

The Consolidation of Financial Regulation: Pros, Cons, and Implications for the United States

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During the summer of 2008, the House Financial Services Committee held hearings to consider proposals for restructuring financial regulation in the United States (U.S. Congress 2008). A Treasury Department proposal, released in March 2008, played a prominent role in the hearings. The Treasury proposal would consolidate by shrinking the number of financial regulators from the current six (plus banking and insurance regulators in most of the 50 states) to three: a prudential supervisor, responsible for assessing the riskiness of all financial institutions that have government backing; a consumer protection supervisor; and a market stability supervisor. Many other countries have either adopted consolidated financial regulation or are considering doing so.

Four goals appear most frequently in the financial regulation consolidation literature: (1) take advantage of economies of scale made possible by the consolidation of regulatory agencies; (2) eliminate the apparent overlaps and duplication that are found in a decentralized regulatory structure; (3) improve accountability and transparency of financial regulation; and (4) better adapt the regulatory structure to the increased prevalence of conglomerates in the financial industry.¹ These goals are difficult to achieve in a decentralized regulatory structure because of regulator incentives, contracting, and

■ The authors would like to thank Brian R. Gaines, Borys Grochulski, Sam E. Henly, Edward S. Prescott, and Juan M. Sanchez for helpful comments. The views expressed in this article are those of the authors and do not necessarily reflect those of the Federal Reserve Bank of Richmond or the Federal Reserve System. E-mails: sabrina.pellerin@rich.frb.org, john.walter@rich.frb.org, patricia.wescott@rich.frb.org

¹ Economies of scale result when fewer resources are employed per unit of output as firm (or agency) size grows.

communication obstacles inherent in such a structure. Beyond the four goals found in the consolidation literature, an added motivation for modifying the U.S. regulatory structure arose during the period of severe market instability that began in 2007. That motivation is the desire to create a regulator that focuses heavily on market stability and systemic risk.

While a consolidated regulator seems better able to achieve these four goals, countries that have consolidated their regulatory apparatus have spread decision-making authority among several agencies, thus undermining, to some degree, the potential benefits of consolidation. The desire to vest authority with more than one agency appears to be motivated by an interest in ensuring that an array of viewpoints temper regulatory decisionmaking so that financial regulation decisions, given their far-reaching consequences, are not mistakenly applied or abused.

Further, regulatory consolidation, as frequently practiced in those countries that have consolidated, presents a conflict between, on the one hand, achieving the goals of consolidation, and, on the other hand, the effective execution of the lender of last resort function (LOLR—whereby a government entity, normally the central bank, stands ready to make loans to solvent but illiquid financial institutions). Under the consolidated model, the central bank is often outside of the consolidated regulatory and supervisory entity so does not have the thorough, day-to-day financial information that is beneficial when deciding whether to provide loans to troubled institutions in its LOLR role. This central bank outsider role is a potential weakness of the typical consolidated regulatory structure. One solution is to make the central bank the consolidated regulator; however, this poses difficulties of its own.

There are several questions to consider before consolidating regulatory agencies in the United States. What drives financial regulation and how is it currently practiced in the United States? The Treasury proposal is the latest in a long history of consolidation proposals. What did some of these earlier proposals advocate and how does the Treasury proposal differ? What are the typical arguments for and against consolidation, what role do regulator incentives play in these arguments, and how have other countries proceeded? What are the features of the conflict between consolidation and effective execution of the LOLR function?

1. WHY THE GOVERNMENT REGULATES FINANCIAL FIRMS

Government agencies regulate (establish rules by which firms operate) and supervise (review the actions of firms to ensure rules are followed) financial firms to prevent such firms from abusing the taxpayer-provided safety net. The safety net consists primarily of bank access to deposit insurance and loans to banks from the central bank (i.e., the Federal Reserve in the United

States). In periods of financial turmoil, the Federal Reserve or the Treasury can expand the safety net. For example, in March 2008 the Federal Reserve began lending to securities dealers and in September 2008 the Treasury guaranteed the repayment of investments made in money market mutual funds. As a result of the safety net, financial firms have a tendency to undertake riskier actions than they would without the net, leaving taxpayers vulnerable. Three justifications are often provided for the safety net: to protect against bank runs, to minimize systemic risk, and to allow small-dollar savers to avoid costly efforts spent evaluating financial institution health.

To protect taxpayers from losses, legislators require certain government agencies to regulate and supervise financial firm risk-taking—so-called safety and soundness regulation. These agencies are called on to compel financial firms to take certain risk-reducing actions when their perceived riskiness rises above prescribed levels.

Additionally, legislators require agencies to assume a consumer and investor protection role, ensuring that consumers are protected against unscrupulous behavior by financial firms and that firms reveal trustworthy accounting information so that investors can make informed decisions.

Safety and Soundness Regulation

Banks and the safety net

Because banks can offer their customers government-insured deposits and can borrow from the Federal Reserve, they have access to funds regardless of their level of risk. While other creditors would deny funds to a highly risky bank, an insured depositor cares little about the level of riskiness of his bank since he is protected from loss. Absent active supervision, loans from the Federal Reserve might also provide funds to highly risky banks.

In certain circumstances, banks have a strongly perverse incentive to take excessive risk with taxpayer-guaranteed funds. This incentive results from the oft-discussed moral hazard problem related to deposit insurance. Depositors are protected from loss by government-provided insurance. As a result they ignore bank riskiness when deciding in which banks to hold deposits. Banks, in turn, undertake riskier investments than they would if there were no deposit insurance because they know there is no depositor-imposed penalty for doing so.

For banks with high levels of owners' equity, the danger of excessive risk-taking is limited because shareholders monitor and prevent undue risk-taking by bank management to protect their equity investment in the bank. However, for a troubled bank that has suffered losses depleting its capital, possibly to the point that the bank is likely to fail, owners and bank management both have a perverse appetite for risk. They will wish to undertake highly risky

investments; investments with a large payoff if successful—so-called gambles on redemption. If the investment is successful, the bank can be saved from failure, and if it fails, shareholders and management are no worse off given that the bank was likely to fail anyway. Insured depositors are happy to provide funding for these risky endeavors, but by doing so they are exposing taxpayers to greater risk of loss.

Because these incentives are misaligned, regulators must monitor banks closely and take swift action when they determine that a bank's capital is falling toward zero. Such measures typically include limitations on activities or investments that are unusually risky—gambles on redemption. In addition, because measuring bank capital is notoriously difficult, regulators impose risk-limiting restrictions on all banks. Regulators never know with certainty whether a bank's capital is strong or weak; consequently, as preemptive measures, they prohibit all banks from undertakings that are known to be unusually risky. By doing so, they hope to remove access to gambles on redemption for those banks in which capital has fallen unbeknownst to regulators. Examples of such preemptive measures include limits on the size of loans made to a single borrower and restrictions on banks' ability to invest in stock, which is typically riskier than loans and bonds.

Ultimately, supervisors close a bank once capital falls to zero in order to limit the strong incentive bank owners and managers have to undertake risky investments when they no longer have equity to lose. In the United States the prompt-corrective action requirements laid out in the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA) necessitate that banks with no capital be closed and that limitations be imposed on the actions of banks with declining capital.

FDICIA also places strict limits on Federal Reserve loans when a bank's capital is weak. The danger here is that Fed loans might substitute for uninsured deposits, thus increasing taxpayer losses. Specifically, uninsured depositors might become aware of a bank's troubles and begin to withdraw funds. Assuming that it is unable to quickly raise new insured deposits to replace withdrawals, the bank would likely come to the Federal Reserve asking for loans to prevent the bank from having to rapidly sell assets at a loss. If the Fed grants a loan and the borrowing bank ultimately fails, then uninsured depositors have escaped losses, imposing losses on the FDIC and possibly taxpayers. The Fed is protected from loss since it lends against collateral.

Because of the danger Fed lending can pose, the Fed must ensure that banks to which it makes loans have strong capital. As noted earlier, determining the level of a bank's capital is complex and its capital level can change. For these reasons the Fed must closely supervise the borrowing bank both before making the loan and throughout the duration of the loan.

Nonbanks and the safety net

Access to deposit insurance and Fed loans provides a clear reason for supervising banks. Yet, nonbanks do not routinely have such access, so other factors must explain the safety and soundness supervision nonbanks often receive. Two such factors seem most important. First, nonbank financial firms are frequently affiliated (part of the same holding company) with banks, and losses suffered by a nonbank can transfer from one affiliate to others, including bank affiliates. Second, nonbanks, and especially nonbank financial firms, have, at times, been granted safety net access, specifically in the form of the opportunity to borrow from the Federal Reserve. As a result of nonbank safety net access, the moral hazard problem discussed earlier for banks can distort nonbank incentives as well, explaining the desire to supervise nonbank riskiness.

Nonbank financial firms are often owned by holding companies that include banks. For example, the major U.S. securities firms are in holding companies that include banks. Likewise, major insurance companies are also part of holding companies with banking subsidiaries. Such affiliation between a bank and a nonbank provides two dangers as discussed in Walter (1996, 29–36). First, assets of the bank are likely to be called on to cover losses suffered by the nonbank affiliate. A holding company may find this a valuable strategy if the reputation of the overall firm can be damaged by the failure of a nonbank subsidiary, and the reputational cost can exceed the cost of shifting bank assets to the nonbank. In such a case, the chance of a bank's failure will increase and thus put the deposit insurance fund at risk, which justifies efforts to control risk in nonbank affiliates of banks.

There is an additional danger of bank affiliation with a nonbank not driven by the holding company's avoidance of reputational damage but instead by a desire of a holding company to minimize its loss by passing it off to taxpayers. If a nonbank suffers a loss that is smaller than the equity of the nonbank but larger than the equity of a bank affiliate, the holding company might gain by shifting the loss to the bank. The shift will result in the failure of the bank, so that the holding company loses the value of the bank's equity, but this is smaller than the total loss that would have been incurred if it had been left in the larger nonbank. The amount of the loss that exceeds the bank's equity is suffered by the bank's creditors and the FDIC.

Legislators have designed laws that are meant to prevent asset and loss shifts. Examples include rules found in Sections 23A and 23B of the Federal Reserve Act that limit the size of transactions between banks and their nonbank affiliates. Yet supervisors do not expect these rules to be perfect, so nonbank supervision is a valuable supplement to the rules.

In some cases, nonbanks have also been granted access to loans from the Fed. For instance, beginning in March 2008 certain large securities dealers were allowed to borrow from the Fed. To protect itself from lending to a weak

borrower, the Fed reviewed the financial health of the securities dealers to determine their soundness, in effect acting as a supervisor for these borrowers.²

Why the government provides a safety net

Given the difficulties of supervising entities protected by the government safety net, one must wonder why the safety net exists. Observers provide three explanations.

- **Bank runs**—One such explanation is offered by Diamond and Dybvig (1983), who argue that the provision of deposit insurance offers an efficient solution to a problem that arises when banks offer demand deposits. Individuals and businesses find great value in the ability to withdraw deposits on demand because they cannot predict when they might face a sudden need for funds. Banks offer deposits that can be withdrawn on demand, meeting this desire for demand deposits, while holding assets, i.e., loans, with longer maturities. By providing demand deposits, banks can make loans at lower interest rates than firms that do not offer demand deposits. But, the provision of demand deposits leaves banks subject to runs, when all depositors suddenly decide to withdraw them at once. The danger of runs undercuts the benefit gained by offering demand deposits. A financially sound bank may suffer a bank run based simply on fear that a large number of customers will withdraw deposits rapidly, depleting the bank's liquid assets. One solution is for the government to provide deposit insurance, eliminating the danger of runs. Diamond and Dybvig (1983) view the government provision of deposit insurance as a low-cost means of protecting against runs while still allowing banks to provide the benefits of demand deposits. The availability of LOLR loans may also stem runs.
- **Systemic risk**—Alternatively, observers argue that if the government failed to intervene to protect the liability holders of a large, troubled institution, including a nonbank institution, the financial difficulties of that institution might spread more widely (see Bernanke 2008, 2). This is often referred to as the systemic risk justification for the safety net (i.e., an individual institution's problems lead to a financial-system-wide problem, thus the name systemic). Intervention is more likely to flow to financial than to nonfinancial firms because of the interconnectedness of financial firms. For example, the list of creditors of a large financial institution typically includes other large financial institutions. Therefore, the failure of one financial institution may well lead to

²The Fed had likewise extended a large number of loans to nonbanks during the 1930s and 1940s (Schwartz 1992, 61).

problems at others, or at least a reduction in lending by the institutions that are exposed to the failed institution. An instance of this occurred when Lehman Brothers' September 2008 bankruptcy led to large withdrawals from mutual funds, especially from those with significant holdings of Lehman commercial paper.

Reduced lending by firms directly exposed to a failed firm can produce problems for other financial firms. Financial firms' balance sheets often contain significant maturity mismatches—long-term assets funded by short-term liabilities. As a result, firms that normally borrow from an institution that reduced lending because of its exposure to a failed firm will be forced to seek other sources of funding to continue to finance its long-term assets. If many firms are exposed to the failed firm, then the supply of funds will decline, interest rates will rise, and sales of assets at fire-sale prices may result. Reduced lending by other institutions will tend to exacerbate weak economic conditions that often accompany the failure of a large financial institution. In such circumstances, policymakers are highly likely to provide financial aid to a large troubled institution. Because of this tendency, supervisors have reason to monitor the risk-taking of large financial institutions.

- Small savers—Third, without deposit insurance, all investors and savers would find it necessary to review the financial health of any bank with which they hold deposits (Dewatripont and Tirole 1994, 29–45). Given that retail customers of small banks number in the thousands and in the tens of millions for the largest banks, if each individual retail customer were to evaluate the health of his or her bank, the effort would be exceedingly costly and duplicative. Further, most customers are unlikely to possess the skills needed to perform such analyses.

Rather than performing their own evaluations, individuals might instead rely on credit rating services. Unfortunately, such services are likely to produce a less-than-optimal amount of information. Because services will be unable to strictly limit access to their ratings information to individuals who have paid for access, few firms will find it profitable to generate such information (i.e., a free rider problem will lead to too little information being produced). Alternatively, financial institutions that receive the credit ratings could be charged fees by the ratings company, but this creates a conflict of interest. Specifically, a financial institution would have a strong incentive to illicitly influence the ratings company to inflate its score. Deposit insurance, coupled with a government agency monitoring bank risk, offers a solution to the small savers' costly evaluation problem.

Consumer and Investor Protection Regulation

Financial firm regulators often provide another type of supervision and regulation intended to ensure that (1) products offered to consumers are beneficial and that (2) financial firms provide their investors with truthful and complete accounting information about the firm's financial strength or about the characteristics of investments.

The Truth in Lending and Truth in Savings Acts are examples of legislation meant to protect consumers when dealing with financial institutions. Both require financial institutions to offer consumers clear disclosures of the terms of transactions. The regulation that implements the Truth in Lending Act, for example, provides that financial institutions must disclose interest rates that are being charged, ensures that borrowers have the right to cancel the loan for several days after initially agreeing to it, and prohibits certain lender actions that are considered likely to be harmful to the consumer. Similarly, the Truth in Savings Act's implementing regulation requires that deposit interest rates be disclosed in a set manner, allowing consumers to more easily compare rates among various institutions.

The Securities and Exchange Act of 1934, among other things, established the Securities and Exchange Commission (SEC) to require that financial firms provide accurate and complete information. The SEC has the authority to bring civil actions against firms, especially financial firms, that offer false or misleading information about investments, engage in insider trading, or commit accounting fraud (U.S. Securities and Exchange Commission 2008). Broadly, the SEC is meant to ensure that investors are provided with a fair picture of the risks and returns offered by investments they might be considering. The SEC does not, in general, attempt to limit the risk-taking behavior of firms; instead, it focuses its efforts toward requiring that investors are aware of the risks.

2. REGULATORY OVERSIGHT

The Current U.S. Regulatory System: A Variety of Players

The United States' regulatory structure for financial institutions has remained largely unchanged since the 1930s even though the financial environment has undergone many fundamental changes. Specifically, banks, investment banks, and insurance companies have been supervised by the same players.³

³ Since the 1930s, there have been changes to the agencies responsible for regulating and supervising credit unions and thrifts. The current regulator and supervisor of credit unions, the National Credit Union Administration, was created in 1970 when credit unions gained federal deposit insurance. The Office of Thrift Supervision, which supervises and regulates state-chartered savings institutions, was created in 1989.

Table 1 U.S. Financial Regulators

Regulator	Date Established	Function
Securities and Exchange Commission	1934	Regulates securities markets
Federal Reserve System	1913	Regulates bank holding companies and Fed member state-chartered banks
Federal Deposit Insurance Corporation	1933	Regulates state-chartered banks that are not members of the Federal Reserve. FDIC is also the back-up supervisor for all insured depository institutions.
Office of the Comptroller of the Currency	1863	Regulates national banks
Office of Thrift Supervision	1989	Regulates federally chartered and state-chartered savings institutions and their holding companies
National Credit Union Administration	1970	Regulates federally chartered credit unions
Commodity Futures Trading Commission	1974	Regulates commodity futures and option markets
Federal Housing Finance Agency	2008	Regulates Fannie Mae, Freddie Mac, and the Federal Home Loan Banks
States	—	Regulate insurance companies, savings institution banks, securities firms, and credit unions

One prominent feature of financial services regulation in the United States is the large number of agencies involved.

Regulatory oversight in the United States is complex, especially compared to that of other countries (as explored in Section 5). In the United States, depending on charter type, four federal agencies, as well as state agencies, oversee banking and thrift institutions (Table 1 lists regulators and their functions). Credit unions are regulated by one federal agency, the National Credit Union Administration, and state agencies. Securities firms are also regulated at the federal and state level in addition to oversight by self-regulatory organizations (SROs). The Commodity Futures Trading Commission (CFTC) regulates futures and options activities. Meanwhile, the insurance industry is regulated mainly at the state level.

States typically maintain depository and insurance commissions that examine depositories, along with federal agencies, and supervise and regulate insurance companies. This sharing of supervisory responsibility for depositories varies by institution type, but, for example, in the case of state member banks, the Federal Reserve and state agencies typically either alternate or

conduct joint examinations. The states and the Federal Reserve share their findings with one another so that duplication is limited, at least to some degree. The FDIC and states are responsible for the supervision of state-chartered non-member banks. All of these agencies communicate by sharing examination documents and through other means. Common training and communication is encouraged for all federal banking agencies and representative bodies for state supervisory agencies in the Federal Financial Institutions Examination Council (FFIEC). The FFIEC develops uniform supervisory practices and promotes these practices through shared training programs.⁴

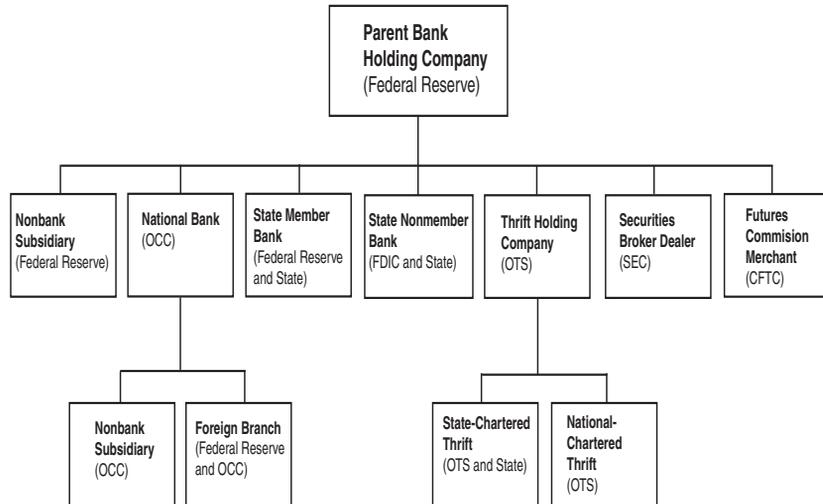
The complexity of the U.S. regulatory apparatus has caused observers to question its efficiency, and is one of the primary reasons that the Treasury Department proposed reforms. One example of an apparent inefficiency lies in the difficulty of maintaining strong communication links among the different supervisors responsible for the various entities in one holding company. (Communication is important because, as discussed earlier, losses in one subsidiary can endanger others.) For instance, consider Bank Holding Company (BHC) X, which has two subsidiary institutions, Bank A and Securities Company B. Four different regulators could be present in such a scenario. BHC X is regulated by the Federal Reserve, while its bank subsidiary, Bank A (a state, nonmember bank), is regulated by the FDIC as well as by the state banking agency. Although the FDIC and the state would both regulate Bank A, the Federal Reserve still maintains holding company oversight, meaning that direct and open communication between the FDIC, the state, and the Fed must be present to ensure the safety and soundness of the banking institution as well as that of the BHC. In addition, Securities Company B, another subsidiary of BHC X, is regulated by the SEC. (See Figure 1 for an illustrative depiction of a bank holding company, which includes an even broader scope of activities and regulators.)

Communication is especially vital for information exchange among supervisors when dealing with a troubled bank. Some observers argue that problems arose in 1999 when communication gaps between the OCC and FDIC hindered a coordinated supervisory approach in a bank failure. The OCC originally denied the FDIC's request to participate in an OCC examination of a bank that later failed. However, the OCC reversed its decision in time for the FDIC to participate in the examination. Had the OCC not reversed course, the FDIC might have been unable to collect information and offer input.⁵ John Hawke, Jr., Comptroller of the Currency, in February 2000 testimony before

⁴ See <http://www.ffiec.gov/> for a description of the FFIEC's role in the U.S. financial regulatory system.

⁵ The examination was of First National Bank of Keystone, Keystone, West Virginia, a bank that failed in 1999.

Figure 1 Regulation of a Hypothetical Bank Holding Company



Source: Bothwell 1996, 13. Figure updated slightly to reflect changes since 1996.

the U.S. House Committee on Banking and Financial Services regarding the bank failure, noted

[the] importance of keeping the FDIC fully informed about serious concerns that we [the OCC] may have about any national bank and of maintaining mutually supportive working relationships between our [OCC and the FDIC] two agencies at all levels. We [the OCC's staff] have just reiterated to our supervisory staff the desirability of inviting FDIC participation in our examinations when deterioration in a bank's condition gives rise to concerns about the potential impact of that particular institution on the deposit insurance fund, even if the FDIC has made no request for participation (Hawke 2000).

Integration of U.S. Financial Firms

Starting in the 1980s, the financial services industry began moving toward an integration that had not been present before. Specifically, banking firms began to include securities subsidiaries following a 1987 order by the Board of

Governors of the Federal Reserve System allowing bank holding companies to offer securities services to a limited extent (Walter 1996, 25–8). As discussed later, the growth of financial conglomerates—in this case, conglomerates that combine a bank and a securities company in one holding company—is a motivation for consolidating regulators.

The Gramm-Leach-Bliley Act (GLBA) of 1999 authorized combinations of securities and banking firms within one holding company, thus removing the limitation set on such combinations by the 1987 Board of Governors rule. The Act also allowed the affiliation of insurance firms and banks. The GLBA designated the Federal Reserve the umbrella supervisor of those banking companies that exercise expanded powers. Umbrella oversight means responsibility for monitoring the soundness of the holding company and for ensuring that nonbank losses are not shifted to bank affiliates. Under GLBA rules the Fed does not typically supervise the nonbanking affiliates. Securities subsidiaries are typically supervised by the SEC and insurance subsidiaries are supervised by state insurance commissioners. These supervisors share information with the Federal Reserve so that it can perform its umbrella responsibilities. In the GLBA, legislators chose to follow a functional regulation model, whereby supervisors are assigned based on function. For example, the function of securities dealing is overseen by a supervisor that specializes in securities dealing, the SEC.

Beyond the evolution toward consolidation, driven by the 1987 Board of Governors ruling and the GLBA, events related to the mortgage market-related financial turmoil that began in 2007 produced additional movement, if perhaps temporary, toward regulatory consolidation. Specifically, during 2008 a group of securities dealers came under Federal Reserve supervisory scrutiny for the first time in recent history.

In March 2008, the Federal Reserve began lending to primary dealers, that is, securities dealers with which the Federal Reserve regularly conducts securities transactions. While normally the Fed lends only to depository institutions, it has the authority to broaden its lending to entities outside of depositories during times of severe financial stress. The Fed determined that such stress existed in March 2008 and therefore began lending to securities firms under a program the Fed called its Primary Dealer Credit Facility. To ensure that such lending did not subject the Federal Reserve to unacceptable risk, the Federal Reserve began reviewing the financial health of some of these borrowers. Primary dealers that were affiliated with commercial banking organizations were already subject to some supervision by a banking regulator, so they did not receive new scrutiny from the Federal Reserve. In contrast, several primary dealers were not affiliated with banks and became subject to on-site visits from Federal Reserve staff (Bernanke 2008). Therefore, perhaps for the short-term, some additional supervisory authority was concentrated in one

supervisory agency—the Federal Reserve—beyond its traditional supervisory focus on banks and bank holding companies.

3. PROPOSALS TO CONSOLIDATE U.S. REGULATION

Over the last 35 years, several proposals have been advanced to consolidate the U.S. financial regulatory system. In most cases the proposals' objectives are to increase efficiency and reduce duplication in the nation's financial regulatory system, lowering the cost and burden of regulation. To date, the proposals have not led to the enactment of legislation. In March 2008, the Treasury Department offered a consolidation proposal that builds on the work of the earlier proposals.

Early Consolidation Proposals

Hunt Commission Report

One of the earliest regulatory consolidation plans is found in the *Report of the President's Commission on Financial Structure and Regulation*, popularly known as the Hunt Commission Report after the commission's chair Reed O. Hunt (Helfer 1996, Appendix A). The Hunt Commission Report, released in 1971, was intended, in part, to examine a decline in lending by depository institutions in the 1960s. This decline was precipitated by caps on interest rates that depositories were allowed to pay on deposits, commonly referred to as Regulation Q interest rate ceilings. When rising inflation pushed up market interest rates in the late 1960s, depositories were unable to gather new deposits because their deposit interest rates were capped below market rates. As a result, they were forced to limit lending.

While much of the commission's work was focused in other directions, it also proposed changes to the regulatory structure for banks. It recommended that depository institution regulation and supervision be vested in two federal agencies.

The commission proposed that one agency, the Office of the Administrator of State Banks (OASB), regulate and supervise all state-chartered depositories, including banks and thrifts (i.e., savings banks and savings and loans), taking away responsibility from three agencies—the FDIC, the Fed, and the Federal Home Loan Bank Board. The change would mean that the FDIC and the Federal Reserve would lose oversight for state-chartered banks, while the Federal Home Loan Bank Board, at that time the regulator of most thrifts, would lose oversight responsibility for state-chartered thrifts. The commission plan would, however, allow banking agencies created by states to continue their traditional regulatory and supervisory roles, supplementing oversight by the OASB.

The commission also would rename the Office of the Comptroller of the Currency (supervisor and regulator of federally chartered banks, i.e., national banks) and move the agency outside of the Treasury Department. The new regulator would become the Office of the National Bank Administrator (ONBA). Beyond responsibility for national banks, the ONBA would have responsibility for federally chartered thrifts.

The goal of these changes was two-fold. First, it was intended to produce a more efficient and uniform regulatory apparatus. Second, it was intended to more completely focus the Federal Reserve on monetary policy, bank holding company supervision, and international finance responsibilities (U.S. Treasury Department 2008, 197–8).

The 1984 Task Group Blueprint

The Task Group on Regulation of Financial Services was created by President Reagan in 1982. Its goal was to recommend regulatory changes that would improve the efficiency of financial services regulation and lower regulatory costs (U.S. Treasury Department 2008, 199–201). In 1984, the group produced a report entitled *Blueprint for Reform: Report of the Task Group on Regulation of Financial Services*.

The task group's blueprint called for several consolidating changes. First, it planned to end the FDIC's regulatory and supervisory authority. Also, the OCC's oversight of nationally chartered banks would be assumed by a new agency, the Federal Banking Agency (Helfer 1996, Appendix A). State-chartered banks would be overseen by either the Federal Reserve or a state supervisory agency passing a certification test. Last, bank holding company supervision would generally be performed by the regulator responsible for the primary bank in the holding company. The Federal Reserve would retain its regulatory power over only the largest holding companies, those containing significant international operations, and foreign-owned banking entities. This change was meant to reduce overlapping supervisory responsibilities. Because the Federal Reserve supervises bank holding companies, it may inspect (examine) their subsidiaries that are already overseen by other regulators. However, the effective extent of the overlap is currently limited because examination of a holding company's bank subsidiaries is largely left to other supervisory agencies (unless the bank happens to be a state member bank, which the Fed is responsible for supervising).

1991 Treasury proposal

Based on a study requirement in the Financial Institutions Reform, Recovery, and Enforcement Act of 1989, the Treasury produced a report meant to suggest changes that could strengthen federal deposit insurance (U.S. Treasury Department 2008, 202–4). The Treasury named the study *Modernizing the Financial*

System: Recommendations for Safer, More Competitive Banks. In addition to recommendations concerning the deposit insurance system, the study proposed consolidating the financial regulatory system to enhance efficiency by reducing “duplicative” and “fragmented” supervision. This proposal, building on the 1984 blueprint, called for only two banking supervisors, the new Federal Banking Agency (FBA) and the Federal Reserve. The Federal Reserve would be responsible for state-chartered banks and associated holding companies, and the FBA would be responsible for all other bank, bank holding company, and thrift supervision. Under this proposal the FDIC would be responsible only for deposit insurance.

March 2008 Treasury Blueprint

Concerned that a fragmented financial regulatory structure placed U.S. financial institutions at a disadvantage relative to foreign counterparts, the Treasury Department produced a proposal to reform the U.S. regulatory system. The proposal was entitled *Blueprint for a Modernized Financial Regulatory Structure* and was released in March 2008. The proposal was meant to create more uniform supervision of similar activities across different providers (i.e., regardless of whether a similar product is provided by a bank, a thrift, or an insurance company, its production is supervised similarly), reducing duplication of effort and trimming costs of regulation and supervision for government agencies as well as for regulated institutions. Additionally, the proposal was influenced by serious financial market difficulties emanating from troubles that began in the subprime mortgage market in 2007.

The authors of the 2008 Blueprint proposed what they viewed as “optimal” recommendations for regulatory restructuring, along with short-term and intermediate-term changes. The optimal recommendations called for replacing all financial regulators with three entities: a prudential regulator, a business conduct regulator, and a market stability regulator.

In broad terms, the prudential regulator would be responsible for supervising all financial firms having government-provided insurance protection. This group includes depository institutions—because of their access to federal deposit insurance—and insurance companies—because of state-government-provided guarantee funds. The goal of the prudential regulator is to ensure that these financial firms do not take excessive risks. Currently, this role is performed by a number of banking agencies including the FDIC, the OCC, the Office of Thrift Supervision, the Federal Reserve, state banking supervisory agencies, and state insurance supervisors. The Blueprint would have only one agency performing this prudential supervisory role for all banks and insurance companies.

The business conduct regulator envisioned by the authors of the Blueprint is largely focused on consumer protection. It is charged with ensuring that

consumers are provided adequate disclosures and that products are neither deceptive nor offered in a discriminatory manner.

While the 2008 Blueprint does not specify particular agencies as the prudential or business conduct regulators, it does name the Federal Reserve as the market stability regulator. The role of this regulator is to “limit spillover effects” from troubles in one firm or one sector, i.e., to reduce systemic risk (U.S. Treasury Department 2008, 146). Presumably, the authors of the proposal view the Federal Reserve as suited to this role because of the Fed’s ability to make loans to illiquid institutions via its role as the lender of last resort. In addition to lending to institutions facing financial difficulties, the market stability regulator is to take regulatory actions to limit or prohibit market developments that might contribute to market turmoil. The market stability regulator, in general, is not focused on problems at individual institutions unless they might spill over more widely.

4. THE PROS AND CONS OF CONSOLIDATING

If the United States were to adopt the consolidated regulatory structure proposed in the Treasury Blueprint, it would be joining a widespread trend toward consolidation. While the specific reasons countries consolidate vary, several key arguments emerge in discussions: adapting to the increasing emergence of financial conglomerates, taking advantage of economies of scale, reducing or eliminating regulatory overlap and duplication, improving accountability of supervisors, and enhancing regulator and rulemaking transparency.

Unfortunately, discussions of motivations provide little analysis of regulatory incentives. Nevertheless, these incentives seem fundamental to questions about whether consolidation is likely to be beneficial. Organizational economics has identified conditions—related to organizational incentives—under which a centralized (consolidated) organizational structure can be expected to produce superior outcomes to a decentralized structure, and vice versa. Some discussion of these incentives is included in the following paragraphs.

Pro: Consolidated Structure is Better Suited to Financial Conglomerate Regulation

Financial industry trends have led to large, complex firms offering a wide range of financial products regulated by multiple supervisory institutions. This complexity manifests itself in the United States and the rest of the world through the increased emergence of financial conglomerates, defined as companies providing services in at least two of the primary financial products—banking, securities, and insurance (see Table 2). The desire to adapt regulatory structures to a marketplace containing a growing number of consolidated financial institutions is the leading reason for the move to consolidated supervision. For

Table 2 The Market Share (%) of Financial Conglomerates in 1990 and 2001 in Each Sector, Across the 15 World Bank-Surveyed Countries

	1990	2001
Banking	53	71
Securities	54	63
Insurance	41	70

Notes: See footnote 6.

Source: De Luna-Martinez and Rose (2003).

example, in 2003 the World Bank surveyed 15 countries choosing to integrate their financial regulatory structures and found that the number one motivation was the need to more effectively supervise a financial system that was shifting toward conglomerates.^{6,7}

As discussed in Section 1, because financial conglomerates may combine bank, securities, and insurance subsidiaries in one holding company, losses in one entity type (say, the subsidiary securities firm) can endanger another entity (say, the subsidiary bank). For instance, if BHC X has subsidiaries that include Bank A and Securities Company B, it is possible that risky behavior that results in losses on the part of Securities Company B may result in spillover losses to Bank A (in the absence of perfectly effective firewalls), or reputational damage, leading to the potential lack of confidence in Bank A. Bank A's regulator may not have foreseen such risks, and thus may not have taken adequate measures to prevent the loss.

In addition, separate specialized supervisors may not have a strong incentive to concern themselves with the danger that losses in subsidiaries they supervise might lead to problems in other subsidiaries. Their incentive will be weak because they face limited repercussions for difficulties that might arise in affiliates that they do not supervise even when brought on by problems that spread from an entity that they do supervise. (This is a typical externality problem, whereby the actions—or lack of actions—of one party can harm another party.) Hence, separate supervisors may invest too few resources in protecting against losses that might spread. Therefore, effective financial supervision should address whether “there are risks arising within the group as a whole that are not adequately addressed by any of the specialist prudential

⁶ Surveyed countries were Australia, Canada, Denmark, Estonia, Hungary, Iceland, Korea, Latvia, Luxembourg, Malta, Mexico, Norway, Singapore, Sweden, and the United Kingdom.

⁷ Goodhart et al. (1998), Briault (1999), and Calomiris and Litan (2000) argue that a consolidated financial regulatory system is more efficient than a decentralized one when faced with the emergence of financial conglomerates.

supervisory agencies that undertake their work on a solo basis” (Goodhart et al. 1998, 148).

Similarly, with separate supervisors, there may even be disincentives to share information. Turf wars between the supervisors may cause supervisory employees to be reticent to share. By sharing information, a bank supervisor, for example, may help a securities supervisor discover a problem. However, if the bank supervisor withholds information and allows the problem to remain undiscovered until it grows, the securities supervisor is likely to be severely embarrassed by its failure to discover the problem earlier. If the bank supervisor can benefit from the securities supervisor’s embarrassment, perhaps by being granted, by legislators, an enlarged supervisory domain, it is likely that the information will not be shared.⁸

By consolidating supervisory agencies, these incentive problems can be overcome. A single supervisory agency, which is held responsible for losses throughout the financial conglomerate, will have the incentive to invest sufficient resources in guarding against losses that might spread across entities within the conglomerate.

Even assuming that no incentive problems were present, communications between supervisors is likely to be simpler within one consolidated entity than across different supervisory organizations. Separate organizations will have differing cultures and policies so that communication between them can more easily become confused than can communication within one organization.

Pro: Economies of Scale

Another benefit of regulatory consolidation is that it can lead to economies of scale. Economies of scale result when fewer resources are employed per unit of output as firm (or agency) size grows. For instance, a subject matter expert, such as one specializing in credit default swaps, may be underutilized if working for a specialized regulatory institution. Whereas, under a consolidated structure, a single regulatory institution could use one subject matter expert for all sectors, banking, securities, and insurance. Given that banks, securities firms, and insurance companies all have at least some similar products today, they all need some of the same types of specialist examiners (e.g., experts on credit default swaps). A consolidated supervisor can share costs of indivisible resources. Decentralized supervisors are unlikely to share resources across institutional lines because it is costly to establish labor contracts between separate agencies. Such contracts, which must specify agency employee actions across a wide range of circumstances, are prohibitively expensive to develop. Outsourcing is another option but may be infeasible for financial supervisors

⁸ See Garicano and Posner (2005, 161–3) for a discussion of the turf-war driven disincentive for information sharing among separate agencies.

because supervision generates a great deal of confidential information that is difficult to protect when not held internally. The prospect of maximizing economies of scale and scope in regulation was considered to be the second most significant rationale for those countries surveyed by the World Bank in 2003 that chose to consolidate.

Pro: Reduced Overlap and Duplication

The complex institutional structure of decentralized regulatory systems, whereby supervision is organized around specialized agencies, has arguably led to a significant amount of overlap and duplication in regulatory efforts, thus reducing efficiency and effectiveness, as well as increasing costs. For instance, in the United States, securities subsidiaries of financial holding companies are primarily supervised by the SEC; however, the Federal Reserve has some supervisory responsibility as umbrella supervisor. Under GLBA, the Federal Reserve generally must rely on SEC findings regarding activities of a securities subsidiary. However, to be well-informed about the financial condition of the holding company, the Federal Reserve must have staff who are very familiar with securities operations in order to interpret SEC findings. In the absence of highly effective (and therefore, costly) coordination between overlapping regulatory authorities, the potential for inconsistent actions and procedures may result in inefficiencies by delaying issue resolution or arriving at conflicting rulings. Moreover, financial institutions may be visited by different regulators and therefore need to dedicate time to educating multiple supervisors about the same activity within the firm. Duplication could be avoided, in a decentralized supervisory environment, by clearly dividing up responsibilities among the various supervisors. However, doing so requires not only careful coordination, but also the ability of supervisors to convince one another that they will watch for risks that will flow into other entities. Developing this level of trust between institutions is difficult, for instance, because of the incentives discussed in the previous section, making consolidation an attractive alternative. Thus, placing a single entity in charge of supervision and regulation for all financial institutions may offer the least cost regulatory structure.

Pro: Accountability and Transparency

In a decentralized supervisory system with multiple agencies reviewing the financial condition of one entity, legislators may have difficulty determining which agency is at fault when a financial institution fails. As a result, agencies may have a reduced incentive to guard against risk, knowing that blame will be dispersed. Consolidation allows the government to overcome this difficulty by

making one agency accountable for all problems—giving this agency correct incentives.

Additionally, with a single regulator rather than multiple regulators, the regulatory environment can be more transparent and, as a result, learning and disseminating rules may be less costly. With one regulator, financial institutions will spend less time determining whether a new product being considered will be acceptable to the regulator, therefore lowering the cost of financial products. Reports will have a consistent structure, simplifying investor comparisons between multiple institutions. Further, consumers can more easily locate information about an institution with which they conduct business, or more broadly about the set of rules that apply to various financial institutions. All of these benefits from greater transparency that a single supervisor offers lower the cost of providing financial services and, thus, enhance public welfare.

Con: Lack of Regulatory Competition

In order to fully achieve the benefits discussed above, supervisory consolidation would need to be complete—meaning the creation of one supervisor with authority for all supervisory and regulatory decisions across all types of financial institutions. However, there are costs associated with creating a single regulator since it would lack competitors—other regulatory agencies—and therefore have greater opportunity to engage in self-serving behavior to the detriment of efficiency.

For example, this single entity might have an incentive to be excessively strict. Regulators often face significant criticism when institutions that they regulate fail. Yet they receive few benefits when institutions undertake beneficial, but risky, innovation aimed at offering superior products or becoming more efficient. As a result, regulators have a strong incentive to err on the side of excessive strictness and will be likely to restrict risky innovations. This incentive is contained to some extent in a decentralized structure in which some competition may exist between regulators.⁹

Beyond restrictions on innovative, but risky, products, one might expect a single regulator to charge higher fees to enhance regulatory income. Additionally, a single dominating regulator would be likely to adopt a narrow,

⁹Llewellyn (2005) argues that competition between regulators can result in a race to the bottom in which an institution devises a business model that allows it to come under the regulatory auspices of the most liberal regulator. Resources spent on this restructuring process, from society's point of view, are wasted. Similarly, when regulators compete with one another to attract or keep regulated entities, they will have an incentive to give in to demands made for liberal treatment, i.e., they are likely to be "captured" by the institutions they regulate. Regulations that might have large net benefits but are costly for the regulated industry will not be implemented.

one-size-fits-all regulatory approach, since such an approach would likely be simpler to enforce but will be unsuitable in a diverse financial marketplace.

If self-serving regulatory incentives are to be prevented, legislators will almost certainly establish checks on regulatory practice that will tend to undercut the advantages—discussed earlier—of consolidation. Typically, such checks have included various means of sharing regulatory or supervisory decision-making authority. In the United States the multiple regulatory agencies, such as the Treasury, the Federal Reserve, and the FDIC, often are required by law to make regulatory decisions jointly. In a consolidated environment, with only one regulatory agency, that agency is likely to share authority with the Treasury and the central bank, a common practice in those countries that have adopted a consolidated model (discussed below).

Con: Fewer New Ideas

The multiple regulatory agencies in a decentralized system are likely to produce a range of considered opinions on the most important regulatory questions the system faces, perhaps as many opinions as there are regulators. Competition among regulatory agencies for legislator or financial institution support (often viewed negatively as a power struggle between regulators) will drive idea generation. In contrast, a single regulator, because of its need to speak with one voice, will tend to identify and adopt one view.

The dual banking system in the United States, whereby bank founders can choose between a federal or state charter and thereby choose between various regulators, is often thought to create an environment that fosters experimentation with new financial products and delivery systems that, if successful, might be more widely adopted (Ferguson 1998). An important example of this type of state experimentation leading to later nationwide adoption occurred in the early 1970s when regulators in New England allowed thrifts in that region to pay interest on checking accounts. This innovation ultimately was an important contributor to the elimination of the nationwide prohibition of the payment of interest on checking accounts and was later followed by the removal of restrictions on bank deposit interest rates by the Depository Institutions Deregulation and Monetary Control Act of 1980 (Varvel and Walter 1982, 5). Without the opportunity provided by some states to experiment with the payment of interest on checking accounts, it seems likely that wide-ranging restrictions on interest rates might have survived longer. Thoroughgoing consolidation, for example as envisioned in the Treasury Blueprint, would likely do away with this level of choice and experimentation with only one charter and one prudential supervisor for all insured financial institutions.

In a stable financial environment, the generation of competing ideas is unnecessary. In such a situation, a centralized regulator may be preferable. Yet in a dynamic financial environment the idea-generation component of a

decentralized regulatory scheme will be important and valuable (Garicano and Posner 2005, 153–9).

Con: Lack of Specialization

The combination of all regulatory functions within a single institution may result in a lack of sector-specific regulatory skills, whereby agency staff possess intimate knowledge tailored to a certain sector. Despite the increasing emergence of financial conglomerates worldwide, with many conglomerates sharing a similar set of products, it is not necessarily the case that all institutions have converged on a common financial conglomerate model. For instance, an insurance company that has started to expand services to include areas of banking and securities is likely to remain focused predominantly on its core insurance business, and thus may benefit more from a regulator that has specialized knowledge in insurance (Goodhart et al. 1998). If the single regulator were set up with divisions that address sector-specific issues, it is not obvious that supervisors within the same organization with sector-specific responsibilities would effectively communicate and coordinate efforts more efficiently than they would in a decentralized setting.

Con: Loss of Scope Economies Between Consumer and Safety Supervision

The Treasury Blueprint as well as the consolidated supervisory system adopted by Australia separate consumer protection supervision from safety and soundness supervision. But separating these two functions may mean a loss of scope economies.¹⁰ Scope economies are present when the production of one product, within the same entity, lowers the cost of producing another product. In the United States at least, consumer protection law enforcement in depository institutions is conducted via regular on-site examinations in which examiners review depositories for violations of consumer laws.

Consumer protection examinations have their origin in, and are modeled after, bank safety and soundness examinations. As discussed earlier, in a safety and soundness examination, examiners from a federal banking agency investigate a bank's riskiness and financial health. The agencies examine every bank periodically. The examinations include an on-site analysis of the bank's management, its policies and procedures, and its key financial factors. Additionally, examiners verify that a bank is complying with banking laws and regulations. Because of this responsibility, examiners gained the task of verifying compliance with the consumer protection laws when these

¹⁰ Economies of scope may be generated when regulatory entities are consolidated if doing so simplifies the transfer of information gleaned in an examination of one line to another.

were passed in the United States in the 1960s and 1970s. Between 1976 and 1980, the depository institution regulatory agencies established “consumer compliance” examinations separate from safety and soundness examinations because performing both consumer law compliance and safety and soundness tasks within the same examination was too burdensome (Walter 1995, 69–70).

While separate staffs typically perform consumer examinations during separate exams these individuals are typically part of the same departments and are often trained together so that they each have some familiarity with the other’s responsibilities. Safety and soundness examiners can discover consumer compliance-related information during their examinations, and consumer examiners will at times uncover safety-related information. As a result, it seems likely that economies of scope exist when these two types of compliance are produced together. By remaining closely tied to one another in the same departments, this information is more likely to be shared.

Con: Adjustment and Organizational Costs

While economies of scale can be utilized once all enabling legislation is in place and the regulatory agency has become fully consolidated, this process of achieving complete integration can be lengthy and costly. For instance, Japan’s consolidated regulator, the Financial Services Authority (FSA), underwent several reforms between 1998 and 2000 before assuming its current responsibilities as an integrated financial services regulator. Observers discuss numerous adjustment costs likely to arise when shifting regulatory and supervisory activities from multiple agencies to one agency. A few of the more significant costs include: developing a uniform compensation scheme; restructuring IT systems and compliance manuals; training staff for new responsibilities; reorganizing management structures; and costs borne by financial institutions as they adapt to the new regulatory regime (HM Treasury 1997). As demonstrated by Japan, the transition period during which the new regulatory framework is constructed is long. During this time, multiple supervisory institutions continue to operate, resulting in increased regulatory costs. Even in the United Kingdom, where integration took place relatively quickly—in a so-called “big bang”—the transition was fairly lengthy. For example, the FSA reported to two separate boards for approximately two years (Taylor and Fleming 1999).

One possible means of lowering transition costs is to simply grant all regulatory responsibility to one existing financial regulator rather than creating a whole new entity. Since, in many countries, central banks are the primary bank regulator and typically also act as the LOLR, they are an obvious choice (see the table in Section 6). However, central banks have traditionally not been involved in the insurance and securities sectors and thus lack expertise in these areas. Additionally, there are potential conflicts of interest that should

be considered when vesting all regulatory power with the central bank, as will be discussed in Section 6.

Perhaps because of the lack of insurance and securities expertise among central bank staffs and because of potential conflicts of interest, many countries, such as those discussed in the next section, have chosen to create a new regulatory institution to conduct financial services regulation. However, a single regulator must be structured such that it is free of political influence. Otherwise, legislators can be expected to influence the regulatory agency to achieve short-term political goals. For example, the regulator might be encouraged to provide forbearance for troubled institutions when legislators face pressure from their constituents who represent the troubled entities or the regions in which those entities operate. Observers note that such forbearance was widespread during the U.S. savings and loan crisis of the 1980s.

One means of reining in this potential to inappropriately respond to political pressure is to enact legislation that ties the hands of the regulatory agency. Following the savings and loan crisis, legislation was enacted that was meant to limit the choices of depository institution regulators when dealing with a troubled institution. The legislation established rules that required regulators to take specified actions, most importantly to close a troubled institution in the most serious cases as its financial health declined.

Nevertheless, rules are difficult to write to cover all situations in which regulators might have an incentive to inappropriately respond to political pressures. Instead broader measures must be established to separate a financial supervisor from political influence.

One important measure intended to insulate a regulator from the dangers of political pressure is to provide the regulator with a source of income outside of the very politically charged legislative budget process. For instance, the Federal Reserve generates operating income from asset holdings. Additionally, during the debate surrounding legislative consideration of reforms aimed at strengthening the housing GSEs (Fannie Mae, Freddie Mac, and the Federal Home Loan Bank System), there was ample discussion of possible means of providing an adequate source of income, separate from the political process (Lockhart 2006, 3). Ultimately, income for the new regulator created by the 2008 legislation is derived from fees paid by the entities it regulates and is not subject to the legislative appropriation process. Beyond an independent source of income, other structural arrangements, such as a managing board comprised of a majority of nongovernmental members, are meant to ensure freedom from political influence.

If the newly formed regulatory entity is created such that it is free of political influence, additional structural arrangements must be put in place that ensure the institution is accountable for its actions. Some accountability mechanisms include: transparency (clarity of entities' mandates, objectives, rules, responsibilities, and procedures), appointment procedures of senior

staff, integrity of board staff and procedures to monitor this function, effective communication and consultation procedures, as well as intervention and disciplinary procedures in place to address misconduct or poor decisions made by the regulatory institution (Llewellyn 2006).

Without effective accountability mechanisms, a purely independent institution may have the incentive to act in its own self-interest and, without competitors, make regulatory choices that are overly strict or narrow. These tendencies can be constrained by dispersing power through a system of checks and balances, but doing so undermines some of the previously discussed benefits of consolidation. Ensuring the accountability of an independent regulatory agency while also structuring it so that it is free of political influence requires a complex balancing act. Thus, establishing a single independent regulator with the correct incentives to carry out regulation efficiently can be a complicated and costly feat.

As will be discussed in the next section, many countries that are typically thought of as having adopted a single regulator model have formed multipart structures geared toward ensuring the single regulator has ample oversight to prevent the abuse of wide supervisory authority and to have more than a single entity involved in maintaining financial stability. Thus, many of the countries that will be discussed in the following section (and included in the single supervisor column in Table 3) have dispersed regulatory power between entities, such as between a supervisory agency and a central bank, and therefore are less consolidated than the term “single supervisor” implies.

5. CONSOLIDATION IN OTHER COUNTRIES

Traditionally, countries have conducted financial regulation and supervision through the central bank, the ministry of finance or Treasury and various other specialized supervisory agencies, including self-regulatory organizations (SROs) (Martinez and Rose 2003, 3). However, many countries have carried out major financial regulatory reform by consolidating the roles of these institutions into a centralized regulatory regime and reducing the role of the central bank in prudential oversight of financial institutions. Norway was the first nation to adopt a single regulator, but many others followed. According to a 2003 World Bank Study, approximately 29 percent of countries worldwide have established a single regulator for financial services and approximately 30 percent more have significantly consolidated but have not gone as far as a single regulator to supervise the bank, securities, and insurance sectors (see Table 3).¹¹

¹¹ Among the 29 percent of countries that adopted a single regulator model, many have dispersed regulatory power among several agencies.

Table 3 Countries with a Single Supervisor, Semi-Integrated Supervisory Agencies, and Multiple Supervisors in 2002

Single Supervisor for the Financial System		Agency Supervising Two Types of Fin. Intermediaries		Multiple Supervisors (at least one for banks, one for securities firms, and one for insurers)	
		Banks and securities firms	Banks and insurers	Securities firms and insurers	
1. Austria	12. Japan		29. Australia	40. Bolivia	47. Argentina
2. Bahrain	13. Latvia		30. Belgium	41. Chile	48. Bahamas
3. Bermuda	14. Maldives	23. Dominican Republic	31. Canada	42. Egypt	49. Barbados
4. Cayman Islands	16. Nicaragua	24. Finland	32. Colombia	43. Mauritius	50. Botswana
5. Denmark	17. Norway	25. Luxembourg	33. Ecuador	44. Slovakia	51. Brazil
6. Estonia	18. Singapore	26. Mexico	34. El Salvador	45. South Africa	52. Bulgaria
7. Germany	19. South Korea	27. Switzerland	35. Guatemala	46. Ukraine	53. China
8. Gibraltar	20. Sweden	28. Uruguay	36. Kazakhstan		54. Cyprus
9. Hungary	21. UAE		37. Malaysia		55. Egypt
10. Iceland	22. U.K.		38. Peru		56. France
			39. Venezuela		57. Greece
					58. Hong Kong
					59. India
					60. Indonesia
					61. Israel
					62. Italy
					63. Jordan
					64. Lithuania
					65. Netherlands
					66. New Zealand
					67. Panama
					68. Philippines
					69. Poland
					70. Portugal
					71. Russia
					72. Slovenia
					73. Sri Lanka
					74. Spain
					75. Thailand
					76. Turkey
					77. USA
29%		8%	13%	9%	38%
			As Percent of All Countries in the Sample		

Notes: Sample includes only countries that supervise all three types of intermediaries (banks, securities firms, and insurers). Source: De Luna-Martinez and Rose (2003).

The U.S. Treasury's proposal to modernize the U.S. regulatory structure through consolidation has increased interest in the rationales and processes of countries that have consolidated, such as the United Kingdom, Germany, Japan, and Australia. While many countries have followed this trend, these four countries are especially important because of the size of their financial systems and their significance in the global financial market. The United Kingdom, Japan, and Germany have all adopted single-regulator models, while Australia has adopted a model with two primary regulators. However, the notion of a single regulator can be misleading. Although a significant amount of consolidation has taken place in these countries, the newly formed single-regulatory entity does not act alone in its efforts to supervise and regulate financial institutions. Each of these countries, with the exception of Japan, fashioned a variety of forms of checks and balances. Significant coordination occurs between the newly established integrated regulator, the central bank, and other branches of government. In addition, these single-regulator institutions contain various divisions that have complexities of their own.

While this section reviews the structural transformations occurring in these countries' financial regulatory systems, it will not assess the success or failure of newly implemented systems because they have been in place for a relatively short period and assessing causes of problems or successes in dynamic financial systems is complicated. While, for example, some observers have blamed depositor turmoil associated with the demise of Northern Rock in England on failures of the consolidated supervisory system and especially on the fact that the central bank was largely left out of supervision, the report from the House of Commons Treasury Committee spread blame more widely. That report maintained that an amalgamation of contributing factors were present, such as the lack of a deposit insurance system as well as a failure of communication between the supervisory agency, the central bank, and the Treasury (House of Commons Treasury Committee 2008, 3–4). Countries that adopted consolidated structures did so under varying financial conditions and structures, and all operate in various legal and political environments. Thus, to compare outcomes across countries would require an exceedingly detailed analysis, which is beyond the scope of this article.

The United Kingdom's Financial Services Authority

The United Kingdom serves as a useful example when considering the possibility of consolidation in the United States because the United States and the United Kingdom share similar economic and financial systems (both contain top international financial markets, for example). During the 1990s, both countries were interested in reforming their complicated regulatory structures, yet the United States maintained a decentralized regulatory structure while the United Kingdom changed significantly. Specifically, the United Kingdom

eliminated nine independent regulatory agencies and replaced them with a single regulatory entity. Prior to regulatory consolidation, regulatory and supervisory authority for the United Kingdom's banking sector was long held by the Bank of England, the United Kingdom's central bank.

The first step in a series of reforms was to transfer all direct regulation and supervision responsibilities from the Bank of England (BOE) to the Securities Investment Board (SIB) in 1997. Next, plans were developed to establish the Financial Services Authority (FSA), a single regulatory entity to oversee supervision and regulation for all financial activity in the United Kingdom. The FSA did not assume full power until 2001 under the Financial Services Markets Act of 2000. At this point, all regulatory and supervisory responsibilities, previously conducted by the SIB and nine SROs, became the responsibility of the FSA. Thereafter, the FSA's new role combined prudential and consumer protection regulation for banking, securities, investment management, and insurance services in one regulatory body. Although the FSA was created as a single agency to accomplish the goals of regulation, the agency itself is comprised of three directorates responsible for (1) consumer and investment protection, (2) prudential standards, and (3) enforcement and risk assessment. The FSA alone is responsible for all the regulatory and supervisory functions that are performed in the United States by federal and state banking agencies, the SEC, SROs, the Commodity Futures Trading Commission, and insurance commissions.

The United Kingdom created the Tripartite Authority as an oversight entity with representatives from the Treasury, the BOE, and the FSA to act as a coordinating body and to balance the power of the FSA. The Tripartite Authority is responsible for ensuring clear accountability, transparency, minimizing duplication of efforts, and exchanging information between entities. Each entity's respective obligations are outlined in a memorandum of understanding (MOU).¹²

In the U.S. Treasury's Blueprint, consumer protection and prudential regulation would be conducted by two newly formed agencies, leaving the central bank solely with financial stability responsibility. The BOE performs a similar role in the United Kingdom. The BOE's role in ensuring financial stability, as laid out in the MOU, includes acting to address liquidity problems (i.e., making loans to illiquid institutions), overseeing payment systems, and utilizing information uncovered through its role in the payments system and in monetary policy to act as advisor to the FSA on issues concerning overall financial stability. As part of its financial stability role, the BOE is the LOLR. However, if taxpayer funds are at risk, the BOE must consult with the Treasury prior to lending.

¹² See http://www.hm-treasury.gov.UK/Documents/Financial.Services/Regulating_Financial.Services/fin_rfs_mou.cfm to access a copy of the MOU.

Japan's Financial Services Authority

Japan's transition to a single regulator was more dramatic than in many other countries because the Ministry of Finance (MOF) held significant regulatory power prior to reform but lost a large portion. While some supervisory functions were held by the Bank of Japan (BOJ), the Ministry of International Trade and Industry, and various SROs, the Minister of Finance was responsible for the majority of financial regulation including banking supervision and regulation.¹³

In 1998 Japan established the Financial Supervisory Agency (FSA-old) under the Financial Reconstruction Commission (formed the same year) as the principle enforcement regulator of the financial services industry. This agency, created to improve supervisory functions and rehabilitate the financial sector, removed banking and securities regulation functions from the MOF. In 2000, the FSA-old was further refined, replacing the MOF as the entity responsible for writing financial market regulation, and was renamed the Financial Service Authority (FSA). The newly formed "single regulator," the FSA is structurally under Japan's Cabinet Office and is independent from the MOF. The primary responsibilities of the FSA are to ensure the stability of the financial system; protect depositors, securities investors, and insurance policyholders; inspect and supervise private sector financial institutions; and conduct surveillance of securities transactions.

While the FSA is typically considered a single regulator for financial services, its authority is not as comprehensive as that of other unified regulators, such as the FSA in the United Kingdom. For instance, the BOJ retains supervisory responsibility for banks, while the responsibility for oversight of the securities sector lies with the Securities and Exchange Surveillance Commission (SESC), similar to the SEC in the United States.¹⁴ In addition, according to an IMF study, the MOF continues to be an influence in financial regulation, preventing the FSA from exercising independent regulatory authority (International Monetary Fund 2003). Unlike the single regulators in other countries, the FSA does not have a board overseeing its operations and thus lacks the layer of separation from political influence such a board offers. The IMF study also notes an absence of formal communications between the FSA and the BOJ, preventing information exchange between the parties that could potentially enhance supervisory efficiency. Even in the highly decentralized regulatory environment of the United States, there are formal communication structures between regulatory agencies through, for example, the FFIEC.

¹³ Japanese SROs included Japanese Securities Dealers Association, Commodity Futures Association, Investment Trust Association, and Japanese Securities Investment Advisors Association.

¹⁴ While SESC is structurally under the FSA, it still operates as a legally independent enforcement agency.

Germany's BaFin

In the years leading up to reform, banking supervision in Germany was carried out by an autonomous federal agency, BaKred (Federal Bank Supervisory Office), which shared responsibilities with Germany's central bank, the Bundesbank. This contrasts with many other countries such as the United Kingdom, which concentrated bank supervisory power in the central bank prior to reform. The Bundesbank conducted bank examinations, whereas the BaKred was responsible for determining regulatory policy. In March of 2002 legislation was enacted that consolidated Germany's regulatory agencies for banking, securities (regulated by BaWe, the Federal Supervisory Office for Securities Trading), and insurance (BaV, the Federal Supervisory Office for Insurance Enterprises) into a single federal regulatory entity, BaFin (Schüler 2004). BaFin is an independent federal administrative agency under the MOF's supervision. The authority over decisions with respect to the supervision of credit institutions, investment firms, and other financial organizations, previously conducted by the BaKred, were now a part of BaFin's new responsibilities.

BaFin's organizational structure consists of regulatory bodies responsible for both sector-specific and cross-sectoral supervision. The sector-specific structural aspect differs from the United Kingdom and Japan, which are functionally organized. Rather, BaFin consists of three directorates that deal with sector-specific regulation and thus perform the roles of the former three independent supervisory offices: BaKred, BaV, and BaWe. In addition to these specialized directorates, BaFin also consists of three cross-sectoral departments that handle matters that are not sector-specific and may affect all directorates, including issues involving financial conglomerates, money laundering, prosecution of illegal financial transactions, and consumer protection. With effective coordination and cooperation between the directorates, sector-specific and cross-sectoral issues could be addressed by one institutional body. BaFin also encompasses an administrative council and advisory board.¹⁵ These groups oversee BaFin's management and advise BaFin on matters concerning supervisory practices, laying the groundwork for a more accountable and transparent regulatory system.

Germany's central bank, the Bundesbank, expressed interest in becoming the sole bank supervisor when consolidation legislation was debated. Despite the Bundesbank's efforts, it lacked the support from the Länder (state governments of Germany) and lost bank supervisory authority in the consolidation. However, because of the Bundesbank's experienced staff and insights into the financial system, the Parliament established an agreement between BaFin and

¹⁵ Members from the government and Parliament, representatives of financial institutions, and academics are among those representing these groups.

the Bundesbank under which the Bundesbank would retain an important, but reduced, supervisory role in the financial system. In order to prevent duplication of work and keep costs minimized, the Bundesbank and BaFin have divided tasks between themselves: BaFin writes regulations and the Bundesbank, which is independent from BaFin, carries out day-to-day supervision (evaluating documents, reports, annual accounts, and auditors' reports submitted by the institutions, as well as banking operations audits, i.e., examinations). Cooperation between them is required by the Banking Act and is outlined in a memorandum of understanding signed by each party.¹⁶ Germany's Bundesbank stands out from the majority of central banks in other single-regulatory models because it has greater involvement in bank supervision. These retained examination responsibilities may be useful to the Bundesbank when deciding whether to grant aid to troubled banks.

Australia's "Twin Peaks" Model

The U.S. Treasury's proposed "objectives-based" optimal regulatory structure, including a market stability regulator, a prudential financial regulator, and a consumer protection regulator, is very similar in structure to Australia's "twin peaks" model of financial regulation. As Australian financial markets became more globally integrated, financial deregulation occurred throughout the 1980s and 1990s, and the number of financial conglomerates grew, so the idea of reconstructing the financial regulatory system became an issue of interest. In 1996 the Wallis Committee, chaired by Australian businessman Stan Wallis, was created to prepare a comprehensive review of the financial system and make recommendations for modifying the regulatory apparatus.

Later known as the Wallis Inquiry, the committee concluded that given the changed financial environment, establishing two independent regulators—each responsible for one primary regulatory objective—would result in the most efficient and effective regulatory system. Australia adopted the Wallis Plan producing the "Twin Peaks" model of regulation, comprised of two separate regulatory agencies: one specializing in prudential supervision, the Australian Prudential Regulation Authority (APRA), and the other focusing on consumer and investor protection, the Australian Securities and Investments Commission (ASIC). The APRA is responsible for prudential supervision of deposit-taking institutions (banks, building societies, and credit unions), insurance, and pension funds (called superannuation funds in Australia).^{17, 18} In

¹⁶ See http://www.bafin.de/cIn_109/nn_721606/SharedDocs/Veroeffentlichungen/EN/BaFin/Internationales/GemeinsameStandpunkte/mou_021031_en.html

¹⁷ Building societies are financial institutions owned by members that offer banking and other financial services but specialize in mortgage lending (similar to mutual savings banks in the United States).

¹⁸ Employers in Australia are required by law to pay a proportion of employee earnings into superannuation funds, which are then held in trust until the employee retires.

addition to supervising these institutions, the APRA is also responsible for developing administrative practices and procedures to achieve goals of financial strength and efficiency. Unlike the structure of single regulators of the other countries discussed, Australia's regulatory structure is designed with two independent regulators that operate along functional rather than sectoral lines. However, like the single-regulatory models, the APRA and ASIC coordinate their regulatory efforts with the central bank and the Treasury.

The Reserve Bank of Australia (RBA) lost direct supervisory authority over individual banking institutions to the APRA but retained responsibility for maintaining financial stability, including providing liquidity support. In addition, the RBA has a regulatory role in the payments system and continues its role in conducting monetary policy (Reserve Bank of Australia 1998). The three regulatory agencies (APRA, ASIC, and RBA) are all members, along with the Treasury, of the Council of Financial Regulators, which is a coordinating body comprised of members from each agency and chaired by the RBA. The Council's role is to provide a high level forum for the coordination and cooperation of the members. It holds no specific regulatory function separate from those of the individual members.¹⁹ This system resembles that of the FFIEC in the United States, functioning as a coordinating unit between financial supervisory actors.

6. CENTRAL BANKS AND REGULATORY CONSOLIDATION

Traditionally, central banks have played a major role in bank supervision, as shown in the previous section. Government agencies that are separate from the central bank typically supervise securities and insurance sectors. As banking firms began to offer securities and to some extent insurance products, as securities and insurance companies started to offer banking products, and as financial conglomerates developed, countries reassessed their financial regulatory systems. Included in this reassessment was a review of the central banks' role in regulation and supervision. Ultimately, in many nations, the regulatory role of central banks was reduced or eliminated (see Table 4). The Treasury Blueprint's proposal to remove supervisory functions from the Federal Reserve is therefore not unique. But why might one wish to consolidate regulation outside of the central bank? And what are the downsides to removing regulation from the central bank?

¹⁹ See <http://www.rba.gov.au/FinancialSystemStability/AustralianRegulatoryFramework/cfr.html> for a detailed description of the council and a list of its members.

Table 4 Location of Bank Supervision Function

Region	Central Bank Only (69 Countries)	Central Bank Among Multiple Supervisors (21 Countries)	Central Bank is Not a Supervisory Authority (61 Countries)
Africa	Botswana Burundi Gambia Ghana	South Africa Sudan Egypt Swaziland Tunisia Zimbabwe	Algeria Benin Burkina Faso Cameroon Central African Republic Chad Congo Côte d'Ivoire Equatorial Guinea Gabon Guinea Guinea Bissau Kenya Madagascar Mali Niger Senegal Togo
Americas	Argentina Brazil	Trinidad and Tobago Uruguay	Bolivia Canada Chile Colombia Costa Rica Ecuador El Salvador Guatemala Honduras Mexico Nicaragua Paraguay Peru Venezuela
Asia/Pacific	Bhutan Cambodia Fiji Hong Kong, China India Israel Jordan Kuwait	Samoa Saudi Arabia Singapore Sri Lanka Tajikistan Tonga Turkmenistan United Arab Emirates	Australia Japan Rep. of Korea Lebanon
	Guyana Suriname	United States	
	Kyrgyzstan Malaysia New Zealand Pakistan Papua New Guinea Philippines Qatar Russia	People's Rep. of China Taipei, China Thailand	

Table 4 (Continued) Location of Bank Supervision Function

Region	Central Bank Only (69 Countries)	Central Bank Among Multiple Supervisors (21 Countries)	Central Bank is Not a Supervisory Authority (61 Countries)
Europe	Armenia Azerbaijan Belarus Bulgaria Croatia Greece Ireland Italy Lithuania Moldova Netherlands Portugal Romania Serbia and Montenegro Slovenia Spain Ukraine	Albania Czech Republic Germany Macedonia Slovakia	Austria Belgium Bosnia and Herzegovina Denmark Estonia Finland France United Kingdom Hungary Iceland Latvia Luxembourg Norway Poland Sweden Switzerland Turkey
Offshore Financial Centers	Aruba Bahrain Belize Macau, China Mauritius	Anguilla Antigua and Barbuda Commonwealth of Dominica Cyprus Grenada Montserrat Saint Kitts and Nevis Saint Lucia Saint Vincent and The Grenadines Vanuatu	British Virgin Islands Gibraltar Guernsey Isle of Man Jersey Liechtenstein Malta Panama Puerto Rico

Source: Milo 2007, 15

Reasons to Move Regulation Outside of the Central Bank

Observers note three predominant reasons for preferring to have regulation outside of the central bank (see, for example, Calomiris and Litan [2000, 303–8]). Two of these reasons involve a conflict of interest between central banks' macroeconomic responsibilities and supervisory responsibilities. The third involves the possibility of damage to the central bank's reputation, and therefore independence, resulting from problems at its supervised institutions.

First, a central bank with regulatory and supervisory authority will, at times, have an incentive to loosen monetary policy—meaning reduce market interest rates since monetary policy is normally conducted through interest rate changes—to protect troubled institutions it supervises from failure. Observers maintain that this conflict can lead the central bank to allow higher inflation rates than may be optimal. Often average maturities of assets are longer than maturities of liabilities on bank balance sheets. As a result, bank earnings will tend to increase when interest rates decline. If a central bank is answerable for problems at its supervised banks, it may view a small or short-lived reduction in interest rates as an acceptable means of avoiding the criticism it might face if its supervised banks begin to fail.

Di Noia and Di Giorgio (1999) performed empirical analysis on the link between the inflation performance of Organization for Economic Co-operation and Development countries and whether the central bank is also a bank regulator. While the results are not overwhelming, they find that the inflation rate is higher and more volatile in countries in which the responsibility for banking supervision is entirely with the central bank.

Second, a central bank that is also a bank supervisor may choose to loosen its supervisory reins when doing so might avoid macroeconomic troubles. Calomiris and Litan (2000) argue that an example of this behavior occurred in the 1980s when banks were not required to write down their developing country debt because they feared that doing so would weaken banks, which in turn would have wide macroeconomic consequences. Presumably, the consequences would occur when these banks reduced lending in response to their write-downs.

Third, when one of its supervised institutions fails, a central bank may suffer reputational damage. In turn, legislators may lose confidence in the central bank and begin to attempt to intervene in its monetary policy decisions, undercutting independence and perhaps introducing an inflation bias.

Keep Regulation in the Central Bank?

In contrast, there is one oft-stated reason to keep the central bank as a bank regulator: Without day-to-day examination responsibility, the central bank will have difficulty making prudent LOLR lending decisions. Central banks

typically allow certain institutions to borrow funds, usually on a short-term basis, to cover liquidity shortages. For example, a bank facing deposit withdrawals that exceed the bank's easily marketable (liquid) assets will be forced to sell other assets. Since bank assets are often difficult for outsiders to value, rapid sales of these assets are likely to generate losses for the bank. To allow banks to overcome this "fire sale" problem, central banks provide access to LOLR loans.

LOLR loans are frequently made to institutions with uncertain futures. The decision is likely to be controversial and subject the decisionmaker to close political and public scrutiny. If the central bank incorrectly decides not to lend to an institution that is healthy but has a short-term liquidity problem, that bank may fail. Such a decision may mean that valuable resources will be wasted reorganizing the failed bank. Alternatively, if the central bank incorrectly decides to lend to an institution that is unhealthy and the bank ultimately fails, then uninsured depositors have escaped losses, leaving these losses to instead be borne by the deposit insurer or taxpayers. Further, if the central bank frequently lends to unhealthy banks, banks will be more willing to make risky investments knowing that the LOLR is likely to come to their aid.

Given the dangers of incorrect LOLR decisions, the decisionmaker will require careful counsel from a knowledgeable staff. This kind of knowledge is likely to be gained only by individuals who are involved in day-to-day examination of institutions. Further, the decisionmaker is likely to get the best input from staff that report directly to the decisionmaker so that poor decisions are punished and good decisions are rewarded. Consequently, the combination of the need for day-to-day knowledge and for proper incentives for providing good information argues in favor of keeping regulatory responsibility with the entity that provides LOLR loans, typically the central bank.

Still, there are alternatives to vesting the central bank with supervisory powers. First, if the LOLR lending decision is left with a supervisor outside of the central bank and all consequences for wrong decisions rest with that supervisor, then the best decision possible is likely to transpire. For example, if the separate supervisory agency were required to determine whether a loan is to be made by the central bank, the central bank is required to abide by this decision, and the supervisor is held solely responsible to legislators for bad decisions, then the central bank could be safely left out of supervision.

Likewise, if the LOLR's authority to lend rested with an entity outside of the central bank, there would be no reason for vesting supervisory powers with the central bank. In this case, concerns with conflicts of interest would then argue for separating supervision from the central bank. In the United States, for example, the FDIC has the authority to make LOLR loans, but given the FDIC's fairly small reserves (\$45 billion as of June 2008, Federal Deposit Insurance Corporation 2008, 15) the FDIC would likely be unable to act as a

strong LOLR. Therefore, the only entity currently capable of replacing the Fed as LOLR is the Treasury, unless another agency were granted the authority to issue large amounts of government-backed debt or to borrow directly from the Treasury. If supervisory authority and LOLR authority were combined at the Treasury, the funds would be available to make LOLR loans, and the incentives would be properly situated to ensure that the LOLR decisions were appropriate.

7. CONCLUSION

The growth of financial conglomerates around the world has led a number of countries to consolidate their financial regulatory agencies. The United States is facing this same situation, leading some policymakers to propose regulatory consolidation for the United States. While the exact regulatory structure adopted varies greatly from country to country, the move from multiple regulatory agencies to one or two agencies seems motivated by the desire to achieve a fairly consistent list of efficiencies. Regulator incentives make achieving these efficiencies difficult without shrinking the number of regulatory agencies.

One question U.S. policymakers will confront as they investigate the possibility of consolidating regulation is to what degree should regulators be consolidated? Moving to one entity with the authority to make all regulatory decisions may well achieve the communication efficiency goals of consolidation. But vesting one agency with all regulatory authority may also raise concerns that the single regulator will adopt strategies that raise the regulatory costs imposed on financial firms. Most countries have dispersed regulatory authority among several agencies.

A second question likely to be important if the United States considers consolidation is how the LOLR function is to be performed. Prominent countries that have moved to a more consolidated regulatory structure have typically left the central bank with LOLR authority but without regulatory and supervisory responsibilities. While some observers have noted dangers from combining supervisory and central bank responsibilities in one entity, there are strong disadvantages from doing otherwise. The information gathered by performing day-to-day supervisory activities is vital to the decisionmakers who are responsible for LOLR lending. This information is vital because LOLR loans frequently are made to firms for which creditworthiness is difficult to measure. While a supervisor that is separate from the LOLR could ideally transfer this information to decisionmakers at the central bank, in reality such information transfers are likely to be problematic.

Therefore, there are strong tensions between achieving the benefits of consolidation and preventing the costs that might arise from a lack of competition when there is only one regulator. Further, the question of how to ensure that appropriate LOLR decisions are made in a consolidated environment seems

especially thorny. It is no wonder that the United States has approached consolidation so many times over the last 40 years without ever moving forward.

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