting rights, see Subcommittee (U.S. House 1966, p. 821).

²⁷ We tried to obtain proxies from Harvard's Baker Library as well as from the SEC. Unfortunately, it was essentially impossible to get more than a handful of these proxies for 1967. Most proxy data services collect proxies from the 1970s on. In addition these services tend to concentrate on firms traded on the major national exchanges. Since many of our banks were traded on regional exchanges we could not obtain proxies for them.

²⁸ We cannot distinguish between employee ownership plan shares and other shares in our data. However, while there may be some (unallocated) employee ownership shares in our data, it is unlikely that the amount of these shares would be large enough to affect the interpretation of our results since our data is from 1966. ESOPs were not formally established until the passage of ERISA in 1974. In addition most of the laws that made ESOPs advantageous from a tax perspective were passed after 1974 (e.g. ERISA 1974, Deficit Reduction Act 1984, Tax Reform Act 1986, see Chang and Mayers (1992) for more information). Thus while some forms of ESOPs existed prior to 1974, they were not as common as after 1974. To check how common these plans were for our sample, we examined whether any employee ownership plans were listed among the top 20 shareholders for our firms in the Subcommittee of Domestic Finance's 1962 study (U.S. House, 1964). We found only 8 such plans with between 0.05% and 15.17% of shares. 4 of these plans held less than 1.59% of shares.

time (e.g. Mikkelson and Partch 1989, La Porta, Lopez-De-Silanes and Shleifer 1999, Zhou 2001), and use the original study compiling the top twenty shareholders in commercial banks (U.S. House 1964) to construct a proxy for managerial direct holdings in our sample banks in 1966.²⁹ For each of the top 20 shareholders in a given bank as of May 1962, the 1964 study identifies whether the stockholder is a nominee of the bank, a director, officer, director and officer or “Other.” Our proxy for direct managerial shareholdings is the total proportion of shares held by officers, directors and officer-directors (inside directors) in 1962, who are not also listed as nominees of the bank (since nominee shares are included in the 1966 totals). While we cannot measure shareholdings by insiders who are not listed among the top 20 shareholders of record, we do not believe that the missing information is significant since the smallest shareholding listed for our sample banks is less than 1% 97.95% of the time and less than 1.28% 100% of the time. We were unable to find this data for 15 of our sample banks in the 1962 study, thus whenever we use managerial direct holdings the size of our sample is reduced.

In addition to ownership data we collected financial characteristics and characteristics of the legal environment for our sample banks. From the 1966 study (U.S. House 1966) we obtained the market value of common outstanding stock as of February 28, 1966 for 185 of the 210 banks.³⁰ In addition we obtained balance sheet information for 207 of our sample banks from the *Reports of Condition and Income* (Call Reports) from the Federal Reserve Board. In 1966 income statement data was only available annually, while all other balance sheet data was available semi-annually.

We collect information on the legal environment in 1966 from the U.S. House (1966) study. The study (U.S. House 1966) classifies 50 states (it excludes Puerto Rico and Washington, D.C.) into 4 different legal regimes depending on the extent to which corporations in those states were permitted by State law to vote stock in their own corporation held in a fiduciary capacity (see Section 3 and Table 1).³¹ From the Call Reports we are able to identify the charters of our sample banks, thus we can determine which legal regime the state banks are subject to. Of the 210 banks for which we have ownership data 139 are national banks and thus may not vote shares they hold in themselves in trust for the election of directors. 36 are state banks that are generally allowed to vote shares they hold in a fiduciary capacity, 15 are state banks with specific statutory authority to vote the shares they hold in themselves, 11 are state banks in states with no statutes pertaining

²⁹ La Porta, Lopez-De-Silanes and Shleifer (1999) also use ownership data from different years in their study. They argue that it is not a problem because ownership is relatively stable over time.

³⁰ The study (U.S. House 1966, p. 823) only provided market value data for the banks that were “widely traded.”

³¹ These laws are not specific to banking firms but apply to any type of trustees.

to the voting of shares held in trust and 4 are state banks in states that prohibit trustees from voting the shares they hold in themselves in a fiduciary capacity.

4.2 Construction of Financial Variables

As in previous studies, our main performance measure is a proxy for Tobin's Q. We define Tobin's Q to be the ratio of the firm's market value to its book value. We define the firm's market value to be the book value of assets minus the book value of equity plus the market value of equity. In some specifications we also use return on assets (ROA) at the end of 1966 as an alternate performance measure. ROA is the ratio of net income to the book value of assets.

Since most of our sample banks were not listed on major exchanges in the 1960s we have stock price data for February 28, 1966 only. Thus in order to control for firm-specific risk we use the standard deviation of ROA from 1962-1966. This measure was also used in Demsetz and Lehn (1985). We construct two variables from additional *Report on Condition and Income* data, STATE ROA and STATE HHI, to control for local economic conditions in some specifications. STATE ROA is the sum of state asset share weighted ROA across all banks in a given state. STATE HHI is the sum of squared state asset shares over all banks in a given state. Table 2 presents summary statistics for select financial characteristics for the banks in our sample.

4.3 Construction of Proxies for Managerial Voting Power

Own-bank shares are one component of insider holdings according to the definition of insider holdings of the SEC (see footnote 23). We argue that these shares provide no cash-flow rights to bank managers and therefore represent pure voting control to the extent that bank managers can vote these shares. Total inside ownership would also include the shares managers hold for their own accounts.³² However since these shares generally come with both cash-flow and voting rights it is difficult to know the best way to treat them. As both Claessjens, Djankov, Fan and Lang (2002) and La Porta, Lopez-De-Silanes, Shleifer and Vishny (2002) point out, it is difficult to disentangle the cash-flow from the voting control of managerial ownership. This problem is exacerbated because the SEC generally does not require the disclosure of voting rights

³² See also the definition of insider holdings in banking firms in Gorton and Rosen (1995, p. 1416). They define total insider holdings as stock held by officers and directors, as well as stock held by 1) director nominees, 2) the banking firm's pension plan or ESOP, 3) a trust for a director, 4) families of officers or directors and 5) the banking firm's trust department.

attached to managerial stakes under 5%.³³ Because of these problems we define two measures of voting power. Our primary proxy for managerial voting power is the proportion (relative to total shares outstanding) of own-bank shares managers can vote. This represents the difference between total control by bank managers and managerial direct ownership and thus measures the extent to which control by managers is not affected by managerial incentives. The two papers referenced above call this measure the “wedge” and use it to measure the extent to which there are deviations from one-share one-vote (or the magnitude of the separation of ownership from control). Since we are specifically interested in the effect of voting rights on firm value, we also define a measure of total managerial voting rights which is equal to the sum of the voting rights managers obtain through own-bank shares plus managerial holdings (i.e. we treat managerial direct holdings as one-share one-vote).

In Table 3 we provide descriptive statistics for the own-bank shares, managerial holdings in 1962 and our measures of managerial voting power. We define these measures using both the proportion of own-bank shares managers have some voting power over (SOMECTRL), which is the sum of own-bank shares with sole voting power plus own-bank shares with partial voting power, as well as the proportion of own-bank shares managers have sole voting power over (SOLECTRL). We also summarize a measure of total beneficial holdings of insiders, which is the sum of own-bank shares and managerial direct holdings.

On average total beneficial inside holdings in 1966 are similar to the numbers in Gorton and Rosen (1995), who report mean inside holdings of 15.25% in a sample of 458 of the top 1274 bank holding companies in 1987/1988. What is striking from Table 3 is that own-bank shares comprise a large portion of beneficial inside holdings. On average our sample banks hold 8.24% of their own shares in their trust departments, while direct managerial holdings are on average only 5.91%. In addition the average amount of (at least partial) voting control managers obtain through own-bank shares, 4.58%, appears approximately similar to the amount they obtain through direct holdings (assuming direct holdings are one-share one-vote). While smaller than the world-wide mean of mean wedges of 10% for large shareholders reported in La Porta, Lopez-De-Silanes, Shleifer and Vishny (2002), the mean wedge of 4.58% created through shares bank managers hold in a fiduciary capacity in our sample is much larger than the 1% large-shareholder wedge they report for the United States as a whole.

³³ Managers may not have as many voting rights as shares since the holdings disclosed in proxies often include restricted stock, stock appreciation awards and options.

5 The Relationship between Tobin's Q and Managerial Voting Control

In this section we examine the relationship between firm value, as proxied by Tobin's Q, and managerial voting power. In section 5.1 we describe our hypotheses and specifications. In section 5.2 we describe the results from our OLS regressions using SOMECTRL as our measure of managerial voting power. In section 5.3 we address the potential endogeneity of voting control using instrumental variable techniques. In section 5.4 we use SOLECTRL as our measure of voting power.

5.1 Specification

Our goal is to determine the relationship between managerial voting power and the value of the firm. Most papers argue that with too much voting control managers may expropriate minority shareholders. Thus they predict a negative relationship between managerial control and firm value (as e.g. Claessjens, Djankov, Fan and Lang 2002 do for large shareholders). However, some managerial control may be beneficial (e.g. DeAngelo and DeAngelo 1985, Stulz 1988, Bolton and Scharfstein 1998). Thus, there may ultimately be a non-linear relationship between managerial voting control and firm value. To examine the relationship between managerial voting and firm value we consider specifications in which managerial voting power appears both linearly as well as with its square. If the relationship between managerial voting power and firm value is non-linear we would expect it to be inverse U-shaped. While there are other ways of capturing the first increasing and then decreasing relation between firm value and managerial voting power predicted by theory, we use the quadratic specification here to facilitate the use of instrumental variable techniques in section 5.3.

In our basic specification we regress Tobins' Q on proxies for managerial voting control (and their squares), the natural logarithm of the book value of assets (a proxy for firm size), capital divided by assets (a proxy for leverage), one and two-period lagged return on assets (a proxy for prior performance) and the standard deviation of year-end return on assets from 1962-1966 (a proxy for uncertainty). In an expanded specification we also include as controls STATE ROA (a proxy for local market conditions), STATE HHI (a proxy for competition) and the proportion of operating revenues the bank obtains from its trust business (a proxy for the size of the trust

department).³⁴ The last three variables are all measured at the end of 1965. We adjust all standard errors for potential heteroskedasticity and adjust the standard errors for potential group correlation within states when we add the two state level variables: STATE ROA and STATE HHI.³⁵

When we use the proportion of own-bank shares managers can vote as a proxy for managerial voting power we present the results both with and without managerial direct ownership as a control variable. Thus, to deal with the problem of disentangling the control from the cash-flow rights of managerial direct ownership, we treat it in three different ways in our regressions. We either leave it out of the regression, or use it as a control variable or we add it to the proportion of own-bank shares managers can vote to obtain a proxy for total managerial voting rights. The specifications in which we control for ownership are very similar to those in La Porta, Lopez-De-Silanes, Shleifer and Vishny (2002) and Claessjens, Djankov, Fan and Lang (2002) for large shareholders, except that those papers do not examine a non-linear relation between control and firm-value.

There is likely to be some variation in how different banks classify a given amount of voting power into partial versus sole voting power. In addition, from the definition of partial voting power we described in Section 4.1, it is clear that often the bank manager will have effective control even over shares classified as having partial voting rights. Thus we focus in the next three sections on the proportion of shares with some voting power (SOMECTRL) as a proxy for managerial voting power as well as the sum of SOMECTRL and managerial direct holdings (MDH) into a measure of total voting control (TOTLCTRL). This is consistent with the SEC's inclusion of shares with sole or shared, direct or indirect voting power in its definition of beneficial ownership (see footnote 26). However, since it is not always clear that bank managers get to exercise the voting rights associated with shares with partial voting power, we also examine the relationship between Tobin's Q and the proportion of shares with sole voting power (SOLECTRL) as a proxy for managerial voting power as well as the sum of SOLECTRL and managerial direct holdings (MDH) into a measure of total voting control (TOTLSOLECTRL) in section 5.4.

³⁴ What we mean by "one-period lagged" in the case of variables requiring income statement data is that these variables were measured at the closest point in time prior to March, 1966. Only year-end income statement data was available during 1962-1968. Thus one-year lagged variables are measured at the end of 1965. Two-period lagged variables are measured at the end of 1964.

³⁵ Although we do not report them here the results are similar if we use state dummies to control for state-specific omitted variables in the regressions without STATE ROA and STATE HHI.

5.2 Results

In Table 4 we present OLS regressions of Tobin's Q on our proxies for managerial voting control. In columns I-VI our proxy for voting control is SOMECTRL. In columns VII-IX, we use TOTLCTRL as our proxy. Across columns I-VI, the coefficient on SOMECTRL is positive and significant at greater than the 10% level. Consistent with an inverse U-shaped relation the sign on the square of SOMECTRL is negative across all quadratic specifications but significant only after we control for MDH. The results are similar when we use TOTLCTRL instead of SOMECTRL, except that the coefficients on the squared term are generally significant. This may be because the range of SOMECTRL (0-35.32%) is too small to capture the negative effect voting control has on firm value for large stakes as compared to TOTCTRL (range 0-60.32%). The signs of the coefficients on the control variables are generally consistent with those found in other studies. In particular the coefficient on MDH is positive (although only significant at the 10% level in two specifications), as in La Porta, Lopez-De-Silanes, Shleifer and Vishny (2002) and Claessens, Djankov, Fan and Lang (2002), in accordance with the idea that ownership incentives have a positive effect on firm value.

Beneath all specifications in which we include the square of SOMECTRL (TOTLCTRL) we provide the estimated argmax of firm value and the proportion of sample firms in which SOMECTRL (TOTLCTRL) is greater than the argmax.³⁶ We also provide the intercept and maximum of the estimated quadratic function of SOMECTRL (TOTLCTRL). The intercept is calculated as the predicted level of performance when voting control is zero and all control variables are at their means. The maximum is calculated as the predicted maximum level of performance when voting control is equal to the argmax and all control values are at their means. These numbers are useful to evaluate the estimated quadratic relationships. For example, we want to know if firm value ever decreases as a function of voting power in our sample, i.e. if the argmax falls in the range of voting power in our sample. In addition, an estimate of the magnitude of the total potential increase in Tobin's Q due to voting control is the difference between the maximum Q and the intercept.

In all regressions in Table 4 the argmax lies in the sample range of the variable under consideration. When we use TOTCTRL as our proxy the argmax is greater than if we use SOMECTRL. This may reflect the fact that the managerial direct holdings included in

³⁶ For comparison purposes, we provide the argmax of any inverse U-shaped relationship and the proportion of sample firms with the corresponding measure of voting control greater than the argmax in all the tables. We also provide the intercept and maximum of any estimated inverse U-shaped functions of voting control, where these are calculated as indicated in the text.

TOTLCTRL provide some incentives to managers, thereby counteracting some negative effects of voting control at high control levels.

The maximum increase in Tobin's Q above the estimated intercept in Table 4 ranges from 0.020 to 0.022 when we use SOMECTRL as a proxy for voting power and is 0.033 when we use TOTLCTRL. Given that the standard deviation of Tobin's Q in our sample is 0.041, the maximum increase in Tobin's Q due to voting power is not large, but not too small either.

Overall, these results suggest that too much voting control may entrench management to the detriment of firm value for minority shareholders, a result consistent with the results Claessjens, Djankov, Fan and Lang (2002) found for large shareholders. However, contrary to their results for large shareholders we find that the coefficient on the proxy for managerial control is positive (and significant at greater than 10% significance) across all specifications and across both measures of voting power. This suggests that there may be some benefit to concentrating some voting control in the hands of managers consistent with, for example, Stulz (1988).

5.3 Potential Endogeneity of Voting Control

We focus in this section on examining the potential endogeneity of voting control managers obtain through own-bank shares. While the previous section suggests that at least for small voting stakes there is a positive relationship between voting stakes and Tobin's Q, we cannot necessarily infer that excess managerial voting power *causes* good (or bad) performance if both managerial voting power and firm value depend on an omitted variable or managerial voting power changes in response to changes in performance, i.e. there is feedback in the system. Since Kole (1996), Loderer and Martin (1997) and Cho (1998) all argue that corporate value affects ownership structure, value may also affect voting power. Hermalin and Weisbach (1991) argue that when the firm is doing well managers might invest more heavily in their own stock leading to feedback in the performance-ownership relation. A similar phenomenon may lead voting control through the fiduciary relationship to increase in response to good performance. For example, Del Guercio (1996) showed that banks tend to tilt their portfolios towards high-quality, prudent stocks, because as fiduciaries they are subject to the strictest interpretations of the prudent man laws. Thus bank trusts may invest in their bank's stock when the bank is performing well and obtain the associated voting rights as a consequence.

In addition how much voting power a bank manager has through shares it holds in trust for the benefit of others may be sensitive to current as well as potential trust clients' perception of his ability. Current trust clients may take their business (and hence managerial voting power)

elsewhere if the bank is not performing well. In addition new clients may be more willing to relinquish voting power to the trustee if the bank is performing well and the manager appears to be of high ability. Since banks and trust clients are hesitant to disclose information about their trust agreements it is generally difficult to know exactly how the right to vote is allocated in trust agreements. However, it is plausible that there may be some feedback in the relationship between own-bank control and firm value.

In order to address the endogeneity of own-bank control we need an instrument that is correlated with the own-bank voting stake but uncorrelated with firm value except through variables that are included in the equation explaining firm value. We choose as our set of instruments the set of dummy variables characterizing the legal and regulatory statutes pertaining to the ability of a trustee to vote his own shares held in trust. These dummies consist of a dummy for whether a bank is a national bank or not, and for the state banks dummies indicating whether the state the bank is located in has 1) no statutes restricting trustee voting, 2) general statutes allowing trustees to vote shares held in a fiduciary capacity, 3) statutes specifically allowing trustees to vote their own shares held in trust or 4) statutes forbidding the voting of own shares held in a fiduciary capacity.³⁷ Since these legal dummies are specifically related to the ability of the trustee to vote shares held in a fiduciary capacity, we have no reason to believe that these variables should be correlated with firm value other than through the effect that own-bank votes have on firm value.³⁸

It is not sufficient for our instruments to be uncorrelated with Tobin's Q, they must also be correlated with own-bank voting control. Since the laws underlying our instruments restrict the trustees' ability to vote own-bank shares to varying degrees, we believe that they must be correlated with own-bank voting power. To examine how relevant our instruments are more rigorously, we inspect the first stage regression of SOMECTRL on the instruments and the exogenous variables in the Tobin's Q regressions from the previous section in Table 5. Since our instrumental variables partition the sample, we leave out the national dummy in all specifications. We should point out here that we include MDH as one of the control variables as we did in Table 4 in columns III and V. However, MDH may also be endogenous in the specifications in Table 4. Ideally we would address the endogeneity of both SOMECTRL and MDH in our regressions, however, as Himmelberg, Hubbard and Palia (1999) point out, it is very difficult to find an

³⁷ We have no information on the legal regimes in the District of Columbia or in Puerto Rico, thus we lose 3 observations when we use the legal dummies.

³⁸ In related work in progress we show that these legal dummies are not significantly correlated with indices describing how restrictive the legal environment is with respect to acquisition activity, which may have direct effects on performance (e.g. Schranz 1993).

instrument for managerial ownership. In addition Bound, Jaeger and Baker (1995) emphasize that using a weak instrument may be worse than using no instrument. For lack of a good instrument we treat MDH as exogenous in our regressions. To a certain extent that assumption may not be overly strong since out of necessity we measure MDH 4 years prior to the year our other data is measured at.

As is evident from columns I-V in Table 5, the legal dummies are correlated with SOMECTRL. In column I we report the regression of SOMECTRL on the legal dummies by themselves. Since the national bank dummy is excluded, the coefficients measure the difference in mean SOMECTRL across legal regimes relative to the average level of SOMECTRL in national banks. Mean SOMECTRL in national banks is 3.69%, whereas mean SOMECTRL in the states where trustees have statutory authority to vote their own shares in trust is significantly higher by 3.92% and remains significant across all specifications.³⁹ The coefficients on the other dummies are generally not significant, although their signs are consistent across specifications. Since the sign on the coefficient of the dummy for states that prohibit voting is negative while the others are positive, trustees generally appear to have more voting power in states where the law appears more permissive.

To check how good these instruments are, following Bound, Jaeger and Baker (1995) we compute the F-statistic for the test of the joint significance of the instrumental variables (excluding the national dummy). Bound, Jaeger and Baker (1995) show that an F-statistic close to 1 should be cause for concern about both the quality of the instruments and potential finite sample bias. In Columns I-V the F-statistic for the instrumental variables ranges from 1.38 in column V to 2.87 in column II, with corresponding significance ranging from 24.16% to 2.42%. While these numbers are small, they are not incredibly small. For example, Levitt (1997) reports F-statistics between 3 and 4 for his first stage regression. However, since the F-statistics are also not very high, the 2SLS results should be interpreted with care.

While we do not present them here, similar regressions using TOTLCTRL as our measure of voting power indicate that the legal dummies are much weaker instruments for TOTLCTRL than they are for SOMECTRL. In all specifications the legal dummies are jointly insignificant. Thus we do not present any results in which we instrument TOTLCTRL throughout the rest of the paper.

³⁹ We believe that mean SOMECTRL should technically be zero in the states that forbid voting of own-bank shares. However, it is possible that some type of nominee arrangement may have given the banks in our sample some voting control over their own shares in these states. In all banks located in states that forbid voting and for which we had data on shareholdings from 1962, the greatest proportion of total own-bank shares was held by nominees.

In Table 6 we report the results of the instrumental variable regression of Tobin's Q on the own-bank stake with some voting power using the state legal dummies as controls. In the specifications in which we include the square of SOMECTRL, we instrument both SOMECTRL and its square. While the legal dummies are somewhat weaker instruments for the square of SOMECTRL, the dummies for states in which the trustees have statutory and general authority to vote their own shares are significantly correlated with the square of SOMECTRL at greater than the 10% level in all first stage regressions of squared SOMECTRL on the instruments and all exogenous variables. Not surprisingly none of the coefficients on SOMECTRL or squared SOMECTRL are significant after we instrument them in our Tobin's Q regressions. However, the relationship between Tobin's Q and SOMECTRL still appears to be inverse U-shaped. In general the inverse-U relation between Tobin's Q and SOMECTRL has shifted to the left. All the argmax in the different specifications are much smaller. For example the argmax in column III of Table 4 is 19.88%, whereas after instrumenting SOMECTRL and the square of SOMECTRL in column III of Table 6 it is 8.16%. In addition, the distance between Tobin's Q at its maximum and the intercept has generally increased to between 0.047-0.053, which is greater than one standard deviation in Tobin's Q. This suggests that there may be some feedback in the relationship between Tobin's Q and SOMECTRL. After addressing the potential endogeneity of SOMECTRL, while the potential increase in Tobin's Q due to voting control is higher, the negative effect of voting control kicks in much earlier.

5.4 Sole Voting Power

In this section we reexamine our previous results using SOLECTRL and TOTLSOLECTRL as our measures of managerial voting power. SOMECTRL and SOLECTRL represent the extremes of managerial voting power through own-bank shares. Managers have voting control over partial voting own-bank stakes in addition to the control they have through stakes with sole voting power only if, for example, beneficiaries generally choose not to direct the trustee how to vote them. In practice managers may have less power than SOMECTRL. Thus we check to make sure that our results are not sensitive to how we measure control.

As is clear from Table 7, our legal dummies are better instruments for SOLECTRL than they are for SOMECTRL. In most specifications three out of the four legal dummies are significant. The F-statistics for the joint significance of the instruments vary from 2.50 in column V to 4.85 in column II, with the associated degree of significance varying from 4.43% to 0.01%.

Consistent with the results for SOMECTRL, SOLECTRL is higher in states with more lenient legal regimes.

In columns I-VI of Table 8, we replicate the OLS regressions in columns I-IV and columns VII-IX of Table 4 using SOLECTRL and TOTLSOLECTRL as our measures of voting power. Again we find a positive and significant (at greater than the 5% level) relation between Tobin's Q and our voting power proxy in the linear specification. However, we find no inverse U-shaped relation between Tobins' Q and SOLECTRL. If we use TOTLSOLECTRL as our proxy for voting power we do find an inverse U-shaped relationship, thus the range of stakes with sole voting power may be too small (0-27.89%) to capture any detrimental effect of too much voting control in columns III and IV. Once we instrument for SOLECTRL (and its square) in columns VII-IX, we again find no significant, yet still inverse U-shaped relationship between Tobin's Q and managerial voting power.

Comparing these results to those in Tables 6 and 4 it does appear that SOLECTRL is a stronger measure of voting control than SOMECTRL. All the inverse U-shaped relationships are shifted to the left when we use SOLECTRL instead of SOMECTRL. For example, the argmax of the instrumented Q-SOLECTRL relationship is 4.67% in column VI, while the corresponding argmax of the Q-SOMECTRL relationship is 8.16% in column III of Table 6. Similarly the argmax of the (OLS) Q-TOTLSOLECTRL relationship is 22.41% in column VI, while the corresponding argmax of the (OLS) Q-TOTLCTRL relationship is 29.92% in column VIII of Table 4. The difference between the estimated maximum of Tobin's Q and the estimated intercept also generally increases. That difference is 0.040 (0.062) in column VI (VIII) as compared to 0.033 (0.053) in the corresponding regression in column VIII (III) of Table 4 (Table 6).

It is difficult to say which measure is the best proxy for managerial voting power. If the best proxy is SOMECTRL then the SOLECTRL regressions suffer from omitted variable bias that is difficult to sign in the quadratic specifications. On the other hand, if SOLECTRL is the best proxy then the regressions using SOMECTRL suffer from the fact that we have added an irrelevant variable (the proportion of own-bank shares with partial voting control) to SOLECTRL. Despite these potential problems, the results using both proxies display a similar pattern. Thus our results are not too sensitive to how we proxy for managerial voting control, although the argmax of the inverse U-shaped relationships do change by a fair amount. Ultimately, the "true" argmax may lie somewhere in between the argmax of the Q-SOLECTRL and the Q-SOMECTRL relationship.

6 Robustness Checks

The results in the previous section suggest that small amounts of managerial voting rights do not have a detrimental effect on firm value, as measured by Tobin's Q. Overall there appears to be an inverse U-shaped relationship between voting power and Q, even though it is not significant once we address the potential endogeneity of voting control. While our instruments for SOMECTRL are weaker than for SOLECTRL, we obtain similar 2SLS results using both measures. Thus the results appear consistent with the theoretical predictions overall. Nevertheless we perform various checks in this section to ensure our results are robust.

Previous studies on the relationship between firm performance and managerial *ownership* have found different results depending on whether they have used Tobin's Q or accounting measures of performance. Thus in section 6.1 we examine the relationship between ROA and managerial voting power to see if it is consistent with the relationship between Q and voting power. In section 6.2 we examine whether our results are sensitive to the way MDH enters our equations. Many authors (most notably Morck, Shleifer and Vishny 1988) have argued that there should be a non-linear relationship between firm performance and managerial direct holdings since they carry both cash-flow as well as voting rights. Thus we examine whether specifying a non-linear relationship between MDH and both Tobin's Q or ROA will affect the relationship between SOMECTRL (SOLECTRL) and Tobin's Q or ROA. Finally, in section 6.3 we discuss the economic significance of our results.

6.1 Managerial Voting Power and Accounting Measures of Performance

To examine the relationship between ROA and managerial voting power, we use the same basic specification as we did for the relationship between Tobin's Q and voting power except that we do not control for lagged ROA.⁴⁰ Since we have more balance sheet data than stock price data, the size of our sample using ROA is larger than when we use Tobin's Q as a performance measure.

In Table 9 we present the results using SOMECTRL and TOTLCTRL as our proxies for managerial voting power, in Table 10 we use SOLECTRL and TOTLSOLECTRL. As we did for our Tobin's Q regressions we first run the specification with voting power entering linearly, with and without controlling for MDH, then we add squared voting power to the regressions. As is evident from columns I-VI of Table 9, there is no significant relationship between ROA and

⁴⁰ The results using return on equity (ROE) are similar.

SOMECTRL or TOTLCTRL. However, we do observe an inverse U-shaped relationship between ROA and SOMECTRL.

Once we instrument SOMECTRL and squared SOMECTRL, the relationship between ROA and SOMECTRL becomes stronger. In the linear specification in column VII, the coefficient on SOMECTRL increases to 0.000439 from 0.000001 in column I and is significant at the 10% level. In columns IX and X we again observe an inverse U-shaped relationship between ROA and SOMECTRL that is almost significant in column IX.

When we use SOLECTRL as our measure of voting power in Table 10 the results are much stronger. Now there is a significant (at greater than the 5% level) U-shaped relationship between ROA and SOLECTRL in column III, however there is still no significant relationship between ROA and TOTLSOLECTRL. When we instrument SOLECTRL (and its square) we observe a significant (at the 10% level) and positive linear relationship between ROA and SOLECTRL. As with SOMECTRL, the linear effect of SOLECTRL on ROA increases after instrumenting. In addition the inverse U-shaped relationship between ROA and SOLECTRL is significant (at greater than the 10% level) in column VIII.

It is striking that while we do find an effect of voting control on ROA, we do not find an effect of managerial direct holdings (MDH) on ROA. In none of the regressions is MDH significant. In addition we find no relation between ROA and our measures of voting power that incorporate MDH: TOTLCTRL and TOTLSOLECTRL. This is consistent with previous literature, which has been unable to find a relationship between managerial ownership and ROA. For example, Demsetz and Lehn (1985) established that there is no relationship between ROA and ownership in a diverse sample of firms, while Gorton and Rosen (1995) find no relationship between ownership and ROA or ROE in a sample of bank holding companies.

While there are some differences in the ROA and the Tobin's Q results, they are still remarkably similar. With neither measure do we find evidence of a significant negative effect of voting power on firm performance even after instrumenting voting power. Instead the evidence suggests that there may be an inverse U-shaped relationship between performance and voting power. As we saw with Tobin's Q, the argmax of the inverse U-shaped relationship between ROA and voting power decreases when we use SOLECTRL instead of SOMECTRL to measure voting control.

6.2 Specification of Managerial Ownership

In this section we examine how sensitive our results are to changes in our specification. In particular, since managerial direct holdings also have voting rights, we might expect to find a non-linear relationship between firm performance and MDH as Morck, Shleifer and Vishny (1988), Holderness, Kroszner and Sheehan (1999) and McConnell and Servaes (1990) found between firm performance and inside ownership, as well as between performance and proxies for voting power. For simplicity we approximate the potential non-linear relationship between performance and MDH by a quadratic relationship as in McConnell and Servaes (1990).

In Table 11 we replicate a subset of our results after including squared MDH. In columns I-IV we use Tobins' Q as our performance measure. In columns V-VIII we use ROA. For each performance measure we present one OLS regression and one 2SLS regression using SOMECTRL, then we replicate them using SOLECTRL as our proxy for voting power. We focus here on regressions that include the squared measures of voting power so that we may compare the relationships between performance and voting control to those between performance and MDH.

Consistent with previous studies there is some evidence of a significant inverse U-shaped relationship between Tobin's Q and MDH in Table 11. We also find an insignificant inverse U-shaped relationship between MDH and ROA in the instrumented regressions. These results are consistent with our previous findings that too much voting control may have a negative effect on performance. Since the relationship between firm performance and managerial voting power is similar even after including MDH and its square in our regressions, we conclude that our results are not too sensitive to alternate specifications. Since the relationship we find between performance and MDH is very similar to the relationship between performance and inside ownership that other papers have found for different time periods and different samples of firms, we also believe that these results provide a robustness check of our data in general. In particular it does not appear that our choice of time period nor our inability to obtain data on managerial direct holdings in 1966 is driving our results.

6.3 Economic Significance

While the estimated relationships we find are not all highly significant, we believe that the consistency of our results indicates that the lack of significance may be primarily due to the fact that our sample is relatively small. Overall we believe that the pattern in our results indicates

two things. First, there is a positive relation between managerial voting power and firm performance. In our OLS regressions with Tobin's Q the coefficient on SOMECTRL is generally positive and significant in the linear specifications and the argmax of the quadratic specifications range from 16.70% to 19.99%. In the 2SLS specifications the smallest argmax of Tobin's Q as a function of SOMECTRL occurs at 8.16%, while the smallest argmax of Tobin's Q as a function of SOLECTRL is 4.59%. The smallest argmax of the specifications using ROA as the dependent variable occurs at 6.66%. Thus managers can hold a relatively large amount of a corporation's voting rights before any negative effects of managerial control kick in. Second, there does seem to be evidence that too much control may be detrimental, since we have consistently found an inverse U-shaped relationship between firm performance and voting control, regardless of whether we use OLS or 2SLS. This relationship implies that the benefits of voting control decrease until at voting control stakes greater than twice the argmax, the effect of increasing managerial control is worse than when managers have no control. For example, the results in column III of Table 6 imply that when managers have voting control stakes greater than $2 \times 8.16\% = 16.32\%$, firms perform worse than if managers have no voting control at all.

In the quadratic relationships the magnitude of the effect of increasing voting control changes depending on the level of voting control. However, the difference in the estimated maximum and the estimated intercept provides an upper bound for the total possible increase in Tobin's Q or ROA due to an increase in voting control. These numbers generally range from $\frac{1}{2}$ to $1\frac{1}{2}$ times the standard deviation in Tobin's Q. When we use ROA as the dependent variable in Tables 9 and 10 these numbers vary between less than 0.001 and 0.012, which is approximately equal to less than $\frac{1}{4}$ to $1\frac{1}{4}$ times the standard deviation in ROA. Overall these numbers appear economically significant.

7 Implications of the Fiduciary Relationship for the Relationship between Firm Performance and Beneficial Ownership

While our purpose in this paper has been to examine the effect of managerial voting power and firm performance, we briefly discuss in this section some implications of the fiduciary relationship for the relationship between firm performance and beneficial *ownership*. Since own-bank shares, that is shares of the bank held by the bank in trust, do not provide bank management with direct ownership and may not provide management with voting rights, beneficial ownership measures that include own-bank shares may be misleading measures of both incentives and managerial control.

To examine how misleading total inside ownership is as a measure of management incentives or control for fiduciaries we conduct a simple analysis. We specify both a linear as well as a quadratic relationship between Tobin's Q and total inside ownership using the same control variables we used in our basic specification in Table 4. Then we selectively exclude own-bank shares that provide no incentives to management and shares that provide no voting rights to management from total inside ownership and compare the results. The first column of Table 12 show the results of using total inside ownership in the regression. In the second column we use only MDH as a measure of ownership with incentives, since own-bank shares have no cash-flow rights. In the last two columns we use TOTLCTRL and TOTLSOLECTRL as measures of ownership with both cash-flow and control rights.

Consistent with e.g. McConnell and Servaes (1990) and Himmelberg, Hubbard and Palia (1999), we find an inverse U-shaped relationship between total inside ownership and Tobin's Q. The shape of the relation is similar across different ownership measures, but the size and the significance of the coefficients are different. In particular the argmax of the estimated relationships vary considerably across the different measures. For example, when we exclude own-bank shares from total inside ownership, the argmax drops from 36.37% to 21.12%. Thus in this case, using total inside ownership as a measure of cash-flow incentives overstates the range of ownership stakes for which there is a positive relationship between Tobin's Q and inside ownership. A similar phenomenon occurs when we use total inside ownership as a measure of shares the managers controls as can be seen by comparing column I to columns III and IV. Thus total inside ownership may be a misleading measure of incentives and control in fiduciaries.

8 Conclusions

In this paper we explore the fact that fiduciaries may hold their own shares in trust to examine the relationship between managerial voting power and firm performance. Since the beneficiary of the trust is entitled to all cash-flows from the trust, the proportion of the fiduciary's shares in trust that the fiduciary can vote represents the wedge between management ownership incentives and total control. Using data on own-banks shares in bank trust departments we find that there is a positive effect of managerial control on firm value, as measured by Tobin's Q. However, for large voting stakes the effect of control on Tobin's Q is negative. The shape of the relationship between firm performance and managerial voting control is generally robust, even when we use variation in state laws pertaining to the ability of trustees to vote their own shares in trust to instrument for potential endogeneity of voting control. Overall, our findings are consistent with theory (e.g. Alchian and Demsetz 1972, Fama 1980, Stulz 1988).

As a simple extension of our analysis we explore another consequence of the fiduciary relationship: that total inside ownership measures in fiduciaries may overstate true cash-flow incentives or total control. We show that when we exclude own-bank shares with no cash-flow rights from inside ownership, the downturn in the relationship between Tobin's Q and inside ownership occurs at much smaller ownership stakes.

A final contribution of this paper is to point out that the wedge between ownership incentives and total control created through the fiduciary relationship can be high. Thus control arrangements in financial institutions in the United States may not necessarily belong to the category of one-share one-vote that others have described for the United States (La Porta, Lopez-De-Silanes and Shleifer (1999)). While we have documented this using data from 1966 in this study, this is by no means a historical phenomenon.⁴¹ For example, by matching on names we found in a recent study of ownership arrangements in bank holding companies (BHCs) by UBS Warburg (2001), that 21 out of 48 BHCs in the UBS Warburg bank index are listed as being amongst the top 3 institutional holders of their own shares. In Table 13 we provide the institutional ownership data from the UBS Warburg (2001) study for these bank holding companies, and highlight the name of the BHC when it appears as one of the top three institutional owners. Clearly, this table shows that this phenomenon is still fairly common. Furthermore, a cursory reading of some proxy statements of BHCs on this list shows that these shares are not all the BHCs' ESOP shares.

Thus it appears that fiduciary relationships may lead to similar control outcomes in the United States as pyramiding and cross-shareholding in other countries. Why this is the case and what implications this has for the governance of financial institutions, as well as their roles as large shareholders are interesting topics for future research.

⁴¹ It is a difficult task to assemble the data for more recent time periods. We are currently working on the construction of a time-series using more recent data. However, since it is nearly impossible to get data on voting arrangements for the current data, when completed this data will not have the same information as the data from 1966.

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Table 1: Breakdown of State Laws on Voting Powers of Corporate Trustees

Table 1 duplicates Table V. in U.S. House (1966, p. 810). This table classifies states into 4 different legal regimes depending on the extent to which corporations in those states were permitted by State law to vote stock in their own corporation held in a fiduciary capacity. If a state has no statute limiting the voting power of trustee, then according to the common law, trustees may vote their own shares in these states unless it is otherwise provided by the terms of the trust. In states giving general power to the trustee to vote shares he holds in trust, the common law was codified through statutory provisions. We have no information on the legal regimes in the District of Columbia or Puerto Rico.

Legal Regime	Number of states	States
I. No statute limiting voting power of trustee.	24	Arizona, Alaska, Delaware, Florida, Georgia, Hawaii, Idaho, Kentucky, Maine, Maryland, Massachusetts, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, South Carolina, South Dakota, Tennessee, Vermont, Wisconsin, Wyoming
II. Statute giving general power to trustee to vote shares held in a fiduciary capacity.	13	California, Colorado, Indiana, Kansas, Louisiana, Michigan, New Mexico, New York, Ohio, Oklahoma, Rhode Island, Utah, Washington
III. Statute giving specific authority to corporate trustee to vote own shares held in trust.	6	Connecticut, Illinois, Iowa, New Jersey, Pennsylvania, West Virginia
IV. Statute specifically prohibiting voting of own shares held in fiduciary capacity.	7	Alabama, Arkansas, North Carolina, North Dakota, Oregon, Texas, Virginia
Total	50	

Table 2: Summary Statistics for Financial Data

Table 2 shows summary statistics of all available firm- and state-level financial data for 210 banks with ownership data in U.S. House (1966). Stock market data is from U.S. House (1966) and is measured as of February 28, 1966. Balance Sheet data is from the *Reports of Condition and Income* (Call Reports) from the Federal Reserve Board. Our proxy for Tobin's Q=(book value of assets-book value of equity+market value of equity)/book value of assets, where Balance Sheet information is measured at the end of the first half of 1966. ROA=net income before related taxes/book value of assets. Assets are measured in thousands. Capital/Assets=book value of equity/book value of assets, measured at the end of the first half of 1966. Std. Dev. ROA=standard deviation of year-end ROA from 1962-1966. % Operating Inc.-Trust=total current operating revenue/total current operating revenue from trust department. STATE ROA is the sum of state asset share weighted ROA across all banks in a given state. STATE HHI is the sum of squared state asset shares over all banks in a given state. The summary statistics for STATE ROA and STATE HHI in Table 2 are across states, not across firms. Since Income Statement data is only available annually in 1966, ROA is always measured at year-end, and % Operating Inc.-Trust, STATE ROA and STATE HHI are measured at the end of 1965.

	# Obs.	Mean	Std. Dev.	Min	Max
Tobin's Q	185	1.040	0.041	0.984	1.257
ROA in 1966	207	0.010	0.004	0.002	0.027
Ln(Assets)	208	13.139	0.972	11.937	16.606
Capital/Assets	208	0.074	0.016	0.032	0.176
ROA in 1964	207	0.010	0.004	0.001	0.029
ROA in 1965	208	0.010	0.004	-0.002	0.028
Std. Dev. ROA	208	0.002	0.001	0.000	0.007
% Operating Inc.-Trust	208	0.063	0.062	0.000	0.617
STATE ROA	42	0.010	0.002	0.007	0.017
STATE HHI	42	1077.958	1076.179	79.211	4160.386

Table 3: Summary Statistics on Own-Bank Shares with Different Degrees of Voting Rights, Managerial Share Holdings and Derived Measures of Control and Ownership

Table 3 shows the mean, median, range and distribution for own-bank shares in 1966 and 1962, voting control proxies and beneficial ownership proxies in our sample. It also shows summary statistics on beneficial ownership data from two comparison samples: a sample of Bank Holding Companies (BHCs) in 1987/1988 from Gorton and Rosen (1995) and a sample of non-financial firms in 1986 from McConnell and Servaes (1990). The source of our 1966 data is U.S. House (1966). The source of our 1962 data is U.S. House (1964). All data in 1966 is as of March 1, 1966. All data in 1962 is as of May, 1962 and is constructed from data on the top 20 stockholders in our sample banks. All ownership data is measured in percent and the denominator is always the total number of common shares outstanding. We call own-bank shares the shares a bank holds in itself in its trust department. These shares include shares held by the banks' nominees. $SOLECTRL = \text{\#own-bank shares with sole voting power} / \text{\# common shares outstanding}$. $\% \text{ own-bank shares-part. vot.} = \% \text{ own-bank shares with partial voting power}$. $SOMECTRL = SOLECTRL + \% \text{ own-bank shares with partial voting power}$. $MDH = \% \text{ shares held by officers and all directors}$. Beneficial inside ownership $= \% \text{ own-bank shares} + MDH$. $TOTLCTRL = SOMECTRL + MDH$. $TOTLSOLECTRL = SOLECTRL + MDH$. Beneficial inside ownership in Gorton and Rosen (1995) $= \% \text{ shares held by 1) officers and directors, 2) director nominees, 3) the BHC's pension plan or ESOP, 4) a trust for a director, 5) families of officers or directors and 6) the banking firm's trust department}$. Beneficial inside ownership in McConnell and Servaes (1990) $= \% \text{ shares held by officers and directors}$.

Sample	Our Sample										Gorton and Rosen (1995)	McConnell and Servaes (1990)
Data year	Data from 1966				Data from 1962		Combined 1966 and 1962 data				1986/1987	1986
Variable	% own-bank shares 1966	SOLECTRL	% own-bank shares-part. vot.	SOMECTRL	% own-bank shares 1962	MDH	Beneficial inside ownership 1966	Beneficial inside ownership 1962	TOTLCTRL	TOTL-SOLECTRL	Beneficial inside ownership	Beneficial inside ownership
Panel A: Summary Statistics on Trust Ownership and Voting Control Measures												
# Obs.	209	209	209	209	195	195	195	195	195	195	458	1,093
Mean (%)	8.25	2.27	2.30	4.58	6.87	5.91	14.23	12.78	10.42	8.08	15.25	11.84
Median (%)	5.97	0.43	0.50	2.39	3.99	3.16	10.43	8.75	7.54	5.71	8.33	5.00
Range (%)	0 - 46.39	0 - 27.79	0 - 28.70	0 - 35.32	0 - 44.18	0 - 45.48	0 - 68.07	0 - 63.07	0 - 60.32	0 - 45.48	0 - 99	0 - 89
Panel B: Number of Banks in Sample, by Share of Trust Ownership or Voting Control Measure												
Less than 5%	89	179	179	145	113	127	34	58	61	86	166	.
5-10%	58	18	17	31	32	34	59	49	60	53	84	.
10-25%	52	11	11	28	41	24	75	58	58	44	107	.
25-50%	10	1	2	5	9	10	21	28	13	12	71	.
Greater than 50%	0	0	0	0	0	0	6	2	3	0	30	.

Table 4: OLS regression of Tobin's Q on SOMECTRL and TOTLCTRL and Controls

Table shows results of OLS regressions of Tobin's Q on two proxies for managerial voting control: SOMECTRL and TOTLCTRL. The sample and control variables are described in more detail in Tables 2 and 3. Our proxy for Tobin's Q=(book value of assets-book value of equity+market value of equity)/book value of assets. SOMECTRL=own-bank shares with sole or partial voting control/# common shares outstanding. TOTLCTRL=SOMECTRL+MDH, where MDH=%shares held by officers and directors. The Argmax of the estimated relationship is the % of Voting proxy for which Tobin's Q achieves its maximum in the estimated relationship. The Maximum is the maximum of the estimated relationship, the Intercept is the value of Q at Voting proxy=0. To calculate the Maximum and Intercept all control variables are evaluated at their means. For comparison purposes the Argmax, Maximum and Intercept are only shown if the estimated relationship is inverse U-shaped. If an adjustment factor is indicated for a variable, the true coefficients for that variable=coefficient in table/adjustment factor. Robust t-statistics are shown in parentheses. The standard errors in columns V, VI and IX are adjusted for potential group correlation among states. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively.

Variables	Dependent Variable: Tobin's Q								
	Voting proxy = SOMECTRL						Voting proxy = TOTLCTRL		
	I	II	III	IV	V	VI	VII	VIII	IX
Voting proxy	0.001** (2.042)	0.001** (2.056)	0.002** (1.995)	0.003** (2.532)	0.002* (1.821)	0.003** (2.314)	0.001*** (2.811)	0.002*** (2.865)	0.002** (2.457)
Squared Voting proxy <i>Adjustment factor: 100</i>	.	.	-0.005 (-1.391)	-0.008** (-2.125)	-0.005 (-1.341)	-0.008** (-2.165)	.	-0.004** (-2.087)	-0.004* (-1.870)
MDH <i>Adjustment factor: 10</i>	.	0.005 (1.412)	.	0.007* (1.95)	.	0.007* (1.688)	.	.	.
Ln(Assets)	-0.005** (-2.568)	-0.003* (-1.697)	-0.004** (-2.510)	-0.002 (-1.352)	-0.004* (-1.846)	-0.003 (-1.096)	-0.003 (-1.522)	-0.001 (-0.379)	-0.001 (-0.384)
Capital/Assets	-0.493** (-2.362)	-0.442** (-2.154)	-0.496** (-2.354)	-0.453** (-2.190)	-0.461* (-1.749)	-0.455* (-1.794)	-0.428** (-2.048)	-0.417** (-2.027)	-0.420 (-1.680)
ROA 1964	3.971*** (3.082)	4.431*** (3.464)	3.837*** (3.045)	4.215*** (3.406)	3.569*** (3.099)	3.874*** (3.361)	4.453*** (3.436)	4.311*** (3.500)	3.994*** (3.342)
ROA 1965	2.735** (2.228)	2.347* (1.946)	2.789** (2.277)	2.587** (2.168)	2.439* (1.855)	2.207* (1.774)	2.431** (2.075)	2.544** (2.221)	2.178* (1.820)
Std. Dev. ROA	3.314 (1.271)	2.354 (0.932)	3.277 (1.259)	2.113 (0.849)	3.134 (1.032)	1.821 (0.645)	2.197 (0.876)	2.643 (1.052)	2.346 (0.813)
STATE ROA	.	.	.	.	1.735 (0.784)	1.629 (0.633)	.	.	1.429 (0.569)
STATE HHI <i>Adjustment factor: 1,000</i>	.	.	.	.	0.001 (0.311)	0.001 (0.300)	.	.	0.002 (0.309)
% Operating Inc.-Trust	.	.	.	.	0.008 (0.144)	0.035 (0.668)	.	.	0.035 (0.677)
Constant	1.056*** (39.057)	1.033*** (35.963)	1.053*** (38.986)	1.019*** (36.572)	1.036*** (28.236)	1.010*** (27.043)	1.024*** (37.662)	0.988*** (31.264)	0.982*** (23.533)
R ²	0.308	0.327	0.313	0.337	0.318	0.344	0.323	0.341	0.347
Observations	184	172	184	172	184	172	172	172	172
F-statistic	7.52	6.26	6.56	5.65	9.64	12.30	7.26	6.46	11.17
Adj. for grp. corr. (states)	No	No	No	No	Yes	Yes	No	No	Yes
Argmax	.	.	19.882	16.951	19.815	16.703	.	29.923	30.073
% Banks with Voting Proxy > Argmax	.	.	3.349	3.828	3.349	3.828	.	5.641	5.641
Maximum	.	.	1.054	1.054	1.056	1.055	.	1.057	1.058
Intercept	.	.	1.034	1.032	1.035	1.033	.	1.024	1.025

Table 5: First Stage 2SLS regression of SOMECTRL on Legal Dummies and Exogenous Control Variables

Table shows OLS regression of SOMECTRL on four legal dummies and exogenous control variables from the Tobin's Q regressions in Table 4. The sample and control variables are described in more detail in Tables 2 and 3. SOMECTRL=# own-bank shares with sole or partial voting power/# common shares outstanding. The set of legal dummies and the national dummy forms the complete set of instruments. The national dummy is excluded in all regressions to avoid the dummy variable trap. The national dummy=1 if bank is a national bank. The legal dummies=1 if bank is a state bank and falls into one of four different legal regimes described in Table 1. If an adjustment factor is indicated for a variable, the true coefficients for that variable=coefficient in table/adjustment factor. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively.

Variables	Dependent Variable: SOMECTRL				
	I	II	III	IV	V
No statutes concerning voting	2.884 (1.574)	3.044 (1.604)	2.823 (1.242)	2.830 (1.443)	2.033 (0.875)
Specific voting provisions	3.922** (2.467)	4.565*** (2.837)	4.349** (2.549)	3.671** (2.242)	3.429** (1.985)
General voting provisions	1.745 (1.595)	1.810 (1.642)	2.075* (1.781)	1.317 (1.118)	1.740 (1.407)
Provisions forbidding voting	-0.900 (-0.303)	-1.785 (-0.590)	-0.738 (-0.168)	-1.335 (-0.441)	-0.418 (-0.096)
MDH	.	.	0.065 (1.090)	.	0.088 (1.475)
Ln(Assets)	.	-0.085 (-0.198)	0.097 (0.204)	-0.028 (-0.063)	0.226 (0.457)
Capital/Assets	.	69.248** (2.110)	73.789** (2.135)	31.298 (0.867)	33.223 (0.880)
ROA 1964	.	95.611 (0.689)	74.319 (0.504)	67.974 (0.483)	33.987 (0.227)
ROA 1965	.	-334.565** (-2.255)	-315.002* (-1.937)	-272.093* (-1.737)	-263.080 (-1.535)
Std. Dev. ROA	.	318.774 (0.935)	209.249 (0.586)	222.889 (0.646)	87.559 (0.243)
STATE ROA	.	.	.	-25.642 (-0.081)	117.507 (0.342)
STATE HHI	.	.	.	-0.001 (-1.188)	-0.001 (-1.261)
% Operating Inc.-Trust	.	.	.	17.138** (2.113)	19.664** (2.300)
Constant	3.693*** (7.443)	1.423 (0.236)	-1.414 (-0.208)	3.282 (0.478)	-1.661 (-0.216)
R ²	0.045	0.084	0.083	0.114	0.117
Observations	205	204	192	204	192
F-statistic	2.38	1.99	1.63	2.04	1.81
F-statistic for test of joint significance of instrumental variables	2.38	2.87	2.31	1.82	1.38

Table 6: Second stage 2SLS regression of Tobin's Q on SOMECTRL and Controls

Table shows second stage 2SLS regressions of Tobin's Q on SOMECTRL, where the instruments are the 4 legal dummies described in Table 5. The sample and control variables are described in more detail in Tables 2 and 3. Our proxy for Tobin's Q=(book value of assets-book value of equity+market value of equity)/book value of assets. SOMECTRL=own-bank shares with sole or partial voting control/# common shares outstanding. The Argmax of the estimated relationship is the % of Voting proxy for which Tobin's Q achieves its maximum in the estimated relationship. The Maximum is the maximum of the estimated relationship, the Intercept is the value of Q at Voting proxy=0. To calculate the Maximum and Intercept all control variables are evaluated at their means. For comparison purposes the Argmax, Maximum and Intercept are only shown if the estimated relationship is inverse U-shaped. If an adjustment factor is indicated for a variable, the true coefficients for that variable=coefficient in table/adjustment factor. Robust t-statistics are shown in parentheses. The standard errors in columns V and VI are adjusted for potential group correlation among states. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively.

Variables	Dependent Variable: Tobin's Q					
	Voting proxy=SOMECTRL					
	I	II	III	IV	V	VI
Voting proxy	-0.001 (-0.409)	-0.001 (-0.570)	0.013 (1.036)	0.011 (0.759)	0.013 (1.072)	0.01 (0.769)
Squared Voting proxy	.	.	-0.001 (-0.989)	-0.001 (-0.860)	-0.001 (-0.924)	-0.001 (-0.861)
MDH <i>Adjustment factor: 10</i>	.	0.004 (1.014)	.	0.020 (1.089)	.	0.021 (1.112)
Ln(Assets) <i>Adjustment factor: 10</i>	-0.041** (-2.070)	-0.025 (-1.091)	-0.007 (-0.167)	0.037 (0.554)	-0.001 (-0.020)	0.042 (0.520)
Capital/Assets	-0.376 (-1.353)	-0.264 (-0.910)	-0.287 (-0.489)	-0.362 (-0.887)	-0.344 (-0.527)	-0.437 (-1.045)
ROA 1964	4.071*** (3.055)	4.433*** (3.192)	2.100 (1.101)	2.875* (1.696)	1.773 (0.783)	2.573 (1.436)
ROA 1965	2.581** (2.045)	2.021 (1.556)	3.327** (2.111)	3.870 (1.650)	2.962* (1.926)	3.495* (1.815)
Std. Dev. ROA	3.246 (1.186)	2.395 (0.875)	2.649 (0.675)	0.440 (0.140)	2.462 (0.666)	0.135 (0.051)
STATE ROA	.	.	.	.	2.579 (1.095)	1.953 (0.762)
STATE HHI <i>Adjustment factor: 1,000</i>	.	.	.	.	-0.002 (-0.31)	-0.002 (-0.398)
% Operating Inc.-Trust	.	.	.	.	0.042 (0.452)	0.076 (0.954)
Constant	1.051*** (34.526)	1.023*** (29.328)	0.990*** (12.545)	0.915*** (7.415)	0.968*** (8.300)	0.904*** (6.098)
Observations	181	170	181	170	181	170
F-statistic	6.23	5.61	3.58	4.66	4.35	8.22
Adj. for grp. corr. (states)	No	No	No	No	Yes	Yes
Argmax	.	.	8.161	9.377	8.148	8.691
% Banks with Voting proxy>Argmax	.	.	19.139	16.746	19.139	18.182
Maximum	.	.	1.074	1.070	1.075	1.070
Intercept	.	.	1.021	1.019	1.022	1.023

Table 7: First Stage 2SLS regression of SOLECTRL on Legal Dummies and Exogenous Control Variables

Table shows OLS regression of SOLECTRL on four legal dummies and exogenous control variables from the Tobin's Q regressions in Table 4. The sample and control variables are described in more detail in Tables 2 and 3. SOLECTRL=# own-bank shares with sole voting power/# common shares outstanding. The set of legal dummies and the national dummy forms the complete set of instruments. The national dummy is excluded in all regressions to avoid the dummy variable trap. The national dummy=1 if bank is a national bank. The legal dummies=1 if bank is a state bank and falls into one of four different legal regimes described in Table 1. If an adjustment factor is indicated for a variable, the true coefficients for that variable=coefficient in table/adjustment factor. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively.

Variables	Dependent Variable: SOLECTRL				
	I	II	III	IV	V
No statutes concerning voting	3.515*** (3.144)	3.394*** (2.952)	3.535*** (2.602)	3.170*** (2.661)	3.120** (2.233)
Specific voting provisions	1.978** (2.039)	2.322** (2.383)	1.566 (1.536)	1.922* (1.933)	1.247 (1.201)
General voting provisions	1.888*** (2.828)	2.061*** (3.087)	1.996*** (2.867)	1.699** (2.376)	1.697** (2.283)
Provisions forbidding voting	0.361 (0.200)	-0.316 (-0.173)	-0.437 (-0.166)	-0.093 (-0.051)	-0.276 (-0.105)
MDH	.	.	-0.060* (-1.694)	.	-0.052 (-1.454)
Ln(Assets)	.	-0.470* (-1.807)	-0.646** (-2.287)	-0.515* (-1.900)	-0.694** (-2.339)
Capital/Assets	.	40.309** (2.028)	42.370** (2.051)	22.311 (1.018)	28.094 (1.238)
ROA 1964	.	80.103 (0.953)	75.530 (0.856)	53.131 (0.622)	46.260 (0.514)
ROA 1965	.	-204.097** (-2.270)	-236.372** (-2.432)	-192.281** (-2.022)	-234.981** (-2.281)
Std. Dev. ROA	.	188.260 (0.912)	186.548 (0.875)	105.046 (0.502)	96.194 (0.444)
STATE ROA	.	.	.	-23.704 (-0.123)	-12.355 (-0.060)
STATE HHI <i>Adjustment factor: 10</i>	.	.	.	-0.001 (-0.208)	0.001 (0.125)
% Operating Inc.-Trust	.	.	.	11.414** (2.318)	11.146** (2.169)
Constant	1.504*** (4.966)	5.561 (1.520)	8.578** (2.116)	7.500* (1.798)	10.152** (2.198)
R ²	0.083	0.132	0.145	0.157	0.167
Observations	205	204	192	204	192
F-statistic	4.53	3.29	3.07	2.96	2.75
F-statistic for test of joint significance of instrumental variables	4.53	4.85	3.59	3.48	2.50

Table 8: OLS and Second Stage 2SLS Regressions of Tobin's Q on SOLECTRL and TOTLSOLECTRL and Controls

Columns I-VI of Table 8 show OLS regressions of Tobin's Q on two proxies for managerial voting power: SOLECTRL and TOTLSOLECTRL. Columns VII-IX show second stage 2SLS regressions of Tobin's Q on SOLECTRL, where the instruments are the 4 legal dummies described in Table 5. The sample, control variables and construction of Argmax, Maximum and Intercept are described in more detail in Tables 2, 3 and 4. Our proxy for Tobin's Q=(book value of assets-book value of equity+market value of equity)/book value of assets. SOLECTRL=#own-bank shares with sole voting control/# common shares outstanding. TOTLSOLECTRL=SOLECTRL+MDH. If an adjustment factor is indicated for a variable, the true coefficients for that variable=coefficient in table/adjustment factor. Robust t-statistics are shown in parentheses. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively.

Variables	Dependent Variable: Tobin's Q								
	Voting proxy=SOLECTRL				Voting proxy=TOTLSOLECTRL		Voting proxy=SOLECTRL		
	OLS				OLS		2SLS		
	I	II	III	IV	V	VI	VII	VIII	IX
Voting proxy	0.025**	0.032***	0.010	0.024	0.010***	0.036***	0.003	0.264	0.158
Adjustment factor: 10	(2.269)	(2.675)	(0.370)	(0.863)	(2.595)	(3.798)	(0.083)	(1.009)	(0.752)
Voting proxy	.	.	0.001	0.001	.	-0.001***	.	-0.028	-0.017
Adjustment factor: 10			(0.589)	(0.290)		(-3.087)		(-1.057)	(-0.872)
MDH	.	0.001**	.	0.001**	.	.	.	.	0.001
		(2.202)		(2.149)					(0.885)
Ln(Assets)	-0.004**	-0.001	-0.004**	-0.002	-0.001	0.001	-0.004**	-0.003	-0.001
	(-2.098)	(-0.767)	(-2.153)	(-0.869)	(-0.808)	(0.715)	(-2.230)	(-0.751)	(-0.287)
Capital/Assets	-0.537***	-0.518***	-0.558***	-0.528***	-0.439**	-0.454**	-0.430*	0.180	0.053
	(-2.724)	(-2.836)	(-2.988)	(-2.969)	(-2.155)	(-2.341)	(-1.708)	(0.311)	(0.133)
ROA 1964	3.909***	4.320***	3.927***	4.328***	4.441***	4.691***	3.988***	3.803**	4.275***
	(3.222)	(3.705)	(3.226)	(3.700)	(3.478)	(3.783)	(3.172)	(2.312)	(3.059)
ROA 1965	2.778**	2.622**	2.781**	2.608**	2.608**	2.346**	2.648**	2.374	2.131
	(2.286)	(2.272)	(2.309)	(2.272)	(2.228)	(2.021)	(2.128)	(1.331)	(1.422)
Std. Dev. ROA	3.285	2.114	3.375	2.193	1.955	2.797	3.182	1.425	0.664
	(1.272)	(0.852)	(1.312)	(0.895)	(0.776)	(1.155)	(1.210)	(0.361)	(0.199)
Constant	1.048***	1.010***	1.051***	1.013***	1.006***	0.959***	1.052***	0.988***	0.973***
	(37.117)	(33.751)	(38.263)	(35.798)	(34.571)	(29.722)	(36.136)	(12.353)	(10.842)
R ²	0.326	0.361	0.329	0.362	0.331	0.369	.	.	.
Observations	184	172	184	172	172	172	181	181	170
F-statistic	7.29	6.60	6.56	5.91	7.10	6.84	6.78	3.30	4.09
Argmax	.	.	.	.	.	22.414	.	4.670	4.587
% Banks with Voting proxy>	.	.	.	.	.	6.667	.	15.311	15.311
Argmax	.	.	.	.	.		.
Maximum	.	.	.	.	.	1.061	.	1.087	1.067
Intercept	.	.	.	.	.	1.021	.	1.025	1.031

Table 9: OLS and Second Stage 2SLS Regressions of ROA on SOMECTRL and TOTLCTRL and Controls

Columns I-VI of Table 9 show OLS regressions of ROA on two proxies for managerial voting power: SOMECTRL and TOTLCTRL. Columns VII-IX show second stage 2SLS regressions of ROA on SOMECTRL, where the instruments are the 4 legal dummies described in Table 5. The sample, control variables and construction of Argmax, Maximum and Intercept are described in more detail in Tables 2, 3 and 4. Our proxy for ROA=net income before related taxes/book value of assets and it is measured at the end of 1966. SOMECTRL=#own-bank shares with sole or partial voting control/# common shares outstanding. TOTLCTRL=SOMECTRL+MDH. If an adjustment factor is indicated for a variable, the true coefficients for that variable=coefficient in table/adjustment factor. Robust t-statistics are shown in parentheses. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively.

Variables	Dependent Variable: ROA									
	Voting proxy=SOMECTRL				Voting proxy=TOTLCTRL		Voting proxy=SOMECTRL			
	OLS				OLS		2SLS			
	I	II	III	IV	V	VI	VII	VIII	IX	X
Voting proxy <i>Adjustment factor: 1,000</i>	0.001 (0.026)	-0.008 (-0.177)	0.097 (1.122)	0.035 (0.388)	-0.029 (-0.974)	-0.008 (-0.124)	0.439* (1.805)	0.335 (1.486)	1.387** (2.076)	1.604 (1.364)
Squared Voting proxy <i>Adjustment factor: 10,000</i>	.	.	-0.042 (-1.164)	-0.019 (-0.500)	.	-0.005 (-0.313)	.	.	-0.490 (-1.579)	-0.521 (-1.137)
MDH <i>Adjustment factor: 100</i>	.	-0.004 (-1.262)	.	-0.004 (-1.149)	.	.	.	-0.006 (-1.122)	.	0.004 (0.400)
Ln(Assets) <i>Adjustment factor: 10</i>	-0.004* (-1.802)	-0.005* (-1.845)	-0.004* (-1.781)	-0.004* (-1.779)	-0.004* (-1.723)	-0.004 (-1.627)	-0.003 (-1.083)	-0.005 (-1.331)	-0.003 (-0.929)	-0.002 (-0.319)
Capital/Assets	0.138*** (8.275)	0.139*** (8.268)	0.137*** (8.319)	0.138*** (8.295)	0.140*** (8.441)	0.140*** (8.461)	0.121*** (5.086)	0.125*** (6.016)	0.115*** (4.793)	0.111*** (3.590)
Std. Dev. ROA	-0.318 (-1.544)	-0.334* (-1.683)	-0.317 (-1.560)	-0.336* (-1.704)	-0.341* (-1.702)	-0.332 (-1.631)	-0.358 (-1.538)	-0.350* (-1.768)	-0.343 (-1.299)	-0.440 (-1.529)
Constant <i>Adjustment factor: 10</i>	0.053 (1.618)	0.065* (1.700)	0.052 (1.571)	0.063 (1.609)	0.059 (1.580)	0.055 (1.448)	0.042 (0.839)	0.062 (1.121)	0.026 (0.513)	0.002 (0.018)
R ²	0.357	0.386	0.362	0.387	0.384	0.385	.	.	.	.
Observations	207	195	207	195	195	195	204	193	204	193
F-statistic	20.36	17.45	16.83	14.83	20.67	16.60	17.85	16.97	13.85	9.67
Argmax	.	.	11.548	9.332	.	.	.	.	14.15	15.393
% Banks with Voting proxy>Argmax	.	.	10.048	16.746	.	.	.	.	5.742	5.263
Maximum	.	.	0.010	0.010	.	.	.	.	0.016	0.018
Intercept	.	.	0.010	0.010	.	.	.	.	0.006	0.006

Table 10: OLS and Second Stage 2SLS Regressions of ROA on SOLECTRL and TOTLSOLECTRL and Controls

Columns I-VI of Table 10 show OLS regressions of ROA on two proxies for managerial voting power: SOLECTRL and TOTLSOLECTRL. Columns VII-IX show second stage 2SLS regressions of ROA on SOLECTRL, where the instruments are the 4 legal dummies described in Table 5. The sample, control variables and construction of Argmax, Maximum and Intercept are described in more detail in Tables 2, 3 and 4. Our proxy for ROA=net income before related taxes/book value of assets and it is measured at the end of 1966. SOLECTRL=#own-bank shares with sole voting control/# common shares outstanding. TOTLSOLECTRL=SOLECTRL+MDH. If an adjustment factor is indicated for a variable, the true coefficients for that variable=coefficient in table/adjustment factor. Robust t-statistics are shown in parentheses. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively.

Variables	Dependent Variable: ROA								
	Voting proxy=SOLECTRL				Voting proxy=TOTLSOLECTRL		Voting proxy=SOLECTRL		
	OLS				OLS		2SLS		
	I	II	III	IV	V	VI	VII	VIII	IX
Voting proxy <i>Adjustment factor: 1,000</i>	0.004 (0.059)	-0.028 (-0.468)	0.281** (2.079)	0.204 (1.485)	-0.042 (-1.389)	-0.014 (-0.212)	0.469* (1.796)	1.900** (2.259)	1.581 (1.623)
Squared Voting proxy <i>Adjustment factor: 1,000</i>	.	.	-0.019*** (-2.874)	-0.015** (-2.314)	.	-0.001 (-0.513)	.	-0.141* (-1.770)	-0.113 (-1.379)
MDH <i>Adjustment factor: 100</i>	.	-0.004 (-1.309)	.	-0.004 (-1.034)	.	.	.	.	0.002 (0.386)
Ln(Assets) <i>Adjustment factor: 10</i>	-0.004 (-1.799)	-0.005 (-1.889)	-0.004* (-1.822)	-0.004* (-1.799)	-0.005 (-1.893)	-0.004* (-1.716)	-0.002 (-0.663)	-0.004 (-1.132)	-0.003 (-0.880)
Capital/Assets	0.138*** (8.234)	0.139*** (8.28)	0.137*** (8.253)	0.138*** (8.240)	0.140*** (8.318)	0.139*** (8.336)	0.125*** (7.250)	0.136*** (5.350)	0.137*** (5.937)
Std. Dev. ROA	-0.318 (-1.541)	-0.331* (-1.674)	-0.322 (-1.590)	-0.341* (-1.757)	-0.332* (-1.678)	-0.323 (-1.616)	-0.339 (-1.528)	-0.311 (-1.240)	-0.377* (-1.674)
Constant	0.005 (1.616)	0.007* (1.728)	0.005 (1.603)	0.006 (1.601)	0.007* (1.728)	0.006 (1.527)	0.002 (0.620)	0.005 (0.772)	0.003 (0.532)
R ²	0.357	0.386	0.375	0.398	0.386	0.387	.	.	.
Observations	207	195	207	195	195	195	204	204	193
F-statistic	20.56	17.69	19.69	17.31	21.81	17.57	22.29	9.73	9.30
Argmax	.	.	7.508	6.667	.	.	.	6.705	7.000
% Banks with Voting proxy>Argmax	.	.	8.134	10.048	.	.	.	10.048	9.569
Maximum	.	.	0.011	0.010	.	.	.	0.015	0.014
Intercept	.	.	0.010	0.010	.	.	.	0.008	0.008

Table 11: OLS and Second Stage 2SLS Regressions of Tobin's Q and ROA on SOMECTRL and SOLECTRL with MDH and Squared MDH

Columns I-VI (V-VIII) of Table 11 show OLS and 2SLS regressions of Tobin's Q (ROA) on SOMECTRL and SOLECTRL. All regressions include both MDH and its square. The instruments are the 4 legal dummies described in Table 5. The sample, control variables and construction of Argmax, Maximum and Intercept are described in more detail in Tables 2, 3 and 4. If an adjustment factor is indicated for a variable, the true coefficients for that variable=coefficient in table/adjustment factor. Robust t-statistics are shown in parentheses. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively.

Variables	Dependent Variable: Tobin's Q				Dependent Variable: ROA			
	Voting proxy=SOMECTRL		Voting proxy=SOLECTRL		Voting proxy=SOMECTRL		Voting proxy=SOLECTRL	
	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS
	I	II	III	IV	V	VI	VII	VIII
Voting proxy	0.286**	0.950	0.249	1.509	0.003	0.161	0.020	0.156
<i>Adjustment factor: 100</i>	(2.588)	(0.759)	(0.894)	(0.746)	(0.344)	(1.303)	(1.448)	(1.541)
Squared Voting proxy	-0.089**	-0.482	0.076	-1.612	-0.002	-0.052	-0.015**	-0.110
<i>Adjustment factor: 1,000</i>	(-2.275)	(-0.877)	(0.301)	(-0.847)	(-0.440)	(-1.112)	(-2.248)	(-1.338)
MDH	0.229***	0.417	0.257***	0.185	-0.009	0.006	-0.007	0.004
<i>Adjustment factor: 100</i>	(2.625)	(1.575)	(3.033)	(1.284)	(-1.124)	(0.235)	(-0.964)	(0.275)
Squared MDH	-0.486**	-0.738*	-0.549**	-0.345	0.014	-0.004	0.012	-0.007
<i>Adjustment factor: 10,000</i>	(-2.066)	(-1.863)	(-2.422)	(-1.102)	(0.782)	(-0.077)	(0.647)	(-0.186)
Ln(Assets)	-0.007	0.051	0.004	-0.001	-0.005*	-0.002	-0.005*	-0.003
<i>Adjustment factor: 10</i>	(-0.359)	(0.776)	(0.232)	(-0.021)	(-1.859)	(-0.249)	(-1.840)	(-0.800)
Capital/Assets	-0.428**	-0.350	-0.507***	0.032	0.137***	0.111***	0.137***	0.136***
	(-2.075)	(-0.971)	(-2.922)	(0.084)	(8.253)	(3.558)	(8.200)	(6.001)
ROA 1964	4.363***	3.368**	4.513***	4.387***	.	.	.	.
	(3.503)	(2.326)	(3.847)	(3.141)				
ROA 1965	2.478**	3.446*	2.473**	2.076	.	.	.	.
	(2.094)	(1.691)	(2.176)	(1.407)				
Std. Dev. ROA	2.590	1.482	2.753	1.101	-0.349*	-0.437	-0.352*	-0.372
	(1.062)	(0.549)	(1.158)	(0.340)	(-1.740)	(-1.508)	(-1.783)	(-1.627)
Constant	9.870***	8.883***	9.778***	9.532***	0.072*	-0.001	0.070*	0.024
<i>Adjustment factor: 10</i>	(33.118)	(7.336)	(32.355)	(10.171)	(1.703)	(-0.006)	(1.654)	(0.427)
R ²	0.350	.	0.378	.	0.388	.	0.399	.
Observations	172	170	172	170	195	193	195	193
F-statistic	5.18	4.41	5.50	3.84	12.79	8.23	14.80	8.22
Argmax	16.040	9.856	.	4.679	9.371	15.455	6.660	7.118
% Banks with Voting proxy>Argmax	4.306	16.268	.	15.311	16.746	5.263	10.048	8.612
Maximum	1.054	1.067	.	1.066	0.010	0.018	0.010	0.014
Intercept	1.031	1.020	.	1.031	0.010	0.006	0.010	0.008

Table 12: Comparison of OLS Regressions of Tobin's Q on Beneficial Inside Ownership to Regressions of Tobin's Q on MDH, TOTLCTRL and TOTLSELECTRL

Table 12 shows OLS regressions of Tobin's Q on beneficial inside ownership, MDH, TOTLCTRL and TOTLSELECTRL and control variables. The sample, control variables and construction of Argmax, Maximum and Intercept are described in more detail in Tables 2, 3 and 4. Beneficial inside ownership=(#own-bank shares/#common shares outstanding)+MDH. If an adjustment factor is indicated for a variable, the true coefficients for that variable=coefficient in table/adjustment factor. Robust t-statistics are shown in parentheses. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively.

Variables	Dependent Variable: Tobin's Q							
	Ownership measure = Beneficial ownership		Ownership measure = MDH		Ownership measure = TOTLCTRL		Ownership measure = TOTLSELECTRL	
	I	II	III	IV	V	VI	VII	VIII
Ownership measure	0.004*	0.012*	0.005	0.019**	0.007***	0.022***	0.010***	0.036***
<i>Adjustment factor: 10</i>	(1.751)	(1.861)	(1.262)	(2.402)	(2.811)	(2.865)	(2.595)	(3.798)
Squared Ownership measure	.	-0.002	.	-0.005**	.	-0.004**	.	-0.008***
<i>Adjustment factor: 100</i>		(-1.313)		(-2.048)		(-2.087)		(-3.087)
Ln(Assets)	-0.003*	-0.002	-0.003	-0.001	-0.003	-0.001	-0.001	0.001
	(-1.771)	(-1.308)	(-1.566)	(-0.740)	(-1.522)	(-0.379)	(-0.808)	(0.715)
Capital/Assets	-0.448**	-0.464**	-0.390*	-0.366*	-0.428**	-0.417**	-0.439**	-0.454**
	(-2.025)	(-2.108)	(-1.797)	(-1.694)	(-2.048)	(-2.027)	(-2.155)	(-2.341)
ROA 1964	4.593***	4.568***	4.501***	4.662***	4.453***	4.311***	4.441***	4.691***
	(3.483)	(3.561)	(3.382)	(3.460)	(3.436)	(3.500)	(3.478)	(3.783)
ROA 1965	2.241*	2.244*	2.256*	2.130*	2.431**	2.544**	2.608**	2.346**
	(1.884)	(1.909)	(1.817)	(1.724)	(2.075)	(2.221)	(2.228)	(2.021)
Std. Dev. ROA	2.565	2.776	2.385	2.862	2.197	2.643	1.955	2.797
	(1.030)	(1.120)	(0.920)	(1.120)	(0.876)	(1.052)	(0.776)	(1.155)
Constant	1.035***	1.019***	1.032***	1.003***	1.024***	0.988***	1.006***	0.959***
	(36.302)	(33.093)	(34.143)	(31.446)	(37.662)	(31.264)	(34.571)	(29.722)
R ²	0.311	0.318	0.308	0.320	0.323	0.341	0.331	0.369
Observations	172	172	172	172	172	172	172	172
F-statistic	6.69	5.91	6.59	5.84	7.26	6.46	7.10	6.84
Argmax	.	36.372	.	21.122	.	29.923	.	22.414
% Banks with Voting Proxy > Argmax	.	6.154	.	6.154	.	5.641	.	6.667
Maximum	.	1.050	.	1.053	.	1.057	.	1.061
Intercept	.	1.028	.	1.033	.	1.024	.	1.021

Table 13: Bank Holding Companies (BHCs) In UBS Warburg's Bank Index Who Are Amongst The Top Three Institutional Holders Of Their Own Shares

Table shows all BHCs in UBS Warburg's bank index (UBS Warburg 2001) who are amongst the top three institutional owners of their own shares, as well as the corresponding stakes and the stakes of all other top three institutional owners. We determined whether BHCs own their own shares by comparing names of BHCs with those of institutional owners. Matching names are highlighted in bold.

Name of Bank Holding Company (BHC)	% Total Institutional Ownership in BHC	Name of 1 st Institutional Owner in BHC	%	Name of 2 nd Institutional Owner in BHC	%	Name of 3 rd Institutional Owner in BHC	%
BHC in UBS Warburg Bank Index for Whom BHC or BHC Subsidiary is Largest Institutional Owner							
Northern Trust Corp.	61.63	Northern Trust Corporation	9.73	United States Trust Company of NY	5.59	Goldman, Sachs & Company	3.19
National City Corp.	47.61	National City Corporation	10.39	AXA Financial Inc	4.48	Barclays Bank Plc	3.62
SunTrust Banks Inc.	42.75	SunTrust Banks Inc	7.22	Barclays Bank Plc	3.11	State Farm Mutual Automobile Ins Co	2.36
U.S. Bancorp	52.02	US Bancorp - MN	4.47	Firststar Corporation	3.76	Barclays Bank Plc	3.32
Wachovia Corp.	51.66	Wachovia Bank NA - VA	5.89	Capital Research and Management Co	3.64	Wellington Management Company	3.5
AmSouth Bancorp.	33.81	AmSouth Bancorporation	3.82	Barclays Bank Plc	3.62	State Farm Mutual Automobile Ins Co	2.04
Associated Banc-Corp	37.67	Associated Banc-Corp	7.66	Berger LLC	2.42	Barclays Bank Plc	2.09
FirstMerit Corp.	29.93	Firstmerit Bank NA-Trustee	6.29	Barclays Bank Plc	1.82	J L Kaplan Associates	1.68
Huntington Bancshares Inc.	25.69	Huntington National Bank	3.06	Barclays Bank Plc	2.88	State Street Corporation	1.85
Mercantile Bankshares Corp.	39.53	Mercantile Bankshares Corporation	3.87	T Rowe Price Associates	3.53	Barclays Bank Plc	1.94
Synovus Financial Corp.	36.24	Synovus Financial Corporation	12.9	FMR Corporation	3.84	Barclays Bank Plc	2.77
Union Planters Corp.	30.08	Union Planters National Bank	4.3	Barclays Bank Plc	2.94	State Street Corporation	1.83
Banks in UBS Warburg Bank Index for Whom BHC or BHC Subsidiary is Second Largest Institutional Owner							
Wilmington Trust Corp.	39.32	Wilmington Trust Company	5.62	J P Morgan & Company Inc	2.37	Shapiro Capital Management Co Inc	1.94
State Street Corp.	80.96	Barclays Bank Plc	9.09	State Street Corporation	4.59	Wellington Management Company	3.48
First Union Corp.	47.69	Capital Research and Management Co	4.81	First Union Corporation	4.08	Barclays Bank Plc	3.35
Marshall & Ilsiey Corp.	32.63	Northwestern Mutual Life Insurance	3.77	Marshall & Lisley Corporation	3.56	Nicholas Company Inc	2.2
Banks in UBS Warburg Bank Index for Whom BHC or BHC Subsidiary is Third Largest Institutional Owner							
Fifth Third Bancorp	51.3	Putnam Investment Management Inc	5.18	Ruane, Cunniff & Co Inc	4.88	Fifth Third Bancorp	4.44
KeyCorp	51.38	State Street Corporation	8.94	AXA Financial Inc	4.16	Keybank National Association	3.69
BB&T Corp.	24.25	Barclays Bank Pic	2.9	State Street Corporation	1.78	Branch Banking and Trust Company	1.65
National Commerce Finl Corp.	39.01	Putnam Investment Management Inc	2.32	Franklin Resources Inc	2.26	National Commerce Bancorporation	2.11
Regions Financial Corp.	26.23	AXA Financial Inc	3.4	Barclays Bank Plc	2.86	Regions Financial Corporation	2.49
Zions Bancorp.	47.05	Putnam Investment Management Inc	8.05	American Express Financial Corp	5.2	Zions First National Bank	4.72