

COMMENTS ON "THE PARALLEL BANKING SYSTEM"

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SUMMARY

In their paper, "The Parallel Banking System," Jane D'Arista and Tom Schlesinger (cited hereafter as D&S) claim that an "unregulated, parallel banking system" has arisen in the United States that distorts the distribution of credit by unfairly taking business away from banks, while threatening financial stability and the efficacy of monetary policy. Their solution is to propose a "Financial Industry Licensing Act," which would subject all nonbank financial institutions (finance companies, mortgage companies, mutual funds, pension funds, insurance companies, securities firms, and others—to the same federal regulation, supervision, and "standards of public obligation" imposed on banks. Thus, institutions with vastly different functions within the financial system would be subject to common, bank-like "safety and soundness" standards (including risk-based capital requirements), would have reserve requirements, and would be required to adhere to provisions of "fair-lending" statutes, including the Community Reinvestment Act (CRA). Parent companies would be subject to the same regulatory requirements as their financial affiliates, which would effectively eliminate ownership of any financial institution by nonfinancial firms.

This Report takes exception to virtually every aspect of the D&S paper. Not only do D&S fundamentally misjudge the economic role of different types of nonbank financial intermediaries, they also misjudge the reasons for banking's difficulties. Their proposal for dealing with the "banking problem" is so far off the mark that its implementation would wreak havoc with the nation's financial system. It is banks and thrifts that have experienced instability and massive failures, and they are the institutions whose regulation and insurance structure needs fixing. The nonbank part of the financial system is functioning well. To force nonfinancial institutions to conform to the bank-regulation model would destroy their ability to provide essential financial services. D&S's proposal would aid those perceived to be ill by ruining the health of all who are well.

Banks' position in the financial system has eroded because conventional banking—deposit-taking and lending to business and consumers—is increasingly noncompetitive because advances in computing and related technology often allow financial services to be performed better by others. Federal policies and programs that formerly gave banking a formidable advantage over competitors—deposit insurance, access to the Federal Reserve's discount window, and access to the payments system—have lost much of their punch. D&S's attempt to force financial resources back into conventional banking, while the economics of the situation dictates they leave, courts the kind of debacle that befell the S&L industry.

Nonbank financial intermediaries—finance companies, mutual funds, life insurance companies, and pension funds—are not part of a "parallel" banking system. Each type of intermediary performs unique and important functions making it unlike other types, and unlike banks.

Banking has been losing market share to other financial intermediaries for many years as a consequence of rising household incomes, technology, and demographic factors and not because of unfair competitive advantages of nonbank financial intermediaries. In recent years, the public has placed an increasing share of its financial resources in mutual funds and pension funds because these investments are more attractive than bank accounts. Modern technology allows both pension funds and mutual funds to offer the public participation in professionally managed, highly diversified portfolios of market securities, and to do so at low cost.

Required reserves amount to only 2 percent of total bank liabilities. Consequently, reserve requirements have not hampered the ability of banks to pay competitive interest rates on their deposit accounts.

Banks are subject to heavy regulation because they engage in complex and risky activities while promising depositors complete safety, a promise made credible by federal deposit insurance. Nonbank financial intermediaries are also regulated, but in a manner consistent with their economic functions. For example, mutual funds sell *pro rata* shares in pools of market securities and their liabilities are not insured by the government. The Securities and Exchange Commission (SEC) regulates mutual funds with the objective of protecting investors against insider abuses and of assuring adequate disclosure of mutual funds' investment policies. This functional approach to regulating mutual funds has been highly successful.

Finance companies are able to raise funds in the commercial paper market because their substantial capital—often enhanced by the

resources of parent companies—renders their liabilities very low risk. This allows them to compete against banks' liabilities—negotiable CDs, acceptances, Eurodollar obligations, etc.—in the portfolios of money market mutual funds and other investors. By using efficient methods of credit evaluation and of collateralizing loans, finance companies can offer both business and consumer borrowers loans at terms competitive with those of banks.

Contrary to D&S's assertion, the commercial paper market uses back-up credit lines at banks as a method of assuring liquidity and allowing orderly exits from the market. They are not credit guarantees. Experience indicates that losses at individual finance companies do not create instability in the commercial paper market or elsewhere.

The growth of nonbank institutions relative to banks has not hindered the ability of the Federal Reserve to conduct monetary policy. Open-market operations are the primary method of conducting policy and these operations remain effective. Furthermore, the discount window continues to allow the Federal Reserve to use banks as conduits for providing loans to nonbank borrowers during liquidity crises, and the Federal Reserve has emergency authority to lend directly to nonbank institutions. There is no evidence that banks' declining market share has produced financial instability or threatened the efficacy of monetary policy.

D&S attribute a cost advantage to nonbank institutions from not having to adhere to the CRA. It should be noted that mutual funds, pension funds, and others provide funds for local communities, but they do so in a manner consistent with their economic functions. For example, mutual funds purchase state and local bonds used to support community development, and they purchase securitized consumer and business debt. Increased activities by state and local agencies in community development and increased securitization of loans made in low-income areas would produce more securities to be bought by mutual funds, pension funds, and others.

The quantity and quality of financial resources should be increased in low-income areas. But this can be done without distorting the entire financial system in the process. D&S's proposed "Financial Industry Licensing Act" is not the way to achieve desired social objectives.

I. INTRODUCTION

The recent paper, "The Parallel Banking System," by Jane D'Arista and Tom Schlesinger asserts that "America's banking woes constitute one of the biggest challenges facing the Clinton Administration."¹

They note that problems began to intensify in the mid-1980s when the failure rate of large and small banks alike soared, and that the situation was so bad by 1991 that Congress had to authorize \$70 billion of borrowing authority to support the insolvent Federal Deposit Insurance Corporation (FDIC). D'Arista and Schlesinger share the view of many observers that recent improvements in the condition of the banking industry are likely to be temporary.

There is growing awareness that the banking industry, as currently constituted, faces serious long-term problems.² D'Arista and Schlesinger offer a unique interpretation of how banking got into its current difficulties, and they offer a unique solution.

According to D&S, banking's woes are attributable to the unfair competitive advantage of a "parallel banking system" that has developed because non-bank financial institutions are not subject to the regulatory restrictions and costs imposed on banks. While D&S provide no list of the institutions they consider to be in the "unregulated," "parallel system," those mentioned at one point or another include finance companies, mortgage companies, money market mutual funds and other mutual funds, pension funds, insurance companies, and securities

firms. D&S argue that the parallel system not only unfairly takes business away from banks, it also distorts the distribution of credit, while threatening financial stability and the efficacy of monetary policy.

D&S's solution is straightforward:

Since soundness regulation clearly is needed for banks, it should be extended as well to institutions that have assumed many of the functions of banks....The financial playing field must be leveled by raising, not lowering, standards of prudential supervision and public obligation. In other words, all financial institutions should be treated in the same way.

Thus, in their view, all financial institutions would be subject to bank-like regulation which addresses, among other things, safety and soundness (including imposition of risk-based capital requirements), reserve requirements, and certain "fair-lending" statutes, including the Community Reinvestment Act. D&S contend that banking is so important that all current and potential competitors must be brought to their knees so that banks can prosper. They never tell us why they believe banking is so important, or why all institutions should be forced to conform to the lowest common denominator of the bank-regulation model.

This Report explains why nonbank financial institutions are not the functional equivalent of banks, and therefore repudiates the existence of a "parallel banking system." Although certain institutions

¹ D'Arista and Schlesinger (1993).

² Pierce (1991a).

provide some services that are close substitutes for some bank services, these institutions engage in their activities in ways that avoid the instabilities and illiquidities encountered by banks. They do not need bank-like regulation.

It is banks and thrifts that have experienced instability and massive failures. They are the institutions whose regulatory structure needs fixing. The non-bank part of the financial system is functioning well.

D&S reach erroneous conclusions in large part because they fail to take into account the technological advances that have permanently changed the financial landscape. These advances enable nonbank financial institutions to offer many financial products that are more attractive to the public than those provided by conventional banks. It is technology that has eroded banks' position within the financial system, not "regulatory disadvantages" of banks or "unfair competition" by nonbank institutions. In this age of supercomputers, amazingly powerful personal computers and work stations, microwave and satellite transmission, fiber optics, "information highways," and other marvels, it is easy to forget that these developments are quite recent. It has only been during the last 25 years or so that the computer and communications revolutions have worked their wonders. Advances in computing, telecommunications, database management, and statistical and mathematical analysis have had a profound effect on the world of finance.

Perhaps the easiest way to appreciate the impact of technology on finance is to try to imagine how banks, thrifts, mutual funds, and financial markets operated without computers. This was the situation prior to the late 1960s. The technological revolution allowed existing financial products to be supplied much more cheaply, and it produced a wide array of attractive new financial products that were previously inconceivable. Ironically, banks were pioneers in the use of computers and related technology; they achieved huge cost savings by automating their deposit and loan accounts.³ But the technological revolution ended up taking away

much of banks' advantages as lenders and depositories.

Accurate information, available rapidly and at low cost, combined with reduced transactions costs, opened the money and capital markets to many former deposit and loan customers of banks. In addition, it became possible for specialized institutions such as finance companies, pension funds, and mutual funds to provide financial products and services that are often superior in quality and/or price to those offered by banks.

Advances in technology are responsible for the erosion of banks' position in the financial system, not "unfair competition" of "under-regulated" nonbank financial institutions. It is important to set the record straight concerning the role of nonbank financial institutions in the financial system. Once that role is appreciated, it becomes clear why these institutions do not have unfair competitive advantages and why they do not contribute to financial instability or threaten the efficacy of monetary policy.

³ Conversations with bankers indicate that banks' costs of processing information fell by over 90 percent as a consequence of computers.

II. The U.S. Financial System

The U.S. financial system is the envy of the world. No other nation has such a full scope of markets and institutions to serve the financial needs of consumers and business. In order to identify the roles of the various markets and institutions, it is useful to briefly review the economic forces at work within the financial system.

A. Surplus and Deficit Units

Many businesses and households lack sufficient current income or wealth to purchase items they want, though they expect to earn income in the future to cover the expenditures. Examples include a business that wants to buy a new machine or a family that wants to purchase a home. These businesses and households are called "deficit units." There are also businesses and households with income and wealth in excess of their current needs; they are "surplus units." In practice, units can be surplus on one account and deficit on another, such as a family that saves for its children's education while borrowing to purchase a house, or a business that saves temporarily while issuing stock to finance a major expansion. The function of the markets and institutions within the financial system is to facilitate the transfer of resources from surplus accounts to deficit accounts.

One arrangement is for those in deficit positions to sell ownership interests to surplus units. These interests, which can range from partnerships to shares traded on stock exchanges, entitle the surplus units

to share in any profits that the issuing entities might earn. Ownership shares are an important means by which financial resources are shifted from surplus to deficit units. But it can be time-consuming, costly, and difficult for surplus units to make informed judgments about ownership shares, and considerable expertise is required for successful assessment of potential returns and risks. Most people have neither the expertise to evaluate the future prospects of issuers, nor the tolerance for risk required to take an ownership interest. As explained in detail later, mutual funds and pension funds allow the public to hold ownership shares indirectly. They pool the resources of surplus units to make informed, diversified investments in ownership shares.

Those surplus units that are attracted to ownership shares often purchase stock traded on major exchanges.⁴ The prospects for these firms are discussed in the financial press and by various experts, making it easier for an investor to make an informed judgment. It is difficult and frequently impossible for relatively small businesses to use stock exchanges because their scales of operation do not justify the expense of obtaining and evaluating information about them.

Some of the problems deficit units encounter in attracting funds can be reduced by offering debt contracts (loans) rather than ownership shares. With a debt contract, a surplus unit or financial institution advances funds in return for a promise to receive periodic payments of interest and repayment of principal at a specific maturity date. A loan differs

⁴ Similarly, mutual funds and pension funds tend to purchase stock traded on major exchanges. Some mutual funds do specialize in smaller companies, however.

substantially from a share. Whereas the return earned on an ownership share fluctuates with the profitability of the enterprise, the return on a loan is the contract interest rate—as long as the borrower earns enough to make the interest payments and returns the amount borrowed at maturity.⁵ A lender needs to be able to assess the probability of default rather than be concerned with just how profitable the enterprise might be.

Debt contracts allow lenders to limit the amount of risk they face even further. By requiring that a loan be secured by specific assets, the lender can take over this collateral in the event of default. For example, the lender can seize machines that secure a loan to finance them. The more valuable the borrower's assets, the lower the lender's risk. As explained later, finance companies make extensive use of collateral to secure their loans. Even in the absence of specific collateral, the greater the borrower's net worth (equity position) when a loan is granted, the larger the safety margin for the lender should the borrower suffer losses.

Debt contracts can have serious disadvantages for many potential lenders because "moral hazard" and "adverse selection" can arise. With debt contracts, lenders do not share in unusual profits borrowers might earn, but they share in unusual losses. If large losses occur, borrowers are only out their stake in the project; the rest is absorbed by lenders. This asymmetry may create moral hazard: borrowers have incentive to underplay the risks when obtaining loans and to take on more risk once loans are obtained. Furthermore, if lenders demand a higher interest rate as compensation for the risks, the efforts are likely to create adverse selection in which low-risk borrowers cannot compete against borrowers with greater risk who are willing to pay the higher interest rates.

There are several means of dealing with these problems. Some allow certain borrowers to issue their debt in markets, and others rely on specialized lenders to hold the debt. Borrowers can use debt markets if purchasers of their debt are

convinced that problems of moral hazard and adverse selection are not substantial. It is in the interest of "good" borrowers to signal lenders that they have not misstated the risks of their activities. One method of doing this is to establish a reputation for honesty and a track record of performance. This is an important reason why established firms have an advantage over new ones in being able to borrow. Another effective method is for borrowers to have substantial net worth. This not only protects lenders directly, it also eliminates moral hazard because borrowers have too much at stake to engage in risky projects.

Debt markets are available to large, well-known firms with substantial net worth. Smaller firms and firms with insufficient equity positions have to rely on banks, finance companies, insurance companies, and other specialized financial institutions for credit. These institutions are expert not only at collecting and evaluating information about borrowers, but also at contending with moral hazard and adverse selection using such means as collateral, restrictive covenants in loan contracts, and extensive monitoring of borrowers.

Debt instruments issued by major corporations are highly liquid, that is, they can be traded in active markets at low cost. These instruments are held directly by deficit units and indirectly through mutual funds, pension funds, and other financial institutions. But the debts held by banks, finance companies, insurance companies and other specialized lenders are illiquid because there is no ready market for them. Banks and finance companies achieve some protection against unforeseen cash needs by holding short-term loans. Furthermore, technological advances allow banks and finance companies to "securitize" some of their loans by pooling them to back securities traded in organized market. To the extent these efforts are successful, illiquid loans are transformed into liquid instruments held by mutual funds, pension funds, and other financial institutions, as well as by deficit units directly.

⁵ Of course changes in market conditions can affect the return on a share even if the underlying profitability of the firm remains unchanged, and movements in market interest rates affect the return on a loan.

B. Use of Financial Markets

Historically, markets in which ownership shares and debt instruments are traded were available mainly to large, well-known firms selling their instruments to the wealthy. Technological advances have reduced the costs of obtaining information about deficit units offering securities in financial markets, and they have reduced transaction costs substantially, opening these markets to an expanding number of participants, both deficit and surplus. Smaller firms and even households have gained access as deficit units, and increasing numbers of surplus units are participating in these markets both directly and indirectly through pension funds, mutual funds, and other institutions.

Perhaps the two greatest success stories in the use of financial markets is securitization of home mortgages and expanded use of the commercial paper market by major corporations. Each illustrates the importance of technology in determining how financial products will be delivered, and each has important implications for the future profitability of banks.

1. Securitizing Home Mortgage Loans

Historically, home mortgage loans were originated, serviced, and held almost exclusively by savings and loan associations (S&Ls) and other depository institutions, including banks. In the 1970s, securitization began to revolutionize the mortgage market. Improvements in computer, accounting, and communications technology eliminated the economic need for the same institutions that originated and serviced mortgage loans to hold them in their portfolios. It became cheaper to "unbundle" the process: companies that originated and serviced mortgage loans could put them into pools and sell them in the national market to pension funds, mutual funds, and others. Unbundling eliminates the economic need for depository institutions to hold mortgage loans. Mortgage companies (including those owned by thrifts and banks) have thrived while the role of S&Ls (and to a lesser degree banks) as holders of mortgage debt has sunk.

Unbundling has extended beyond mortgage loans. Lenders have also developed methods of securitizing consumer loans and business debt. As this process increases, banks and finance companies

will increasingly become loan originators and servicers rather than holders of loans. The loans will back securities sold in a national market, going into the portfolios of pension funds, mutual funds, and other institutions. As the technology of securitization continues to improve, an increasing portion of consumer and business credit will become part of the unbundling process. Securitization will continue to offer a lower-cost source of credit than is currently available from banks and finance companies.

2. Commercial Paper Market

Commercial paper is high-grade, short-term, unsecured debt sold by major corporations in a national market. This debt is purchased by large investors rather than the general public, and is exempt from the registration and disclosure standards established by the SEC for corporate securities.

The purpose of the commercial paper market is to aid surplus and deficit units in managing their short-term financial needs; it is not a market where any significant credit risk is tolerated. The interest rate on commercial paper is only slightly more than the risk-free Treasury bill rate. Prior to default of the Penn Central Railroad on its commercial paper in 1970, the market operated more informally than it does now. With that default, rules were introduced to improve lender protection against credit and liquidity risks.

Only firms receiving high ratings from credit rating agencies are able to issue commercial paper. In order to obtain a high rating, firms are required to obtain credit lines at commercial banks to be used if it becomes impossible to roll over their maturing commercial paper. One purpose of these credit lines is to protect lenders in the event of a general liquidity crisis, such as arose following failure of the Penn Central Railroad. During a liquidity crisis, even the best borrowers can experience difficulty in rolling over their commercial paper. Another reason for credit lines is to allow an orderly exit from the market of firms whose credit ratings remain good but which have fallen below the high standards of the commercial paper market. These firms draw on bank credit lines as their commercial paper matures. When all the commercial paper has matured, these firms use banks for their short-term credit needs. Because the costs of evaluating the condition of

these firms has become prohibitive for purchasers of commercial paper, they are turned over to banking specialists for monitoring.

Prior to the mid-1960s, the commercial paper market was small and dominated by finance companies. Most nonfinancial companies, including the largest ones, used commercial banks for their short-term credit needs, drawing down on credit lines when cash was needed and making repayments when cash flowed in. Using banks in this way was more convenient and less costly than trying to manage commercial paper.

During the late 1960s, advances in computer technology permanently altered this situation. Large corporations, state and local governments, mutual funds and pension funds, and nonprofit organizations were able to consolidate, centralize, and monitor their cash-management needs to a degree previously impossible. Customers with cash in excess of current needs began to seek out short-term investments, shifting out of idle bank accounts into U.S. Treasury bills and commercial paper. Technology allowed these surplus units to become direct lenders in the money market rather than indirect participants through banks. On the other side of the market, the new computer technology enabled corporate treasurers to anticipate short-term credit needs to a degree previously impossible, allowing them to tailor their commercial paper offerings to fit the needs of surplus units.

Thus, new technology allows commercial paper to be highly liquid. Commercial paper can be a short-term instrument (with an average maturity of under 30 days) because the cost of rolling over maturing paper is low. Furthermore, a secondary market provides additional liquidity prior to maturity, and the specific liquidity needs of large purchasers are met through private placements in which the maturities of obligations are tailored to the requirements of the lenders.

Computers also reduce the information and monitoring problems encountered by surplus units in evaluating the riskiness of engaging in direct lending to prime borrowers. Markets have become more effi-

cient because of the wider distribution of more accurate information. It is no longer necessary to rely on banks exclusively for evaluating the credit-worthiness of major corporations; computers allow the information and monitoring tasks to be handled by the market. The federal securities laws enacted during the 1930s require major, publicly traded corporations to disclose regularly a great deal of information about their profitability, equity positions, material business developments, and other relevant data. With the advent of computers, it was possible to assemble databases using information from disclosure statements and other sources. These databases made it far easier to assess the risks of extending credit to individual firms and to compare the risk of lending to one firm rather than another. Private agencies also rate the quality of various short-term borrowers, providing expertise in evaluating credit. Individual surplus units do not need to be experts in the activities of borrowers; rating agencies supply much of the necessary information.

The commercial paper market figures prominently in this paper where important issues such as participation in the market by finance and money market mutual funds, and the role of bank credit lines are discussed. For present purposes it suffices to stress the role of technology in the market's development. Advances in computers, databases, statistical analysis, and communications lowered the costs of issuing and purchasing commercial paper to the point where banks lost much of the business of their prime corporate customers to other competitors in the market.⁶ The point to be emphasized is that such changes are the consequence of technology and not of "unfair competition."

C. Depository Financial Intermediaries

Technology has increased access to financial markets allowing financial resources to flow directly from surplus to deficit units in increasing amounts. But these markets are still not viable alternatives for most people and most businesses because their

⁶ For recent developments in the commercial paper market, see Post (1992).

scales of operations are too small and/or their information requirements too specialized. Financial intermediaries get many of these surplus and deficit units together indirectly by raising funds from surplus units and making them available to deficit units. There are many different kinds of financial intermediaries, specializing in various facets of finance, but they all share the common characteristic of providing indirect contact between surplus and deficit units.

Modern commercial banking organizations engage in such a wide range of activities that most kinds of financial intermediation could be covered simply by discussing them. Rather than doing this, we shall examine the financial functions provided by various types of specialized financial intermediaries. Functions are fundamental. The manner in which they may be combined within various corporate structures, including bank holding companies, is important, but that issue is put aside until the various financial functions are identified.

1. Traditional Commercial Banks

Traditional commercial banks are financial intermediaries that specialize in combining provision of monetary services with lending to businesses lacking access to credit markets. They use debt contracts on both sides of the balance sheet to bring surplus and deficit units together indirectly. On the liability side, they issue debt contracts in the form of deposit accounts payable on demand at par (transactions accounts). These accounts are attractive to the public because they provide a high degree of liquidity and they can be used for monetary purposes: cash withdrawals, payments by check, or direct fund transfers. Banks also perform the accounting that accompanies the various transactions. Loans to businesses are on the asset side of traditional banks' balance sheets.

The combination of monetary services with loans to businesses is banks' traditional and unique function, and it appears to be the one of most concern to D&S. Later we shall examine banks' many other activities, including their issuance of longer-term liabilities, lending to households, and purchases of market securities. We shall also discuss banks' operation of finance companies and money market mutual funds, entities that are components of D&S's

"parallel banking system." For purposes of this section, however, the term "bank" refers to a traditional bank as we have defined it.

As indicated above, liquidity and monetary aspects of banks' liabilities are attractive to surplus units. The services banks provide to deficit units are also valuable. Because banks have large sums of money available for lending, they have sufficient scale to justify retaining staffs who are knowledgeable about a number of industries and specific borrowers. Banks can evaluate applicants' prospects for success, including adequacy of equity positions, and use covenants in loan contracts to guard against moral hazard. Banks keep informed by establishing long-standing relationships with their borrowers, and their expertise allows them to monitor borrowers after loans are granted, which provides additional protection. Furthermore, banks can diversify by granting many different loans. In addition, because the level of deposits is usually relatively predictable, with deposits roughly balancing withdrawals, a bank enjoys a stable source of funding to grant loans.

Banks are processors and evaluators of information on the creditworthiness of deficit units who lack direct access to organized debt markets. Possession of this information, and the ability to use it productively, allows banks to function as profitable lenders, providing credit to those who otherwise could not get it. Bank loans tend to be "opaque" in the sense that it is costly, and sometimes impossible, for outsiders to establish reliable values for a bank's loans. This is why bank loans tend to be highly illiquid, and why it is difficult for outsiders to evaluate the condition of banks.

Bank deposit liabilities tend to be less risky to surplus units than direct lending because of banks' economies in evaluating, monitoring, and diversifying loans. Furthermore, the equity positions put up by banks' owners provide protective cushions for depositors, reducing the chance that loan losses will produce insolvency. There are circumstances, however, when banks are unable to fulfill their promise to repay deposit obligations at par. These defaults stem from the same sources as default on any debt contract: losses caused by bad luck, misjudgment and mismanagement, or fraud, coupled with insufficient equity to pay off creditors. When a

bank's losses from any source exceed its initial equity, it is insolvent; liabilities are greater than assets.

Because banks hold assets that are difficult for third parties to evaluate, it is hard for depositors to know the true condition of their bank. Before the introduction of federal deposit insurance, one protection depositors enjoyed, in principle, against the chance of a bank defaulting on its deposit obligations was the ability to withdraw funds at the first sign that the bank might be in trouble. This was one of the attractions of a debt instrument payable on demand: a depositor would have time to get out before the bank failed. When they feared their bank might be in trouble, depositors had incentive to withdraw their funds_better safe than sorry.

This "protection" subjected even solvent banks to the risk that their depositors would lose faith and stage a run. Solvent banks could be forced into insolvency as depositors, ignorant of the bank's true condition and fearing the worst, made large withdrawals. The bank would be forced to sell its large holdings of illiquid assets at such low prices that insolvency occurred. Worse yet, some event such as failure of an individual bank, or a few banks, could trigger a loss of confidence in banking generally, producing massive withdrawals and additional failures as otherwise solvent banks attempted to liquidate loans to meet these bank runs. Banking was plagued by episodes of instability during which there were widespread bank failures, collapses in the amount of bank deposits and credit, and serious disruption of services. This terrible defect surfaced relatively infrequently but its devastating effects haunted banking until the New Deal reforms following the banking collapse of the early 1930s.⁷

The New Deal reforms erected a federal safety net under the banking industry to prevent future banking collapses. Part of the safety net involves a Federal Reserve System that is responsible for providing liquidity to the economy to avert financial crises. When problems arise, the Federal Reserve provides liquidity, generally through purchases of securities on the open market but also by supplying funds to individual institutions through loans. Banks

experiencing large withdrawals are able to borrow from the Federal Reserve's discount window, thus avoiding the need for large asset sales. The Federal Reserve also uses banks as conduits for providing liquidity to nonbanking sectors of the economy: banks borrow from the Federal Reserve and reloan the money to liquidity-starved businesses. Giving banks access to the discount window promotes financial stability, but it has the side effect of subsidizing banks. The interest rate charged on loans from the Federal Reserve is typically below market interest rates, but this is not the principle source of subsidy provided by such credit. Rather, it is the unquestioned availability of loans from the Federal Reserve to liquidity-squeezed banks that is the real subsidy. These loans give banks a competitive advantage over other institutions that lack access to the Federal Reserve. Furthermore, because banks have access to loans from the Federal Reserve, they can guarantee that the money will be there when customers need to draw on lines of credit. This is part of the process through which banks act as conduits for providing liquidity to the economy. But it gives banks a competitive advantage because they charge fees for these guarantees. In effect, banks sell their access to the Federal Reserve.

Federal deposit insurance is the other part of the safety net. This insurance eliminated bank runs, but it produces complications. Deposit insurance protects depositors against loss from any source_mismanagement, undue risk-taking, fraud, etc._not just from bank runs. This conferred an important subsidy on banks; they have the guarantee of the federal government that money left with them is safe. Deposit insurance gave banks and thrifts a substantial competitive advantage when competing for funds, allowing the industry to grow to gargantuan size. As explained later, technological advances have allowed uninsured institutions to offer products that are increasingly competitive with bank products. The deposit insurance subsidy is less valuable than it once was.

Deposit insurance not only subsidizes banks, it also eliminates the incentive of depositors to seek out safe banks. When it comes to deposit safety, all

⁷ There were at least 14 general banking crises prior to the New Deal reforms.

banks are the same. With market (depositor) discipline severely blunted by deposit insurance, it fell on government to regulate and supervise banks to guard against unsafe and unsound banking practices. Thus, government regulation for safety and soundness is the cost the banking industry must bear in return for receiving deposit insurance. The federal government relies on an elaborate and complex regulatory and supervisory structure to protect against banking excesses and to limit the exposure of the deposit insurance program to large losses. Effective regulation and supervision are difficult because traditional banks do not invest primarily in market securities whose values can be readily established. They hold opaque assets and engage in many activities that are hard to evaluate. The problems are made more severe by the fact that deposit insurance creates a moral hazard problem: banks have incentive to seek out hard-to-evaluate, risky ventures. Because government regulators must promote banks' safety and soundness under very difficult circumstances, their actions are intrusive, and sometimes regulators substitute their judgments for those of bank management.⁸

2. Traditional Thrift Institutions

Historically, banks served the needs of businesses, and were not particularly interested in offering attractive financial products to households. Thrift institutions specialized in providing financial services to households. There are two major kinds of thrift institutions: mutual savings banks and savings and loan associations.⁹ Although many of the differences between them has eroded over the years (as has the distinction between thrifts and banks), it is useful to discuss the traditional activities of each type briefly. Both mutual savings banks and savings and loans offer federally insured deposit accounts to households and are subject to bank-like regulation, but they differ in the types of assets that they have traditionally held.

Traditional mutual savings banks (MSBs) are financial intermediaries that pool the resources of households for investment in market instruments—both debt instruments and ownership shares. A MSB has accounts similar to bank accounts in the sense that they pay interest, and withdrawals can be made, but technically they are ownership shares in the institution. MSBs can attract funds because the household surplus units from which they get funds are typically too small and/or ill-informed to use securities markets directly. By pooling the funds of many of these surplus units, MSBs have sufficient scale to justify hiring experts in evaluating the prospects of various securities, to achieve low transactions costs, and to diversify their holdings of securities. The net income earned by mutual savings banks from their investment activities accrue to their "depositor"-owners.¹⁰

Traditional savings and loan associations are financial intermediaries specializing in channeling funds from surplus households to households borrowing for purposes of purchasing a home. The deposit accounts of S&Ls are similar to those offered by MSBs but the funds are invested in home mortgage loans rather than market securities.¹¹ By pooling the funds of many depositors, S&Ls achieve sufficient scale to make home mortgage loans. They retain staffs expert in evaluating the creditworthiness of potential borrowers and appraising the value of the homes being financed, and they have sufficient scale to diversify away a great deal of the risk from home mortgage lending. Depositors at S&Ls indirectly provide mortgage loans to households purchasing a home. Historically, loans held by S&Ls and other depository institutions were the means by which most households could finance the acquisition of a home. As we saw above, however, securitization of home mortgage loans provides ordinary households with access to the capital market, radically reducing the need for depository institutions to hold mortgage loans.

⁸ The waves of bank failures and the collapse of the savings and loan industry suggest that the regulators are not always up to this daunting task.

⁹ Credit unions, a third kind of thrift, are not discussed because of their relatively small size in the aggregate.

¹⁰ Part of the income is paid out to "depositors" and the balance is retained within the organization as net worth to protect against possible future losses. This net worth is "owned" by current depositors on a *pro rata* basis.

¹¹ S&Ls can be either mutual or stockholder owned associations.

D. Nondepository Financial Intermediaries

Traditional depository institutions—commercial banks and thrifts—are, of course, not the only kind of financial intermediary, but until relatively recently they were the dominant ones. Part of the reason for their dominance is that prior to recent technological developments, banks and other depositories were able to provide many intermediary services more cheaply than potential competitors. For example, combining depository and loan functions apparently created an important synergy giving banks and thrifts the competitive edge. But a good part of banks' and thrifts' dominance was a consequence of federal deposit insurance, giving them a great advantage over others in attracting resources from deficit units.

Advances in computer, telecommunications, and finance technology have reduced the costs of doing business for banks and other depositories, but they have also eroded their competitive advantages as financial intermediaries. Competitors have developed ways to provide valuable financial intermediation services despite the absence of government protection of their activities. In many instances, they have produced superior products allowing them to take significant business away from banks and thrifts. These developments have occurred without encountering the instability experienced by banks prior to introduction of deposit insurance, or the waves of banking and thrift failures that have occurred in recent years.

I. Finance Companies

Finance companies obtain funds from surplus units by selling debt instruments in the market, and they use the proceeds to support consumer and business loans. There are considerable differences among finance companies in ownership and specialization.

Most of the largest finance companies are owned by major industrial or retailing firms such as

General Motors, Ford, Chrysler, General Electric, and Sears. These "captives" hold 53 percent of industry assets. Other major finance companies are owned by nonbank financial firms such as American Express and Transamerica, and some are "independent" companies such as Beneficial Finance and Household Finance. These "affiliates" and independents hold 37 percent of industry assets, and the remaining 10 percent is held by bank-affiliated finance companies.¹² Historically, "captives" of industrial and retailing firms specialized in financing purchases of consumer and business products sold by their parents, while independents specialized in providing loans to consumers and small business that were considered too risky, or otherwise undesirable, by banks. In recent years, the industry has served an ever-widening group of borrowers. The major captives have extended their operations beyond financing their parents' products to include business and consumer finance generally. Some finance companies do both consumer and business lending, others specialize in consumer loans, and still others devote most of their attention to business loans and leases.

At yearend 1992, the industry as a whole held nearly \$60 billion of consumer loans and over \$311 billion of business loans.¹³ Finance company loans are usually secured—by the item purchased in the case of captives, by homes, cars or other assets in the case of independents. Generally speaking, finance companies tend to engage in asset-based lending in which loans or leases are secured by specific assets. Banks, in contrast, tend to engage less in asset-based lending and more in income-based lending where specific collateral is less important.

Finance companies attempt to match the maturity (duration) of their assets and liabilities to limit interest-rate risk as well as risks of illiquidity. This is accomplished in large part by managing the maturity of liabilities. Because finance companies have access to both the commercial paper market for short-term borrowing and to securities markets for longer-term borrowing, they can achieve an average maturity of liabilities that roughly matches

¹² Both domestic and foreign banking organizations own finance companies.

¹³ Here and at other points in this report we use data only through the end of 1992 in order to conform to that available to D&S.

average asset maturity. While the shares of longer-term and short-term borrowing vary from finance company to finance company and from year to year, depending upon asset maturities, relative interest rates, and other factors, finance companies as a whole raise over 50 percent of their funds through longer-term securities and the balance from commercial paper.¹⁴ For a "typical" finance company, the weighted average maturity of longer-term debt is approximately three years. Thus, while finance companies use the commercial paper market extensively, their dependence on it is much less than what D&S suggest.

One might think that the nature of finance companies' loan business would make it difficult for them to raise funds in the market. After all, finance companies hold the same kind of opaque loans that banks do, and their conditions, like those of banks, are hard for third parties to evaluate. But unlike banks, the government does not protect creditors of finance companies: there is no federal insurance of liabilities or other aspects of the safety net, and no imposition of government safety and soundness standards to protect finance company creditors. Yet finance companies are able to borrow large sums at favorable interest rates. It is instructive to examine why this is the case.

A primary reason that finance companies can borrow in the market, despite the opacity of their assets, is that they have large amounts of capital to protect creditors. The median ratio of capital (net worth) to assets for the 94 largest finance companies is approximately 18 percent. This provides creditors with substantial protection against losses. By way of comparison, the average capital-asset ratio for banks has only recently risen to approximately 8 percent. Furthermore, the capital-asset ratios for finance companies understate the strength of the industry. Finance companies are typically owned by well-capitalized companies that can, and do, provide additional capital to their finance-

company subsidiaries in times of need. In many cases, interest payments and other crucial obligations of finance companies are guaranteed by their parent firms. Thus, creditors to finance companies are protected not only by capital in the industry but also by "puts" on parent organizations. The high levels of capital available in the finance company industry are sufficient to eliminate the moral hazard that otherwise would make it difficult, if not impossible, for the industry to obtain funds in markets.

The other reason that finance companies can use markets to obtain funds is that rating agencies are able to evaluate their creditworthiness. These agencies examine the books of finance companies, conduct interviews, and use other methods to evaluate creditworthiness. Activities of rating companies relieve market participants of much of the burden of evaluating the finance companies to which they lend. Finance companies, like other issuers, can continue to use the commercial paper market only if they maintain high credit ratings. Even a minor reduction in the rating eliminates money market mutual funds as investors because they are permitted by regulation to hold only the best commercial paper. A larger reduction in the rating closes the commercial paper market to the company. Rating agencies also play an important role in the markets for longer-term debt used by finance companies. In those markets, a decline in a company's rating may not preclude access, but it will produce an increase in the interest rate the company pays on new debt.

The high levels of capital in the industry combined with the activities of rating agencies in evaluating and communicating creditworthiness allow finance companies to raise large amounts of funds at relatively low interest rates. It has been estimated by the Federal Reserve Bank of New York that the cost of funds to major finance companies is roughly the same as for major banks.¹⁵ This is remarkable considering that finance companies must do it on their own; they do not enjoy federal insurance on their

¹⁴ For an excellent, detailed analysis of finance companies and a wealth of data, see Schnure (1993), also Kramer and Neihengen (1991, 1992).

¹⁵ Remolona and Wulfekuhler (1992).

liabilities or other aspects of the safety net as banks do.¹⁶

Finance companies are subject to substantial market discipline. They have a strong incentive to operate in a safe manner so that they can maintain access to the commercial paper market and avoid increased interest rates on their longer-term debt. Bank depositors by contrast are protected directly by deposit insurance and indirectly by banks' access to the Federal Reserve's discount window. As such, they have little incentive to provide discipline; it must come from banking regulators instead.

When banks issue negotiable CDs and other money market instruments to fund business or consumer loans they are acting as "shadow" finance companies. They borrow in the money market and use the proceeds to support lending. The major difference is that banks can borrow in the money market because their liabilities are protected by the federal safety net, whereas finance companies can borrow in the money market because of the strength of their balance sheets.

D&S contend that because bank credit lines back up the commercial paper issued by finance companies, the federal safety net has been spread under finance companies—these companies receive the benefits of the safety net without having to pay insurance premiums or being subjected to bank-like regulation. This "benefit," for which banks charge fees, accrues to any entity having a credit line at a bank, not just to issuers of commercial paper and not just to finance companies. As explained earlier, the commercial paper market requires issuers to have credit lines to protect against liquidity crises and to allow orderly exits from the market for issuers who are no longer of such high quality that they can use the commercial paper market.

D&S are apparently under the impression that commercial paper issuers' backup credit lines are guarantees by banks to commercial paper holders that issuers will not default. If this were the case, which with relatively minor exceptions it is not, D&S would be correct that the federal safety net has been

spread under finance companies and other issuers of commercial paper. Bank credit lines typically contain escape clauses specifying that credit will not be forthcoming should the customer suffer a material adverse change (MAC). This escape clause protects banks from having to extend credit to businesses whose conditions have slipped too badly. Consider finance companies and other issuers who lose their prime ratings, making them unable to issue commercial paper. If their conditions have slipped sufficiently to trigger MAC clauses, these companies will be unable to draw on their bank lines; the safety net is not spread under them. If MAC clauses are not triggered, the companies still have credit quality commonly acceptable to banks, it is just not high enough to meet the exacting standards of the commercial paper market. These businesses are turned over to banks for the specialized attention they need. The safety net has not been spread under these companies any more than it is under any other borrowers from banks.

About 10 percent of the commercial paper outstanding is backed by unconditional bank credit guarantees (irrevocable letters of credit).¹⁷ These guarantees, for which banks charge fees, are not extended to major finance companies but to firms whose relatively small size would otherwise preclude their participation in the commercial paper market. In effect, banks "co-sign" the notes of these firms. Bank regulators were slow to curb the practice which was being used by banks, in effect, to extend credit without having to show the loans on their books and without having to hold capital behind the loans. But currently banks are required to back their credit guarantees with the same amount of capital (8 percent) as direct loans. This has increased the cost of credit guarantees and reduced their use. Contrary to D&S's assertions, the federal government is not being spread under the commercial paper market.

While finance companies have historically specialized in providing credit to somewhat riskier borrowers than those served by banks, this distinction is disappearing. Finance company lending still tends

¹⁶ The unimportance of reserve requirements in bank costs is discussed later.

¹⁷ Post (1992).

to be more asset-based than does bank lending. Banks have been able to more than hold their own with finance companies in competing for consumer loans, indicating, as noted by the Federal Reserve Bank of New York, that finance companies do not possess a competitive advantage over banks.¹⁸ Banks have been less successful when it comes to business loans.¹⁹ It is remarkable that they have difficulty in competing with finance companies for business loans, because this is the area where one would expect banks to dominate. After all, banks have specialized in lending to business for centuries and have been able to exploit customer relations and other advantages in serving business customers. Finance companies have been able to overcome the advantages that banks possess by developing superior methods of providing funds on competitive terms to business customers. Their asset-based and flexible methods of providing funds have allowed finance companies to meet market needs over the past decade or so. Many banks have been slow to adjust, with the result that they have lost customers to finance companies. Some banks have successfully dealt with the competitive challenge by adopting many of the lending practices developed by finance companies. But the banking industry as a whole has been slow to change with the times; it has lost business to finance companies. This is not a consequence of regulatory differences between finance companies and banks—there are no regulatory restrictions preventing banks from emulating finance company practices and several banking organizations even own and operate finance companies—but rather of finance companies doing a better job of delivering product to market.

Finance companies are regulated by the states that license them, and securities offerings of finance companies are regulated by the SEC. It is notable that this industry has been able to prosper and perform well without the protection and intrusive gov-

ernment regulation of banks, and without the massive failures that have befallen the banking industry. Occasionally, finance companies incur losses and failures do occur. However as discussed later in this report, the problems of one firm do not spread to other firms and the industry as a whole has been remarkably stable.

2. Mutual Funds (Open-end Investment Companies)

Mutual funds pool money supplied by surplus units for investment in market securities.²⁰ They provide surplus units with indirect access to securities markets thereby increasing the supply of funds available to the deficit units using these markets. By combining the funds of many people, mutual funds are able to achieve a size and expertise that most individuals lack. Mutual funds have sufficient scale to justify retaining staffs that are expert in analyzing individual securities, and in designing and implementing programs for efficient portfolio diversification. They also enjoy scale economies in achieving portfolio diversification and in obtaining low transaction costs when purchasing or selling securities. After payment of a management fee, investors earn, on a pro rata basis, income paid on the securities held by the fund, plus or minus capital gains or losses from changes in the prices of the securities. Mutual fund shares are highly liquid, and investors can liquidate them on demand at their current market price.²¹

Mutual funds allow people of ordinary means to hold indirectly professionally managed and highly diversified portfolios of market securities. They have opened securities markets to millions of people, and have provided a powerful means of channeling financial resources from surplus to deficit units.

In comparing mutual funds to banks, it is convenient to separate out money market mutual funds for later discussion. At this point, we are concerned with

¹⁸ Remolona and Wulfekuhler (1992).

¹⁹ Landerman (1993), Beckett and Morris (1992).

²⁰ Baumol, Goldfeld, Gordon, and Koehn (1990), Sellon (1992).

²¹ Money market mutual fund shares have unique characteristics and are subject to specialized rules and portfolio management requirements.

equity and bond mutual funds, commonly referred to as long-term mutual funds.²² These mutual funds are unlike banks in virtually all respects. Banks offer debt contracts (deposits) bearing fixed-interest rates and payable at par, either on demand or at fixed maturities. The accounts are guaranteed by the federal government. Long-term mutual funds offer ownership shares in an underlying pool of assets. These shares are not redeemable at par value as their price and rate of return fluctuate with the performance of the fund's portfolio. The government provides no insurance or guarantees for mutual fund shares.

Until the 1970s, mutual fund resources were invested primarily in corporate equities. Since that time there has been rapid growth of mutual funds devoted to bonds and other fixed income securities, including short-term securities—both taxable and tax-exempt—as well as international investments of various kinds. Individual mutual funds specialize in investments with widely different risk and yield characteristics, allowing investors to select the fund or funds that are most consistent with their abilities and willingness to bear risk. The types of funds range from very safe money market mutual funds, to funds holding highly-rated corporate bonds, to those specializing in equity securities traded worldwide, to aggressive growth funds. Several mutual funds may be offered by a single investment adviser enabling holders to shift among the funds at low or no cost. By the end of 1993, there were more than 4,740 mutual funds (including money market mutual funds) with over \$2 trillion of assets, and approximately 82 million individual accounts.²³ As discussed later, banking organizations are important operators of mutual funds.

While mutual funds are heavily regulated, they are not regulated like banks. The primary purpose of mutual fund regulation is to protect investors against abuses by fund managers and other insiders, and to require adequate disclosure so that investors can make enlightened decisions. The laws governing mutual funds require extensive disclosure to fund

shareholders as well as to the SEC and state authorities.

In reviewing mutual fund regulation, it is useful to examine how a typical mutual fund is organized and how its shares are sold to the public. A mutual fund is organized as a corporation or business trust with a board of directors elected by shareholders. The board is responsible for overseeing the fund's operations including selection of an investment adviser to oversee the fund's day-to-day operations. The investment adviser makes investments in line with the fund's investment policies and objectives, and conducts economic and financial research. A custodian is retained by the board for safekeeping of the fund's assets, and a transfer agent is retained to maintain shareholder ownership records and to process sales and redemptions of shares. The board also retains an underwriter to sell funds to investors, either directly or through brokers. Direct sales occur through the mail, over the telephone, or in fund offices.

Mutual funds are subject to substantial federal regulation and supervision. Under the Securities Act of 1933, each mutual fund is required to inform investors of its investment objectives and to provide a wide variety of other relevant information in a prospectus. The Securities Exchange Act of 1934 subjects distributors of mutual fund shares to regulation by the SEC, and purchases and sales of mutual fund shares are covered by the antifraud provisions of that Act. The Investment Advisers Act of 1940 requires registration of mutual fund advisers, prohibits fraudulent practices, and gives the SEC enforcement powers.

In particular, the Investment Company Act of 1940 imposes detailed requirements on the operation and structure of mutual funds to assure that each fund is operated in the best interests of its shareholders. These requirements include prohibitions on affiliated transactions, strict standards for the custodianship of fund assets, limits on the ability of mutual funds to issue senior securities, and

²² While much of the discussion in this section applies to money market mutual funds, the superficial similarity of their liabilities to bank deposits merits reserving money market mutual funds for the next section.

²³ For a wealth of data on mutual funds see, Investment Company Institute (1994).

requirements that all funds mark their portfolios to market on a daily basis, that share redemptions be paid within seven days, and that at least 40 percent of a fund's board of directors be independent from the fund's adviser.

As the federal regulator of mutual funds, the SEC reviews fund prospectuses and conducts regular examinations of mutual funds. These examinations cover such matters as valuation techniques, compliance programs, investment activities, and sales and redemption of shares.

Regulation of mutual funds is concerned primarily with disclosure and guarding against conflicts of interest. Mutual funds are investment products and shareholders can realize losses as well as gains. The SEC is not required to "second guess" investment decisions taken by mutual funds. This differs from bank regulation under which such steps may be necessary to support the safety and soundness of the banking system and of federal deposit insurance.

3. Money Market Mutual Funds

Money market mutual funds (MMMFs) merit separate attention because their liabilities superficially resemble bank deposits and, according to D&S, MMMFs are a crucial component of the "parallel banking system" because they purchase commercial paper issued by finance companies. Because only taxable MMMFs purchase commercial paper, this report emphasizes them, but it should be noted that tax-exempt MMMFs are an important element of the financial system.²⁴ Taxable MMMFs allow the public to invest in the safe and liquid assets of the money market—for example, U.S. Treasury bills, commercial paper, and banks' negotiable CDs. At the end of 1993, there were approximately 22 million accounts at 628 taxable MMMFs whose assets totaled \$462 billion.

Modern computer, communications, and accounting technology enables MMMFs to purchase and sell

assets, and to keep track of their customers' deposits and withdrawals at low cost. This and strong competition among MMMFs has produced low fees, allowing money market mutual funds to offer investors attractive returns while holding highly diversified portfolios of low-risk, short-term assets—typically with maturities of 90 days or less. Money market mutual funds have a stated objective of maintaining a stable net asset value and they provide shareholders with virtually perfect liquidity because shares can be redeemed by check or wire transfer.²⁵

TABLE 1

Taxable Money Market Mutual Fund Asset Composition—1993

(millions of dollars)

U.S. Treasury Bills	\$53,188.7
Other Treasury Securities	28,582.7
Other U.S. Securities	67,985.0
Repurchase Agreements	67,522.4
Commercial Bank CDs (1)	4,339.7
Other Domestic CDs (2)	20,709.3
Eurodollar CDs (3)	10,130.7
Commercial Paper	164,932.4
Bankers' Acceptances	2,320.9
Cash Reserves	(1,224.7)
Other	43,416.7
Total Net Assets	\$461,903.9
Average Maturity (4)	49 days
Number of Funds	628

Source: Investment Company Institute

(1) Commercial bank CDs are those issued by American banks located in the U.S.

(2) Other domestic CDs include those issued by S&Ls and American branches of foreign banks.

(3) Eurodollar CDs are those issued by foreign branches of domestic banks and some issued by Canadian banks; this category includes some one-day paper.

(4) Maturity (in days) of each individual security in the portfolio at end of month weighted by its value.

²⁴ As of the end of 1993, there were 292 tax-exempt money market mutual funds, which invest in short-term instruments of state and local governments. These funds had 2.0 million accounts and held \$103 billion of assets.

²⁵ Check-clearing and wire transfers are done by banks, which earn fees for these services.

While all money market mutual funds are required by SEC regulations to hold diversified portfolios of high-rated, short-term, highly liquid securities, there is specialization among funds. For example, some taxable funds are devoted exclusively to short-term Treasury securities, while others hold U.S. securities plus highly rated commercial paper and money market instruments issued by banks. As Table 1 indicates, taxable MMMFs are important sources of funds to the U.S. government through purchases of short-term securities, to commercial banks through purchases of their money market paper, and to major corporations through purchases of commercial paper.

In evaluating D&S's assertion that money market funds are part of the "parallel banking system," it is illuminating to compare these mutual funds to banks.²⁶ Money market mutual funds, like banks, offer their customers a high degree of safety and liquidity, but MMMFs do this by investing in highly diversified portfolios of safe and liquid assets traded in active markets. Unlike banks, MMMFs have a close balance between the liquidity of their assets and liabilities. They can handle substantial withdrawals simply by paying out cash flowing in from the large amount of assets maturing in any given day. Should this prove insufficient, they can easily sell their highly liquid assets in very efficient markets that are able to accommodate large transactions with ease. Banks, in contrast, offer highly liquid liabilities and engage in illiquid and risky activities while relying on deposit insurance to provide depositors with safety, and the Federal Reserve to assure liquidity. Money market mutual funds offer the public low risk, liquid accounts without the need for deposit insurance, direct access to the Federal Reserve, or the intrusive safety and soundness regulations that accompany commercial banking. Contrary to the claims of D&S, MMMFs are not part of a "parallel banking system," they are the product of a technological revolution allowing the public to achieve liquidity safety through indirect access to the money market.

4. Other Financial Intermediaries

While D&S concentrate their attention on MMMFs and finance companies as prime elements of the "dual banking system," their proposals for restructuring the financial system would affect virtually all financial firms including all mutual funds (not just MMMFs), life insurance companies, pension funds, mortgage bankers, and securities firms. Mortgage bankers and securities firms function more as providers of financial services than as financial intermediaries because they do not take a permanent position between surplus and deficit units. For that reason, mortgage bankers and securities firms will not be discussed in this paper. It is important to bear in mind, however, that D&S offer no arguments to support subjecting these important, well-functioning financial firms to the heavy hand of their proposed regulatory restructuring.

Life insurance companies and pension funds are financial intermediaries that serve the long-term needs of surplus and deficit units.²⁷ The ways that they do this are different, so they are covered separately.

a. Life Insurance Companies

Life insurance companies offer savings plans tied to insurance policies, and invest the proceeds in a number of long-term investments. Savers are provided liquidity through policy loans that, in effect, allow withdrawals from accounts. Life insurance companies invest in marketable securities, but their primary activities are in long-term investments in which specialized information is important. Thus, insurance companies grant long-term loans directly to businesses in the form of commercial mortgages and other means, and they are major recipients of privately placed corporate bonds.²⁸ In important respects, they perform the same kind of specialized lending services for the long-term that banks and finance companies provide for the shorter-term. Because of the growth of pension funds and mutual

²⁶ Here we are talking about conventional banking. Currently, many banking organizations sell mutual funds, including money market funds.

²⁷ Many mutual funds also specialize in serving the longer-term needs of surplus and deficit units.

²⁸ Carey, Prowse, and Rea (1993).

funds, savings plans tied to life insurance policies have become less popular with the public. To fill the void, life insurance companies have moved increasingly into pension fund management, which is discussed below.

State governments provide extensive prudential regulation of insurance companies in efforts to assure that companies will make good on their insurance obligations. There are regulations limiting the types of investments that insurance companies can make, and scores of other restrictions designed to protect the safety and soundness of the industry.

b. Pension and Retirement Funds

Pension and retirement funds have become the largest form of financial intermediation in the United States, controlling assets of approximately \$4.5 trillion. The spectacular growth of these programs has been a consequence of rising wealth, an aging population, and tax preferences for pension plans. Pension and retirement programs are administered by insurance companies and mutual fund sponsors, by bank trust departments and companies, and by state governments. Some of these programs are self-directed by employees. The four largest pension fund managers are banking organizations, followed by mutual fund advisers and insurance companies.

Pension funds are important sources of long-term financial resources to businesses and households.²⁹ Pension plans are like mutual funds in the sense that resources are pooled for investment. They differ from mutual funds in that their liabilities are illiquid.

Pension and retirement plans are regulated on the federal level through the Employee Retirement Income Security Act (ERISA) of 1974 which sets fiduciary standards, minimum funding requirements, and diversification standards. Although ERISA pre-empts most state regulation, insurance companies that manage pension funds remain subject to state regulation.

E. Modern, Full-Service Banking Organizations

Modern banks are no longer relatively simple institutions gathering local deposits and engaging in monetary activities, while lending to small businesses and consumers. Modern banking organizations do engage in these conventional banking activities but to a lesser extent than in the past. The term "banking organization" is used because operators of banks have considerable latitude in determining the corporate identity of the entity providing a particular service. A vast range of activities can be provided by the bank itself, by a subsidiary of the bank, or by a subsidiary of the bank's parent bank holding company. Because bank holding companies are regulated for safety and soundness as though they were banks, the corporate identity of the institution providing a particular activity within a banking organization is in large part a business decision.³⁰ The important point is that modern banking organizations are full-service financial institutions that engage not only in conventional banking activities but in virtually all of the activities pursued by specialized financial intermediaries, and more.

Let us begin with activities that are provided by the bank part of the organization. The deposit-taking and lending activities of modern banks are much more extensive than in traditional banking. Modern banks support most of their activities, not with transactions accounts, but with time accounts of various maturities issued to local customers and with instruments sold in national and international markets. Modern banks also do not restrict themselves to business loans, they also do a great deal of lending to consumers for such things as homes, cars, and credit card transactions, and they hold substantial amounts of debt issued by the federal government as well as by state and local authorities. Thus, even "conventional banking" covers a wide range of financial activities.

²⁹ Sellon (1992).

³⁰ Other factors held constant, operators of banking organizations tend to seek out the corporate form that will receive least regulation. Banking regulators may require certain activities (such as certain securities activities) to be conducted by a bank holding company subsidiary.

The many other activities of banking organizations are typically conducted by subsidiaries of bank holding companies rather than by banks themselves, but in most cases this is a legal distinction of little economic significance. With the single exception of life insurance, which federal law prevents them from offering, modern banking organizations engage in all of the forms of financial intermediation described in this paper. They operate thrift institutions, consumer and business finance companies, and mortgage companies; they manage pension funds and offer all kinds of mutual funds, including MMMFs; and they deal, broker, and underwrite not only conventional securities but also a staggering variety of derivative instruments. In short, modern banking organizations are not only full-service financial institutions, they are themselves major participants in the "parallel banking system."

1. Regulation of Banking Organizations

Although banking organizations engage in a wide range of activities often far removed from conventional banking, they are regulated as though they were banks. Thus, safety and soundness standards are applied to the finance companies, mortgage companies, and other nonbank financial intermediaries operated by bank holding companies. This produces the problem that financial intermediaries not affiliated with banks are subjected to the functional regulation applied to that particular industry, whereas the same kinds of financial intermediaries that happen to be affiliated with banks are subjected to the added layer of banking regulation. This is, perhaps, what D&S had in mind when lamenting the "unfair competition" of nonbanking institutions. But the reason that banking organizations are regulated like banks is that they are protected by the federal safety net. This allows them to operate with lower levels of capitalization and to raise funds more cheaply than otherwise would be the case, giving the finance companies and other nonbank financial intermediaries operated by banking organizations a potential competitive advantage over intermediaries not affiliated with banks.

It is not clear whether banking organizations are helped or hindered by their special status. No matter what the case, banking's special status creates the anomalous situation in which a given financial function, such as mortgage banking or operation of a finance company, is regulated in one way when provided by an entity not affiliated with a bank and regulated in another way and protected by the federal safety net when the entity is affiliated with a bank. The solution to this problem is not to subject entities unaffiliated with banks to bank-like regulation as D&S recommend. This would introduce a needless layer of regulation and added costs for financial functions that are performing well. The problem lies with banking, not with nonbank financial intermediaries. And the solution lies with developing methods of erecting sufficient barriers (so-called "firewalls") to separate the part of banking needing federal insurance and heavy regulation from all other functions pursued by banking organizations.³¹ With this accomplished, there is no need for the safety net to be spread under nonbanking functions and no need for these functions to receive bank-like regulation.

2. Banks' Declining Share of Financial Intermediation

Considering banking's strong move into nonbanking activities, it is difficult to understand any concerns about banking's competitive role in the financial system, except to lament the decline in the relative importance of conventional banking.

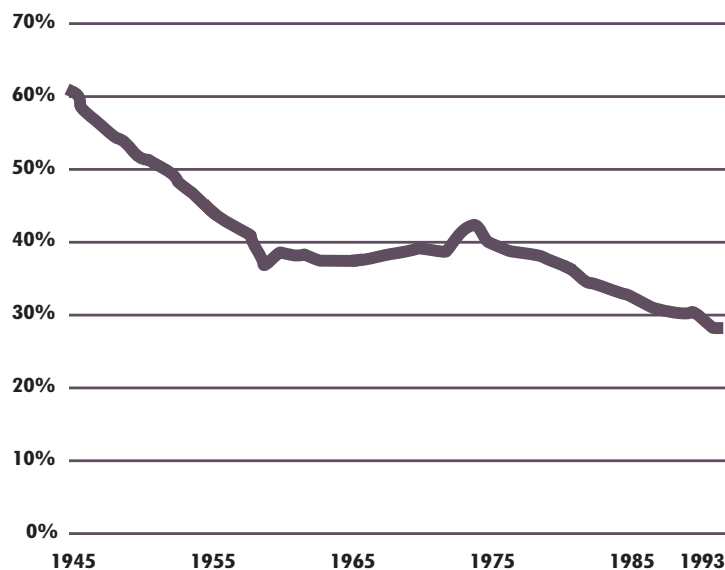
It is correct that banks' share in total financial intermediation has been declining, but this is not a recent phenomenon. Figure 1 shows, for the period 1945-1992, total assets in banking as a percentage of total assets held by all financial intermediaries—banks, thrifts, finance companies, mutual funds, life insurance companies, and pension funds. Banks' share of financial intermediation has been declining since the end of World War II. The only exception to the relentless downward trend was the inflationary decade of the mid-1960s

³¹ Pierce (1991b).

FIGURE 1

Banks' Share of Total Intermediation

(percent)



Source: Federal Reserve Flow of Funds Accounts

through the mid-1970s. Banks were losing out to nonbanks long before issues of "parallel banking systems" and "level playing fields" were raised by anyone. The decline since the mid-1970s, when technological advances allowed finance companies, mutual funds, and pension funds to prosper, was no more rapid than during the 1950s and early 1960s.

It is instructive to determine which nonbank financial intermediaries were growing relative to banks at various times. Figure 2 shows the share of total intermediation accounted for by the several players. Panel 1 shows the shares of banks, thrifts, and pension funds. It indicates that until the late 1970s, most of banks' lost share went to thrift institutions and pension funds. After that time, pension funds grew rapidly relative to banks while thrifts' share began a long decline. By the end of period, pension funds had replaced banks as the largest source of financial intermediation.

Panel 2 again shows banks' share, this time compared to those of life insurance companies, mutual funds, and finance companies. Life insurance companies, like banks, experienced a declining share

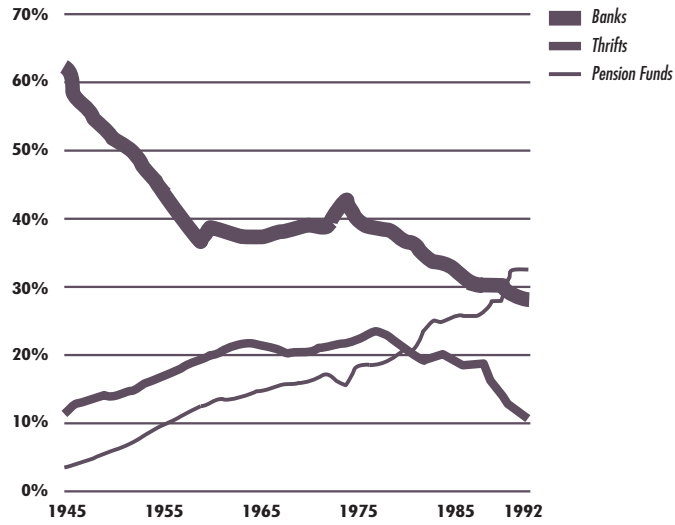
during the long period covered; they did not account for banking's falling share. The trends for finance companies have been upward but they have never reached a significant share relative to banks. In 1992, banks still accounted for 28 percent of total financial intermediation—their lowest share—while finance companies accounted for only 6 percent—their highest share. Mutual funds did not achieve a significant share of total financial intermediation until the late 1970s. Since that time, they have grown rapidly and by the end of the period they were the third largest source of intermediation, exceeded only by pension funds and banks.

It is important to bear in mind, however, that despite its decline relative to most other financial intermediaries, the banking industry is huge and continues to grow. The industry as a whole has over 11,000 banks controlling nearly \$4 trillion of assets. Furthermore, if banks are combined with thrifts—which now have powers similar to banks—to obtain a total for depository institutions, the share of this total still exceeds pension funds—39 percent

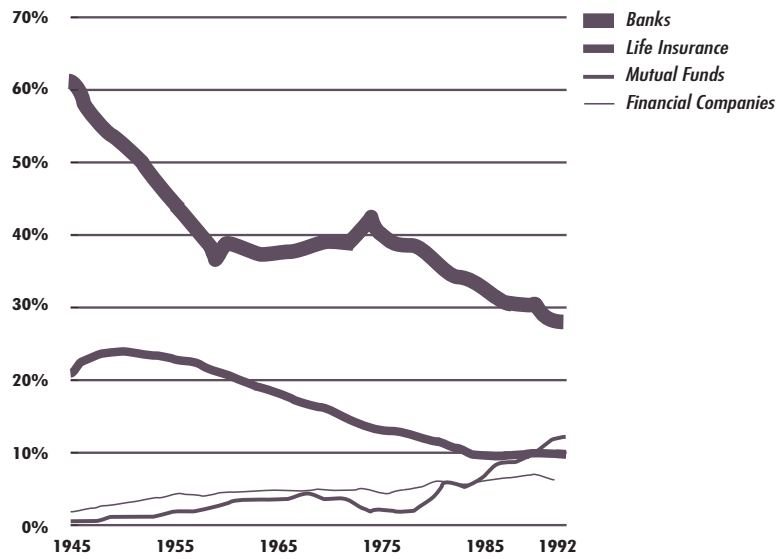
FIGURE 2

Financial Institutions' Shares of Total Intermediation
(percent)

Panel 1



Panel 2



Source: Federal Reserve Flow of Funds Accounts

for depositories and 33 percent for pension funds—although the gap is narrowing.

3. The Changing Nature of Conventional Banking

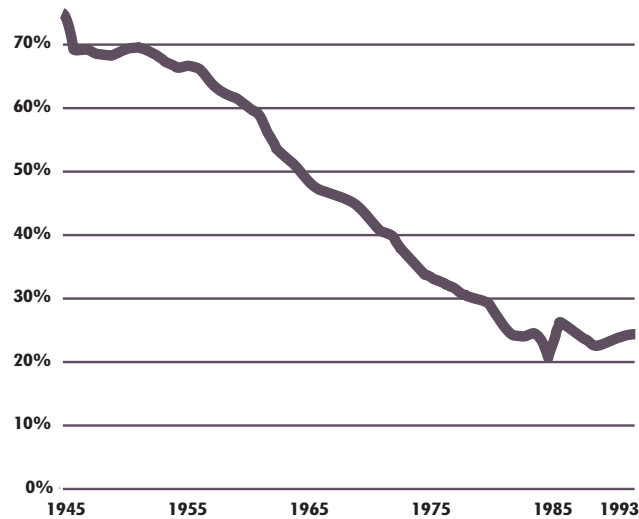
Banks have not only shifted into nonbank activities, they have also dramatically changed their "banking" activities. The days are long gone when banks obtain most of their funds from accounts payable on demand and use the proceeds to finance business loans. Figure 3 shows total transactions accounts in banks as a percentage of their total assets for the years 1945-1992. The percentage of bank assets supported by transactions accounts has fallen from nearly 80 percent to about 25 percent. Modern banks support most of their activities with conventional time accounts, and with a wide array of instruments sold in national and international money markets. They increasingly issue liabilities that resemble those of thrifts, mutual funds, and finance companies—except that bank liabilities are protected by the federal safety net. When it comes to liabilities, it is banks that have stepped onto

competitors' turf rather than nonbanks encroaching on banks, as D&S would have us believe.

Changes in banks' lending activities have been no less dramatic than for liabilities, although the changes have been more recent. Figure 4 shows bank loans for certain years in three decades: 1972, 1982, and 1992. In 1972, commercial and industrial loans were the major type of bank lending accounting for 18 percent of bank assets, followed by real estate loans and loans of individuals (consumer loans). In 1982, commercial and industrial loans had risen to over 20 percent of bank assets and real estate loans also increased relative to total assets. The importance of commercial and industrial loans, both in terms of total assets and relative to other forms of lending in the decades of the 1970s and 1980s, is consistent with traditional banking that serves the needs of business borrowers who lack access to markets. The data for 1992 show the fundamental change that has occurred in banking. Commercial and industrial loans not only fell to under 14 percent of total assets, their importance has been swamped by real estate loans which account for 27 percent

FIGURE 3

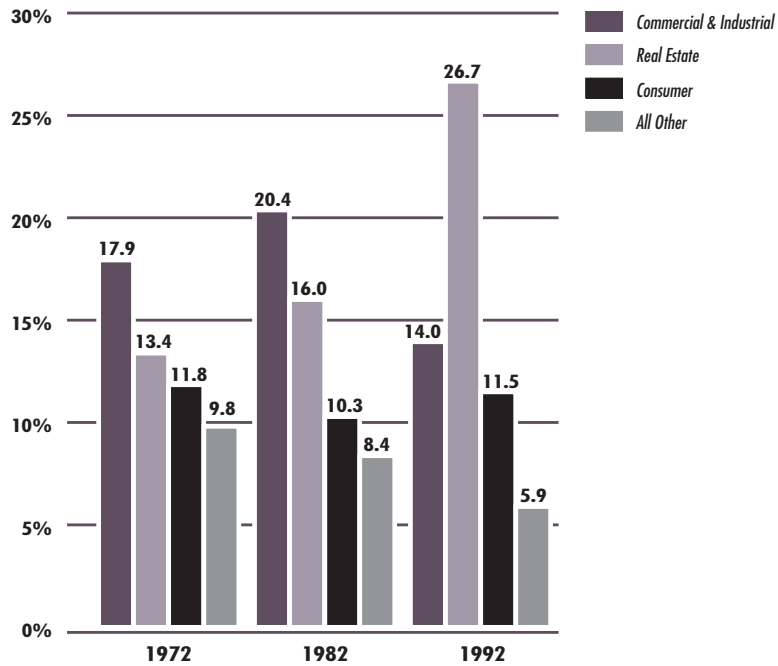
Transactions Accounts as Percent of Total Bank Assets



Source: Federal Reserve Bulletin (various issues)

FIGURE 4

Types of Loans as Percent of Total Assets of Commercial Banks



Source: Federal Reserve Bulletin (various issues)

of total assets—a percentage that had never been achieved by the banking industry for commercial and industrial loans.

Considering that the industry now more resembles thrifts than conventional banks, it is difficult to understand why D&S are so concerned about banks. This is an industry that generates only \$14 of commercial and industrial loans for every \$100 of assets. One would think that D&S should champion the finance company industry that generates about \$57 of business loans for every \$100 of assets. One wonders why D&S want to force everything into "banking" when most of banking's traditional activities have shrunk to a small proportion of what banking does.

In evaluating the importance of banking organizations, one should bear in mind that the amount of assets held by the industry is an increasingly unreli-

able indicator. There was a time not too long ago when banks were primarily in the "spread" business: they earned virtually all of their income from the positive spread between the interest income earned on the assets they held and the interest expense incurred on liabilities they issued. In that context, the amount of assets that banks held was a good indicator for the amount of financial services they were performing. Over time, the technological revolution that produced the spectacular growth of pension funds and mutual funds reduced the amount of financial intermediation that was done through conventional banks. More and more activities moved to the market. This meant that the positive spread for many assets was disappearing. Banks responded by reducing the growth of their asset-based activities in favor of selling a wide variety of services ranging from cash-management services, to brokering interest-rate and exchange-rate

swaps, to managing pension funds. These are all valuable financial services from which banks profit, but they do not entail the issuance of liabilities and acquisition of assets; they are "off balance sheet."

Thus, the apparent decline in the banking industry is, in reality, no decline at all, but simply a reflection of the shift from asset-based, spread-banking activities to sales of financial services. The decline in bank asset holdings as a percentage of total assets in financial intermediaries makes the banking industry look as though it is missing out when in fact it is simply changing with the times. The shift of banking organizations away from asset-based activities toward sales of financial services is likely to continue, and as it does the share of bank assets in the total will decline. This is not a cause for alarm or even concern. Banks will remain important. They are simply adjusting to market realities in a manner that does not show up in asset growth.

F. Deficiencies of the Financial System

The financial markets and institutions constituting the American financial system achieve an efficient and effective allocation of financial resources for most users. But there are those who, for reasons of income, education, race, or other factors, have not been able to reap the full benefits of the financial system. The inability to reach these groups constitutes a deficiency of the financial system. Most of the problems involve banks: they have closed down branches in lower-income areas and have moved progressively toward more "upscale" business. The result has been a deterioration in already low levels of banking services (e.g., check-cashing, depository, and loan) available in inner cities and other areas of relatively low income.

In 1977, Congress addressed the growing problem by passing the Community Reinvestment Act (CRA), requiring banks (and thrifts) to serve the needs of their communities including those of lower-income areas. The basic idea was that banks should "reinvest" (lend) in those communities in which funds had been obtained. The record clearly indicates that Congress placed this obligation on banks as a quid pro quo. Community service was

expected in return for the subsidy that had been bestowed on banks by federal deposit insurance.

The net benefits bestowed on banks have been reduced in recent years, however, as the government has moved to tighten regulation and replenish the deposit insurance funds in response to spiraling bank failures and the collapse of the S&L industry in the late 1980s. The Financial Institutions Reform, Recovery and Enforcement Act (FIRREA) and the Federal Deposit Insurance Corporation Act (FDICA) raised capital requirements for banks and thrifts, increased insurance premiums and curtailed the asset and liability powers of thrifts. With the subsidy less valuable, the extent of the quid pro quo that can be expected from banks to meet the conditions of the CRA is reduced. This may explain D&S's otherwise puzzling proposal to increase banks' profitability by tying the hands of all competitors. They apparently believe that if competitors can be sufficiently hindered, banks will return to profitability and be able to afford a greater commitment to the CRA and other social legislation.

If this is their reason for subjecting all nonbank financial institutions to reserve requirements, insurance premiums, bank-type regulation including restrictions on affiliations contained in the Bank Holding Company Act, and provisions of the CRA, then D&S are proposing that the tail wag the dog. While the important issue of community development is beyond the scope of this paper, a few comments are in order. Nonbank financial institutions provide funds for local communities, but they do so in a manner consistent with their economic functions. For example, mutual funds and pension funds purchase state and local bonds used to support community development, and they purchase securitized consumer and business debt. It is possible to increase these activities and enhance community development without destroying the efficacy of pension funds and mutual funds. Increased activities by state and local agencies in community development would produce more bonds for these nonbank financial intermediaries to buy. Similarly, market instruments produced by increased securitization of loans made in low income areas will be bought by pension and mutual funds, provided the risks of these instruments can be sufficiently limited. Efforts such as these exploit the strengths of nonbank financial institutions and could be beneficial to community development. But it is

neither necessary nor desirable to disrupt and distort the entire financial system as D&S propose in the hope that such action would encourage more community development activity.

The appropriate way to deal with community development is to deal with the issue directly. If it is deemed desirable to increase the commitment of financial resources to low-income areas above the level provided by private markets and institutions, then direct subsidies and other inducements should be offered. There is little doubt that the quantity and quality of financial resources should be increased in inner cities and other low-income areas. But this should, and can, be done without messing up the entire financial system in the process.

III. SECTION-BY-SECTION CRITIQUE OF THE "PARALLEL BANKING SYSTEM"

A. The Development of a Parallel Banking System

D&S include all nonbank financial intermediaries in their regulatory restructuring proposal. But they apparently believe that MMMFs and finance companies are most important because, when the two are combined, they constitute a "parallel banking system."

A parallel banking system emerged during the 1970s with the introduction of MMMFs. These funds helped expand the commercial paper market and offered finance companies cheaper and more plentiful funds by purchasing their paper. The parallel system divided intermediation between two separate entities, each of which dealt directly with the public through only one side of the balance sheet.

Banks do deal with the public on both sides of the balance sheet when they accept deposit liabilities from the public and lend directly to the public, but not all of bank activities follow this model. Conventional banks issue market instruments just as finance companies do, and they purchase U.S. government securities and other market instruments just as MMMFs do. In fact, the money market obligations of banks far exceed the commercial paper debts of finance companies, and bank holdings of market securities far exceed those of MMMFs.

MMMFs deal with the public only through the liability side of the balance sheet—ownership shares—because their assets are market securities. Finance companies deal with the public through the asset side of the balance sheet—loans—because their liabilities are market instruments. The circle is closed when MMMFs purchase the commercial paper issued by finance companies.³² D&S view the nexus of MMMFs and finance companies as a "parallel banking system." It is nothing of the sort.

It is difficult to know what a bank is these days because banking organizations engage in so many activities. But at its core, a bank is an institution that issues deposit liabilities payable on demand at par while granting opaque loans. As explained earlier, this is a perilous combination producing instability in the absence of the federal safety net. Modern technology allows MMMFs and finance companies to specialize in ways that serve the needs of surplus and deficit units while avoiding the instabilities. Finance companies do not fund their opaque loans with obligations issued to the general public, payable on demand at par. They use market instruments instead whose average maturity matches that of loans held. Their liabilities are held by large, knowledgeable investors who are able to assess and manage risk. These investors exert meaningful market discipline. MMMFs back their highly liquid shares with highly liquid and safe assets, not by opaque loans as is the case with banks. MMMFs combined with finance companies do not constitute

³² Less than half of money market fund assets are in commercial paper and not all of this paper is issued by finance companies.

a parallel banking system. Rather, they are financial institutions that have taken advantage of technology and market opportunities to match their assets and liabilities in ways that avoid the instabilities experienced by banks. These financial intermediaries have taken business away from banks because they have better products.

According to D&S "...The spread of the parallel banking system is rooted in regulatory inequalities." They cite several "cost advantages" enjoyed by MMMFs that can be passed on to their customers. For example, they do not have reserve requirements, they do not pay deposit insurance premiums, they have low costs in obtaining information about their assets, they do not have to "maintain offices and automated teller machines (ATMs) that provide services to less affluent and less sophisticated depositors and borrowers," and they do not have to comply with the Community Reinvestment Act and other "fair-credit" statutes.

According to D&S, finance companies also enjoy important advantages over banks, including benefiting from the cost advantages enjoyed by MMMFs: "...finance companies grew as a sector by accessing the expanding supply of lower-cost household savings drawn to MMMFs." D&S also assert that finance companies have a substantial advantage over banks because they are not subject to legal prohibitions on affiliation with insurance and securities activities, or commercial enterprises, and they are not subject to the CRA.

In interpreting why MMMFs and finance companies have flourished, D&S manage to turn matters upside down. The federal safety net—deposit insurance and direct access to loans from the Federal Reserve—is a subsidy bestowed on banks. Prior to the technological revolution, this subsidy allowed banks to raise vast amounts of funds for investment in loans and other potentially risky ventures. Other financial institutions had difficulty competing with banks because their liabilities were substantially more risky than those issued by banks. Advances in technology fundamentally altered the situation.

MMMFs could offer customers highly liquid, low-risk assets paying a competitive return. Finance companies could use market instruments to fund opaque loans. These feats were a consequence of innovation, not of unfair advantages, and they were accomplished without the protection of the federal safety net and without the need for the heavy-handed regulation imposed on banks.

Let us consider the specific advantages that D&S claim MMMFs enjoy over banks. It is true that MMMFs do not have reserve requirements, but D&S greatly exaggerate the implications:

Because reserve requirements "sterilize" \$10 (\$12 before February 1992) of every \$100 of demand deposits, only \$90 (\$88 previously) can be invested in interest-earning assets. Since MMMFs can place all their funds in interest-bearing investments, their return on total assets is higher. Thus, they can offer savers a higher yield on their liabilities.

There are remarkably many things wrong with this statement. To begin with, banks have a reserve requirement on their aggregate net transactions account liabilities, not just on demand deposits. Currently, this reserve requirement is 3 percent on the first \$46.8 million of a bank's net transactions accounts and 10 percent on any amount in excess of that figure. The requirement can be met by balances at the Federal Reserve and by bank holdings of vault cash. It is important to note that banks would hold idle funds in the absence of reserve requirements. For many banks, the money held to cover cash withdrawals and the balances held at the Federal Reserve to handle interbank funds transfers equal or exceed their required reserves. For these banks, the reserve requirement is not a tax.³³

Furthermore, only about 20 percent of bank liabilities are net transactions accounts and subject to reserve requirements. The remaining 80 percent has no reserve requirement at all. For example, banks offer insured money market deposit accounts in direct competition with MMMFs; these accounts have no reserve requirement, and neither do the

³³ Because money market funds hold no vault cash and have no clearing balances, reserve requirements would be a tax for them.

savings and time accounts that are competitive with MMMFs. For the banking system as a whole, required reserves are less than 2 percent of total bank liabilities.³⁴ Thus, on average, over \$98 of every \$100 of bank liabilities is available for investment in earning assets, and if the \$100 is in a money market account, a savings account, or a time account, the entire amount is available for productive investment. Because banks support their asset holdings not only by liabilities but also by capital, less than 1.5 percent of bank assets is in required reserves. Assuming that banks pay an average interest rate of 3 percent on their deposit liabilities, elimination of required reserves would allow them to pay at most an extra 5 basis points; their offering rate could rise to 3.05 percent. It is difficult to find a competitive advantage for MMMFs when it comes to reserve requirements.

When one considers the scope of investments available to MMMFs relative to those available to banks, the competitive advantage should go to banks because they can offer federally insured accounts paying higher rates of interest than can be obtained on money market fund shares. MMMFs are restricted to investments in short-term U.S. government securities, highly rated commercial paper, and short-term liabilities issued by banks. Because of their nonexistent or very low risk, these assets earn a low rate of return relative to riskier alternatives. In contrast, commercial banks are allowed to engage in all sorts of risky activities ranging from commercial real estate to financing highly leveraged transactions. Because of their far greater risk, these activities pay a higher return than that available from MMMF investments. D&S are incorrect in stating that "since MMMFs can place all their funds in interest-bearing investments, their return on total assets is higher. Thus, they can offer savers a higher yield on their liabilities." In principle, banks should always be able to offer a higher return. It is remarkable that a combination of competition among banks and bank inefficiency has created the situation where the banking industry cannot offer deposit returns that exceed MMMFs.

The other "advantages" that D&S attribute to money funds have nothing to do with regulatory issues but rather with difference in activities performed by MMMFs relative to banks. D&S credit MMMFs with the cost advantage of not having to pay deposit insurance "premiums." This is a strange argument indeed. MMMFs pay no premium because they have no insurance. For banks, the value of deposit insurance exceeds the costs of premiums; the insurance gives banks a competitive advantage over institutions unable to offer it. If insurance were made available to MMMFs, the premium would be far lower than for banks because MMMFs, unlike banks, have very low risk.

D&S also point out that money funds have low cost in obtaining information about their assets and do not maintain offices and machinery as costly as banks. This is true, but so what? MMMFs are in the business of collecting and pooling customers' money for investment in short-term instruments traded on national markets. With modern technology, these activities can be achieved at low cost. Banks are in the business of providing payment services and granting opaque credit. These activities are more costly, but if they have economic value customers are willing to pay for them. There is no competitive disadvantage implicit in the activities conducted by banks relative to money funds.

D&S's claim that the absence of regulatory restrictions gives finance companies competitive advantages over banks also does not stand up to scrutiny. According to D&S, finance companies grew relative to banks because they have access to large amounts of low-cost funds from MMMFs. Part of their "evidence" is the high share of finance company paper in total commercial paper outstanding. This is no evidence at all. Prior to the technological revolution that sparked MMMFs and the commercial paper market, finance companies totally dominated the commercial paper market. For example in 1966, finance companies accounted for 94 percent of all commercial paper outstanding. The technological revolution opened the market to large nonfinancial firms. The growth of commercial paper issued by these firms was so rapid that by the

³⁴ Required reserve are about \$57 billion while total liabilities are approximately \$3,350 billion.

1980s the share of commercial paper issued by finance companies had fallen to under 70 percent.

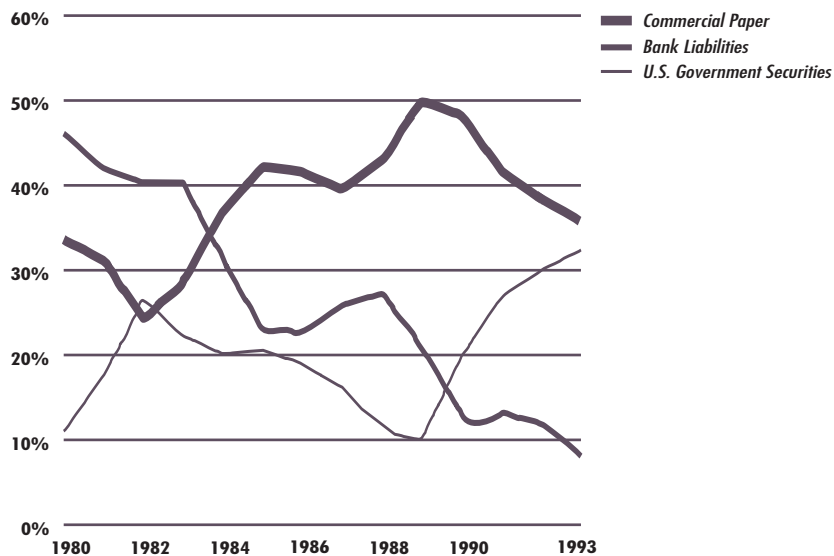
Now let us consider the role of MMMFs in providing credit to finance companies. Money market fund investments include U.S. Treasury bills, highly rated commercial paper issued by financial and nonfinancial firms, and other instruments, such as negotiable CDs, short-term Eurodebt, and acceptances issued by commercial banks. Thus, commercial banks, finance companies, and other issuers of commercial paper have access to the same pool of funds. Money market fund investments are driven by safety and yield, not by whether the issuer of an otherwise attractive instrument happens to be a bank or a finance company. Issuers of commercial paper must compete for funds not only among themselves but also against the U.S. Treasury and banks. Interest rates on Treasury bills, commercial paper and money market instruments issued by banks are highly correlated and the differentials among them are slight. For example, in the period 1975-1992 the differential between the interest rate on six-month Treasury bills and six-month commercial paper rate averaged 55 basis points while

the differential between the bill rate and the interest rate on negotiable CDs of the same maturity averaged 44 basis points.³⁵ If finance companies want to borrow more in the commercial paper market, they raise the offering rate. If banks want to borrow more in the money market, they raise the offering rate on their negotiable CDs and other instruments. MMMFs and other investors respond by increasing their acquisitions of the instrument whose interest rate has risen. Finance companies (and nonfinancial firms) have been able to borrow substantial amounts from MMMFs and other investors because they have offered a more attractive interest rate (relative to risk) than commercial banks.

The composition of money market fund portfolios changes with the availability of alternative money market instruments and with the relative interest rates paid on them. Recently, commercial banks have cut back on their money market liabilities, and as a consequence money market fund holdings of bank obligations are relatively low—only 12 percent of total assets in 1992, and 8 percent in 1993. In 1980, banks were aggressive, and

FIGURE 5

Percent of Major Assets in Money Market Fund Portfolios



Source: Investment Company Institute

³⁵ All interest rates calculated on investment yield basis.

money funds held 46 percent of their assets in banks' money market instruments.

Figure 5 shows for the years 1980 through 1993 the shares of aggregate money market fund portfolios devoted to the three major categories: U.S. government securities, liabilities of commercial banks, and commercial paper issued by nonfinancial and financial corporations. The figure reveals wide fluctuations in relative portfolio shares. For example, the share of money market fund portfolios devoted to U.S. government securities drifted down during most of the 1980s, reaching a low of 10 percent in 1989, and then shot up, reaching 32 percent in 1993.

Holdings of commercial paper moved in a reverse direction from government securities. Commercial paper's share drifted upward during most of the 1980s, reached a peak of 50 percent in 1989, and then fell sharply to 36 percent in 1993. In 1980, the money market liabilities of banks comprised 46 percent of assets held by MMMFs. Since then, the share has drifted downward as banks slowed the rate at which they issued money market liabilities in reflection of the move of prime customers to the money market. Note, however, that there were episodes, such as 1983-84 and 1987-88, when MMMFs increased their portfolio shares of banks' money market obligations. But the share dropped in 1990 to 13 percent as banks sharply curtailed their issuance of money market liabilities, and by 1993 the share stood at a low of 8 percent. Further note that the sharp decline in MMMFs' relative holdings of bank liabilities in the 1990s was accompanied by an even sharper reduction in the share of their portfolios devoted to commercial paper. The portfolio category that increased was U.S. government securities.

The moral of all this is that the shares of the three major categories in money market fund portfolios vary with market conditions and investment opportunities. MMMFs have no bias against bank liabilities or in favor of commercial paper. They invest in

those money market instruments giving their shareholders the highest return consistent with safety and liquidity.

D&S assert that because finance companies can be affiliated with insurance, securities, and commercial firms, they enjoy advantages over commercial banks which are barred from such affiliation. D&S do not spell out what these purported advantages are, so it is difficult to evaluate them.³⁶ One potential advantage that some finance companies enjoy is the ability to obtain funds from their parent firms, which allows them to borrow more cheaply in the commercial market than otherwise would be the case. This issue is treated in some detail below, but one comment is in order at this point. Commercial banks enjoy the protection of the federal safety net. This is something that no parent of a commercial paper issuer can duplicate. Federal government protection of large banks—the issuers of negotiable CDs and other money market instruments—gives them a safety advantage over any private, unprotected issuer of commercial paper.

D&S would also restrict the activities of mortgage companies, pension funds, mutual funds, and other participants in the mortgage market on the grounds that they are part of a "shadow banking system." These institutions are not shadows of anything; they thrive in the mortgage market because of a technological revolution that allowed the securitization of home mortgage loans. Mortgage securitization has given ordinary households access to a national mortgage market at interest rates below those that had formerly been available at financial institutions.³⁷

B. Banks' Role in Promoting the Parallel Banking System

D&S assert that banks have played a crucial and perverse role in promoting the commercial paper market and, therefore, the money market fund-

³⁶ Toward the end of their paper, D&S allude to potential anticompetitive practices that could flow from affiliation of finance companies with the types of enterprises prohibited for banks. It should be noted that they offer no examples of actual abuses.

³⁷ Hendershott and Shilling (1989), Craine (1993).

finance company nexus that they view as the major element in the parallel banking system.

Perhaps the greatest irony associated with the parallel banking boom is the degree to which it has been aided by commercial banks' provision of additional stability and liquidity to their unregulated competitors. Given its reliance on the commercial paper market as a source and use of funds, the parallel banking system is not inherently stable. Each component of the system shares the banking industry's susceptibility to runs. A failure in any one segment could spread rapidly to other financial and nonfinancial companies that issue or hold commercial paper. The absence of soundness standards and supervision increases the potential for surprise events that could trigger a breakdown. But, historically, major losses and even defaults by commercial paper issuers have not resulted in runs. The reason is back-up credit lines provided by federally insured commercial banks to a variety of commercial paper issuers, including finance companies.

Their statement indicates an unfortunate misconception about how the commercial paper market works while implicitly providing an indictment of the very bank regulation that they would like to see extended to virtually all financial intermediaries.

Commercial paper is low risk not only because of the quality of issuers but also because there are orderly exits from the market should an issuer experience difficulties. Bank lines of credit allow orderly exits to occur. An issuer that is unable to roll over maturing paper either because of general turmoil in the market or because it experienced a rating downgrade can draw on its bank line of credit, providing it with the liquidity to continue operations while paying off remaining commercial paper as it matures. This mechanism allows markets to remain liquid even during financial crises because the Federal Reserve provides the necessary liquidity to banks to honor credit lines.

Contrary to the assertions of D&S, the commercial paper market is not unstable and is not subject to runs in the sense that uninsured commercial banks

would be. Banks are susceptible to runs because depositors may not be able to distinguish safe banks from unsafe ones. The commercial paper market is reserved for only the highest quality borrowers. At the first sign of difficulty, they receive a reduced rating and are, in effect, told to leave the market. The downgrading of one issuer has no particular implications for others and does not induce a flight from commercial paper.³⁸

As was noted earlier, when banks grant guarantees (irrevocable letters of credit) to commercial paper issuers they are in effect absorbing the issuers' credit risk. The banks' guarantees have status in the commercial paper market because of the federal safety net that protects banks. Banks charge fees for these guarantees and are, in effect, selling the subsidy bestowed on them by the safety net. Banks' credit guarantees are most valuable, not to finance companies, but to firms that otherwise would not have access to the commercial paper market. It is remarkable that banking regulators have only recently begun to control the use of these credit guarantees. The slowness with which regulators moved to limit bank risk in granting irrevocable letters of credit hardly makes one optimistic about extending bank-like regulation to virtually all financial institutions.

C. Structure, Operation, and Problems of Finance Companies

D&S devote a substantial portion of their paper to a detailed discussion of finance companies. Some of that discussion is a useful summary of the current structure of the industry and will not be reviewed here. But part is either erroneous or incomplete, and deserves review.

Perhaps most central is the assertion by D&S that "... Enriched by their ties to powerful industrial and commercial parents, large finance companies have risen to the top of the financial market." What D&S fail to observe is that the financial strength of finance companies and parents has allowed them to compete with banks for funds *despite* the

³⁸ Gorton and Pennacchi (1992) and Schnure (1993).

singular advantage that banks enjoy of protection by the federal safety net. Many large finance companies indeed are affiliated with wealthy corporate parents that can serve as a source of strength in adversity. It is this financial strength that keeps the cost of funds so low for finance companies.

D&S point out that finance companies are vulnerable to loan losses just as banks are. This is true, but they fail to note that the much stronger capital positions of finance companies—often augmented by resources supplied by parent firms and aided by a better balance between the duration of assets and liabilities—allow them to weather much larger storms than can the lightly capitalized banking industry.

D&S provide a detailed account of the difficulties experienced by several finance companies in the early 1990s as examples of the industry's vulnerability. But rather than illustrating vulnerability, the examples offer strong evidence of the ability of private markets to deal with problems in a constructive and stabilizing fashion.

With the recession of the early 1990s, loan losses at finance companies increased and parents of several finance companies experienced difficulties of their own. While the problems were quite severe in some instances, the commercial paper market and the finance company industry were able to weather the storm, demonstrating remarkable stability and flexibility in the process. D&S's rhetoric to the contrary, this was a major success story.

Perhaps Westinghouse Credit was the most celebrated case. Hit with large losses, and despite cash injections by the parent company of nearly \$600 million in 1990, the finance company lost its credit rating and with it the ability to issue commercial paper. An orderly withdrawal from the commercial paper market followed in which Westinghouse Credit drew on credit lines at some 50 banks, both domestic and foreign. These creditors have overseen an orderly liquidation: assets were securitized and sold, and maturing debt was not renewed. Note that despite the difficulties the finance company experienced, MMMFs and other commercial paper holders were protected, and no crisis occurred in the commercial paper market. The process worked according to design.

The experiences of the finance companies operated by the three domestic auto producers serve as further examples of how problems were dealt with. Hit by weak sales during the recession, the three auto companies experienced reduced ratings for debt. This in turn led to a downgrading of the ratings of their finance companies because the parent companies were less able to serve as a source of strength for them. The problems were most severe at Chrysler Financial. A \$1.1 billion cash injection from the parent in 1990 allowed the finance company to roll over its maturing commercial paper, but further deterioration forced Chrysler Financial to withdraw from the commercial paper market. Like Westinghouse Credit, it had to adjust by drawing on bank lines and by reducing assets—both by securitizing receivables and by not replacing all maturing loans. Ford and GM faced less severe problems but they also had to use bank lines and securitize assets.

Other finance companies also experienced problems during the recession, including John Deere Capital and Household Finance. D&S suggest the difficulties in the finance company industry was a disaster. It was not. Markets adjusted smoothly in response. Credit ratings were reduced and access to the commercial paper market was reduced. MMMFs and other investors in the commercial paper market were protected as maturing commercial paper was replaced with bank credit.

It is notable that the commercial paper market and finance company industry performed far better than the protected thrift and banking industries. There was no equivalent of the S&L debacle or massive number of bank failures. Private markets and incentives produced much better performance than was achieved by the government-protected and controlled thrift and banking industries. There is certainly nothing in the performances of the commercial paper market and finance companies relative to that of banks to support D&S's proposal to inflict bank-like regulation on nonbank institutions.

D. Implementing Monetary Policy and Performing the Lender of Last Resort Function

1. Reserve Requirements

D&S believe that reserve requirements are key to an effective monetary policy.

Reserve requirements can be an effective policy tool—but only if they affect a critical mass of institutions that hold the liquid funds of households, businesses, and other relevant economic sectors. The immense growth in MMMFs, credit card usage, and other parallel lending phenomena has narrowed the institutional mass that made this tool so effective in the past.

Their concerns about reserve requirements are misplaced. Historically, the Federal Reserve rarely used reserve requirements as a monetary policy tool, and in recent years it has been phasing them out. As mentioned earlier, aggregate required reserves are currently less than 2 percent of total bank liabilities. If reserve requirements were a key element, this would be a very slim foundation upon which to base monetary policy. But monetary policy does not need reserve requirements to be effective and issues of "institutional mass" are irrelevant.

The Federal Reserve uses open-market operations (purchases and sales of government securities) to conduct monetary policy. This policy remains effective despite the large reductions in level and coverage of reserve requirements, and despite the declining share of banks in financial intermediation. Moreover, there is growing awareness that reserve requirements are not needed for effective monetary policy.³⁹ Several countries, including Switzerland, Australia, Denmark, and Belgium, have no reserve requirements, yet they enjoy effective monetary policies. Canada is in the process of eliminating reserve requirements; they are minimal in the U.K., and very low in Japan and France. While the reserve requirement ratio remains relatively high in the United States, its coverage is sufficiently limited

as to produce low levels of required reserves relative to bank liabilities.

As discussed earlier, reserve requirements do not pose a serious competitive disadvantage for banks. But if anyone is concerned about their potential competitive impact, the solution lies in joining the growing list of countries that have eliminated reserve requirements for their banks, not in imposing reserve requirements on nonbank financial institutions.

2. Lender of Last Resort

D&S are also concerned that the growth of non-bank financial institutions has blunted the efficacy of the Federal Reserve's function as lender of last resort. They fear that with less of the financial system operating through banking, the availability of loans through the Fed's discount window to banks will be less efficacious in dealing with liquidity panics than had previously been the case. There may be something to this concern, but it should be evaluated carefully.

To begin with, banking is still pervasive and it has contact through credit lines and other means with most facets of the financial system. Thus, the banking system continues to serve a conduit function when a liquidity crisis—in the commercial paper market or elsewhere—forces market participants to borrow from banks. The Federal Reserve lends to banks and banks lend to participants of the market experiencing a liquidity crisis.⁴⁰ When the crisis is over—which is usually a matter of hours or days—borrowers return to their markets, repay their bank loans and the banks repay the Fed. As a further safeguard, the Federal Reserve has authority to lend to nonbanking institutions on an emergency basis. Absent a declaration of emergency, these institutions must turn to banks which have access to Federal Reserve credit.

D&S are concerned that the widespread provision of bank credit lines has compromised the Federal Reserve's lender of last resort function.

³⁹ Weiner (1992).

⁴⁰ In the process, of course, banks get fee income from selling their access to the Fed.

In the event of a parallel banking system crisis, the Federal Reserve may not have the option to choose the institutions or markets to which banks will channel the liquidity it makes available. Banks have already made those choices by issuing guarantees. The Fed will have to endorse those guarantees to protect the banks.

This statement reveals a fundamental misunderstanding of how the discount window functions. In order for the Federal Reserve to function as an effective lender of last resort, funds must be made available quickly and essentially without question. The Fed does not decide what banks are accommodated and for what purposes. As long as a bank has acceptable collateral, and cannot get funds elsewhere, it is accommodated at the discount window. The basic idea is to head off a crisis of confidence by making funds available to markets and firms that are suffering temporary liquidity problems due to a crisis. Once the crisis has passed the Federal Reserve's loans are repaid and matters return to normal. This approach has worked well in dealing with crises, including the commercial paper crisis of 1970 and the stock market crash of 1987. There is no reason to believe it will not continue to function well.

E. Concentration and Anticompetitive Practices

D&S are concerned that the U.S. financial system is becoming less competitive, particularly when it comes to providing services to medium- and small-sized borrowers and creditors (depositors). They provide no evidence to support their thesis except to point to consolidation within the banking industry and to quote concentration ratios for finance companies and banks.

Rising levels of institutional concentration made it harder for the financial system to assist the development of small, innovative companies.... Large institutions with large pools of funds deemed it unprofitable to finance small firms....

They provide no evidence, because there is no evidence, to back up the assertion that large institutions deem it unprofitable to lend to small, innova-

tive companies, while by implication, small institutions deem it profitable to lend to these companies.

Concentration ratios calculated for any particular part of the financial system should be interpreted with considerable care because there is competition among the various parts. For example, members of the finance company industry compete not only with each other but with banks, credit card companies, and others. What is important to borrowers is not who provides the credit but its terms and availability. Similarly, banks compete not only with each other for customers' deposits but with MMMFs, mutual funds generally, the securities markets, and others. Given the large number of providers of lending, depository, and investment services in the U.S., the burden of proof must fall on observers like D&S who assert that competition is weak. They have not met this burden.

F. Uniform Regulatory Requirements

D&S propose to resuscitate banking by subjecting its competitors—actual and potential—to all the regulatory costs of banking without bestowing any of banking's benefits on them. They propose a "Financial Industry Licensing Act" that would subject all financial institutions to federal, bank-like regulation. The new Act would supersede existing federal laws "...including (but not limited to) the Bank Holding Company Act, the Investment Company Act, the Securities Acts, and the McCarran-Ferguson Act." The proposed Act contains no provisions conferring on nonbanks the benefits that banks enjoy, such as protection of the federal safety net (deposit insurance and access to the discount window), or access to payments system—currently a monopoly of the banking system. Nonbank financial intermediaries would be exposed to all the regulatory costs of banking without receiving any of the benefits, hardly a level playing field. D&S apparently seek to return banking to its earlier prominence by killing off the competition.

D&S concede that their proposal is diametrically opposed to virtually all recent proposals.⁴¹ For rationale and precedent they point, remarkably, to actions taken by the Federal Reserve in 1980 under the Credit Control Act subjecting nonbanking firms to federal credit restraint programs. Among the various actions taken were imposition of a reserve requirement on extensions of consumer credit from all nonbank lenders, and MMMFs were also assessed a reserve requirement. According to D&S, "The Fed's program illuminated the parallel, partially regulated, banking system—but only in the most brief and incomplete fashion.... Since that experiment, the role of the parallel system in U.S. credit markets has been ignored." They neglect to observe that the emergency program was a disaster. The ill-advised program was quickly abandoned after financial markets fell into turmoil and the economy plunged into recession. The lessons of this unhappy episode were sufficiently dire that Congress allowed the Credit Control Act to lapse under its sunset provisions. Congress took away authority to impose reserve requirements and other restrictions on nonbanks even under emergency circumstances. The experiences of 1980 are hardly an impressive precedent or rationale for D&S's proposal.

G. Broad Coverage of Financial Institutions

D&S would extend coverage to every financial intermediary and institution operating in the United States. "Comparable soundness requirements and prohibitions against unfair competition or excessive concentration" would apply to any entity that (1) directly accepts funds from the public for investment; or (2) makes loans to the public or buys securities using funds other than its own equity capital and retained earnings; or (3) sells loans or securities to financial institutions or investors. The coverage is sufficiently broad to include almost everyone, including mutual funds, finance companies,

securities firms, pension funds, insurance companies, mortgage companies, government sponsored financial institutions, and the Farm Credit System. About the only entities not covered would be pawnbrokers, check cashers, and money order firms.

Each of the entities to be covered would be required to apply for a federal license that would be eligible for periodic renewal subject to the entities' conformance with specific "public-obligation" and soundness requirements. Public obligations would include, at a minimum, compliance "with the standards set forth in the Community Reinvestment Act, Home Mortgage Disclosure Act, Truth in Lending Act, Equal Credit Opportunity Act, Fair Credit Reporting Act, and other federal statutes related to fair lending." We are not told how entities whose activities involve market securities, such as mutual funds, pension funds, and securities firms would be expected to carry out their "public obligations" under CRA and other statutes not designed or intended to include them.

Soundness restrictions would include imposition of "comparable reserve, capital, and liquidity requirements where applicable." Uniform risk-based capital requirements, diversification requirements, and other standards would also be applied, along with uniform disclosure. D&S are silent on both the rationale and the practical difficulties of imposing uniform "soundness requirements" on money market funds and mutual funds generally, and on pension funds and other entities that hold market securities.

D&S also would effectively eliminate ownership of financial entities by nonfinancial firms by subjecting all parent companies to the same licensing and regulatory requirements as their financial affiliates.

⁴¹ Tobin (1986), Pierce (1986,1991a), Kareken (1986), Litan (1987), Gorton and Pennacchi (1992), Merton and Bodie (1993), National Commission of Financial Institution Reform, Recovery and Enforcement (1993).

IV. CONCLUSIONS

Although they have not demonstrated that it is either desirable or necessary to do so, D&S propose a radical restructuring of the U.S. financial system that would subject all financial institutions to bank-like regulation. While they never explicitly say so, if one reads between the lines, D&S appear to be trying to remove banks from competition, at least in part, on the grounds that banks, and small banks at that, best serve small- and medium-sized customers. If this is their rationale, they are going to great extremes to achieve a quite limited goal. The comments offered earlier about community development apply equally well here. There is no hard evidence to either support or refute rhetoric that small- and medium-sized businesses suffer from insufficient financial services. If it is true, however, that free markets do not provide a socially optimal amount of services to small- and medium-sized businesses, then the appropriate response is to use subsidies and other direct methods to increase funds for them. It is not appropriate to turn the entire financial system on its head, as D&S would do, on the grounds that preferred segments of the community might be benefited.

D&S have misinterpreted the reasons for banking's problems, and as a consequence have devised faulty solutions. Resources have been allocated away from conventional banking, not because competitors have an unfair advantage, but because a technological revolution has eliminated much of the banking industry's historic advantage in providing financial intermediation services. The appropriate policy is to allow resources to leave conventional banking rather than pursue programs, as D&S propose, to prop up banking by restricting competitors.

It is instructive in this regard to consider the findings and recommendations of the National Commission of Financial Institution Reform, Recovery and Enforcement (NCFIRRE), a bipartisan commission appointed by the President and Congress to determine the causes of the S&L debacle and to recommend reforms for deposit insurance and regulation of depository institutions. The NCFIRRE identified attempts to retain resources in the S&L industry that had lost much of its advantage in financing home-ownership as an important ingredient in the debacle. The Commission warned against attempts to use depository institutions as vehicles for achieving national credit goals. It called for greater reliance on market discipline in controlling depositories, and it concluded that government insurers and regulators should be given highly limited and well-defined tasks. In short, the findings of the NCFIRRE indicate that D&S's proposals represent very large steps in exactly the wrong direction.

Conventional banking is becoming increasingly noncompetitive as technology allows banks' intermediary services to be performed better by others. Federal policies and programs that formerly gave banking a formidable advantage over competitors, such as deposit insurance, access to the Federal Reserve's discount window, and access to the payments system, have lost much of their punch. The economy and the financial system are stronger and more productive thanks to the innovations that have taken so much business from conventional banks. D&S's solution to banking's problems is to hamper competitors to the point that conventional banks can prosper. This is no solution. Resources must be allowed to leave conventional banking. Attempts to prop up conventional banking court the kind of debacle that befell the S&L industry.

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