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FINANCIAL DEREGULATION
BY
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RESEARCH PROGRAM IN FINANCE AT THE
WALTER A. HAAS SCHOOL OF BUSINESS,
UNIVERSITY OF CALIFORNIA, BERKELEY

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by

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School of Business Administration
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This paper has benefited from discussions with the panel of contributors to the 1986 volume of Contemporary Economic Problems, a publication of the American Enterprise Institute, and especially from comments by Philip Cagan.
1. Introduction

This review of recent financial deregulation in the United States emphasizes the deregulation of depository institutions. Deregulation in some industries, for example in the airline and trucking industries, appears to have been an attempt to improve economic efficiency through increased competition. Has financial deregulation been a program to reduce government intervention and permit more competition in financial markets? The conclusion reached here is that this is not a good explanation of the financial deregulation that has taken place. Two other considerations are more important reasons. One is the attempt to support the thrift industry through a stressful period; the second is the case-by-case response to innovation in the financial services industry. The failure to find a consensus for a general reformation of U.S. financial regulation has resulted in explicit deregulation that is limited in scope and to some extent dysfunctional. Meanwhile, market innovators continue to find ways around existing restraints so there is an increasingly uneven application of financial regulation across functionally similar institutions.

Product and geographical deregulation are discussed in Section 3. The new asset powers for thrifts in the 1980 and 1982 Acts were intended to improve thrift diversification and earnings. They also provided new opportunities for risk-taking. In addition to this explicit deregulation, changes in technology and in business practices have led to a substantial amount of ad hoc deregulation of depository institutions. This ad hoc deregulation has undermined two of the major pillars of U.S. depository institutions regulation, the McFadden Act and Douglas Amendment and the Glass-Steagall Act.

The Bush Task Group on the Regulation of Financial Services was to have been the basis of a major financial policy initiative by the Reagan administration. The Bush Report is largely a discussion of how regulatory responsibilities should be redistributed among the various federal and state financial regulatory agencies. There is also a brief discussion of deposit insurance reform in the report. These two topics are addressed in section 4.

Some conclusions are drawn in section 5.

2. Deposit Interest Rate Deregulation

The elimination of deposit interest rate ceilings is the centerpiece of recent financial deregulation. This deregulation began in earnest during the Carter administration. Neither of the two bills that authorized it were Reagan administration bills. Deposit interest rate deregulation was a reaction to thrift industry problems rather than a decision to promote competition and economic efficiency.
The secular increase in interest rates that began in the early 60s decreased spreads between interest rates on fixed rate mortgages in thrift portfolios and current deposit interest rates. Congress reacted to this threat to the solvency and vitality of the major home mortgage suppliers by passing the *Interest Rate Adjustment Act of 1966*. The provisions of this act put ceilings on deposit rates at all federally-insured depository institutions.¹

Cootner made a prescient comment on the potential for this legislation to achieve its goal:

Whatever merits one may find in rate regulation, it cannot be accomplished by one sector of a highly competitive market. It is true that when the regulation was first attempted, neither the commercial bank sector nor the debt securities markets were as competitive as they gradually became, and so the prospects for success were more sanguine at the outset than they were in retrospect - but that is an outstanding characteristic of partial price regulation...There is some serious question about the merits of attempting to control soundness...by rate controls because of its tremendous impact on liquidity problems.²

The attempt to maintain thrift profitability through deposit rate ceilings might have worked had the need to do this been short-lived. As it turned out, the interest rate levels of the 1960's were mild compared to those that followed, and the interest cost control strategy unraveled. Market interest rates in excess of ceiling rates led to two competitive responses, the substitution of unregulated securities for regulated deposits and non-rate competition among depository institutions.

2.1. Disintermediation and deposit interest rate deregulation

As shown in Table 1, interest expenses per $1 of assets at commercial banks and savings and loan associations grew slowly
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<th>SL</th>
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from 1965 through the mid-70s despite substantial, cyclical in-
creases in market interest rates, as shown by the CD rate. How-
ever, increases in short-term money market rates above deposit rate ceilings in 1968-70 led to disintermediation at banks and thrifts. Depositors substituted unregulated money market securi-
ties for rate-controlled deposits. Innovative banks created unregulated substitutes, such as offshore deposits and bank holding company commercial paper, which the regulators then tried, with limited success, to bring under the rate ceilings. By 1969, there were serious liquidity problems at many depository institutions due to deposit losses. Large banks were especially hard hit as corporate depositors found it easy to substitute Treasury Bills and commercial paper for negotiable certificates of de-
posit. The resulting liquidity problems led to the first step in dismantling deposit rate ceilings, the 1970 removal of inter-
est rate ceilings on large ($100,000+) CDs.

Throughout the 1970's, deposit growth fluctuated with changes in market interest rates. There were substantial savings inflows at savings and loan associations in 1971-72 and again in 1975-78 when short-term market rates were close to the deposit rate ceilings (see Figure 1). The resulting asset growth occurred mainly during periods of relatively lower interest rates, an outcome inconsistent with the desire to maintain thrift solvency. There were attempts to stabilize deposit flows at thrifts during the late 70s by introducing new types of deposits, notably the aborted "wild-card" experiment in 1973, the 6-month money market certificate (MMCs) in 1978 and the small saver certificates
FIGURE 1

NET SAVINGS FLOWS
SAVINGS & LOAN ASSOC.

YEAR

NET FLOWS (BILLIONS)
(SSCs) in 1979. Minimum size restrictions for the MMCs and
minimum maturity restrictions for the SSCs were set to prevent
these new deposit types from "cannibalizing" existing lower rate
accounts. Between 1978 and 1981 interest expense per $1 of
assets increased by over 60% at savings and loan associations and
more than doubled at commercial banks. Despite the higher rates,
the restrictions on the new accounts reduced their effectiveness
in combating unregulated substitutes. Money market mutual funds,
which were insignificant competitors in 1978, grew rapidly from
approximately $50 billion total assets in 1980 to $240 billion by
1982.

Congress and the administration were faced with the growing
ineffectiveness of deposit interest rate ceilings. These ceil-
ings were not protecting thrift solvency nor were they stabilizing
mortgage flows. Some depository institutions wanted an account
that would compete with money market mutual funds. The first de-
regulatory response was the Depository Institutions Deregulation
Act of 1980. This Act called for the elimination of all ceilings
within six years under the supervision of the Depository Institu-
tions Deregulation Committee (DIDC). In early 1981, the Reagan
administration took charge of this deregulation process by trans-
ferring the chairmanship of the DIDC from the Federal Reserve
System Chairman to the Secretary of the Treasury. The adminis-
tration, through Secretary Regan, expressed a strong commitment
to proceed with deposit interest rate deregulation as rapidly as
possible. The continuing growth of the money market funds in-
creased the pressure for this price deregulation and led the DIDC
to introduce a series of small-denomination, market-rate time
deposit accounts in 1982. Two additional accounts, money market
deposit accounts (MMDAs) and Super-NOW accounts, were authorized
by the Garn-St. Germain Act of 1982 and introduced near the end
of 1982. There are no interest rate ceilings on these accounts
as long as the specified minimum balances (initially $2,500,
subsequently $1,000) are maintained. Transactions, including
check writing, are permitted. By early 1983, depository institu-
tions were providing a package of return and liquidity on these
accounts that was competitive with money market mutual funds.

The introduction of the MMDA in December 1982 was the most
important event in this series of price deregulations. Within
three months over $300 billion was deposited in MMDAs. Total
MMDA balances are currently in excess of $450 billion and Super-
NOW deposits total almost $60 billion. Only part of this deposit
growth came from money market mutual funds, as described below.

In 1983, the DIDC removed interest ceilings on all time
deposits with original maturities more than 32 days and on time
deposits with original maturities from 7 to 31 days with minimum
balances of $2,500. The final step in the deregulation of time
and savings deposit interest rates, the elimination of rate
ceilings on savings deposits, is scheduled for 1986.

The move to almost complete deposit interest rate deregula-
tion by 1983 went faster than was expected by many observers in
1980. The sharp increase in short-term interest rates in 1981
and the resulting pressure on deposit accounts from unregulated
substitutes played the major role in hastening this deregulation.
The Reagan administration's commitment to restore unregulated price competition on deposit accounts deserves some credit for the outcome. However, a recent "supervisory bulletin" sent out by the Federal Home Loan Banks suggests this commitment may be weakening, at least at that agency. Thrift directors were ordered to review their firm's interest rates and how they are set and to compare their rates with those of other institutions. The management of the Federal Home Loan Bank system does not seem convinced that all savings and loan associations can be trusted to set deposit rates without supervisory oversight.

2.2. The effects of deposit interest rate deregulation

Price deregulation has increased the market rate sensitivity of interest expenses at banks and thrifts. Changes in interest expense began to have a consistently positive relation to changes in short-term markets rates in 1979 (see columns 6 and 7 of Table 1). Even before the introduction of MMDAs in late 1982, interest expense per $1 of assets at savings and loans had increased by over 300 basis points from 1978 levels and by almost 400 basis points at banks. The decrease in market rates in 1983 and their increase again in 1984 were mirrored by similar changes in bank and thrift deposit interest rates. Interest expenses per $1 of assets remained at levels approximately 300 basis points higher than those prior to deregulation.

Keeley and Zimmerman have analyzed the effects of introducing MMDAs at commercial banks.4 Banks attracted a significant amount of deposits from money market mutual funds in the period immediately following the introduction of MMDAs; the Keeley and
Zimmerman estimate is $90 billion. However, there was only a modest increase in total bank deposits. The increase due to MMDAs was largely offset by decreases in small-denomination time deposits and in wholesale CDs. Neither savings deposits nor transaction accounts showed statistically significant changes as funding sources.

Keeley and Zimmerman argue that aggressive bank promotion of MMDAs implies that "...banks faced substantial costs in their non-price competition for retail accounts and in the substitution of wholesale for retail accounts..." and conclude that "...the [substitution] of retail for wholesale deposits and price competition for non-price competition...secured...a more stable and lower cost source of deposits."

These two cost reductions do not have equal effects on a given institution nor are their effects uniform across depository institutions. Once past the initial period of high MMDA rates, the substitution of price-deregulated retail deposits for wholesale deposits produces an immediate reduction in interest expense, probably without a significant increase in operating expense. On the other hand, banks and thrifts that substitute price-deregulated retail deposits for price-regulated retail deposits must reduce their non-interest costs (or charge more for services) to benefit from the deregulation. These adjustments to price deregulation are proving painful for many retail-oriented depository institutions, and it appears that more bank and thrift cost adjustments will be needed before a new equilibrium is established.
One dimension of this adjustment problem can be illustrated by looking at data on non-interest expenses. Figure 2 shows non-interest operating costs per $1 of assets for commercial banks and for savings and loan associations. Between 1965 and 1984, non-interest expense per $1 of assets increased by 51 basis points at savings and loan associations and 94 basis points at commercial banks. These increases in per unit operating costs went against the trend in data processing and communication costs. The increase in costs for commercial banks is particularly notable. Commercial bank per unit non-interest expenses were about twice those at thrifts when price ceilings were introduced. To a large extent, this difference reflected the more labor intensive nature of commercial bank services, especially demand deposit services. The 94 basis point increase in per unit non-interest expenses at banks occurred despite a large reduction in the fraction of bank liabilities held as demand deposits from just under 50% in 1965 to less than 17% in 1983. Furthermore, as shown in column 4 of Table 1, interest expense per $1 of assets increased more rapidly for banks than for thrifts. Instead of a substantial interest expense advantage for banks (approximately 50% lower), as was the case in 1965, bank and thrift interest expense per $1 of assets were at parity in 1984.

The increases in per unit non-interest costs reflect increases in deposit offices and employees. Between 1965 and 1981, total commercial bank and saving and loan association offices doubled and total employees more than doubled (see Figure 3).
The average annual growth rate over this period was 4.4% for total deposit offices and 4.9% for total employees of banks and S&Ls while the growth in adult population (20 years and older) averaged only 1.8% per year. The physical capital and labor services available to depositors (i.e., deposit offices and depository institutions employees per capita) thus increased substantially over the period.

Price deregulation should change this, and there is evidence that the adjustment process has begun. The number of bank offices fell in 1982 for the first time in the post-war period. Bank offices per capita which peaked at 3.5 offices per 10,000 adult population in 1981 had fallen to 3.4 offices per 10,000 by year end 1984. Saving and loan association offices continued to increase in 1982, but then fell in 1983 and 1984 to the level reached in 1980. In per capita terms, savings and loan offices went from 1.4 per 10,000 adult population in 1982 to 1.3 at year end 1984. Both of these responses to price deregulation are particularly striking when we observe that total bank and thrift offices per capita increased every year between 1966 and 1981 from 3.3 per 10,000 adult population in 1966 to 4.9 in 1981.

Total bank employment has been essentially stable since 1981. In contrast, employment at savings and loan associations has continued to grow. Between 1981 and 1984, savings and loan association employment grew at an average annual rate of 6.3%, almost exactly the average rate of growth for the 1965-81 period. This difference in adjustment to interest rate deregulation by banks and thrifts is reflected in differences in their per unit
non-interest expenses. Since 1982, non-interest expense per $1 of assets has stabilized at commercial banks but increased by 14 basis points at savings and loan associations.8

Overall the impression given by these data is that banks and thrifts responded to price regulation by providing depositors with more service. Although there are indications that these institutions are now responding to price deregulation by cutting back on non-price competition, there has not been a dramatic reduction in non-interest costs. It is important to remember that this adjustment process, when it comes, will fall more heavily on those institutions that were forced to rely on non-price competition to avoid disintermediation (typically retail-oriented firms) than it will on those that substituted wholesale CDs for retail deposits in the 70s.

Service charge increases are an alternative response to price-deregulation. Figure 4 shows service charges per $1 of deposits for commercial banks from 1960 through 1984. As noted earlier, demand deposits were a decreasing fraction of bank deposits over this period, so it is not surprising that per unit service charges fell until 1979. The beginning of significant price deregulation in 1978-79 is marked by the start of a trend toward higher per unit service charges. So far the adjustment, an increase of approximately 19 basis points per dollar of deposits, seems modest.

Attempts to adjust to price-deregulated retail deposits are meeting with consumer and legislative resistance. The attempt to increase the price of services and to weed out less profitable
FIGURE 4

PER-UNIT SERVICE CHARGES
COMMERCIAL BANKS

YEAR

(BASIS POINTS)
accounts has led to demands for "lifeline" banking services
(i.e., low or zero cost demand deposit accounts for individuals
of modest means). Legislation requiring banks to provide lifeline
services has passed the Massachusetts and New York legislatures
and is under consideration in other states. The Massachusetts
statute prohibiting fees on the accounts of persons over 65 or
under 18 years of age is striking in its simplicity:

Paragraph 1 of section 2 of chapter 167D of the
General Laws, as appearing in section 2 of chapter
590 of the acts of 1983, is hereby amended by
inserting after the word "bank" in line 5, the
words: provided, however, that no bank shall
impose any fee, charge or other assessment against
the savings account or checking account of any per
sons sixty-five years of age or older or eighteen
years or younger...

Regulators and legislators are also concerned about deposit
office closures. In February 1985, the Office of the Comptroller
of the Currency issued a circular instructing banks considering
branch closure to have objective policies in place that take into
account the effects of the closure on the community and its
residents. An amendment to an Interstate Banking Bill (HR2707)
passed by the House Banking Committee on June 12, 1985 gives
federal banking authorities the right to deny interstate mergers
and acquisitions if the applicant has a record of closing deposit
facilities in a manner that disadvantages low- or moderate-income
neighborhoods. 9

These concerns about service fees and branch closures are
certain to complicate the process of adjusting to price deregula-
tion. On one hand, banks and thrifts will find it difficult to
shift the costs of responding to these concerns to other
depositors, since those depositors still have the opportunity to move to unregulated alternatives such as money market mutual funds. On the other, non-bank firms seem willing to provide lifeline services if the existing depository institutions won't. Sears, for example, has suggested the authorization of "consumer banks" that would make only consumer, small business and family farm loans, that would be required to lend in the community, and that would provide basic checking services with no fees and no minimum balances.\textsuperscript{10}

The pending price deregulation of savings accounts in 1986 will further complicate this adjustment process. Keeley and Zimmerman argue that the remaining savings depositors are those who prefer implicit interest in the form of non-taxable service rather than taxable interest and that this explains the lack of a significant shift from savings accounts to MMDAs. It is not certain, however, that the competitive solution for price-deregulated savings will result in the same relation of interest rate to service yield that prevails under price regulation. Past changes in savings deposit interest rate ceilings led to increases in the rates offered by banks and thrifts. If interest expenses on savings deposits at banks and thrifts increase when interest rate ceilings on savings deposits are removed, additional reductions in service or increases in service charges will be necessary, and an additional group of disaffected consumers (who would like to have their interest and service, too) will be heard from.
2.3. Price deregulation in the securities industry

The effects of price deregulation in the securities industry may provide clues on the pace and scope of the adjustment facing depository institutions. Prior to 1968, in fact for over 150 years, securities brokers carrying out trades on national exchanges were paid according to commission schedules set by the exchange. This led to the provision of a variety of non-transaction services as "soft-dollar" offsets to the fixed commissions and to price-cutting through such devices as commission give-ups and the uncompensated sale of client products (e.g., mutual funds). It also led to the growth of "third market" firms specializing in arranging trades off the organized exchanges. In other words, the governmentally-sanctioned price cartel in the securities industry produced non-price competition among regulated firms and competition from unregulated firms just as the governmentally-imposed price cartel did in the market for deposit services.

Deregulation of fixed brokerage commissions began in 1968. Pressure from the Securities and Exchange Commission (SEC) and from institutional brokers led to the introduction of volume discounts (for orders over 1000 shares) in that year. In 1972, a new commission schedule that lowered rates on all multiple round lot orders was adopted, and negotiated commissions for transactions in excess of $300,000 were authorized. On May 1, 1975 ("Mayday"), SEC rule 19b-3 became effective, and the exchanges were prohibited from setting commissions. Thus, price deregulation for securities brokerage began more than 16 years ago, so a
decade has passed since full price deregulation became effective.  

The securities industry experienced sharp decreases in the number of broker-dealer branch offices and in total employment until 1979 (see Table 2). Between 1969 and 1978, branch offices decreased by over 30%. Total employment by broker-dealers peaked in 1972 and by 1978 had fallen to 41% of that peak level. These reductions in service inputs occurred while share volume was increasing, for example by a factor of 2.5 on the New York Stock Exchange. Since 1978, there has been a steady increase in both the number of branch offices and total broker-dealer employment. To put this adjustment process into perspective, consider its effect on broker-dealer per capita inputs. The decrease in offices per capita between 1969 and 1978 was fully restored by 1983, but employees per capita remain almost 40% below prederegulation levels.

This evidence suggests that adjustment to deregulated prices in the securities industry took about 10 years to work itself out. It is useful to note that the stock market was strong in the years immediately following "Mayday". The resulting strength in brokerage income probably sheltered the securities industry from the immediate effects of full price deregulation. Taking 1980 as the beginning of retail price deregulation for depository institutions, the securities industry experience suggests that it may be some time before we see the end of the depository institutions adjustment process. Again, as in the securities industry
Table 2.
Branch Offices and Employees per 10,000 Adult Population
Securities Broker-Dealers

<table>
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<tr>
<th>Year</th>
<th>1969</th>
<th>1978</th>
<th>1983</th>
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<td>Branch offices</td>
<td>6.7</td>
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<td>7.0</td>
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<tr>
<td>Employees</td>
<td>29.1</td>
<td>10.8</td>
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</table>

Source: SEC Annual Report, various years.
experience, the recent strength of the U.S. economy may be slowing the rate at which that adjustment is taking place.

There have also been important changes in the structure of the brokerage industry as a result of deregulation. One such change is the growth of retail discount brokers. Having entered the industry without the capital and labor encumberances that full-line brokers built up during the fixed commission period, these discount brokers have been quite successful in obtaining a significant market share. The Securities Industry Association estimated that the discounters' share of retail brokerage commissions was 8.4% in 1982. Since discount commission rates are less than 1/2 those at full-line brokers, the discounters' share of retail transactions was on the order of 20% in 1982 and has undoubtedly increased since then. Institutional investors also have a choice between minimum cost brokers and those who continue to provide other services along with the transactions services. However, institutional brokers specializing in research (the so-called research boutiques) have become an endangered species. The disappearance of a number of major broker-dealers as independent entities in recent years suggests that the market has become less tolerant of management mistakes by securities firms than it was when the price cartel cushioned them against the resulting losses. The change in the pattern of employment at broker-dealers is also instructive. Almost 75% of the reduction in broker-dealer employment between 1972 and 1978 was a reduction in the number of registered representatives.
These structural changes in the deregulated securities industry have implications for depository institutions. Where there is easy entry into the provision of deposit services, including entry by unregulated firms, low cost competitors will force the pace of cost reduction by existing firms. Pressure from these competitors and the absence of the cushion afforded by deposit interest rate ceilings has made banks and thrifts more susceptible to the effects of their management mistakes, as high bank and thrift failure rates show.

Employment changes in the securities industry emphasized reductions in higher cost personnel, research workers, and sales representatives. Post-deregulation employment changes in depository institutions are unlikely to be as effective in producing cost reductions. The limited information that is available seems to bear this out. Real wages per employee increased from 1981 to 1984 by about 10% at commercial banks and by almost 17% at savings and loan associations.

2.4. Deposit interest rate deregulation and financial policy

Critics argue that removal of deposit interest rate ceilings endangers bank and thrift soundness through its adverse effect on costs and by promoting undue risk-taking.

Industry-wide deposit interest rate ceilings were introduced to alleviate solvency problems at thrifts. The secular rise in market interest rates led to non-price competition and competition from unregulated securities. This caused the strategy to fail. The thrift solvency situation is worse today than it was
when price regulation began. Kane estimates aggregate thrift net worth after deducting unrealized mortgage losses at -$16 billion in 1971 and -$86 billion in 1983.\textsuperscript{12} This is not a phenomenon concentrated in a small number of institutions. Using a year end 1980 sample of 1,919 insured savings and loan associations, Balderston found that 1,902 had negative net worth after deducting unrealized portfolio losses.\textsuperscript{13} Aggregate thrift net worth in market value terms has undoubtedly improved since 1980, especially with the recent fall in mortgage rates, but not enough to pull many thrifts back to positive economic net worth. Furthermore, there is no assurance that mortgage interest rates will stay at current levels (or lower) indefinitely. Even if they do, thrift solvency problems may not improve dramatically. The disinflation that is instrumental in the fall of interest rates has a depressing effect on the inflation premium in housing values and tends to make fixed debt payments more burdensome. This has already lead to mortgage default rates in excess of those experienced in recent decades (S&L losses and provisions for losses on real estate loans tripled between 1982 and 1984) and to the refinancing of high fixed-rate mortgages. Both of these outcomes offset some of the net worth gains to be realized from lower mortgage rates.

Thrift solvency remains a critical and largely unsolved financial policy issue, and serious solvency problems at commercial banks have been added to it.\textsuperscript{14} Although the adjustment to deregulated prices is contributing to depository institution distress, it is not the fundamental source of the insolvency
problem, and re-regulation of deposit interest rates is not a realistic solution. As Cootner suggested in 1969 and subsequent events confirmed, partial price regulation is not effective in a competitive market. It leads to the substitution of a liquidity problem for the solvency problem and to inefficient non-price competition.

Has price deregulation promoted risk-taking? The usual argument is that depository institutions lend at higher rates to try to offset increased interest costs. To get higher returns, the depository institution is forced to invest in higher risk assets. This is not a sound strategy in an efficient capital market. Liability costs, including the required return on equity, would rise with the increase in risk offsetting the improvement in nominal interest margins. Of course, banks and thrifts might be following suboptimal strategies, such as maximizing short-run earnings, in which increased risk-taking would follow deposit interest rate deregulation.

A more important reason for a link between price deregulation and risk-taking is the market imperfection introduced by the deposit insurance system.

Deposit insurance premiums that are not risk-related create an incentive for insured institutions to increase risk. Part of any increase in asset risk is borne by the federal government through the deposit insurance agencies. This federal subsidy to risk-taking increases expected equity return more than enough to compensate the equity holders in an insured institution for the increased risk they bear. Insured banks and thrifts will take on
as much risk as they are permitted in this situation, with or without deposit interest rate ceilings.

To argue that risk-taking results from price deregulation, one must presume that depository institutions earned economic rents (or quasi-rents) under price regulation. The reliance on non-price competition with its emphasis on locational advantage and the presence of entry barriers in some banking markets make the existence of such rents likely. Since a knowledgeable manager would stop short of full exploitation of the deposit insurance subsidy in order to protect future rents that would be lost in a failure, removal of the source of the rents via deposit interest rate deregulation would induce a move toward more asset risk. The extent to which this is occurring would not be easy to determine, since other factors such as product deregulation are also involved. In any case, the main culprit is surely not price deregulation but a deposit insurance system with perverse risk incentives.¹⁶

3. The Deregulation of Financial Products and Markets

The markets for financial services have changed signifi-
cantly over the past two decades. New products and services have been introduced. The extent of competition among depository institutions and between depository institutions and other financial firms has increased. Geographic barriers to entry have been eroded. Most of these changes are due to innovation and unregulated entry rather than explicit financial deregulation. In some cases innovators found an opportunity that was not covered in the
existing law, for example the invention of "non-bank banks".\textsuperscript{17} In others, for example Eurobond underwriting by U.S. bank subsidiaries, the regulatory authorities permitted new products and services to develop under existing laws. These and other forms of \textit{ad hoc} deregulation have had a more profound effect on the market for financial services and on the problems facing financial regulators and policy makers than the limited amount of explicit product and market deregulation that has taken place. The discussion that follows concentrates on the explicit and \textit{ad hoc} deregulation of asset powers at banks and thrifts to illustrate this point. The section concludes with a brief discussion of the deregulation of transaction accounts and of geographic deregulation.

3.1. The Deregulation of Asset Powers

New asset powers for thrifts were first introduced during the Carter administration in the \textit{Depository Institutions Deregulation and Monetary Control Act of 1980}. The Treasury under Secretary Regan supported the additional thrift powers in the \textit{Garn-St. Germain Act of 1982} (Garn-St. Germain), but had little role in setting this policy. A Reagan appointee, Comptroller of the Currency Conover, did play an active role in the \textit{ad hoc} deregulation of commercial banking especially, in the chartering of non-bank banks. However, the Reagan Administration has been ineffective in articulating and finding support for a deregulation plan that addresses the major reform issues including Glass-Steagall reform. Their major financial deregulation initiative
was the *Financial Institutions Deregulation Act*, a bill introduced but not enacted in the 98th Congress. As noted below, the Treasury under Secretary Baker appears to be backing away from some of the key elements of that proposal.

3.1.1. Thrift Asset Powers

Title IV of DIDMCA included provisions liberalizing thrift asset regulations, and this asset deregulation for federally-chartered thrifts was extended in the Garn-St. Germain Act. State authorities gave similar privileges to state-chartered institutions and in some important cases carried the asset deregulation process farther.

Table 3 lists the major new asset powers granted federally-chartered thrifts in the Federal Home Loan Bank Board (FHLBB) implementation of the 1980 and 1982 Acts. A California law (Assembly bill AB3469) passed in Fall 1982 is illustrative of the more extreme asset deregulation undertaken by some states. AB3469 permits California-chartered S&Ls to hold up to 15% of their assets as commercial loans (rising to 20% in 1985) and 25% in consumer loans. More importantly, all other percent-of-assets limitations were eliminated including those on direct investment in real estate, commercial real estate lending, and investments in service corporations. State-chartered S&Ls were permitted to invest in corporate debt securities without percent-of-assets restrictions. Under Garn-St. Germain federally-chartered thrifts are also allowed unlimited investment in corporate debt, but there is an important difference. No quality limitations were
Table 3.

Major New Asset Powers for Federally-Chartered Thrifts
as of January 1, 1984

<table>
<thead>
<tr>
<th>New Asset Type</th>
<th>Maximum Percentage of Assets Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer loans</td>
<td>30</td>
</tr>
<tr>
<td>Commercial loans</td>
<td></td>
</tr>
<tr>
<td>Real estate</td>
<td>40</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
</tr>
<tr>
<td>Corporate securities</td>
<td>100</td>
</tr>
</tbody>
</table>

set for institutions chartered by California while bond rating restrictions similar to those applicable to national banks were imposed on federally-chartered thrifts. State-chartered thrifts in other states, notably Arizona, Florida, New York, Ohio, and Texas, were also given asset powers that go significantly beyond those granted federally-chartered institutions.

Savings and loan investment was predominately in fixed-rate residential mortgages prior to the passage of DIDMCA. The resulting portfolios were sensitive to interest rate risk, and thrift investment opportunities were tied to housing market fluctuations. Thrift asset deregulation cannot be seen as an attempt to increase competition in the markets that were opened to thrifts. No investigation of the need for such competition was made. Rather it was a response to their earnings crisis resulting from the high and variable interest rates of the 1970's. The new assets were intended to redress the lack of diversification in thrift portfolios and to provide thrifts with high return opportunities outside housing.18

The effect of asset deregulation on savings and loan asset acquisitions is shown in Table 4. The comparison between 1975-79 and 1983-1985I is probably the most relevant one to make.19 Recent S&L investment in residential mortgages occurred at about half the prederegulation rate. Investment in traditional S&L assets has been replaced by investment in consumer loans, in commercial mortgages, and especially in other assets. Other assets include most of the investments permitted under more liberal state regulations, namely direct investment in real estate,
Table 4.

Net Acquisition of Financial Assets by Savings and Loan Associations

<table>
<thead>
<tr>
<th>Period</th>
<th>Total Assets Acquired (billions)</th>
<th>Percentage Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Residential total mortgages</td>
</tr>
<tr>
<td>75-79</td>
<td>277.2</td>
<td>100</td>
</tr>
<tr>
<td>80-85I</td>
<td>438.9</td>
<td>100</td>
</tr>
<tr>
<td>83-85I</td>
<td>293.6</td>
<td>100</td>
</tr>
<tr>
<td>84II-85I</td>
<td>137.8</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Flow of Funds Accounts, First Quarter 1985, Board of Governors of the Federal Reserve System.
investment in corporate securities, and investment in service corporations.

The new asset powers produced significant changes in thrift investment strategies. Thrifts became less dependent on residential mortgages as their investment vehicle and shortened investment maturities. The problems created by thrift asset deregulation have also become apparent. An increasing fraction of S&L failures and potential failures are attributable to bad loans and risky investments rather than interest rate spreads. On July 25, 1985, FHLBB Chairman Gray predicted that 117 insured S&Ls would need FSLIC aid over the 12 months from June 1985 to June 1986 and indicated that 74% of these cases involved asset problems. All 17 FSLIC-insured thrift failures between January and June 1985 were "...directly attributed to asset quality, with no significant spread problems noted."20 Most of the current thrift asset problems are associated with real estate investments, but the potential for major losses on non-traditional investments, for example on low grade corporate debt securities, is there.21

Non-traditional asset growth at thrifts was supported by federal deposit guarantees. The guarantee was crucial. Suppose a large number of thinly capitalized, nondepository institutions were able to raise debt funds at relatively low interest cost to finance large (e.g., five-fold) increases in assets in less than five years using investment vehicles and strategies that were new to them. Without a federal guarantee of their liabilities it is doubtful that any one of them could pull this off; with FSLIC
deposit insurance over 100 thrift institutions, and probably many more than that, have done so.\textsuperscript{22}

Thrift asset deregulation without deposit insurance reform was a mistake. The FHLBB recognizes this and has been trying hard to reregulate. The somewhat narrow emphasis of this attempt is to force state-chartered thrifts to conform to the less liberal federal asset regulations. On June 12, 1985, the House Banking Committee approved a bill (HR 20) that would allow the FHLBB to determine permissible activities for state-chartered, federally-insured S&Ls. A FHLBB proposal to restrict investments in low grade corporate securities was put out for comment on July 10. These reregulation proposals are strongly opposed, and their enactment is far from certain. Even if the FHLBB gets these regulatory powers over state-chartered firms, the reregulation will only constrain the more obvious exploitation of deposit insurance guarantees. Any significant freedom of asset choice for insured institutions, including that granted to federally-insured thrifts under the 1980 and 1982 Acts, is incompatible with the existing deposit insurance system.

It is not just the explicit thrift asset deregulation that is at issue. The investment strategies followed by insured commercial banks, for example, the commitment of large fractions of a bank's capital to LDC lending or the extensive sale of standby letters of credit, have produced asset quality problems (and therefore deposit insurance problems) without any significant changes in explicit bank asset powers.\textsuperscript{23} It didn't require deregulation for the Financial Corporation of America to "bet the
bank" on an interest rate decline. The fundamental flaw is mispriced deposit insurance and not asset deregulation. Deposit insurance reform is a necessary condition for asset deregulation without concommitant economic efficiency and insurance fund solvency problems. This point is taken up again in Section 4 below.

3.1.2. Securities Activities of Commercial Banks

The Banking Act of 1933 (Glass-Steagall Act) was intended to separate commercial and investment banking. Commercial banks were stripped of many but not all of their securities activities. They continued to underwrite, distribute, and trade in U.S. government and municipal general obligation securities, and to participate in the private placement of other securities and in corporate financial advising (e.g., merger and acquisition services). Trust departments continued to manage investment accounts. Beginning in the 1970s, commercial banks became more aggressive in finding new securities activities that avoided the Glass-Steagall restrictions. As Table 5 indicates, they convinced federal regulators and federal courts to permit a number of these new activities. These activities reflect only some of the commercial bank inroads into investment banking markets. Large banks have increased their participation in the private placement of corporate securities and in the provision of corporate financial advisory services. They are active in the market for interest rate and currency swaps in which they act as agents for agreements between firms to exchange fixed for variable interest payments or payments in one currency for payments in
Table 5.
Commercial Bank Securities Activities
Approved since the Passage of Glass-Steagall

<table>
<thead>
<tr>
<th>Activity</th>
<th>Year approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underwriting, distributing &amp; trading municipal housing revenue bonds</td>
<td>1968</td>
</tr>
<tr>
<td>Sponsoring closed-end funds</td>
<td>1974</td>
</tr>
<tr>
<td>Financial advising for mutual funds</td>
<td>1974</td>
</tr>
<tr>
<td>Automatic investment services</td>
<td>1974</td>
</tr>
<tr>
<td>Dealing in commercial paper</td>
<td>1978</td>
</tr>
<tr>
<td>Investment management of IRA commingled accounts</td>
<td>1982</td>
</tr>
<tr>
<td>General retail brokerage</td>
<td>1982</td>
</tr>
<tr>
<td>Trading financial &amp; precious metals futures</td>
<td>1983</td>
</tr>
</tbody>
</table>

Adapted from Kaufman [1984].
another. The agent bank is often the residual guarantor of the swap. Most importantly, U.S. commercial bank affiliates are major participants in underwriting and distributing U.S. corporate securities in the Euromarket. A regulatory system that permits the underwriting of U.S. corporate debt in the Eurobond market by a U.S. bank subsidiary and denies the bank the same subsidiary activity in U.S. capital markets is strikingly *ad hoc*.

Affiliations between investment firms and savings and loan associations were approved by the FHLBB on the basis that the Glass-Steagall Act does not apply to S&Ls. Given the S&Ls' new asset and liability powers under the 1980 and 1982 Banking Acts, this is a legal but not a functional distinction. Affiliations such as that between Allstate Savings and Dean Witter/Reynolds are difficult to distinguish from the commercial bank and investment firm affiliations that Glass-Steagall supposedly prohibits. A proposal by the FDIC to exempt state-chartered insured banks from Glass-Steagall restrictions would further compromise the original intent of that Act.

Erosion of the line between commercial and investment banking has not come solely from the commercial banking side. Provisions of the Glass-Steagall Act and of the Bank Holding Company Act of 1970 appear to prohibit affiliations between all types of investment companies and commercial banks. Some investment companies have taken advantage of the technical definition of a commercial bank to obtain permission to acquire a commercial bank and qualify it for non-bank bank status by selling off the commercial loan portfolio. 26 Another ruling by the Comptroller of
the Currency allowed mutual funds to affiliate with non-bank banks, thereby gaining access to federally-insured deposits, the national payments clearing system and wider trust powers while regular commercial banks remain prohibited by Glass-Steagall from affiliating with investment firms including mutual funds. The Comptroller of the Currency's chartering of non-bank banks is the major item of financial deregulation directly attributable to the Reagan administration.

Investment banks are moving in on commercial loan markets in a number of other ways. The development of mortgage-backed securities and consumer receivable-related securities and the growth of commercial paper as a substitute for bank loans provide good examples.

The arguments for and against commercial bank and investment bank affiliation are well known. They involve questions of economic efficiency, commercial bank stability, and conflicts of interest. The gradual erosion of the line separating commercial banking and investment firms has little to do with a considered attempt to deregulate financial markets in response to the arguments and counterarguments about the usefulness of Glass-Steagall in today's financial environment. It has much more to do with legal contrivance and regulatory acquiescence to market innovations. The affiliation of investment firms with non-bank banks and with S&Ls are clear cases in which a legal or regulatory loophole has been used to avoid Glass-Steagall restrictions. A few additional examples from the commercial banking side will support this point more generally.
Attempts by commercial banks to gain a foothold in heretofore prohibited types of security underwriting provide another example. Bankers Trust (New York) began to deal in third-party commercial paper in 1978. The non-bank securities industry challenged this as a violation of Glass-Steagall, but the activity was ultimately approved by the Federal Reserve Board. The issue was taken to the federal courts. A final decision on the legality of Bankers Trust's current commercial paper activities has not been given. Meanwhile, the bank continues to deal in (their opponents say "underwrite") commercial paper. The issue in the pending case depends to some extent on the fact that Bankers Trust has been dealing in commercial paper through a bank subsidiary. While awaiting the final decision in this case, Bankers Trust and J.P. Morgan have applied for permission to carry out this activity through non-bank subsidiaries. If the Federal Reserve Board grants this permission, Bankers Trust should have a few more years to deal in commercial paper even if the Court of Appeals does not rule in their favor on the current case.

In another effort to by-pass Glass-Steagall, Citicorp applied for permission to underwrite commercial paper and other non-permissible securities in a non-bank subsidiary, Citicorp Securities, Inc. By limiting the proposed activities to 20% of the subsidiary firm's total activity (which was to include a large volume of permissible activities such as underwriting and dealing in U.S. Government securities), it was claimed that Citicorp Securities would escape Glass-Steagall restrictions by
not being "principally engaged" in prohibited underwriting activities. The original proposal was withdrawn when a Federal Reserve preliminary analysis proved unfavorable. The latest episode in this effort is an application for Citicorp Securities, Inc. that drops commercial paper and corporate debt from the underwriting proposal, but retains a request to underwrite and deal in municipal revenue bonds, mortgage-related securities, and consumer receivable-related securities. The Federal Reserve decision on this is still pending, but approval is thought likely by some legal experts.

The acquisition of retail brokerage firms by commercial banks follows a similar pattern of an aggressive move to circumvent Glass-Steagall by regulated firm that is later ratified by the regulators and the courts.

The *ad hoc* nature of these changes in commercial bank securities activities and in investment firm affiliations with bank-like financial firms has produced an uneven application of financial regulation across functionally similar institutions and has led to proposals to repeal or reform the Glass-Steagall Act. The *Financial Institutions Deregulation Act* is the Reagan administration's policy response on this reform issue and, as of Fall 1985, its only legislative proposal for financial deregulation. In the Act, the administration proposed a significant overhaul of the restrictions on commercial bank activities involving securities, insurance, and real estate. Bank and thrift holding companies would have been permitted to

- underwrite and deal in municipal revenue bonds
- underwrite and advise mutual funds
- engage in insurance underwriting and brokerage
- engage in real estate investment, development and brokerage
- engage in activities that the Federal Reserve Board determines are "of a financial nature."

The legislation would also have allowed for bank holding companies to own thrifts and for thrift holding companies to own banks. It would have brought insured non-bank banks and state-chartered banks under bank holding company law (but curiously would not have brought a non-bank firm that acquired a thrift under that law). The legislation did not directly address the question of commercial bank and investment bank competition for corporate debt obligations, although it seemed to have left an opening for these activities in the activities "of a financial nature" clause.31

Secretary of the Treasury Baker recently sponsored broader banking powers in Senate Banking Committee testimony, but backed away from endorsing some of the powers advocated in the 1983 Treasury bill. It is not clear from Secretary Baker's statement to the committee that the administration is prepared to push for serious Glass-Steagall reform at this time.32

A failure to enact explicit changes in Glass-Steagall will not stop the erosion of the separation between commercial banking and investment banking. As Kaufman aptly put it "...aggressive commercial banks and aggressive investment banks [can] offer almost as many 'prohibited' activities as they wish as long as they are willing to incur the potentially large legal expenses
involved." This is an expensive and economically dangerous way to deregulate.

3.2. The Deregulation of Transaction Accounts

The pattern of regulatory ratification of market innovations traced in the review of asset deregulation holds for the deregulation of transaction accounts. A provision of the Banking Act of 1980 permitted all banks and thrifts to issue Negotiable Orders of Withdrawal (NOW accounts), an interest-bearing account on which the depositor can write drafts that are functionally equivalent to checks. This established nationally the 1972 innovation of NOW accounts by mutual savings banks in Massachusetts and New Hampshire. These transaction accounts have not been completely deregulated since they still carry an interest rate ceiling. An account offering a limited number of transactions with no ceiling (the Super NOW account) became available to banks and thrifts through the 1982 Act, and thrifts were also granted a non-interest bearing demand deposit account.

The availability of transaction accounts at thrifts has further blurred the distinction between banks and thrifts and buttressed the case for depository institution regulation along functional lines. As discussed below, this issue was addressed by the Bush Task Group on Regulatory Reform, but the proposed rearrangement of regulatory authority along functional lines did not survive in the final report.

The invention of overnight repurchase agreements (zero balance accounts) for corporate transaction balances was a second
important innovation to avoid the prohibition of interest on demand deposits. Under these cash management schemes, corporate treasurers who will have positive demand deposit balances (in excess of agreed upon minimums) at the close of business can have those balances automatically transferred to an interest-bearing repurchase agreement. With overnight repos, these balances become available to meet cash outflows the next day if needed.

These and other transaction account innovations have led to concern about their effect on the conduct of monetary policy. An extensive discussion of this issue is beyond the scope of this essay. However, there is considerable empirical evidence supporting the conclusion that these changes in financial markets have altered the relation between money stock measures and the level of economic activity.\textsuperscript{35} As one might expect, this evidence has not convinced everyone.\textsuperscript{36} Even among those economists and policy makers who accept the conclusion that unusual variations in monetary velocity are caused by explicit and \textit{ad hoc} transaction account deregulation, there is debate on whether this instability is transitional or permanent.\textsuperscript{37}

Regardless of one's conclusion regarding their effects on monetary policy, improvements in payments systems technology and the development of interest-bearing substitutes for demand deposits have made the prohibition of demand deposit interest increasingly dysfunctional. Sophisticated depositors earn an explicit return on transaction balances, but at the unnecessary cost of setting up and maintaining elaborate cash management systems. The effects of this outmoded regulation also show up in bank
costs and risk exposure. In 1973 the turnover rate on demand deposits was about 100 times per year at all insured banks and 250 times per year at major New York City banks; in 1984 these rates were approximately 450 and 1900 respectively.\textsuperscript{38} This is contributing to bank risk exposure from interbank overdrafts that occur during a business day and to bank operating costs. Recently Congress has shown interest in considering the more fundamental transaction account deregulation, the authorization of interest rates on demand deposits.

3.3. Geographic Deregulation

The McFadden Act and Douglas Amendment restrictions on interstate banking are in almost complete disarray. Geographical expansion was accomplished without any significant changes in the federal laws governing interstate banking activities. It is true that the Garn-St. Germain Act authorized interstate acquisitions of failed and failing banks and thrifts, but even this was a confirmation of an extraordinary acquisition procedure already in use. Notable examples include the 1981 acquisition of thrifts in New Jersey and Florida by the California-based Citizens Savings (since metamorphosed into First Nationwide Savings) and the Citicorp acquisition of Fidelity Savings and Loan of San Francisco immediately before the Garn-St. Germain Act passed.

Whitehead has provided a thorough summary of the interstate activities of banks and bank holding companies.\textsuperscript{39} Using data from a Federal Reserve Bank of Atlanta survey, he identified almost 7600 interstate offices of U.S. banks (as of 1983). Every
state had at least one of these interstate offices. Approximately 5500 of these offices are subsidiaries of bank holding companies engaging in activities the Federal Reserve Board has determined to be "a proper incident" to banking. This includes out-of-state ownership of mortgage banking firms, finance companies, industrial banks, credit card operations and a host of other consumer finance services plus some commercial financial services such as factoring. Loan production offices (202 in 34 states) and Edge Act offices (143) add to the interstate presence of banks engaged in commercial lending. When the interstate activities of non-bank banks and thrift affiliations with national retailers (such as Sears and K-Mart) and with the credit subsidiaries of durable goods manufacturers (such as the acquisition of First Nationwide Savings by Ford Motor Company) are added to the list, it is clear that most consumer and commercial lending can be done by firms operating interstate.

Some of these developments, especially the activities of non-bank banks, have also contributed to the capacity for interstate deposit gathering. Furthermore, money center and large regional banks have tapped a national market for corporate and institutional time deposits since the mid-60s using negotiable certificates of deposit. Since 1982, smaller banks and thrifts have escaped branching restrictions on their ability to raise out-of-state time deposit funds by using deposit brokers and 800 phone numbers.

McFadden Act and Douglas Amendment restrictions on bona fide interstate bank deposit offices without explicit approval by
the state involved remain in effect. It is sometimes suggested that these branching restrictions are now only a minor annoyance to banks. There is a measure of truth in this, but the continued, costly efforts by some money center banks to extend their explicit interstate powers suggests that the annoyance may still be more than minor. Until very recently, these efforts and the economic pressures on state authorities seemed to portend a complete breakdown of interstate banking restrictions. Bank and thrift insolvencies in their states and ad hoc entry by out-of-state banks and non-banks induced 19 states to pass new laws between 1982 and 1984 permitting additional out-of-state entry, bringing the total number of states allowing some form of explicit interstate banking to 22.\textsuperscript{40} Reciprocal laws that allow interstate banking on a regional level while excluding money center banks have been passed by more than 10 states. More are expected following the June 10, 1985 Supreme Court ruling that such pacts are legal.\textsuperscript{41} It was widely thought that these regional pacts might not be approved, and Congress appeared poised to consider federal legislation to introduce nationwide interstate banking. The momentum for a nationwide interstate banking trigger has been blunted by the Supreme Court decision.

4. Regulatory Reform

Financial deregulation and changes in the financial services industry are forcing the administration and Congress to consider deposit insurance reform and the restructuring of the federal regulatory system. The deposit insurance system has been put
under considerable stress by the systematic depletion of the insurance funds. The resulting changes in the deposit insurance system have been limited to date, but substantive deposit insurance reform is on the administrative and legislative agenda. The ability of the federal regulatory system to cope with its responsibilities in the current financial environment and its efficiency in doing so were the subjects of a Reagan administration initiative, the Task Group on Regulation of Financial Services. The initiative has not produced any completed or even any pending legislation to date.

4.1. Deposit Insurance Reform

The federal deposit insurance system has served this country well for over 50 years. The weak condition of that system today is making it difficult to continue financial deregulation and is providing critics of deregulation with the strongest case for reregulation. As noted throughout this review, changes in the financial services industry and in the economic and regulatory environment in which it operates have strained the resources of the deposit insurance system. The adequacy of the insurance funds to meet potential claims and the ability of regulators to monitor and control risk have been called into question. The 1984 year end ratio of book value reserves to insured deposits at the Federal Savings and Loan Deposit Insurance Corporation (FSLIC) was just under 0.8% (compared to a peak ratio of 2.14% in 1969). This ratio has decreased steadily since 1969 except for modest increases in 1979 and 1980. The comparable ratio for the
Federal Deposit Insurance Corporation (FDIC) was about 1.2, up from a low of 1.16% at year end 1980. These ratios understate the weakness of the insurance funds. They are measured in terms of explicitly insured deposits. Deposit guarantees in practice have often been extended to uninsured liabilities. The denominator of the ratio should be larger to reflect this. Furthermore, reserve book values overstate market values, so the numerator should be smaller. Even if we corrected the ratio of insurance reserves to insured liabilities for these effects, the weakness of the insurance funds would still be understated, since we would only be counting realized losses. There are major unrealized insurance fund losses due to insured banks and thrifts that continue to operate with negative market net worth.

The 97th Congress responded to this situation in March 1982 by passing a joint resolution (House Resolution 290) placing the "full faith and credit" of the U.S. government behind the deposit insurance agencies' guarantees. The continuing depletion of the insurance funds since 1982 has made deposit insurance reform an important financial policy issue. Congressional hearings on this subject began in the summer of 1985. An administration task force has been at work on a deposit insurance reform for over a year, but has yet to put forward a legislative proposal.

It has long been recognized that the federal deposit insurance system is flawed by having deposit insurance premiums that are not risk related. This flaw leads to perverse incentives for insured firms to take risk and to economic inefficiency as the subsidy to risk-taking is passed on to borrowers. The
importance of this problem has increased with increases in the risk-taking potential of insured institutions, with increases in their leverage, with decreases in the dependence of institutions on core deposits, and with increases in the competitiveness of financial markets. Critics of the existing system suggest that the failure to keep portfolio risk and leverage commensurate with the statutory premium has contributed to the current situation in which the unrealized liabilities of the insurance funds outstrip the assets in those funds.\textsuperscript{45} However, the systematic failure to close or reorganize insured institutions before the market value of their assets falls significantly below the value of covered liability claims is a more important and fundamental cause of the perilous condition of the insurance funds.\textsuperscript{46}

The reform proposals discussed in the 1985 Congressional hearings fall into four categories: insurance fund proposals, risk-sharing proposals, risk-related deposit insurance, and market value accounting.

4.1.1. Insurance Fund Proposals

Fund recapitalization and fund merger have been proposed as ways to improve the deposit insurance system. There is a sense in which either of these steps would be cosmetic. They won't change the reality of depositors' claims on the deposit insurance system and ultimately on the U.S. taxpayer. Nevertheless, there are questions about the current status of the 1982 "full faith and credit" resolution and concerns over its ambiguity, so there may be merit in any step that will reinforce small depositors' confidence in this guarantee.
More importantly, as an insurance fund gets smaller, decisions on how to deal with weak and failed institutions are increasingly directed toward preserving the fund in the short-run rather than at minimizing the ultimate cost to the government. Fund recapitalization and, to a lesser extent, fund merger may have a role to play here. An alternative view is that the potential for an insurance fund to run out of reserves is a strong political incentive for Congress to enact substantive deposit insurance reform legislation and that fund merger or recapitalization before the reform is undertaken would blunt that incentive.\textsuperscript{47}

4.1.2. Risk-sharing Proposals

The current risk-sharing proposals include the modified payoff plan, reduction in deposit insurance coverage from its current level of $100,000 per account, increased use of subordinated debt capital, and various private deposit insurance schemes. The idea behind each of these risk-sharing proposals is to get agents other than the federal government to share in the risk of depository institution failure and to assist in the monitoring of insured institutions.

A modified payoff plan has been put out for public comment by the FDIC.\textsuperscript{48} Under this plan, the FDIC would pay uninsured depositors and general creditors of a failed bank a percentage of their claims immediately, rather than after transferring deposits to some other bank or paying them off after asset liquidation has taken place. In large bank crises, this
would be substituted for the usual practice of having all deposits, insured or not, assumed by a successor institution.

Most critics of the existing system would agree that the situation in which uninsured depositors do not fully price the risk of failure is undesirable. However, any scheme that depends critically on putting uninsured depositors at risk will work only if the regulators and members of Congress are willing to tolerate bank runs. Deposit runs have been rare at federally insured institutions because almost all depositors have been fully insured, either explicitly or implicitly. Once they conclude they are not fully protected from loss, uninsured depositors will try to get their funds out of institutions that they perceive to be in trouble. These runs are not likely to be as rapid or dramatic as the recent thrift runs in Maryland and Ohio, but we have seen in the case of the Continental Illinois Bank that a so-called silent run can precipitate a liquidity crisis. Of course, this could be just what the financial doctor ordered. The regulators' attention is drawn to a serious solvency problem by alert private sector depositors, and the chartering agency moves rapidly to close or recapitalize the institution while there are enough uninsured deposits still around to absorb a significant fraction of any loss. However, it didn't work that way at Continental Illinois, so there have to be doubts whether regulators and legislators will accept bank runs, silent or noisy, no matter how cathartic they might be.43

It is not clear that reducing the deposit insurance coverage per account would do much to increase market discipline. There
is a cost to maintaining more than one account to stay fully insured, but not a cost that would induce currently insured depositors to accept a share of the risk of failure. A limit on the deposit insurance coverage per individual would be more effective in reducing system exposure if a workable method of controlling individual coverage could be devised. However, it is not clear what that maximum coverage should be. It can't depend only on the effect on institutional risk-taking. The optimal amount of deposit insurance per individual must also depend on total monitoring costs. More uninsured depositors would mean more total monitoring costs.

One of the clearest Congressional concerns is the use of brokered deposits by insured institutions. A deposit broker obtains funds from investors throughout the country and channels them to client depository institutions, assigning title for the deposits in separate units, up to the $100,000 insurance limit, to a number of different investors. Banks and thrifts can offer higher yields on these brokered deposits as an enticement. Those institutions that want to engage in increased risk-taking need not wait for local deposit growth to provide the funding, nor do they have to consider depositor concerns about the riskiness of their portfolio. Financial regulators and members of Congress are legitimately concerned over the insured risk-taking that results from deposit brokerage.

Reducing the maximum coverage per account would constrain and perhaps eliminate the brokerage of insured deposits by making reallocation of a large investment into fully insured accounts
more costly. Eliminating insurance coverage on brokered funds would be an even stronger step to stop this source of insured risk-taking. Whether it is desirable to eliminate deposit brokerage by these or any other method is another question. Insured deposit brokerage gives smaller institutions access to national markets in much the same way that direct sale and brokerage of negotiable CDs have given larger institutions national access to corporate, institutional, and individual savings. Both markets work because depositors have little concern about losses due to bank and thrift failure. In this sense, the implicit guarantee of the liabilities of large institutions is functionally equivalent to the explicit insurance of the deposits of smaller institutions at an account size that permits brokerage to take place. Moreover, there is an alternative solution to the brokered deposit problem. An actuarially sound system of deposit insurance would solve it without interfering with the access to national deposit markets.

Subordinated debt has distinct advantages over uninsured deposits as a method of risk-sharing. Until the maturity of subordinated debt gets short, the regulator has time to discover a troubled bank or thrift before the debt holder can slip away. Subordinated debt holders have good reason to monitor the bank or thrift whose debt they hold, and the effect of that monitoring on the price of the debt is a useful signal for the institution's regulator. Furthermore, truly subordinated debt can be forced to absorb losses up to the amount of that debt rather than to share those losses pari passu with the federal insurer as is the case.
for uninsured depositors and other general creditors. Of course, subordinated debt won’t be of much help to an insurance fund if the debt holders get bailed out along with the depositors as they were in the Continental Illinois failure.

Private deposit insurance is a fourth approach to risk-sharing. Proponents of this approach argue that private insurance would necessarily be actuarially sound and that monitoring by private insurers would reduce and perhaps eliminate the need for bank regulation. Critics have expressed doubts that private insurance can succeed except perhaps as a supplement to federal guarantees. Viewed as a supplement to federal deposit insurance, private insurance provides added depositor protection similar to that provided by subordinated debt capital except that insurance company reserves rather than the value of a subordinated debt claim are providing the back-up. Whatever the merits of a well-conceived private deposit insurance plan, the recent failure of private plans in Maryland and Ohio have created an adverse political environment for this approach to risk-sharing.

Risk-sharing alone will not solve the risk incentive problem. Although an effective risk-sharing scheme imposes costs on riskier institutions that would probably reduce their propensity to take risks, an incentive to take risk remains unless deposit insurance premiums and the risk of insured losses are appropriately related.

4.1.3. Risk-Related Deposit Insurance

The risk incentive in flat rate deposit insurance can be eliminated either by making the risk to the insurance fund
commensurate with the statutory premium or by charging variable premiums that are commensurate with the risk imposed on the fund. Since the risk is made up of two components, portfolio risk and leverage, the regulator has both of these tools as well as the size of the insurance premium to work with. The major reform proposals for improving the link between risk and insurance premiums are risk-related premiums, risk-related capital requirements, and intensified supervision. Risk-related premiums use the insurance premium as the control variable, and risk-related capital uses leverage while intensified supervision focusses on bringing portfolio risk in line with the statutory premium.

In principle, the deposit insurance premium can be brought into line with the deposit insurer's liability from a given institution by using these controls in different combinations or the use of any one alone. The decision on which to use should be based on the costs of implementing the policy, and it is not obvious which method or combination of methods would be least costly. There is an extensive literature on the pricing of deposit insurance. These models are useful in demonstrating the critical control variables in a risk-related deposit insurance system and for making estimates of the adequacy of the existing premium or of proposed risk-related premiums. They have not been used to address the important question of the overall cost to society of a given set of controls.

The enthusiasm of the financial regulators for risk-related premiums is restrained. The Federal Home Loan Bank Board was the only agency that gave a strong endorsement to this approach in
the reports to Congress on deposit insurance reform. The leadership of that agency has since changed, and the FHLBB has backed away from that endorsement. More recently the FDIC proposed a limited form of risk-related premiums in which banks in the three poorest risk classifications would not receive rebates from the statutory premium. If adopted this would result in a maximum insurance premium difference of 5 basis points between the less risky (categories 1 & 2) and more risky (categories 3, 4 & 5) banks. A comparison of this risk differential with estimates of the actuarial insurance premium suggests that an added 5 basis points will not remove much of the risk incentive in the deposit insurance system. Industry critics of risk-related premiums recognize the power to discriminate among competing institutions that this approach would give the regulators and are concerned that this discrimination might not always be on the basis of true risk differences.

Capital regulation has natural advantages as a control variable, at least at institutions with publicly traded debt and equity. The argument for this centers on the cost of capital regulation for the insured institution and on monitoring costs.

A case can be made that capital, especially subordinated debt capital, is not costly compared to properly priced deposits. This view is often countered by appeals to the reluctance of management to add capital. Using standard capital structure arguments, institutional reluctance to add debt capital is seen largely as a response to the risk subsidy the current deposit insurance system provides on implicitly insured negotiable CDs
and other money market liabilities. Since that subsidy is what we are trying to eliminate, the claim that debt capital is costly compared to deposits is not a valid argument against this approach. Within reasonable limits, the addition of subordinated debt will improve the quality of uninsured deposits, so increased capital need not be costly to the institution. The higher debt cost is offset by a lower cost on uninsured deposits. In contrast, a risk-related insurance premium in excess of the proper risk-adjusted premium is a cost without an offset.

A second advantage of capital regulation in the case of publicly traded firms is that the market value of that capital and its price volatility provide a low cost monitoring device. In contrast, greatly intensified supervision in the form of on-site examinations would significantly increase the cost of managing the deposit insurance system. With a low cost monitoring device, it is economical to use monitoring frequency as a risk-related control. Institutions that are perceived to be taking greater portfolio risk based on the price volatility of their traded capital would be required to meet a capital test more frequently.

Discussions of alternative systems for reducing the risk incentive in the deposit insurance system are frequently marred by arguments that portfolio risk and the market value of capital are too difficult or too costly to measure. It is important to recognize that any control system that removes the risk incentive, including the improved supervisory risk control that would be needed to make the current system work, requires someone to make reliable estimates of portfolio risk and of the market value of
assets of insured institutions. The alternative is to leave the system with an inefficient risk incentive that will continue to threaten the solvency of the insurance funds.

4.1.4. Market Value Accounting

Whatever set of controls is used to remove the risk subsidy, it is also essential to adopt a market value rule for the closure decision.\textsuperscript{55} Horvitz [1983] made a thoughtful case against risk-related premiums in which he said "The key point...is that if insured institutions are operating with positive net worth, and the insurance agency is able to monitor their condition, then risk of loss to the agency is low, \textit{regardless of the riskiness of individual institutions}".\textsuperscript{56} The idea that the regulators will not allow institutions with negative market net worth to continue to operate is implicit in Horvitz' remark. The experience has been quite different; closure has consistently been delayed until market net worth was significantly negative.

A closure policy that systematically results in asset realizations that are less than covered deposit claims greatly increases the deposit insurance subsidy. This effect is substantially more important than excessive portfolio risk in increasing the federal deposit insurance liability.\textsuperscript{57} The use of book value net worth standards virtually assures that the market net worth of insured institutions that are closed will be systematically and significantly negative. The policy proposals in this area are usually stated in terms of market value accounting. Market value accounting may be useful in conditioning institutional behavior and in providing better information to depositors. It is
not really the basic issue. An appropriate closure policy need
not involve market value accounting on the part of the institu-
tions; it just requires the regulators to monitor capital on the
basis of their best estimates of the market value of that capital
with the clear legal authority to demand recapitalization or,
failing that, closure on the basis of those estimates.

4.1.5. Current Initiatives in Deposit Insurance Reform

The major administrative response to the federal deposit
insurance crisis has been the establishment of a 6% minimum
capital requirement for insured institutions by the FDIC. This
is a positive step to the extent that it has resulted in actual
increases in the difference between the market value of an insti-
tution's assets and the covered deposit claims on that institu-
tion. However, as long as the capital rule is based on book
values, these increases in capital will often prove illusory.
For example, two responses to the new capital requirements have
been the sale of bank buildings and increases in accounting loan
loss reserves. The sale of bank real estate that is on the books
at depreciated historic cost results in an increase in measured
capital but not in a commensurate increase in the market value of
the bank's assets. Similarly, an increase in loan loss reserves
increases regulatory capital (because regulatory capital is de-
ined to include loan loss reserves) without changing the ratio
of bank assets (at market value) to the face value of depositor
claims. Even where the increase in capital requirements actually
resulted in an increase in the ratio of asset market value to
insured claims, the increases will prove illusory in the long run for institutions that experience future declines in the market value of assets unless those losses are promptly recognized and the institution is required to recapitalize.

The report of the Bush Task Group on Regulation of Financial Services, *Blueprint for Reform*, includes a section on reform of the deposit insurance system. This short section of the report stands as the public statement of the Reagan administration's policies on this critical topic though as noted earlier specific legislative proposals have been anticipated for over a year. The Bush Task Group recommendations may give us a clue to those legislative proposals. They are:

- No insurance fund merger at this time
- Risk-sharing via modified payout on uninsured deposits
- Authorization of, but not a requirement for, risk-related premiums
- Common minimum capital standards and common accounting rules for FDIC and FHLBB insured institutions.

Assuming that this does represent the framework around which the administration's deposit insurance reform proposals are being written, the most important omission is the absence of any reference to market value accounting or more importantly to market value closure rules.

4.2. Regulatory Reform

On December 10, 1982, the Reagan administration announced the formation of the Task Group on Regulation of Financial
Services to be chaired by Vice President Bush with Secretary of Treasury Donald Regan as Vice Chairman. Secretary Regan's October 20 memorandum calling for the establishment of such a task force and subsequent statements from the Vice President's office and from the task force staff make it clear that the administration hoped to substantially consolidate the bank and thrift regulatory agencies and to address issues associated with the banking and securities industry interface. In August 1983, it was reported that the regulatory consolidation option favored by the staff (headed by the Deputy Counsel to Vice President Bush) was to centralize banking regulation in a new banking commission while expanding the powers of the Federal Home Loan Bank Board to include small community banks and all thrifts. This was intended to be consistent with the reform principle of splitting regulatory responsibility along functional lines. The regulatory responsibilities of the Federal Reserve System were to be eliminated. The elimination of Federal Reserve System responsibility for regulation and supervision to allow it to concentrate on its monetary policy responsibilities has long been advocated by some monetary economists. The Federal Reserve, on the other hand, has consistently argued that regulatory and supervisory authority are essential adjuncts to its economic stabilization responsibilities.

The final recommendations of the Task Group in Blueprint for Reform bear only a slight resemblance to these sweeping reform suggestions. The only federal agency slated to lose regulatory and supervisory authority was the FDIC. Division of regulation
across functional lines was more a symbolic than a real outcome of the Task Group's work. The Federal Reserve retained major regulatory and supervisory responsibilities along with its monetary policy role. There is an even more striking indicator of the failure of the Bush Report to have an impact on financial regulatory reform. Over a year has passed since the report was signed and no legislation based on it has been introduced in Congress.

5. Conclusion

The case is made in this essay that market innovation and the thrift crisis have forced the pace of financial deregulation. Virtually all the deregulation of depository institutions has been ad hoc and not a considered attempt at financial reform. Despite a philosophical commitment to fewer regulations and more financial services competition, the Reagan administration has little to show in the way of concrete financial deregulation.

The elimination of deposit interest rate ceilings is the major achievement in the deregulation of depository institutions. Despite the adjustment problems created by this deregulation, it should prove to be a permanent change for the better by removing an inefficient and largely ineffective regulation. Using the securities industry price deregulation as a guide, it may take another 5-7 years to realize the full effects of deposit interest rate deregulation on the structure of the financial services industry. The failures and consolidations that result may constrain the pace of explicit deregulation, but not the ad hoc
deregulation of financial products and markets. It will take leadership in financial deregulation to put forward a general plan of deregulation or we will continue to experience the inefficient, uneven, and potentially dangerous process of piecemeal deregulation through regulatory forebearance and legal contrivance. The source of that leadership is not evident today.

The most pressing problem facing federal financial policy makers is the growing insolvency of the deposit insurance funds. It is becoming increasingly clear that product deregulation at thrifts is contributing to the deposit insurance crisis. Here again it is tempting to reregulate. Some reregulation, especially with respect to the more liberal state regulations on permissible assets may be necessary. A more general attempt at asset reregulation would not be likely to succeed in the long run since the problem lies in a deposit insurance scheme with perverse risk incentives and not in the specific means by which that risk incentive is exploited. Deposit insurance reform should be the first order of business. The conclusion reached here is that adoption of market value closure rules is a necessary first step in that reform.
Footnotes

1. Regulation Q deposit interest rate ceilings for member banks existed before 1966, but did not apply to all insured depository institutions. The 1966 Act established the first industry-wide deposit rate ceilings.


3. At the time, critics of interest rate ceilings noted that this undertaking was not a particularly encouraging sign of the will to get rid of these ceilings since it could be interpreted as the longest renewal of the authority for ceilings since their "temporary" establishment in 1966.


5. Money market mutual fund managers responded to the challenge presented by MMDAs at banks and thrifts by taking various steps to improve their product. As a result, their loss of funds to MMDAs was a one-time shift and MMMF assets have recovered to their pre-MMDA levels.

6. Savings and transaction balances appeared to decrease slightly, but not significantly, following the introduction of MMDAs. Keeley and Zimmerman suggest the decline in these accounts was actually a run-off of balances from maturing time deposits and securities held temporarily in liquid form to await the availability of MMDAs.

7. It is not clear that these accounting cost figures fully reflect true economic operating costs, especially capital costs such as the cost of bank and thrift offices.

8. The increases in employment at savings and loan association may reflect changes in their asset and liability composition, a point we will return to in the next section.


12. See Tables 4.5 and 4.6, p. 101-2 in E. Kane, *The Gathering Crisis in Federal Deposit Insurance*, Cambridge, MA: MIT Press, 1985 (hereafter Kane [1985]). I used the maximum of Kane's two savings and loan net worth estimates in forming the 1983 estimate of aggregate thrift net worth. The 1971 vs 1983 comparison was necessary because Kane's savings and loan association net worth estimates do not begin until 1971. His estimate of mutual savings bank net worth (after mortgage losses) is -$1.8 billion for 1966 compared to -$4.8 billion for 1971. Extrapolating from the mutual savings bank data gives a 1966 savings and loan association net worth estimate of -$4.2 billion or an aggregate thrift net worth of -$6.0 billion for that year.


14. The FDIC problem bank list had 251 banks on it in 1971. At year end 1984, it had 847. See Table 3.1, p. 61 of Kane [1985].


16. The need for deposit insurance reform is discussed below.

17. The legal definition of a commercial bank under the Bank Holding Company Act is a bank that accepts deposits that a depositor can withdraw on demand and engages in the business of making commercial loans. By acquiring an insured commercial bank and stripping off one of these two functions, a firm can have an insured institution and not run afoul of bank holding company and other federal banking laws.

18. Ironically, by the time the asset deregulation legislation was passed, the need for interest rate risk diversification in thrift assets had been reduced by extensive use of adjustable-rate mortgages and interest rate hedging strategies.

19. The asset acquisition data for 1980-82 reflect the special effects of the strong deposit disintermediation at thrifts during that period. Furthermore, the new asset powers were not fully available until 1983.

21. The FHLBB believes that "junk bond" holdings by FSLIC-insured thrifts were about $5 billion in June 1985 with about half of that total concentrated in a small number of institutions. *WFR*, Vol. 45, no. 9, p. 303.

22. Using Gray's estimate, approximately 86 FSLIC-insured institutions are in trouble due to poor asset quality and another 17 failed for this reason. This undoubtedly underestimates the number of institutions that aggressively exploited their new asset powers on the basis of federal deposit guarantees.


25. A 1977 survey by the Federal Reserve System found that commercial bank private placements were less than 10% of total private placements. It seems likely that this activity has grown since that time.


27. See, for example, p. 42-51 of Kaufman [1984].


33. See p. 61 of Kaufman [1984].

34. Transaction accounts at S&Ls increased sharply after 1980 reaching a total of $23.4 billion or 3% of total liabilities at FSLIC-insured institutions by the end of 1983. However, their growth appears to have slowed and the S&L share of the transaction account market is less than 6%. At year end 1984, total
transaction accounts at S&Ls were $28.9 billion or 3.1% of total liabilities as compared to $491.1 billion or 21.7% at commercial banks. Sources: Federal Reserve Bulletin, Vol. 71, No. 7, Table 1.25, p. A15, and Combined Financial Statements: FSLIC-Insured Institutions, FHLBB, 1984, Table VI, p. IX.


37. J. Karaken (in "Bank Regulation and the Effectiveness of Open Market Operations," Brookings Papers on Economic Activity, 2:1984, p. 405-55.) raises the interesting point that bank de-regulation more generally conceived may significantly effect the Federal Reserve's resolve to control inflation if it faces the Board with the Hobson's choice of a liquidity crisis brought on by bank failures. See also Tobin's discussion of this point in the same volume.


40. See p. 9 of the reference in footnote 39.

41. WFR, Vol 44, No. 24, p. 1050.

42. WFR, Vol.44, No.9, p. 364.

43. The legal status of this resolution is not clear. There appear to be differing opinions on whether a resolution passed by one Congress is binding on later Congresses. Few, if any, informed observers doubt that Congress would honor insured depositors if an insurance fund was unable to. However, as Kane (see p. 4 of Kane [1985]) points out, the resolution doesn't state how the government's obligation would be discharged, leaving some uncertainty at least about the timeliness of the payoff.

45. See Kane [1985], for example.

46. By covered liability claims I mean claims that are legally insured plus uninsured liabilities that have been guaranteed in fact.

47. I am grateful to Robert Cooter for this point.


49. The FDIC was conducting an experiment with modified payoffs prior to the beginning of the uninsured deposit run-off at Continental Illinois. After that run-off was under way, the FDIC announced that "...all depositors and other general creditors of the bank will be fully protected..." thus undermining the modified payoff scheme.


51. See Kane [1985], Chapter 4 for an extensive review of these models.


55. The term "closure decision" in this context does not necessarily mean a decision to shut down the institution in question. Rather, in most cases, it would be a decision to force recapitalization through a capital infusion by existing owners or through acquisition by new owners or by some other means.

57. D. Pyle, in "Capital Regulation and Deposit Insurance," *Journal of Banking and Finance* (forthcoming), has made estimates of the effect of closure rules that are not based on economic insolvency assuming a constant asset risk. In fact, the tendency of the management of insured institutions that are in financial difficulty to "bet the bank" to try to escape that difficulty makes the cost of these closure rules even greater than those estimates.


60. WFR, Vol. 41, No. 8, p. 261.