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Obstacles to Optimal Policy

The Interplay of Politics and Economics in Shaping Bank Supervision and Regulation Reforms

Randall S. Kroszner and Philip E. Strahan

7.1 Introduction

Economists analyzing depository institution supervision and regulation typically have taken a normative approach and have generated numerous reform proposals. Although agreement exists about the general direction of welfare-enhancing reforms, how to pass and implement such reforms has received much less analysis. This paper provides a positive political-economy analysis of the most important revision of the U.S. supervision and regulation system during the last two decades, the 1991 Federal Deposit Insurance Corporation Improvement Act (FDICIA). We analyze the impact of private interest groups and political-institutional factors on the voting patterns concerning FDICIA to assess the empirical importance of different types of obstacles to welfare-enhancing reforms.

Rather than take regulations as given, the political economy approach we employ here attempts to provide a positive analysis of how and why regulations evolve as they do and what forces can lead to their durability, as well as their potential for change. In section 7.2 we briefly outline a

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number of approaches to understanding the political economy of government involvement in the economy. In section 7.3 we apply these theories to describe why, after little change since the end of the Great Depression, legislative reform of bank regulation began in the 1980s. This section also contains a brief review of the major legislative changes during the last twenty years and provides a more detailed description of the legislative history of FDICIA and its amendments.

In section 7.4 we outline hypotheses about the factors that should affect the support for FDICIA and the amendments generated by the positive interest group and political approaches. Concerning private interest groups, we focus on the contrasting interests of large versus small banks (intraindustry rivalry), of banks versus insurance (interindustry rivalry), and of consumers versus the banking industry. Concerning the political-institutional factors, we explore the roles of legislator ideology, partisanship, and congressional committees. We also provide the variable definitions in this section.

Section 7.5 describes our empirical voting model and contains the results. We analyze votes by members of the House of Representatives on three amendments related to FDICIA and its final passage. We find consistent support for the influence of both the intra- and interindustry rivalries on the outcomes but little role for consumer interests. Measures of legislator ideology and partisanship also have an impact. For two of the three amendments, the private interest group factors have greater explanatory power than do the political factors, and we find the opposite for the other amendment. Because both sets of factors do play a role, both should be taken into account in order to implement successful change. A divide-and-conquer strategy with respect to the private interests appears to be effective for bringing about legislative change. The concluding section draws tentative lessons from the political economy approaches concerning ways to make welfare-enhancing regulatory change more likely.

7.2 Alternative Approaches to the Political Economy of Regulation

Both policy reformers trying to effect change as well as researchers trying to develop positive theories of government policy making have tried to understand the patterns of regulation and deregulation. Economists have tended to emphasize the struggle between private interests and the public interest in determining policy outcomes. Political scientists have tended to emphasize the role of ideology and public opinion as well as the structure of the legislative decision-making institutions in shaping outcomes.¹ In this section, we will briefly outline these alternative positive approaches to ana-

1. Political scientists, however, have long understood and analyzed the impact of private interest groups on policy outcomes (e.g., Schattschneider 1935), so the distinction between the approaches of economists and political scientists is primarily for expository convenience.

lyzing regulatory change and describe some applications to understanding aspects of banking and financial regulation. Although these approaches are not mutually exclusive, they emphasize different aspects of the interaction between economics and politics. Each captures an important element in the process, and our empirical work will try to gauge their relative importance.

7.2.1 Positive Economic Approaches: Public Interest and Private Interest

Public Interest

The traditional approach that economists once took to explaining the existence of regulation emphasized that regulations exist to correct market failures and protect poorly informed consumers from harm.² From this perspective, regulatory intervention occurs primarily to maximize social welfare, so this approach is often called the public interest theory of regulation. Public interest rationales are given for capital regulation and deposit insurance to provide a sound banking system because stability of the financial system can have spillover effects for general macroeconomic performance (e.g., Diamond and Dybvig 1983; King and Levine 1993; Jayaratne and Strahan 1996; Kaufman and Kroszner 1997). Statutory protections of shareholders and creditors from ex post appropriation and supervisory agencies such as the Securities and Exchange Commission (SEC) are rationalized on the grounds of investor and consumer protection.

A key challenge to the public interest theory is that many forms of regulation are hard to understand from a welfare-maximizing point of view. Entry restrictions that protect banks or other financial institutions from competition, portfolio restrictions that hinder diversification, deposit insurance systems that exacerbate moral hazard problems, and geographic restrictions that have prevented expansion within a country or across national borders are generally difficult to rationalize on public interest grounds. Regulation that does not appear to serve a public interest also is common in other sectors (see Stigler 1988).

Virtually all regulation, regardless of whether it may have a public interest rationale, has significant distributional consequences. The parties affected by the regulation thus have an incentive to try to ensure that the government structures the regulation in such a way as to benefit them. A public interest argument is often used to mask the private interests that the intervention serves. Private interests may try to confuse the public debate by providing false or misleading information to make it difficult to discern whether policy would improve social welfare (e.g., Kane 1996; Dewatripont and Tirole 1999).

2. Joskow and Noll (1981) call this normative analysis as positive theory.

Private Interest

The private interest theory of regulation, also called the economic theory of regulation, characterizes the regulatory process as one of interest group competition in which compact, well-organized groups are able to use the coercive power of the state to capture rents for those groups at the expense of more dispersed groups (e.g., Olson 1965; Stigler 1971; Peltzman 1976, 1989; Becker 1983). Changes in the size, strength, and organization of interest groups thus provide the key to understanding policy changes. Regulated groups may be sufficiently powerful that they influence the politicians and the regulatory bureaucracy to serve primarily the interests of those subject to the regulation.

The incentives for such regulatory behavior may be direct or indirect. Pressure may be exerted directly on politicians through campaign contributions or votes. The politicians then pass a new statute or pressure the regulators to act sympathetically toward the interest group. Indirect incentives may come through regulators' understanding that cooperative behavior may be rewarded with lucrative employment opportunities in the industry after such supportive regulators leave the government.

The effectiveness of the interest groups depends on a number of factors. First, cohesive groups will find it easier to organize and overcome free-rider problems in lobbying for regulations that may benefit them. Producers of goods and services tend to be more compact and better organized than consumers, so there is a tendency for regulation on net to benefit producers more than consumers (Stigler 1971). As we discuss in more detail later, interests within an industry or section may not be homogeneous, and in such cases competition among well-organized and well-funded corporate interests can offset the tendency for regulation to benefit producers. A group's ability to organize is often inversely related to its size, but many labor unions and trade organizations have been able to develop effective lobbying bodies through carefully crafted incentives that provide a variety of information and support services in return for membership (see Olson 1965).

Second, groups tend to be more effective not only when the benefits are concentrated among group members but also when the costs of the regulation are relatively diffuse. A compact group of potential losers, each of whom would experience high losses associated with the regulation, will be likely to form a lobby that will try to counteract the original interest group's pressure. Interest groups most directly affected by the regulation may attempt to build a large coalition to support or oppose the regulation.³

3. In addition, groups with completely unconnected interests may form "support trading" or "logrolling" coalitions. Two groups may agree to support each other even if the members of one group are not affected by the regulations that the other wants. Tariffs are a classic

Competition among organized interests is typical, particularly in the financial services area (Kroszner and Stratmann 1998).

Third, in addition to the diffusion of the costs across different groups, the level of the costs relative to the benefits obtained by the interest group plays an important role (Becker 1983). Deadweight loss is defined as precisely the difference between the winner's benefit and the loser's cost from the change in output generated by the regulation. Factors affecting the "efficiency" of the regulatory or transfer mechanism thus may have an important impact on political outcomes. As the deadweight loss grows, for example, the losers are losing more for each dollar of the winner's gain. When this gap widens, losers have a greater incentive to fight each dollar of the winner's gain, and the winners have less incentive to fight for each dollar of the loser's loss. In other words, when deadweight losses are high, an interest group faces greater opposition to its protective regulation on the margin and hence is less likely to be successful.⁴

Similarly, politicians in electoral democracies are concerned about finding an optimal support coalition to promote their reelection chances, so they take into account the marginal costs and benefits to different groups. The rents generated by regulation in an electoral democracy are thus likely to be spread among different groups, even though one group may be the primary beneficiary (Peltzman 1976).⁵ Regulation that protects financial institutions from competition and subsidized government deposit insurance⁶ generates rents for this sector that may be partially shared through directed credit allocation.⁷ Competition among rival interests may then influence the extent and identity of the winners and losers.⁸

case of logrolling, in which, say, lumber and glass producers support each other's call for higher protection, thereby providing greater support for higher tariffs than otherwise would be (Schattscheider 1935; Irwin and Kroszner 1996).

4. Becker (1983) argues that competition among lobbying groups thus will lead to the selection of the most efficient (lowest deadweight cost) regulations, so there is a tendency for regulation to be efficient in this sense. Wittman (1995) takes this argument further to conclude that both democratic institutions and outcomes are efficient. On why not all welfare-enhancing reforms may be realized in the political arena, see Rodrik (1996), Rajan and Zingales (forthcoming), and Kroszner (2000b).

5. When the constraint of future elections is less binding on politicians, they may engage in less rent sharing and provide windfalls to targeted groups. McGuire and Olson (1996), however, argue that less democratic regimes may be better able to insulate themselves from rent seeking and might find it in their own interests to pursue economic policies in the public interest.

6. In addition, flat-rate deposit insurance tends to subsidize the smaller and riskier banks at the expense of the larger, better diversified, and safer banks. Lobbying for flat-rate deposit insurance (and for continued protection against geographic diversification through branching) has historically been consistent with this pattern of relative benefits (e.g., White 1983; Calomiris and White 1994; Economides, Hubbard, and Palia 1996; Kroszner 1997).

7. See Kroszner (1999a; 2000a,b), for how this may make the banking and financial system susceptible to political influence.

8. Politicians and the bureaucracy may be considered a distinct interest group concerned about expanding their size and influence over the economy. Niskanen (1971) and Brennan

7.2.2 Positive Political-Institutional Approaches

Ideology

Although the private interest theory has had much success in explaining a wide variety of regulatory interventions that are difficult to rationalize on public interest grounds, it has been less effective in explaining the widespread economic deregulation that has taken place in many countries during the last two decades (Peltzman 1989 and Noll 1989; but see Kroszner and Strahan 1999). Many political scientists and some economists emphasize the importance of beliefs and ideologies of voters and politicians to explain regulation and deregulation (e.g., Kalt and Zupan 1984; Poole and Rosenthal 1997). Differences across countries or among citizens over time in their general beliefs about the appropriate role of the government in economic affairs might affect the extent of intervention. Roe (1994), for example, has argued that populist fear of excessive concentration of power in the hands of financial elites was an important driving force behind many banking and financial regulations in the early part of this century (but see Hellwig 1999 for an alternative interpretation).

Poole and Rosenthal (1997) have undertaken a systematic analysis of voting patterns in the U.S. Congress and argue that ideology is the key to explaining roll-call voting.⁹ They have had much success in accounting for a wide variety of economic regulation and deregulation that is not well explained by private interest group variables or party politics.

Poole and Rosenthal (1993), for example, find an important role for ideology in the legislative battles over federal economic regulation in the United States during the nineteenth century. Gilligan, Marshall, and Weingast (1989) had argued that economic interests of constituents were the key to explaining the origins and passage of the Interstate Commerce Act of 1887, which was the first significant piece of federal regulation of private corporations and initiated the “age of economic regulation.” When Poole and Rosenthal (1993) included their measures of legislator ideology in the vote prediction regressions, however, the economic interest variables were much diminished in effect and had low incremental explanatory power relative to ideology. In addition, Berglof and Rosenthal (1999) analyze bankruptcy law in the United States and argue that ideology is a key element for under-

and Buchanan (1977) suggest that an objective of the government may be to maximize or, on the margin, to increase its size and expenditures, and they discuss institutional structures that can mitigate the tendency toward growth. This view has been characterized as the Leviathan approach.

9. Poole and Rosenthal (1997) create an ideology measure that locates each legislator on a simple left-right scale based on their complete history of roll-call votes. In our empirical work we use the ADA rating, which is based on selected roll-call votes. For our time period, the ADA and the Poole and Rosenthal measures are highly correlated.

standing the voting patterns on bankruptcy legislation during the last two centuries.¹⁰ In the empirical work following, we will examine the incremental explanatory power of private interest and political factors.

Identifying the driving forces behind changes in ideology over time, however, has been difficult. What constitutes the term *ideology* and whether it can be measured independent of private economic interests are the subjects of an extensive and ongoing controversy (see Kalt and Zupan 1984 and Peltzman 1984; and overviews by Bender and Lott 1996 and Poole and Rosenthal 1996).

Institutions

The new institutional economics approach emphasizes transactions costs and institutional arrangements for decision making as key factors influencing the outcome of the policy process (e.g., McCubbins, Noll, and Weingast 1988; North 1990; Williamson 1996; Alston, Eggertsson, and North 1996; Dixit 1996; Irwin and Kroszner 1999). This approach examines how alternative policy-making structures influence the incentives of both special interests and governmental actors to shape policy. These institutional and transactions costs features can in turn affect both the incentives for interest groups to organize and the effectiveness of their lobbying efforts. Interest group size and strength, thus, is not given but may be endogenous, and it is important to take such considerations into account to understand how durable policy change comes about (e.g., Irwin and Kroszner 1999).

The committee structure of Congress creates opportunities for vote trading and issue linkages that may affect coalition formation and policy outcomes (e.g., Shepsle and Weingast 1987; Weingast and Marshall 1988). The selection process for committee membership may lead committees to be composed of “preference outliers” who are not representative of Congress as a whole but, by virtue of their gatekeeping control over legislation in their jurisdiction, may have a disproportionate impact on outcomes (e.g., Shepsle 1978; Shepsle and Weingast 1995). Alternatively, committees may not consist of outliers and may operate as delegated groups to carry out the major party’s agenda or as groups of policy experts who gather and process information in order to make well-informed decisions (Hall and Grofman 1990; Krehbeil 1991; Kiewiet and McCubbins 1991; Cox and McCubbins 1993). The standing committees also may function as repeat-dealing devices that permit legislators to develop credible policy positions, and this process then helps the legislators to maximize special interest contributions (Kroszner and Stratmann 1998).

10. On the political economy of bankruptcy, see also Posner (1997), Bolton and Rosenthal (1999), and Kroszner (1999b).

7.3 Legislative Reforms of Bank Supervision and Regulation: Why Do They Occur in the 1980s and 1990s?

Although our main focus will be on the 1991 FDICIA, it is important to investigate whether the positive theories outlined earlier can help explain the general timing of bank regulatory change. From the end of the Depression through the 1970s, there was little reform of the statutes governing the supervision and regulation of the banking sector. As table 7.1 shows, federal legislative change began in 1980. At the same time, states were relaxing restrictions on branching and interstate banking. In the 1990s, regulatory change continued with reform of the financial safety net (FDICIA in 1991), deregulation of restrictions on branching (the Interstate Branching and Banking and Efficiency Act of 1994), and deregulation of the separation of banking and underwriting (the Financial Services Modernization Act of 1999).

Technological, economic, and legal shocks disrupting the long-standing political-economy equilibrium can explain why regulatory change began in

Table 7.1 Legislative Changes to Supervision and Regulation of Banks during the 1980s

	Year Passed	Major Provisions of the Law
Depository Institutions Deregulation and Monetary Control Act (DIDMCA)	1980	Raised deposit insurance from \$40,000 to \$100,000. Imposed uniform reserve requirements on all depository institutions. Gave access to Federal Reserve services to all depository institutions. Phased out interest rate ceilings. Allowed depositories to offer NOW and ATS accounts nationwide. Eliminated usury ceilings.
Garn St Germain Act	1982	Permitted banks to purchase failing banks and thrifts across state lines. Expanded thrift lending powers. Allowed depositories to offer money market deposit accounts.
Competitive Equality in Banking Act (CEBA)	1987	Allocated \$10.8 billion in additional funding to the FSLIC. Authorized forbearance program for farm banks. Reaffirmed that the full faith and credit of the Treasury stood behind deposit insurance.
Financial Institutions Reform, Recovery and Enforcement Act (FIRREA)	1989	Provided \$50 billion of taxpayers' funds to resolved failed thrifts. Eliminated the FSLIC and the Federal Home Loan Bank Board (the former regulator of thrifts). Created the Office of Thrift Supervision to regulate and supervise thrifts. Raised deposit insurance premiums. Mandated that the deposit insurance fund reach 1.25 percent of insured deposits. Reimposed restrictions on thrift lending activities. Directed Treasury to study deposit insurance reform.

Source: Mishkin (1997) and FDIC (1997).

the early 1980s. Economic shocks such as rising interest rates and greater competition from the commercial paper and junk bond markets reduced the profitability and capital of banks and thrifts. Because banks and thrifts had less capital at stake, the moral hazard problem associated with deposit insurance worsened in the 1980s, thereby making regulatory changes designed to enhance both regulatory and market discipline in the public interest. At the same time, new technologies such as automatic teller machines (ATMs) and credit scoring models for lending reduced the strength of small banks—the traditional beneficiaries of deposit insurance and restrictions on banks' abilities to expand geographically—relative to large banks. These changes thus set the stage for the regulatory change. We examine these forces later and provide a brief description of the substance of the changes that occurred during the 1980s in section 7.3.1.

Sections 7.3.2 and 7.3.3 then describe FDICIA and its legislative history in detail. We choose this focus for three reasons. First, this act represents the most significant revision to the rules governing federal banking supervision and regulation since the Great Depression. Second, votes on other important pieces of legislation dealing with banking supervision and regulation were either voice votes (hence leaving no record to analyze) or so nearly unanimous that there would not be sufficient variation to do systematic empirical analysis.¹¹

The third reason for this focus is that the legislative history of FDICIA allows us to examine roll-call votes on a number of amendments in addition to final passage. Amendments have the advantage of being more narrowly focused than the final bill, thereby making it easier to determine how different interests would be affected. Final bills tend to be the outcome of coalition-building processes that provide an equilibrium balance among interests, so it may be difficult to identify groups that unambiguously lose (see, e.g., Irwin and Kroszner 1996). This may be one reason why so much legislation that ultimately passes does so on a voice vote or with near unanimity (see Krehbeil 1998).

7.3.1 Why Does Bank Regulatory Reform Begin in the 1980s?

A series of technological and economic changes altered the value of the traditional bank regulations and affected the relative strengths of the rival interest groups. The development and spread in the 1970s and 1980s of the checkable money market mutual fund, the Merrill Lynch Cash Management Account, and other opportunities to bank by mail or phone using toll-free numbers, for example, created new competition for bank depositors' funds. In addition, high inflation in the late 1970s and early 1980s led to high interest rates, but depository institutions were not able to offer

11. The one exception is the final vote on the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA), which passed with 77 percent of the House vote.

competitive rates due to Regulation Q interest rate ceilings. What had once been a device supported by the industry to eliminate price competition had become a burden as the new alternatives to bank deposits offered market rates.

The Depository Institutions Deregulation and Monetary Control Act of 1980 (DIDMCA) and the Garn St Germain Act of 1982 both attempted to stem the flow of funds out of financial intermediaries and increase their profitability. DIDMCA raised deposit insurance from \$40,000 to \$100,000 and phased out the Regulation Q interest rate ceilings.¹² Garn St Germain, in addition to permitting banks to purchase failing thrifts regardless of their location, substantially loosened lending restrictions on thrifts. Together, these two laws laid the groundwork for the rapid growth of the thrift industry in the middle of the 1980s, despite the massive decline in economic capital that led to severe moral hazard problems. High interest rates caused a substantial decline in the capital of thrifts whose portfolios consisted mainly of long-term fixed rate mortgages. The decline in regional real estate values (e.g., in the Southwest after the collapse of the oil industry in the early 1980s) continued to reduce the true net worth of thrifts even after interest rates came down in the mid-1980s. In conjunction with these laws, forbearance by the thrift regulators allowed many economically insolvent thrifts to “gamble for resurrection” (Kane 1989; Kroszner and Strahan 1996).

By the middle of the 1980s, it became increasingly clear that the Federal Savings & Loan Insurance Corporation (FSLIC) had become insolvent. By then, concern about the solvency of the FSLIC had led to increases in interest rates paid on fully insured deposits at weak thrifts (Strahan 1995). After lobbying by the thrift industry that delayed action, the 1987 Competitive Equality in Banking Act took the first step toward bolstering the FSLIC by allocating \$10.8 billion to help resolve failed thrifts and by reaffirming that the full faith and credit of the U.S. Treasury stood behind the fund.¹³ The insolvency of FSLIC continued to deepen as the industry became weaker (and, consequently, became a less powerful lobbying force) and as the cost of the regulatory regime became clearer to the public (Kane 1996). The 1989 Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) allocated significantly more funds to resolve failed thrifts. FIRREA also changed and tightened the regulatory authority over thrifts and directed the Treasury to study more significant reforms of the deposit insurance system.

12. The elimination of interest rate ceilings on large denomination certificates of deposit during the 1970s appears to have hurt smaller and retail-oriented banks relative to larger, wholesale banks (James 1983).

13. On the political economy of the thrift crisis, see Romer and Weingast (1991).

Table 7.2 Description of the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA) and Amendment Votes

Major Provisions of the Law	
FDICIA	Increased the FDIC's authority to borrow from Treasury by \$30 billion. Imposed risk-based deposit insurance pricing. Outlined procedure for Prompt Corrective Action of weakly capitalized banks and thrifts. Directed the FDIC to resolve failed banks and thrifts in the least costly way to the deposit insurance fund. Mandated annual on-site examinations and accounting reform. Increased the Fed's role in supervising foreign banks.
Wylie-Neal Amendment	An amendment to permit bank holding companies to purchase banks in any state nationwide, and to permit national banks to open branches across state lines. The amendment also restricted national banks' ability to sell certain insurance products.
Wylie Amendment	An amendment to limit federal deposit insurance coverage for depositors to one account of up to \$100,000 per person per institution and an additional \$100,000 per person per institution for an IRA account. The amendment would eliminate FDIC coverage for multiple accounts of \$100,000 in a single financial institution.
Kennedy Amendment	An amendment to require banks which are authorized to buy or open branches in other states to demonstrate that they are meeting the existing credit needs of the community where they are currently established and to prohibit banks with assets of more than \$1 billion from expanding to adjoining states if those banks have exhibited a pattern of closing offices in low- and moderate-income locations, thus effectively levying a "tax" on interstate acquisitions.

Source: Mishkin (1997) and FDIC (1997).

7.3.2 FDICIA: An Important Step toward Improved Supervision and Regulation

FDICIA represents a broad-based attempt to improve the financial safety net by minimizing the moral hazard problems that come with protecting various classes of stakeholders when banks get into trouble (see table 7.2). Flat-rate deposit insurance creates incentives for banks to increase risk in order to raise the value of that insurance (Merton 1977). FDICIA addresses this problem directly by mandating risk-based premiums on deposit insurance. FDICIA also enhanced both regulatory and market discipline over banks' tendencies to take too much risk. The law first enhanced regulatory discipline by prescribing mandatory annual on-site exams of all insured depository institutions and requiring accounting principles applicable to all insured depositories to be uniform and consistent. Both of these changes stemmed from the experience of the thrift industry during the 1980s, when regulatory resources were cut and accounting standards substantially liberalized to conceal large losses (Kane 1989; Kroszner and Strahan 1996).

FDICIA further enhanced regulatory discipline by directing the banking agencies to impose increasingly tighter restrictions on bank activities as capital declined under the Prompt Corrective Action (PCA) section. PCA defines five capital zones: well capitalized, adequately capitalized, undercapitalized, significantly undercapitalized, and critically undercapitalized.¹⁴ As banks fall from the well to adequately capitalized zones, the FDIC must approve their use of brokered deposits. As they fall from adequate to undercapitalized, banks must suspend dividend payments, outline a capital restoration plan, and restrict asset growth, and are prohibited from using brokered deposits. Falling from undercapitalized to significantly undercapitalized, FDICIA restricts interaffiliate transactions and deposit interest rates, and limits payments to bank officers. Finally, when a bank falls into the critically undercapitalized zone, a receiver or conservator must take control of the bank. This provision likely reduces the problem of regulatory forbearance by limiting discretion.¹⁵

In some prominent cases during the 1980s, all creditors of failing banks were bailed out by the FDIC, and this policy was even made explicit (Kroszner and Strahan 1996). Under such circumstances, bank creditors are not likely to worry about the risks of insolvency, thus worsening the moral hazard problem and encouraging excessive risk taking by large banks. FDICIA addresses this lack of market discipline by directing the FDIC to use the least costly method to resolve troubled or insolvent institutions. Least-cost resolution means that in most cases the FDIC will have to impose losses on uninsured creditors (e.g., subordinated debtholders) and depositors that are less than fully insured. Knowing that the FDIC is directed to resolve failed banks using the least costly approach, these large creditors have an *ex ante* incentive to impose discipline on a bank's tendency to take too much risk, by both pricing that risk at the outset and withdrawing funds when the bank experiences financial problems.

Although FDICIA's provisions did work to reduce the moral hazard problems associated with deposit insurance, significant issues were not addressed (for critical assessments, see Benston and Kaufman 1994, 1998). Many analysts during the debate over FDICIA, for example, recommended that market value accounting principles replace historical cost accounting to improve the information content in capital ratios as an early warning signal of insolvency. With market value accounting, banks can be

14. The capital zones are well-capitalized (total capital-to-risk weighted assets > 10 percent, Tier 1 capital ratio > 6 percent, and leverage ratio > 5 percent); adequately capitalized (total capital-to-risk-weighted assets > 8 percent, Tier 1 ratio > 4 percent, leverage ratio > 4 percent); undercapitalized (total capital-to-risk-weighted assets > 6 percent, Tier 1 ratio > 3 percent, leverage ratio > 3 percent); significantly undercapitalized (total capital-to-risk-weighted assets < 6 percent, Tier 1 ratio < 3 percent, leverage ratio < 3 percent); and critically undercapitalized (leverage ratio < 2 percent).

15. Benston and Kaufman (1994, 1998) argue, however, that the law did not go far enough to reduce regulatory discretion.

closed before significant losses become large, thereby reducing the costs of the deposit insurance. In addition, in response to interest rate risks taken on by many thrifts during the 1980s, FDICIA directed the regulators to account for this risk in capital adequacy requirements but provided little direction about how this would be accomplished. In the end, interest rate risk assessment was left entirely to supervisors on a case-by-case basis.¹⁶

7.3.3 Legislative Battles over Amendments with Roll-Call Votes

FDICIA emerged out of a debate on safety net reform on House Resolution 6 during 1991. H.R. 6 contained sections that would have allowed interstate branching deregulation and sections on financial services modernization that would have eliminated the Glass-Steagall Act of 1933 by permitting bank holding companies to operate affiliates in banking, securities, and insurance. H.R. 6 also contained sections on safety and soundness reform and deposit insurance coverage. Both the interstate branching and financial modernization sections of H.R. 6 were subsequently dropped prior to passage of FDICIA, but we were able to identify three amendment votes that occurred during the debate over H.R. 6. We analyze each of these amendment votes in addition to analyzing the final vote on FDICIA.

Wylie-Neal Amendment

The first of these votes, on the Wylie-Neal Amendment, would have allowed banks to set up branches in other states, thereby improving diversification of the industry and increasing financial stability. Relaxation of restrictions on branch banking had been occurring at the state level during the 1970s and 1980s as changes in technological and economic conditions altered the political-economy equilibrium that had kept antibranching regulations little changed for at least thirty years (see Kroszner and Strahan 1999). In addition to the development of the checkable money market mutual fund mentioned previously, two other innovations reduced the value

16. An important question is why FDICIA occurred when it did rather than years earlier. Its passage following the rapid increase in bank and thrift failure in the 1980s raises the question of whether significant regulatory change can only occur, or perhaps is most likely to occur, following a crisis. Following large losses, public awareness of the costliness of having government-insured but (geographically) undiversified financial institutions likely increased. In the late 1970s the failure rate of banks began to rise, and in the 1980s the thrift crisis and taxpayer bail-out in FIRREA heightened public awareness about the costs of restrictions that make depository institutions more likely to require infusions of taxpayer funds. The failures thus may have heightened public support for branching (Kane 1996). Although this argument seems plausible and can account for the timing of FDICIA, it is difficult to document systematically. For example, banking failures or distress in a state did not affect the speed at which the state deregulated (Kroszner and Strahan 1999). More generally, an economic crisis within a sector is rarely distributionally neutral (Olson 1982). The economic shock could thus have changed the relative importance of different interest groups and thereby led to change in the banking regulatory equilibrium (see Kroszner 1998a; 2000a,b).

to the protected banks of local geographic monopolies. First, ATMs helped erode the geographic ties between customers and banks. Second, technological innovation and deregulation reduced transportation and communication costs, particularly since the 1970s, thereby lowering the costs for customers using distant banks. By increasing the elasticity of deposits supplied to banks, these innovations reduced the value of geographical restrictions to their traditional beneficiaries and thereby reduced their incentives to fight to maintain them (Peltzman 1976).

On the lending side, increasing sophistication of credit-scoring techniques, following innovations in information processing and financial theory as well as the development of large credit databases, began to diminish the value of knowledge that local bankers had about the risks of borrowers in the community. As a result of these innovations, a national market has developed for residential mortgages; credit card receivables have been securitized; and bank lending to small business now relies less on the judgment of loan officers and more on standardized scoring models.

These changes have increased the potential profitability for large banks to enter what had been the core of small bank activities. Large banks' incentives to increase their lobbying pressure to expand into these markets has thus been increasing over time. In fact, small banks' market share began to decline even prior to the branching deregulation (Kroszner and Strahan 1999). As the value of local banking relationships declined, small firms that were the main borrowers from the small banks also probably became more likely to favor the entry of large banks into local markets. With the deadweight costs of preventing the rise of large bank entry, the private interest theory predicts that small local banks would likely become less able to maintain the branching restrictions (Becker 1983). Deregulation that reduces deadweight costs of regulation is consistent also with the public interest theory. The marginal value of lobbying to repeal branching restrictions increased just as the relative value to the small banks of maintaining branching restrictions was declining.

Several details of the Wylie-Neal interstate branching amendment illustrate the influence of interest group politics. For example, the Independent Bankers Association of America, which represents small banks, "strongly opposes the bill, saying it threatens the availability of credit for farmers, ranchers, small businesses, and consumers in rural America" (BNA Banking Reporter, 9/16/91). Perhaps to placate such opposition, the Wylie-Neal interstate branching provision prohibits banks from using interstate offices for deposit production purposes and requires the banking regulatory agencies to set up guidelines to ensure that interstate branches are used to meet the needs of the community in which they operate.

The Wylie-Neal Amendment also included significant concessions to the insurance industry, which had been losing its battle with the banking

industry in the courts. In 1986, the Office of the Comptroller of the Currency decided to allow national banks to sell any type of insurance product from small towns. This authority was later upheld by the U.S. Fifth Circuit Court of Appeals in *Independent Insurance Agents of America v. Ludwig* in 1993. In 1995, the U.S. Supreme Court allowed banks to sell annuities nationwide (*Valic v. Clarke*), and then in 1996 the Supreme Court again expanded banks' insurance powers by ruling in the *Barnett Banks v. Nelson* case that states could not bar national banks from selling insurance products from small towns (Seiberg 1996). Wylie-Neal would have scaled back somewhat on bank insurance powers. National banks would be barred from engaging in title insurance, and their ability to sell insurance from small towns of 5,000 or less would have been restricted. In addition, the amendment would limit states' abilities to allow banks to sell insurance products into other states (BNA Banking Reporter, 8/19/91).

Wylie Amendment

We have also identified a roll-call vote on deposit insurance coverage. This provision, also brought by Wylie, would have scaled back deposit insurance to \$100,000 per person per institution, rather than \$100,000 per account. This measure, along with provisions designed to eliminate deposit insurance coverage for brokered deposits, was supported by the administration; its defeat was considered a "significant setback to . . . efforts to achieve deposit insurance reform" (BNA Banking Reporter, 8/19/91). In the final law, however, regulatory agencies could restrict troubled institutions from issuing brokered deposits and paying interest rates significantly above rates offered on comparable deposits.

The move to scale back deposit insurance marked a sharp change from previous trends and, like the move to unrestricted branching, reflected the declining influence of small banks relative to large. Deposit insurance coverage had been increased in 1950 (from \$5,000 to \$10,000), in 1966 (to \$15,000), in 1969 (to \$20,000), in 1974 (to \$40,000), and in 1980 (to \$100,000). White (1998) argues that small banks supported each of these increases, whereas large banks opposed them. As a result, the real value of deposit insurance rose from \$5,000 (1934 dollars) initially to \$10,000–15,000 during the 1970s. Since 1980, inflation has eroded the real value of deposit insurance by about 50 percent. Despite this decline, there has been no serious call to raise the limits on insurance over the past two decades because, as we argued earlier, new technologies have increased the ability of large banks to operate in many markets even in the face of regulatory barriers. These changes have weakened the political influence of smaller banks, creating an environment in which they would rather sell out to large banks at a high price than fight to maintain restrictions on branching and a generous deposit insurance system.

Kennedy Amendment

Our last roll-call vote looks at the voting pattern on an amendment brought by Kennedy (which failed) requiring banks authorized to buy or open branches in other states to demonstrate that they are meeting the existing credit needs of the community where they are currently established, and to prohibit large banks (those with assets of more than \$1 billion) from expanding to adjoining states if those banks have exhibited a pattern of closing offices in low- and moderate-income locations. The amendment effectively increases the costs of large banks acquiring small banks through increased enforcement of community lending requirements. The Kennedy Amendment goes somewhat further than Wylie-Neal, which would have amended the Community Reinvestment Act of 1977 to require bank supervisors to maintain state-by-state evaluations of bank records of lending to low-income neighborhoods.¹⁷

7.4 Hypotheses and Variable Definitions

7.4.1 Hypotheses

Intraindustry Rivalry

Small banks have fought to maintain and extend branching restrictions and deposit insurance both historically and in the recent debates.¹⁸ Smaller banks appear to have been the main winners from antibranching laws of the nineteenth century and the 1930s because these restrictions protect them from competition from larger and more efficient banking organizations (see Flannery 1984; Jayaratne and Strahan 1998; and Winston 1993). Branching restrictions thus tend to reduce the efficiency and consumer convenience of the banking system.¹⁹ Small banks also have supported enhanced coverage of federal deposit insurance consistently since its passage in the 1930s.

The interests within the banking industry regarding the Kennedy Amendment depend on whether acquirers (large banks) or targets (small ones) are more likely to bear the “tax” associated with greater scrutiny of

17. One of the most important impediments to the recently passed Financial Modernization Act of 1999 (i.e., the Glass-Steagall repeal) were arguments over expansion of the Community Reinvestment Act to a financial holding company’s nonbank businesses. See Kroszner (1998b, 2000a).

18. Economides, Hubbard, and Palia (1996) provide evidence that voting in Congress for the McFadden Act of 1927 responded to small state banks’ interests in limiting competition from large national banks. See also White (1983) and Abrams and Settle (1993) for historical opposition. On the small bank opposition to the recent branching deregulation, see Kane (1996) and the *Economist* (1994).

19. Flannery (1984) shows that small banks in states with branching restrictions have higher costs than do small banks in states without such restrictions.

their low-income and community development lending. Because prior research suggests that most of the gains associated with takeovers accrue to targets, we expect smaller banks to oppose this amendment.²⁰ The private interest theory therefore predicts that legislators from states with more small banks will be more likely to oppose each of these three amendments.

Interindustry Rivalry

As broad competitors for household savings, the insurance industry would tend to favor legislative changes that raise their rivals' costs, and vice versa. Thus, the private interest theory predicts that legislators from states with a larger insurance industry would tend to oppose branching deregulation and to favor limits on deposit insurance. Because the Kennedy Amendment effectively raises the cost to banks wanting to open branches across state lines, insurance would tend to favor this provision.

In addition, a number of states permit state-chartered commercial banks to sell insurance. The insurance lobby would thus more intensely oppose the relaxation of branching restrictions on when banks can sell insurance because such deregulation might permit banks to provide a more efficient insurance distribution network. Similarly, their support for limits on deposit insurance and the tax on banks expanding into new states would tend to be much greater in states where banks may sell insurance.

Consumer Interests

Banks are a major source of credit for small firms (Cole and Wolken 1994). Branching deregulation tends to reduce banks' local market power (Jayaratne and Strahan 1998). In addition, Strahan and Weston (1998) find that lending to small businesses increases on average when small banks are purchased by other banking organizations, and Berger and colleagues (1998) find that credit availability to small businesses increases in the years following a large banking organization's takeover of a smaller bank. Because bank borrowers tend to benefit from branching deregulation in particular and from bank consolidation in general, the private interest theory would predict that legislators from states with numerous small, bank-dependent firms would support branching deregulation.²¹

The vote to restrict deposit insurance would likely have its greatest effect on households that use banks and that would potentially be affected by limiting deposit insurance to a single account under \$100,000. Because

20. For a survey of the literature on takeovers, see Jensen and Ruback (1983) and Jarrell, Brickley, and Netter (1988).

21. On the other hand, local banking monopolies created by branching restrictions could strengthen relationships between banks and small- and medium-sized firms and increase the availability of credit to these firms (Petersen and Rajan 1994). Also, some have argued that small business lending declines when large banks take over small banks (e.g., Berger, Kashyap, and Scalise 1995).

elderly people typically have more liquid assets than younger people and tend to use bank deposits as a savings vehicle, the private interest theory suggests that legislators from states with more older people will be less likely to vote to scale back on deposit insurance.

The Kennedy Amendment vote would likely increase lending to low-income neighborhoods. Thus, the private interest theory suggests that voting in favor of this amendment is more likely among legislators from states with more low-income people.

Political-Institutional Factors

Republicans are typically perceived as more likely to favor deregulation than Democrats, so the political-institutional theories suggest that Democrats would oppose branching deregulation and limits to deposit insurance. In addition, Democrats are perceived to support the interests of lower- and middle-income households, so they would tend to favor the Kennedy Amendment.²² We also investigate whether voting behavior depends on ideology and committee structure. Note that these political effects must be interpreted with caution, because the views of the politicians may simply reflect the economic interests of the constituents in the state (see Peltzman 1984).

7.4.2 Variable Definitions and Data Sources

Our main proxy for the strength of the small banks is the fraction of banking assets in the state that is in small banks. We define banks as small if they have assets below the median size in each state. By allowing the definition of small to vary across states, we take into account cross-state heterogeneity in bank sizes. We also include the median capital-asset ratio for all banks operating in a state in our voting models, in part to control for the fact that small banks typically hold more capital than do large ones. In addition, well-capitalized banks may be more likely to support limits to deposit insurance than poorly capitalized banks. Data on bank size and capital are from the 1991 *Reports of Income and Conditions* (call reports) from the Federal Reserve Board.

To measure the effects of the rival insurance industry, we first construct an indicator variable that is 1 if the state permits banks to sell insurance. For each state, we then measure the size of the insurance sector (total value added in the state) relative to the sum of the banking and insurance sectors in 1991. We will examine the effect separately for states that permit banks to sell insurance and those that do not. Data on value added by industry are from U.S. Commerce Department, Bureau of Economic

22. For more detail on the importance of legislative structures, party politics, and ideology, see Poole and Rosenthal (1997), Kahn and Matsusaka (1997), and Irwin and Kroszner (1999).

Analysis, *Survey of Current Business* (August 1994; available at <http://www.bea.doc.gov/bea/regional/gsp/>).

We also include the share of total contributions to each legislator from banking and insurance that comes from the insurance industry. Previous research on the relationship between contributions and votes has typically included the level of giving by an interested group, but our emphasis here is on the competition between the groups; hence we choose this relative measure.²³ Special interests sponsor political action committees (PACs) that must disclose their contributions to the Federal Election Commission (FEC). Corporations, for example, cannot legally give money directly to a candidate for federal office, but must give through PACs. For each two-year House election cycle, the FEC produces a file that identifies the contributing PAC, the recipient, and the dollar amount, and we use the data from the 1991/92 cycle. We then identify which PACs are sponsored by the banking industry or the insurance industry. The financial services sector is one of the largest contributors of PAC money, accounting for nearly 20 percent of the total (see Kroszner and Stratmann 1998). Because PAC giving is negligible for challengers and for legislators in their last term, we calculate the share of giving variable for only incumbents running for reelection who receive at least some contributions from banking or insurance. We then estimate all of our models with and without PAC contributions.

To measure the relative importance of small, bank-dependent borrowers, we include the proportion of all establishments operating in the state with fewer than twenty employees. These data are compiled by the Bureau of the Census.²⁴ Our measure of the importance of elderly constituents equals the share of the population in the state over sixty-five, and our measure of the importance of poor people equals the share of the population below the poverty line. Each of these comes from the 1990 Census.

We include three political variables to test for the importance of party politics, ideology, and committee structure. First, we include an indicator equal to 1 if the legislator is a Democrat. Second, we include the Americans for Democratic Action (ADA) scores for each legislator. The ADA scores are based on legislators' past voting records, measured on a scale of 0 to 1, where 1 represents the more liberal position on each vote. Third, we include an indicator equal to 1 if the legislator is a member of the

23. Research relating voting to contribution levels has had mixed results when political factors are controlled for (see Stratmann 1991 and 1995 for exceptions). Note that we cannot distinguish whether money is influencing legislators to vote differently than they otherwise would or whether money is being used to reward supporters and induce them to spend more time working on the issue (see Bronars and Lott 1997 and Kroszner and Stratmann 1998, 1999).

24. Data on establishments by state are from 1987. See *State and Metropolitan Data Book* (1991; available at <http://fisher.lib.virginia.edu/cbp/>).

Table 7.3 Means and Standard Deviations for Voting Outcomes in the House of Representatives on FDICIA and Amendments to FDICIA and Measures of the Size and Strength of Interest Groups in Financial Services and Political-Institutional Factors

	Mean	Std. Dev.
Amendment vote to allow interstate branching	0.502	—
Amendment vote to limit deposit insurance	0.367	—
Amendment vote effective to “tax” interstate bank acquisitions by encouraging low-income lending	0.387	—
Final vote on FDICIA	0.804	—
Private interest variables		
Assets in small banks/total bank assets	0.064	0.041
Value added in insurance/value added in insurance + depositories	0.412	0.069
Indicator for states where banks may sell insurance	0.123	—
Median bank capital/asset ratio	0.081	0.007
Insurance share of PAC dollars from insurance + banking	0.461	0.238
Small firm share of the number of firms in the state	0.878	0.029
Share of population below poverty line	0.141	0.031
Share of population over 65	0.127	0.020
Political/institutional variables		
Indicator equals 1 for Democrat	0.618	—
ADA score (from 0 to 1, least to most liberal)	0.470	0.335
Indicator for member of House Banking Committee	0.120	—

House Banking Committee. The sample statistics for all the variables are reported in table 7.3.

7.5 Methods and Results of the Voting Analysis

In order to determine the influence of the private interest and political-institutional factors described earlier, we develop probit voting models for the three roll-call amendment votes and the final passage for FDICIA in the House of Representatives.²⁵ The dependent variable equals 1 if the legislator voted in favor of the amendment or bill and 0 otherwise. In the tables containing the results (tables 7.4–7.7), we report the marginal effects (slopes) of a one-unit change of each variable on the probability that a legislator will vote in favor of the amendment or bill. Because we have multiple legislators from each state, we adjust the standard errors to correct for the lack of independence among observations clustered in the same state.

25. We found no roll-call votes on amendments to FDICIA from the Senate. The Senate vote on FDICIA was lopsided: eighty-two to fourteen, with just one Republican voting against the law.

Each table contains four specifications of the voting equation. The first two columns are the same for all four votes. Column 1 contains the private interest and political-institutional factors described earlier, with the exception of the PAC contribution variable. Column 2 then adds this variable, which reduces the sample size by roughly 30 percent. The last two columns repeat the specifications from the first two but include additional variables representing the private interest of nonfinancial services groups specifically affected by each amendment. For the final FDICIA vote, we include all three of these private consumer interest variables.

7.5.1 Amendment to Permit Interstate Branching (Wylie-Neal)

Table 7.4 contains the results for the vote on the amendment to relax restrictions on interstate banking and branching. The negative and statistically significant coefficient on the relative share of small bank assets in the state suggests that legislators from areas with a large share of small banks tended to oppose this amendment. This is consistent with the intraindustry rivalry hypothesis. The share of small banks also has a large effect on the probability that a legislator votes for branching: A 1–standard deviation increase in small bank market share reduces the probability of voting for branching deregulation by roughly 20 to 25 percent, depending on the specification.

We also find support for the interindustry rivalry hypothesis. Where banks can sell insurance, legislators from states with larger insurance sectors relative to banking are less likely to vote for the amendment. In states where banks cannot sell insurance, however, the effect of the relative size of the insurance sector is positive in all four specifications and is statistically significant in columns 1 and 3. In the specifications without PAC money, 1–standard deviation increase in the insurance share decreases the probability of voting for branching by 17 percent in states where banks may sell insurance, but *increases* the probability of voting for branching by about 11 percent in states where banks may not sell insurance. This support may be due to the inclusion of provisions within the amendment to limit national banks' insurance powers partially. As we noted earlier, the insurance industry was losing court battles to keep banks from entering the insurance business and, as a whole, lobbied for specific legislative restrictions on banks' insurance powers.

By combining the branching provisions with limitations on bank powers, the amendment appears to have split the insurance industry. Further evidence of this interpretation is found in columns 2 and 4, which include the share of PAC contributions from the insurance industry. This variable does not have a statistically significant effect on voting patterns on this amendment, but it does in all of the other votes we consider. With the insurance interests split on the amendment, contributions from the insur-

Table 7.4 Marginal Effects from Probit Model Relating Voting Outcomes in the House of Representatives on an Amendment (Wylie-Neal) Related to FDICIA to Relax Restrictions on Interstate Branching to Measures of the Size and Strength of Interest Groups in Financial Services and Political-Institutional Factors

	(1)	(2)	(3)	(4)
Assets in small banks/total bank assets	-5.08*** (0.92)	-5.98*** (1.08)	-4.97*** (0.92)	-5.96*** (1.09)
Value added in insurance/value added in insurance + depositories where banks may not sell insurance	1.57** (0.62)	1.12 (0.76)	1.45** (0.61)	1.09 (0.77)
Indicator for states where banks may sell insurance	0.69*** (0.07)	0.84* (0.13)	0.70*** (0.07)	0.84* (0.12)
Value added in insurance/value added in insurance + depositories where banks may sell insurance	-2.42** (1.16)	-6.76* (3.80)	-2.55** (1.17)	-6.87* (3.81)
Median bank capital/asset ratio	-0.50 (5.00)	2.56 (5.96)	-1.24 (5.14)	2.39 (6.06)
Share of PAC contributions from insurance	—	0.11 (0.13)	—	0.11 (0.13)
Small firm share of the number of firms in the state	—	—	-1.13 (0.71)	-0.34 (1.34)
Indicator for Democrat	-0.26** (0.10)	-0.15 (0.10)	-0.26** (0.10)	-0.15 (0.10)
ADA score	-0.23* (0.12)	-0.34*** (0.13)	-0.24* (0.12)	-0.34*** (0.13)
Indicator for member of House Banking Committee	0.06 (0.08)	0.07 (0.10)	0.06 (0.08)	0.07 (0.10)
No. of observations	409	293	409	293
Pseudo- R^2	0.1971	0.2145	0.1992	0.2148
χ^2 for joint significance (p -value)	83.60 (< 0.001)	88.42 (< 0.001)	92.40 (< 0.001)	90.93 (< 0.001)
Incremental R^2				
Private interest variables	0.1045	0.1448	0.1065	0.1450
Political variables	0.0870	0.0632	0.0860	0.0634

Notes: The table reports the marginal effect of a small change in each variable from its mean on the probability that the House member votes in favor of the proposal. For indicator variables, the coefficient represents the change in the probability for a one unit change in the indicator. Each model contains one observation for each vote. The explanatory variables reflect average measures of interest group strength in the states. Standard errors are adjusted to reflect the fact that votes from House members from the same state may be affected by common factors not included in the model. The marginal effects are reported with their standard errors in parentheses. The pseudo- R^2 is based on Estrella (1998). The incremental R^2 is the change in the pseudo- R^2 that results when we add the private interest (political) variables to the model.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

ance industry may be supporting both sides of the issue and, in effect, canceling out or at least mitigating the net influence of this interest group.²⁶ A divide-and-conquer strategy thus may be effective in neutralizing opposition to a bill, but it also demonstrates the obstacles to optimal policy; that is, compromises to pacify at least some segment of the affected industries may be required to secure passage of regulatory reform.²⁷

We do not find a statistically significant effect of the share of small firms in the state. Even though this group of consumers of banking services would be directly affected by the regulatory change, they do not appear to have had an impact on the voting pattern.²⁸

Turning to the political-institutional factors, partisanship and our measure of ideology do appear to play a role. The Democrats tended to vote against this deregulatory measure, holding the ADA score constant. The coefficient suggests that Democrats were 15 to 25 percent more likely to oppose branching than were Republicans. In addition, holding party membership constant, the more liberal members of the House also were more likely to vote against this amendment. Based on the ADA score, the most liberal legislator was 23 to 34 percent more likely to oppose branching than was the most conservative one. The effect of membership on the House Banking Committee is small and statistically insignificant. This suggests that there is no particular bias of the Banking Committee members, relative to the House as a whole, on this issue. This result is consistent with the contrasting intra- and interindustry interests being represented by members of the Banking Committee (see Kroszner and Stratmann 1998).

At the bottom of table 7.4, we report a goodness of fit measure that is roughly analogous to the traditional R^2 following Estrella (1998). To determine the marginal contribution of the private interest variables relative to the political-institutional factors, we calculate the incremental R^2 , defined as the change in the goodness-of-fit measure when we add one or the other group of variables to the probit equation. In each specification, the incremental contribution of the private interest variables is greater than that of the political-institutional variables, but the contribution of the latter is not negligible, so both sets of factors should be taken into

26. We do not investigate the question of how amendments and bills with different characteristics and combinations of provisions get to a roll-call vote.

27. The significance of splitting industry interests in order to achieve regulatory change is not unique to financial services. Heterogeneity of interests between interstate and intrastate airlines and the breakdown of a unified opposition to deregulation among the major interstate carriers was important to bringing about the Airline Deregulation Act of 1978 (see Bailey, Graham, and Kaplan 1985). Divide-and-conquer strategies also have played an important role in effecting economic reforms in Russia (see Shleifer and Treisman 2000).

28. In earlier work on state-level (not federal interstate) branching deregulation, we do find that states with more small firms relaxed their restrictions on branching earlier than did states with fewer small firms. See Kroszner and Strahan (1999).

Table 7.5 Marginal Effects from Probit Model Relating Voting Outcomes in the House of Representatives on an Amendment (Wylie) Related to FDICIA to Limit Deposit Insurance to a Single Account to Measures of the Size and Strength of Interest Groups in Financial Services and Political-Institutional Factors

	(1)	(2)	(3)	(4)
Assets in small banks/total bank assets	-4.15*** (0.67)	-5.04*** (0.85)	-4.13*** (0.66)	-5.04*** (0.85)
Value added in insurance/value added in insurance + depositories where banks may not sell insurance	0.79* (0.41)	1.18** (0.51)	0.72* (0.43)	1.17** (0.51)
Indicator for states where banks may sell insurance	-0.62*** (0.06)	-0.85*** (0.05)	-0.62*** (0.06)	-0.85*** (0.05)
Value added in insurance/value added in insurance + depositories where banks may sell insurance	5.84*** (1.15)	11.23*** (1.46)	5.82*** (1.16)	11.23*** (1.46)
Median bank capital/asset ratio	1.45 (4.29)	3.82 (4.66)	0.95 (4.46)	3.74 (4.84)
Share of PAC contributions from insurance	—	0.32*** (0.11)	—	0.32*** (0.12)
Percent of population over 65	—	—	0.56 (1.38)	0.08 (1.38)
Indicator for Democrat	0.04 (0.05)	0.01 (0.06)	0.04 (0.05)	0.01 (0.06)
ADA score	-0.14** (0.06)	-0.09 (0.09)	-0.14* (0.07)	-0.09 (0.10)
Indicator for member of House Banking Committee	0.01 (0.09)	0.06 (0.13)	0.01 (0.09)	0.06 (0.13)
No. of observations	406	285	406	285
Pseudo- R^2	0.1079	0.1627	0.1082	0.1627
χ^2 for joint significance (p -value)	63.88 (< 0.001)	83.10 (< 0.001)	78.14 (< 0.001)	90.06 (< 0.001)
Incremental R^2				
Private interest variables	0.1012	0.1619	0.1016	0.1619
Political variables	0.0087	0.0041	0.0084	0.0040

Notes: See table 7.4.

account when trying to understand the political economy of regulatory change.

7.5.2 Amendment to Limit Deposit Insurance (Wylie)

The analysis of the vote on the amendment to limit deposit insurance coverage is reported in table 7.5. Smaller, less diversified banks tend to reap a greater benefit from the deposit insurance system than do larger banks, and this intraindustry rivalry is evident in the voting pattern. Legislators from areas where small banks have a relatively large market share

consistently oppose this amendment. Again, the effect of small bank share is economically relevant: A 1-standard deviation increase in this variable is associated with a 20–25 percent decrease in the probability of voting to limit deposit insurance. In addition, although it is not statistically significant, we do find a positive coefficient on the median capital ratio of banks in the state.

The interindustry rivalry also is manifest in the vote on this amendment. The insurance industry generally favors measures that would reduce implicit government subsidy to the banking industry through federal deposit insurance. Regardless of whether banks can sell insurance products in the state, a larger insurance sector relative to banking in the state increases the likelihood that a legislator will support the amendment. The magnitude of the effect is much larger for legislators from states where banks do have insurance powers, but the coefficients are positive and statistically significant for both groups. For instance, a 1-standard deviation increase in the insurance share raises the probability that a legislator votes to limit deposit insurance by 40 percent in states where banks may sell insurance; in states where banks may not sell insurance, a 1-standard deviation increase in the insurance share raises this probability by only about 5 percent. This difference is statistically significant at the 1 percent level. In addition, a legislator who receives a high proportion of PAC contributions from the insurance industry relative to banking is more likely to support the amendment.

As we noted earlier, older people who tend to hold relatively large amounts of wealth in depository institutions preferred to keep the existing deposit insurance structure that permitted multiple accounts to be insured. Our proxy for this consumer interest is the percent of the population over 65 in each state, and we include this variable in columns 3 and 4. As with the other consumer interest variables, this one appears to have little effect on the voting pattern.

Unlike for the other two amendment votes analyzed, the political factors contribute very little beyond the information contained in the private interest variables. The effect of the Democratic Party indicator variable is negligible and not statistically significant. In specifications 2 and 4 the ADA rating does have a small statistically significant effect, but the effect is even smaller and not statistically significant in the other two specifications. Membership on the House Banking Committee again appears to have no impact. The incremental R^2 calculation shows that virtually all of the explanatory power is from the private interest variables.

7.5.3 Amendment to Raise Effective Cost of Acquisition through Low-Income Lending Enforcement (Kennedy)

Table 7.6 reports the results for the amendment that would increase the scrutiny of an acquiring bank's low-income lending. As with voting on the

Table 7.6 Marginal Effects from Probit Model Relating Voting Outcomes in the House of Representatives on an Amendment (Kennedy) Related to FDICIA Effectively to “Tax” Interstate Acquisitions by Encouraging Low Income Lending by Acquiring Banks to Measures of the Size and Strength of Interest Groups in Financial Services and Political-Institutional Factors

	(1)	(2)	(3)	(4)
Assets in small banks/total bank assets	-2.56** (1.23)	-2.88** (1.44)	-2.41* (1.38)	-2.68 (1.65)
Value added in insurance/value added in insurance + depositories where banks may not sell insurance	0.65 (0.63)	1.14* (0.65)	0.50 (0.60)	0.95 (0.60)
Indicator for states where banks may sell insurance	-0.58** (0.11)	-0.70*** (0.11)	-0.57** (0.11)	-0.67** (0.14)
Value added in insurance/value added in insurance + depositories where banks may sell insurance	4.13*** (1.45)	6.65*** (1.75)	3.77** (1.66)	6.02*** (2.28)
Median bank capital/asset ratio	-5.02 (5.89)	1.31 (7.34)	-5.62 (5.67)	0.33 (7.16)
Share of PAC contributions from insurance	—	0.29*** (0.10)	—	0.28*** (0.10)
Share of population below poverty line	—	—	-0.01 (0.01)	-0.01 (0.02)
Indicator for Democrat	0.45*** (0.04)	0.43*** (0.05)	0.45*** (0.04)	0.43*** (0.05)
ADA score	0.06 (0.08)	0.04 (0.10)	0.06 (0.08)	0.04 (0.10)
Indicator for member of House Banking Committee	0.01 (0.07)	-0.02 (0.09)	0.01 (0.07)	-0.03 (0.09)
No. of observations	383	270	383	270
Pseudo- R^2	0.2283	0.2226	0.2291	0.2238
χ^2 for joint significance (p -value)	113.79 (< 0.001)	95.40 (< 0.001)	132.85 (< 0.001)	107.15 (< 0.001)
Incremental R^2				
Private interest variables	0.0658	0.0810	0.0667	0.0823
Political variables	0.1598	0.1383	0.1606	0.1393

Notes: See table 7.4.

branching amendment, legislators from areas with a larger relative market share of small banks tend to oppose this amendment. Brickley and James (1987) found that the premium paid to targets of bank mergers increases with the number of potential bidders for the target banks. Because this amendment would have been likely to reduce the number of bidders from out of state available to take over a bank that was in trouble (and small banks tended to be experiencing greater distress relative to larger, more diversified banks during this time period), small banks might have found

it in their interests to lobby against this measure to try to raise the price at which they might sell out to the entering banks.

Where banks could sell insurance, legislators from states with larger insurance sectors relative to banking tended to support the amendment. Again, the magnitude of this effect is large: A 1-standard deviation increase in the insurance share raises the probability that a legislator votes to tax the bank takeover market by about 30 percent. In these states, the insurance industry did not wish to allow new (and presumably stronger) bank competitors to enter the market. Where banks did not have insurance powers, the relative size of the insurance industry does not appear to have had much of an effect. In columns 2 and 4, which include the PAC contribution variable, we find that legislators who receive a high share of their contributions from insurance relative to banking tended to support the amendment. Generally, the insurance industry opposed legislation relaxing constraints on the geographic expansion of banks unless provisions were included to limit banks' insurance powers (and no such provisions were part of this amendment). There was nothing in this amendment to divide the insurance industry into opposing sides, although the part of the industry that was facing a more direct threat from banks appears to have been more active in influencing legislators.

In columns 3 and 4 we include the share of the population below the poverty line as a rough proxy for a consumer interest that would have benefitted from this amendment. Once again, this consumer interest variable has a very small and not statistically significant effect on the voting patterns. The poor may not be a particularly well-organized interest. Also, people who are more affluent are more likely to vote than those who are less affluent. It also could be that poverty is correlated with the partisan and ideological variables we now analyze.

In contrast to the previous amendments, this issue appears to have been highly partisan. Democratic Party members were about 45 percent more likely to vote for this amendment than were Republicans. Our ideology measure, however, does not have any explanatory power beyond what is already implicitly captured in the Democrat indicator. Once again, membership on the House Banking Committee does not appear to have an impact. When we examine the incremental R^2 , we find that the political factors have a greater marginal explanatory power than do the private interest variables. The private interest variables, however, still make a non-negligible contribution to the goodness of fit.

7.5.4 Final Vote on FDICIA

Table 7.7 contains the results for the final passage of FDICIA. In contrast to the three amendment votes, none of the specifications pass a chi-square test for joint statistical significance of the regressors. The R^2 is an

Table 7.7 Marginal Effects from Probit Model Relating Voting Outcomes in the House of Representatives on FDICIA to Measures of the Size and Strength of Interest Groups in Financial Services and Political-Institutional Factors

	(1)	(2)	(3)	(4)
Assets in small banks/total bank assets	-0.96 (0.62)	-1.20* (0.68)	-1.10 (0.66)	-1.37* (0.82)
Value added in insurance/value added in insurance + depositories where banks may not sell insurance	-0.32 (0.58)	0.10 (0.50)	-0.14 (0.57)	0.19 (0.51)
Indicator for states where banks may sell insurance	0.08 (0.41)	0.17 (0.26)	-0.01 (0.56)	0.04 (0.67)
Value added in insurance/value added in insurance + depositories where banks may sell insurance	-0.37 (1.18)	-0.38 (1.38)	0.03 (1.30)	0.22 (1.83)
Median bank capital/asset ratio	-0.79 (5.40)	-0.07 (4.93)	-0.24 (5.32)	0.01 (5.26)
Share of PAC contributions from insurance	—	-0.13** (0.06)	—	-0.13** (0.06)
Small firm share of the number of firms in the state	—	—	-0.25 (0.87)	-0.15 (0.83)
Percent of population below poverty line	—	—	0.01 (0.01)	0.01 (0.01)
Percent of population over 65	—	—	0.31 (1.56)	0.90 (1.70)
Indicator for Democrat	-0.03 (0.05)	-0.01 (0.05)	-0.04 (0.04)	-0.01 (0.05)
ADA score	0.02 (0.05)	0.05 (0.05)	0.02 (0.05)	0.05 (0.06)
Indicator for member of House Banking Committee	0.06 (0.05)	0.04 (0.07)	0.07 (0.05)	0.04 (0.07)
No. of observations	417	292	417	292
Pseudo- R^2	0.0182	0.0275	0.0219	0.0304
χ^2 for joint significance (p -value)	4.63 (0.80)	7.85 (0.55)	5.23 (0.92)	8.00 (0.78)
Incremental R^2				
Private interest variables	0.0140	0.0220	0.0177	0.0249
Political variables	0.0047	0.0030	0.0053	0.0032

Notes: See table 7.4.

order of magnitude lower than for the amendment votes and never exceeds 3 percent. The marginal effects for all of the variables that were statistically significant in the amendment voting equations are much smaller in magnitude here. In columns 1 and 3 none of the variables are individually statistically significant. In columns 2 and 4 the relative market share of small banks and the relative share of PAC contributions from the insurance industry do have small statistically significant effects.

The contrast between the ability of the private interest group and political-institutional factors to explain the voting patterns on the amendments but not on the final passage suggests that the final bill was a “Christmas tree” compromise that included some provision to satisfy each constituency. The amendments are much more focused on specific issues, where it is easier to define whose interests would be favored. The final bill is an amalgam of such haggling and logrolling. This could be thought to represent a version of the divide-and-conquer strategy: In order for a bill concerning fundamental change to banking supervision and regulation to be successful, provisions must be included to pacify rival interests. The necessity of satisfying and balancing the competing interests places obstacles in the path to optimal reforms, but an awareness of this requirement can help to shape welfare-improving policy reforms that can build coalitions for final passage.²⁹

7.6 Conclusions

Our results suggest that interest group competition and the battle among the interests are key determinants to explaining regulatory outcomes. Partisanship and ideology also appear to play important roles.³⁰ By the late 1980s, the demise of the thrift industry allowed many economists to argue persuasively that the moral hazard problem associated with deposit insurance could be very costly. Numerous reforms were proposed, but only some could be integrated successfully into the FDICIA. Debate over the legislation illustrated that policy makers were aware of ways to reduce moral hazard without eliminating the potential benefits of the financial safety net. Our positive analysis of roll-call votes shows, however, that reforms such as branching deregulation and limits to deposit insurance were difficult to put into law due to resistance both within banking and from rival segments of the financial industry. Without an interest group to champion a position, an argument may have little effect.

Our results also illustrate how competition among rival interest groups can increase the likelihood of beneficial reform. Rival groups have an incentive to battle each other in addition to battling the consumer. If they dissipate their efforts against each other, they are less likely to be able to support narrow special interest regulation. A divide-and-conquer strategy

29. Consistent with this idea, Strahan and Sufi (2000) find that competing interests in banking, securities, and insurance experienced positive stock price reactions following passage of the Financial Services Modernization Act of 1999.

30. Our proxy for the institutional structure of decision making, the Banking Committee membership indicator, did not have an impact. A cross-country comparison would allow for greater variation in the structures and a more thorough analysis of the role of political institutions, but such a study is beyond the scope of this paper. On the international political economy of financial regulation, see Kroszner (1998a, 1999a, and 2000b).

was used to split the insurance industry's interest in attempting to pass branching deregulation. The insurance industry had traditionally opposed branch banking both because it competes with banks for household savings, and because banks' abilities to sell insurance products had been expanding over time. The Wylie-Neal Amendment would have permitted more branching while limiting national banks' insurance powers, thereby gaining the favor of the insurance industry in states where state-chartered banks could not sell insurance. Heterogeneity in the interests of large and small banks also helped to make welfare-improving legislation more feasible.

For economists arguing for welfare-enhancing reforms, it is important to take into account the necessity of satisfying and balancing competing interests and understanding the role of political-institutional factors (Rodrik 1996). These may place obstacles in the path to optimal reforms, but an awareness of addressing the different constituencies can help shape policy reforms that can build coalitions for final passage of welfare-improving legislation.

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Comment Jeremy C. Stein

The paper by Kroszner and Strahan is a very interesting and extremely well-done positive analysis of bank regulation. Kroszner and Strahan seek to understand a fundamental question about financial regulation (and regulation more generally), namely: What role do various economic and political forces play in shaping these laws?

Because I find Kroszner and Strahan's empirical work to be clear-cut and convincing, I will not quibble in any way with their specifications or their regression results. Rather, I will try to provide an interpretation of what exactly—in terms of broad lessons—one might take away from these regressions. To begin, it is helpful to note that one can ask different versions of the basic positive question that Kroszner and Strahan pose:

Question 1 (static version): Why do we have the (possibly suboptimal) laws we do? Which types of bad laws are most likely to exist?

Question 2 (dynamic version): Why and when do laws change? Do they respond well to shocks in the external economic environment?

Question 3 (cross-country version): Why do some countries have worse laws than others?

One type of answer—the one favored by Kroszner and Strahan—has to do with special interests. For example, restrictions on interbank competition, as well as excessively generous deposit insurance, can be expected to benefit banks, and especially small banks. In contrast, although restrictions on bank competition may also benefit insurance companies, insurers are likely to be hurt by excessive deposit insurance, particularly if they compete directly with banks. These observations lead to sharp predictions about how congressional voting on various issues will be influenced by the relative strength of the banking and insurance lobbies, among other factors.

Note, however, that at least in principle it is possible that a private interest approach may be more successful in providing answers to the static version of the question, question 1, than to the dynamic or cross-country versions, question 2 or question 3. Suppose that the rents accruing to the banking sector as a result of anticompetitive regulation are large but do not vary much over time and across countries. Then the existence of a strong banking lobby can help explain why such anticompetitive laws are on the books, but it may not give us much insight into why such laws are changed at a particular point in time.

With this observation in mind, let me very briefly review the Kroszner and Strahan's results. In all their regressions, the variables on the left-hand

side are the votes of individual members of the House of Representatives on various amendments to FDICIA. That is, the regressions seek to explain the voting patterns of individual house members. In table 7.4 the amendment being voted on is the Wylie-Neal amendment, which would both relax restrictions on interstate branching as well as limit national banks' insurance powers. Consistent with the private interest approach, Kroszner and Strahan find that house members tend to (a) vote "no" if they are from a state with many small banks; (b) vote "no" if they are from a state that has many insurance companies and that allows banks and insurers to compete directly; and (c) vote "yes" if they are from a state that has many insurance companies, but where banks and insurers do not compete with one another.

In table 7.5 the amendment being considered would limit deposit insurance coverage. Again, the private interest variables loom large. House members tend to (a) vote "no" if they are from a small-bank state, (b) vote "yes" if they are from an insurance industry-heavy state, and (c) vote "yes" if they receive PAC money from the insurance industry. As with table 7.4 one of the really interesting things that comes out in the data is the way in which different industries can be played off against one another, based on their conflicting economic interests.

Finally, in table 7.6 the amendment being voted on is one that would raise the effective cost of making banking acquisitions, by scrutinizing an acquiring bank's low-income lending policies. Here, too, the private interest variables have some explanatory power, with members tending to (a) vote "no" if they are from a small-bank state, (b) vote "yes" if they are from an insurance industry-heavy state, and (c) vote "yes" if they receive PAC money from the insurance industry. However, in this case the most dominant variable is not a private interest one, but a partisan one: Being a Democrat is the single strongest predictor of whether a member votes "yes."

Overall, I would interpret the results in the following way. The regressions do an extremely impressive job of explaining variation in individual members' votes, based on the members' home-state economic interests, the PAC money they receive, and, to a somewhat lesser extent, their party affiliation. This strong explanatory power can be seen in the high pseudo- R^2 s of the regressions, which are for the most part in the range of 20 percent.

What do these results tell us about variation in regulatory outcomes, however? And what sort of variation are they best suited to explaining: time series, or cross-sectional? In other words, to what extent do the regression results map directly into question 1, 2, or 3? Kroszner and Strahan argue that there is a very direct mapping: "Our results suggest that interest group competition and the battle among the interests are a key determinant to explaining regulatory outcomes" (261). Although this claim may

very well be true, it is worth noting that there is—at least logically—some distance between the authors’ results for individual members’ voting patterns and any conclusions about regulatory outcomes.

This point is best illustrated with an example. Suppose that every year, a nine-member House committee takes up a proposal to cap damage awards from tobacco litigation. Four of the members of the committee are from tobacco states, and always vote “yes.” Four of the members are from states with big law firm lobbies, and always vote “no.” The final member is from a neutral state, and the vote is effectively random from year to year.

If we were to run a regression to explain individual member votes based on tobacco and law firm economic influence variables, we would get an R^2 close to 1. Even so, however, we cannot predict at all whether the measure will pass in a given year, nor can we explain any time variation in the outcome of the vote. There is a simple moral here: Competing economic interests may be good at explaining the tails of the voting distribution, and hence may help to generate high R^2 s in the sort of regressions that Kroszner and Strahan run. But the voting outcome—unlike, say, market demand—is driven by the person in the middle of the distribution, and it may well be that this median voter’s preferences are harder to understand in terms of private economic interests. In the case of the tobacco example, the median voter may be much more influenced by changing social views about smoking, personal experience with a relative who got lung cancer, and so on.

Although the example suggests that, as a matter of logic, one should be a bit cautious in mapping the authors’ regressions directly into statements about regulatory outcomes, it is not clear how much weight this caveat deserves in practice. My tentative guess is that the caveat is less relevant for question 1. Said differently, I am more comfortable concluding that the authors’ type of analysis allows us to speak pretty directly to question 1. To go back to the tobacco example, if eight of the nine committee members were from tobacco states, a private interest model would do a very good job of explaining why, in steady-state, we observe a cap.

On the other hand, I am less convinced that the authors’ type of analysis can speak directly to Q2, because at the time that a law gets changed, it is, almost by definition, one that is on the cusp—that is, one in which, like in the first variant of the tobacco example, the median voter (who is neutral based on private economic interests) is more likely to be pivotal.

This is, of course, not to say that private interest variables cannot ultimately explain at least some aspects of the dynamics of regulation. Indeed, in section 7.3 of their paper, Kroszner and Strahan argue that banking reform occurred in the 1980s and 1990s—as opposed to earlier—in part because the balance of power in the industry changed in such a way as to alter the relative strength of various lobbies. This seems like an eminently plausible hypothesis. My only point is that the evidence that Kroszner and

Strahan present in their paper, while suggestive, does not really provide a decisive test of this sort of private interest hypothesis of regulatory dynamics.

Discussion Summary

Charles Calomiris began the discussion by asking about the use of probits for this type of analysis. He pointed out that political scientists note that in close votes, party discipline may be higher, resulting in a poorer model fit. He pointed out also that the authors find high pseudo- R^2 s even in the closer votes. He wondered about differences between the amendments and the final vote. He also suggested the inclusion of additional demographic variables, noting that demographic variables such as industry composition and rural population have mattered in past research and are likely to be correlated with the included explanatory variables.

Raghuram Rajan wondered why agreements could not be reached through rent sharing (and not through the death of small banks).

Mark Flannery advocated naïveté in formulating policy advice. He asked whether economists should necessarily focus on what is feasible. *Frederic Mishkin* noted, however, that the route to achieve optimal policy might be important.

James Wilcox focused on the positive rather than normative findings, noting that it is difficult to identify Pareto or social welfare-improving laws. He also noted the fresh water effect—that is, the concentration of unit banking states away from the two coasts. He suggested that state regulations and preferences may influence the distribution of banking assets within a state and, in turn, the characteristics of a state's representatives.

Mark Carey, picking up on a question raised by the discussant, wondered which countries' political systems and laws are associated with good regulation. He suggested that it will be interesting to observe, as sound policies are advocated by some, how these are implemented across countries.

Finally, *Mark Gertler* suggested a different approach to this problem by focusing on the median voter. He suggested that the authors look at representatives who voted in opposite directions for the different amendments.

Randy Kroszner began his response by noting the difficulties associated with the median voter approach. He pointed out that some of his other work suggests entrenchment and support for clearly stated positions. He noted that only when there are broad technological or economic shocks that change the support among the constituents or the profitability to the different groups do we see changes in outcomes.

He also noted that international comparisons might be difficult, given the important role of foreign banks. He observed that these institutions would typically not be part of the political process, but may be interesting actors. In response to Wilcox, he agreed that there is a risk in designating policies as good or bad for certain interest groups. He noted that in a previous paper with Strahan, they looked at endogenous interest group formation, and found that this did not seem to change other results. He did agree that this was an interesting dynamic that occurs as regulation can create interest groups.

He also supported Flannery's assertion, noting that truth is just another special interest group and one that is not well funded. He observed that academics could affect the productivity of the dollars spent by the different interest groups. He also agreed with Rajan that the dynamics of change will be interesting and that the authors need to consider how to generalize their results.

Finally, in response to Calomiris he noted that political scientists would often include a political party indicator variable that helps explain many votes—in particular, the partisan (and often not close) votes. This might explain the high R^2 in many studies where the votes were not close.

In response to Rajan, *Philip Strahan* noted that there is some evidence of transfers among the various groups that are affected. For example, he noted that state branching requires banks to buy existing branches (or banks), resulting in a payoff to incumbents. One challenge, he observed, is how to share these payoffs among the smaller banks. Finally, he also noted that other variables, including indicators for unit banking and rural versus urban areas, had been examined and were not found to change the results.

